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1 Introduction



Dr. Rafael Pérez-Santamarina Feijóo

Managing Director of HULP Chairman of the Board of FIBHULP



Dr. José Luis López-Sendón Henstchel

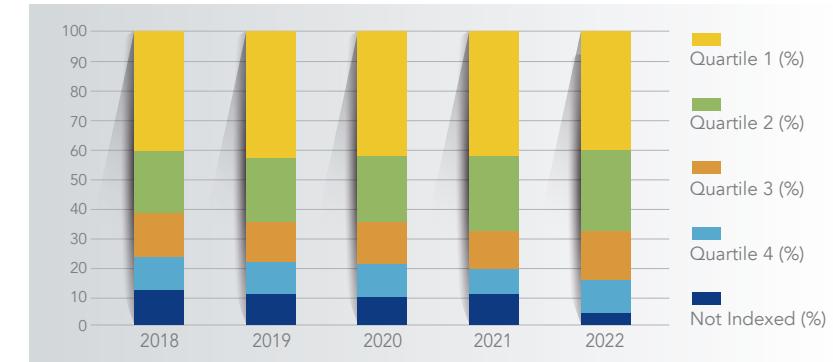
Scientific Director of IdiPAZ



The following report details IdiPAZ Institute's scientific activity according to the Instituto de Salud Carlos III (ISCIII) criteria. Establishing a pattern of evolution over a specific time-period in biomedical research, often requires going through an amalgam of measurements and a myriad of parameters that are sometimes confusing. For this reason, I have chosen a parameter easy to understand and measure, which is the number and quality of the scientific publications (1,620 in 2022).

The figure below illustrates that the trend over the last five years, has been one of slow but steady growth. Same was observed in several other measures generally included in -much needed- external benchmarking, like the number of private and public funding projects and collaborations between basic and clinical scientists inside and outside the institute, all of which reflects institute's health, strength, and stability. That would not have been possible without everyone's enthusiasm and hard work, from scientists to the highly qualified administrative staff of FIBHULP. Thanks, thanks to everyone.

Distribution of publications by quartile 2018-2022



The report is extensive, but I have tried to briefly focus on some of the most important -and neglected- issues rather than boring you with a list of plans, activities, dreams, or even finances. At first glance, the following statements might seem very simple, but are of rather extraordinary importance.



1 Introduction

IdiPAZ needs you.

Ridiculous to say, but true.

This need of course demands answers to some simple key questions:



1. What is IdiPAZ? IdiPAZ is a public institute dedicated to biomedical research, which encompasses several institutions, as shown in the figure below, and it belongs to the ISCIII. It reunites both basic and clinical research and has an active and open to collaboration with other national and international institutions. The essential administrative machine is FIBHULP (Fundación para la Investigación Biomédica del Hospital Universitario La Paz)



2-Do I belong to IdiPAZ? Certainly. If you are working at one of the IdiPAZ institutions you are a member of IdiPAZ, even if you are not involved in any of the 56 research groups. If you are trying to unravel some of the mysteries of health and disease, you are already

doing research. Whether you are a physician, biologist, nurse, or engineer; or belong to the institution in other way (e.g. board of directors), the first steps to supporting and promoting research are without doubt attitude.

Furthermore, patients as well as their relatives are more important than ever. We need to understand their needs and perception of benefit and must try to work on their demands, and in a way, they also belong to IdiPAZ.

Regarding the feeling of belonging, I regret to point out that a significant number of our/your publications, do not include IdiPAZ affiliation. Please, be proud of your institution.

3-What could I do for IdiPAZ? The right question should be: What can **you** do for **your** institution? Let me give you some ideas.

- Use the correct affiliation in your publications. IdiPAZ alone would be fine. You may also use IdiPAZ Research Institute or Instituto de investigación biomédica IdiPAZ. Of course, you can add other affiliations (UAM, Ciber, etc). Re-check the galley proofs after the manuscript has been accepted.
- Give part of your time. Even a small fraction of it is very important. Many of you are involved in activities of scientific societies, you evaluate manuscripts for publication, research projects and more, not for an economic reward, but rather to achieve professional goals. Why not doing the same for your own institution?
- The IdiPAZ web page will be re-structured. There is a working group dedicated exclusively to this purpose and you can be part of it; you only have to ask. Anyway, all research groups should provide information in order to feed the content for a meant to be dynamic web page.
- Working groups. There are several working groups in addition to the internal scientific committee where you can be involved. These include the web page; overheads use and many others.
- Your ideas for a better organization are welcome, any idea! Be ready to lead a potential working group that you want propose.

4-Why should I be interested? The easy answer to this question is what do you want or expect from IdiPAZ? If we know your needs, we will try to be compliant. IdiPAZ and FIBHULP are here to help. To do it better we really need to know your needs, your opinion... and your help.

5-One last important question is what IdiPAZ is going to do for me? I do not want to elaborate, but throughout my career I have been involved in many activities of different scientific organizations that cost me precious time and money, but looking backwards, I have the feeling that I always received more than I gave.

Please get involved **and thanks** to the many of you who are already doing so.

José Luis López-Sendón
Scientific Director of IdiPAZ



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MISSION, VISION & VALUES



MISSION

To become a research institute that develops multidisciplinary biomedical research in the prioritized areas and with cutting-edge technology. Promoting collaboration with internationally renowned centers, and oriented to the translation of knowledge to clinical practice and the improvement of patients' health.

VISION

To become a benchmark in translational biomedical research of excellence both nationally and internationally, committed to the health of patients.

VALUES

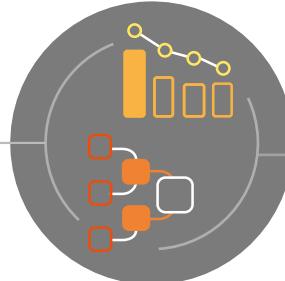
- Public engagement
- Continuous improvement through quality fostering
- Orientation towards excellence
- Sense of belonging to the organization
- International vocation
- Leadership in innovation and transfer
- Focus on sustainability
- Encouragement of cooperation and the establishment of alliances.
- Commitment to diversity and equal opportunities

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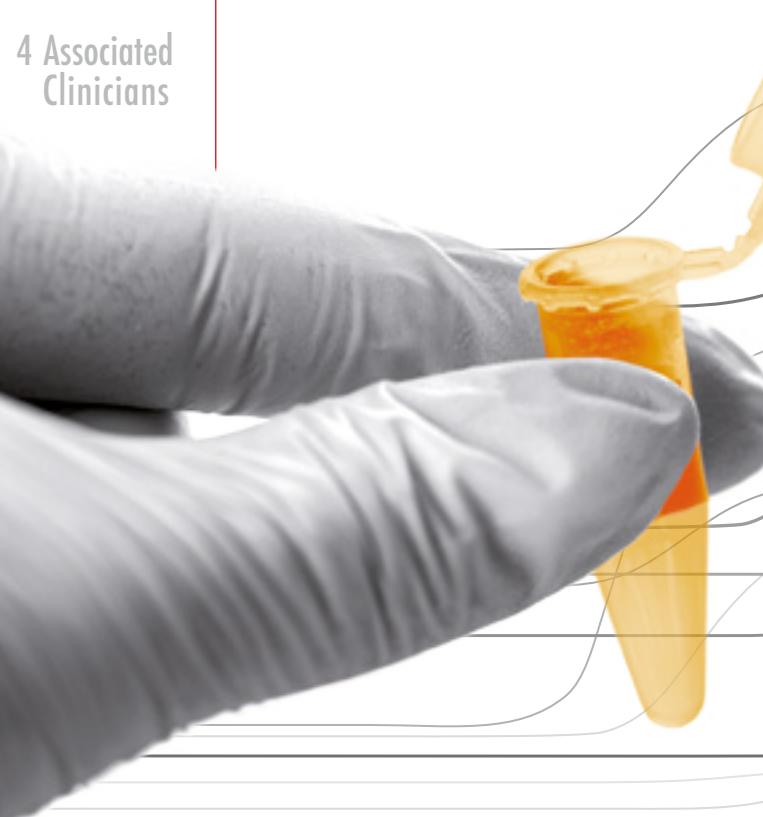
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- 2.1.1. Scientific Analysis
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2.2 Research Structure



2.3 Training Report and Teaching

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- 2.3.2 Master Theses
- 2.3.3 Final Degree Theses
- 2.3.4 Scientific Training Plan
- 2.3.5 Science and Society-Scientific Outreach Initiatives



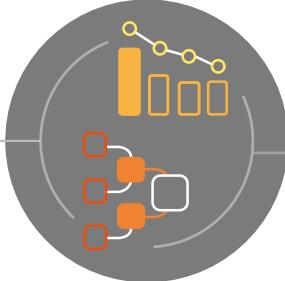
2.4 Innovation and Transfer Activities

- 2.4.1. Innovation and Transfer Activities
- 2.4.2. Patents and trademarks



2.5 Quality Committee

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2.6 Platforms

- 2.6.1. Biobank
- 2.6.2. Biostatistic
- 2.6.3. Experimental Surgery
- 2.6.4. Documentalist
- 2.6.5. UICEC
- 2.6.6. Internationalisation
- 2.6.7. Flow Cytometry Laboratory
- 2.6.8. Cell Culture Laboratory
- 2.6.9. Molecular Imaging and Immunohistochemistry
- 2.6.10. Radioisotope
- 2.6.11. BSL2-Virology Laboratory
- 2.6.12. Sequencing Platform
- 2.6.13. Bioinformatics Service
- 2.6.14. Pain Platform
- 2.6.15. Food, Nutrition and Health
- 2.6.16. Simulation Platform (CEASEC)
- 2.6.17. Tissue Engineering and 3D Printing Platform



2.7 Scientific Production

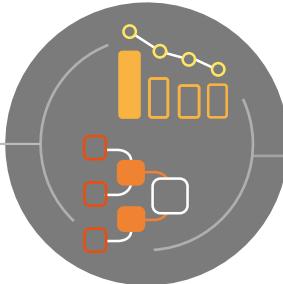
- 2.7.1. Journal Analysis



2.8 CIBERs and RETICs

- 2.8.1. CIBER - Biomedical Research Networking Centers
- 2.8.2. Networks and Platforms

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2.9 Institutional Projects

- 2.9.1. Mentor Program
- 2.9.2. Transversal Research Project
- 2.9.3. TransplantChild



2.10 Internationalization



2.11 Communication and Public Engagement

- 2.11.1. Selected media appearances
- 2.11.2. Scientific Newsletter: IdiPAZ+i News
- 2.11.3. Website
- 2.11.4. Social networks
- 2.11.5. Top 10 of tweets with more interactions
- 2.11.6. Formative Pills about Sustainable Development Goals and Responsible Research and Innovation



2.12 Responsible Research and Innovation



2.1 Global Analysis

2.1.1. SCIENTIFIC ANALYSIS

In 2022, the scientific production of IdiPAZ included more than 1,600 publications, and almost 42% of the publications are IdiPAZ own documents, so the author the first, the last or the corresponding author of the publication is a researcher of the institute. The original articles and reviews articles by IdiPAZ researchers overcome 1,400 more than 40% in the quartile 1 and more than 13% of them published in journal of the first decile of their subject area.

Publications	Total	%Q1	%D1
Owned Publications	684	30.85	7.02
Un-owned Publications	936	46.58	17.84
Originals	1,295	39.31	12.90
Owned Originals	501	29.94	5.79
Un-owned Originals	794	45.21	17.38
JCR Indexed* Articles and Reviews	1,434	40.44	13.04
Owned JCR Indexed* Articles and Reviews	566	30.91	6.36
Un-owned JCR Indexed* Articles and Reviews	868	46.65	17.39

* JCR Indexed





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IdiPAZ researchers evidenced their participation in national and international scientific networks, with more than 87% of the total documents published in collaboration (87.04%). Regarding collaborative publications, almost 55% were national collaboration (54.47%) and 45% international collaboration (45.53%). Internal collaboration between IdiPAZ research groups is reflected in the publications signed by several IdiPAZ groups. These publications account for around 18% of the documents (17.96%). In terms of articles and reviews, the percentage of intra-institute publications accounts for 17% of the total (17.09%).

	Total	% National Collaboration	% International Collaboration
Collaborative Publications	1,410	54.47	45.53
Owned Collaborative Publications	474	66.46	33.54
Un-owned Collaborative Publications	936	48.40	51.60
Collaborative Originals	1,162	54.82	45.18
Owned Collaborative Originals	368	65.22	34.78
Un-owned Collaborative Originals	794	50	50
Collaborative JCR Indexed* Articles and Reviews	1,278	53.76	46.24
Owned Collaborative JCR Indexed * Articles and Reviews	410	64.88	35.12
Un-owned Collaborative JCR Indexed* Articles and Reviews	868	48.50	51.50

* JCR Indexed

	Total	% Intra-Institute Documents
Intra-Institute Publications	291	17.96
Owned Intra-Institute Publications	241	82.82
Un-owned Intra-Institute Publications	50	17.18
Intra-Institute Originals	233	80.07
Owned Intra-Institute Original	187	80.26
Un-owned Intra-Institute Original	46	19.74
Intra-Institute JCR Indexed* Articles and Reviews	245	17.09
Owned Intra-Institute JCR Indexed* Articles and Reviews	198	80.82
Un-owned Intra-Institute JCR Indexed* Articles and Reviews	47	19.18

* JCR Indexed



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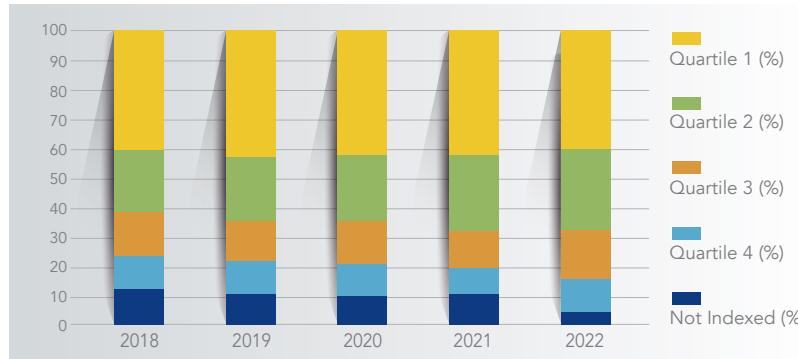
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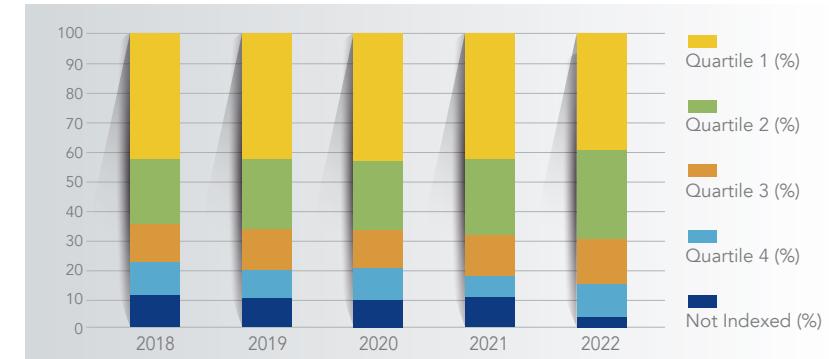
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Over the last 5 years, the upward trend in scientific activity conducted by our groups is also reinforced by the analysis of original articles belong to IdiPAZ researchers. In 2022, 501 original articles were published, with a growth of the rates achieved in previous years.

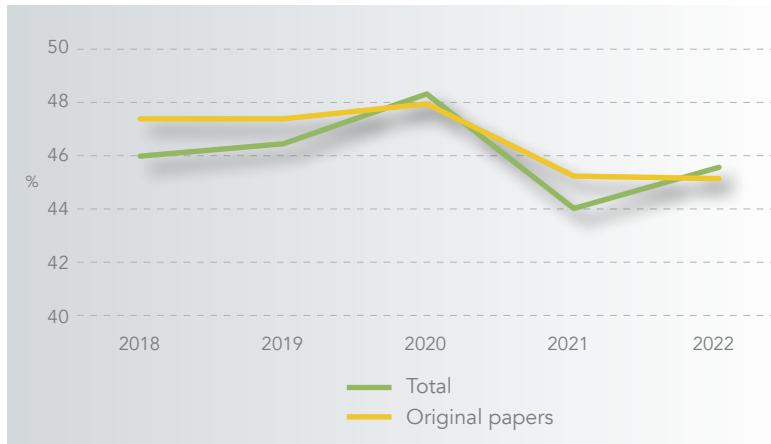
Distribution of publications by quartile 2018-2022



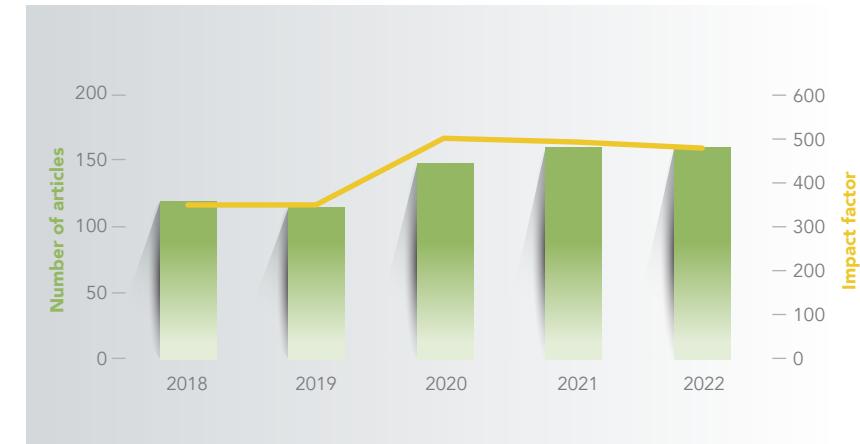
Distribution of originals by quartile 2018-2022



Papers with international collaboration between 2018-2022



Owned originals between 2018-2022





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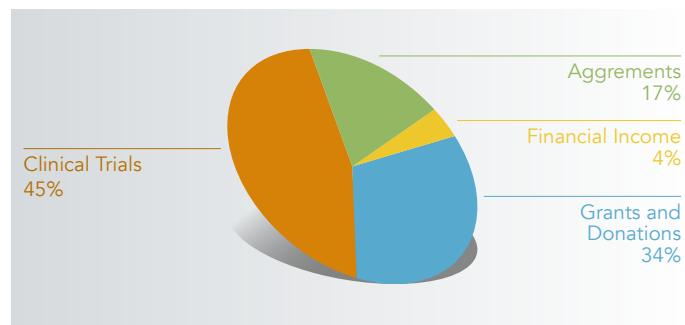
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2.1.2. ANNUAL ACCOUNTS

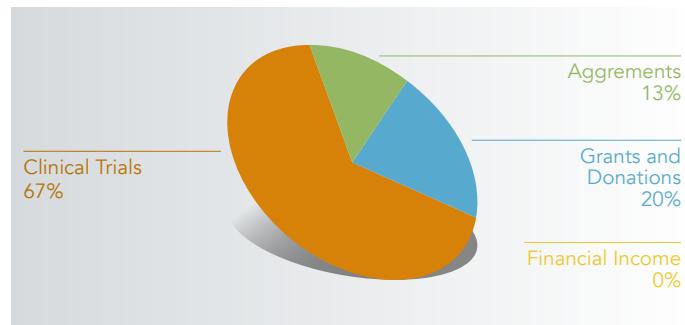
In accordance with the Law 19/2013, of December 9th, of transparency, access to public information and good governance, the Foundation for Biomedical Research of La Paz University Hospital (FIBHULP) makes their information public, with the objective of guaranteeing institutional transparency:

<http://www.idipaz.es/PaginaDinamica.aspx?IdPag=550&Lang=ES>

Economic income 2022



Economic income overhead 2022



Income	2021	2022
Grants	6.809.626,43	7.443.728,48
Corporate collaboration agreements and sponsorships	2.052.850,72	3.648.875,97
Grants and other private research projects	933.785,31	786.218,94
Scientific research (clinical trials, collaborations...)	11.150.701,22	11.057.226,70
Financial Income	18.089,12	851.345,00
Positive exchange rate differences	32.196,60	13.319,76
Extraordinary income	0	0

Expenses	2021	2022
Monetary aid and other	55.037,33	606.203,76
Operating consumption	1.486.024,85	1.205.464,69
Leases and royalties	5.330,70	5.997,83
Repair and maintenance	593,81	3.855,63
Professional Services	2.346.471,84	2.205.175,05
Other expenses	2.612.936,63	3.108.059,08
Other taxes	4.184,23	3.670,02
Wages and salaries	6.412.436,91	7.276.475,05
Social charges	2.032.600,73	2.297.539,06
Compensations	90.248,50	55.117,28
Amortization of fixed assets	1.171.206,76	1.537.817,17
Provisions (Provision - Excess)	4.445.943,15	5.004.290,90
Financial expenses	37.334,39	209.178,44
Negative exchange differences	4.378,14	1.369,63
Refund of grants, donations and legacies		110.526,33
R&D expenses	25.875,00	360,00

Surplus for the Year	2021	2022
	252.153,63	169.614,93



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In 2022, the foundation –FIBHULP- received a Nominative Transfer of the Consejería de Sanidad de la Comunidad de Madrid in favor of charging the 312D program "Biomedical Research Foundations", to fund the following items:

- Researchers and personal of support of the I3, I3SNS, Miguel Servet I, Miguel Servet II, Río Hortega, Sara Borrell, Juan de la Cierva, Marie Skłodowska-Curie, and Juan Rodés Programs.
- Intensification Programs of health professionals.
- Activities of promotion and dissemination research and scientific culture.
- Accreditations of the research activity.
- Support to the Technical Units or Platforms for Research and Management of R+D+i

During the year 2022, IdiPAZ has signed with private public entities the numbers of contracts detailed below:

Agreements: 80

Service contracts: 25

Sponsorship contracts: 43

Training contracts: 12

The main entities with which these contracts have been signed are:

Organization	Nº Agreements
Abbott Laboratories S.A.	2
Abbvie Spain S.L.U.	4
Acuña y Fombona, S.A.	1
Adventia Healthcare S.L.	1
Agencia Estatal Consejo Superior de Investigaciones Científicas	1
Alexion Pharma Spain S.L	5
Almirall S.A.	3
AMR Insights B.V.	1

Asociación Española de Afectados por Sarcomas	1
Asociación Internacional de Familiares y Afectados de Lipodistrofias	1
Astellas Pharma S.A.	1
AstraZeneca Farmacéutica Spain S.A.	6
AstraZeneca S.A. de C.V.	1
Baxter S.L.	1
Bayer Consumer Care AG	1
Biocartis NV	1
Boston Scientific Ibérica S.A.	1
Daiichi Sankyo España	1
Duke University	1
Ecrin European Clinical Research Inf	4
Ediciones Mayo S.A.	1
EISAI Farmaceutica S.A.	1
Elekta Medical S.A.U.	1
Euromedice Ciencias Medica S.L.	1
European Commission Joint Research Centre	1
Fundacio Hospital Vall D'Hebron	1
Fundacion ACS	2
Fundación Aladina	1
Fundación Asociación Española contra el Cáncer	1
Fundación Biotyc	1
Fundación Casa del Corazón	1
Fundación Cris contra el Cáncer	3
Fundación de la Comunidad Valenciana Hospital Provincial de Castellón	1
Fundacion de la Sociedad Española de Alergología e Inmunología Clínica	1
Fundacion de la Sociedad Española Endocrinología y Nutrición	1

Fundación de la Universidad Autónoma de Madrid	1
Fundación ECO	2
Fundación Española de Reumatología	1
Fundación Familia Alonso	2
Fundación FEDER	1
Fundación Inversión Duplicación del Cromosoma 15	1
Fundación Juegaterapia	1
Fundación la Sonrisa de Alex	1
Fundación María Paz Jiménez Casado	3
Fundación para la Investigación Biomedica Hospital Universitario de Getafe	1
Fundación para la Investigación del Hospital Clínico de la Comunidad Valenciana	2
Fundacion Profesor Novoa Santos	1
Gilead Sciences S.L.	4
Grifols S.A.	1
Grunenthal Pharma S.A	1
Hersill S.L.	1
Hologic Iberia S.L.	1
HSF Pharmaceutica	2
Int` L Marketing De Snibe Co. Ltd	1
Ipsen Pharma S. A.	1
Janssen-Cilag España S.A.	1
Laboratorios Farmaceúticos Rovi S.A.	1
Lilly S.A.	2
MBA Incorporado S.L.	1
MED-El Elektromedizinische Geräte Gesellschaft M.B.H.	1
Mediwound Germany GMBH	1
Medtronic Ibérica S.A.	2

Merck Sharp and Dohme de España S.A.	2
Merck S.L.	1
Metrodora Formación Profesional S.A.	2
Nestle España S.A.	3
Nikkiso Belgium B.V.	1
Novartis Farmacéutica S.A.	7
Novo Nordisk Health Care A.G.	1
Novo Nordisk Pharma S.A.	4
ONG Otromundoseposible	11
Parexel International Limited	1
Pfizer S.L.U.	3
Pharming Technologies B.V.	1
Philips Ibérica S.A	1
Proquinorte S.A.	2
Publicidad Permanyer S.L.	1
Roche Farma S.A.	5
Sanidad y Ediciones S.L.	1
Stem Vision S.L.	1
Stryker Iberia S.L.	1
Surgvision GMBH	1
SYF Galenus Center S.L.	13
Takeda Farmaceutica España S.A.	2
Takeda Farmaceuticos Portugal LDA	1
Teva Pharma S.L.U.	1
Thermo Fisher Diagnostics S.L.U.	2
UCB Pharma S.A.	2
Universitat Internacional Valenciana	1
Vegenat Healthcare S.L.	1
Venter Pharma S.L.	1



2.2 Research Structure

Scientific Director

José Luis López-Sendón Henstchel

Scientific Assistant Director

Eduardo López-Collazo

Technical Assistant Director

Paloma Gómez Campelo



Governing Council

Chairman

Fernando Prados Roa. *Health Care Vice Councillor and Public Health. CM*

Deputy Chairman

Amaya Mendikoetxea Pelayo. *Chancellor of UAM*

Members

Rafael Pérez-Santamarina Feijóo. *Chairman of the Board of FIBHULP/HULP manager*

Rodolfo Álvarez-Sala Walther. *FIBHULP patron*

Juan José Ríos Blanco. *FIBHULP patron*

José Luis López-Sendón Hentschel. *Scientific director IdiPAZ. FIBHULP patron*

Almudena Castro Conde. *FIBHULP patron*

Alicia Portas Martínez. *FIBHULP patron*

Antonio Pérez Martínez. *FIBHULP patron*

María Luz de los Mártires Almingol. *FIBHULP patron*

Javier de Castro Carpeño. *FIBHULP patron*

Francisco García Río. *FIBHULP patron*

Exuperio Díez Tejedor. *HULP representative*

Susana Noval Martín. *HULP representative*

Paloma Gómez Campelo. *HULP representative*

Carlos F. Sánchez Ferrer. *UAM representative*

José Manuel González Sancho. *UAM representative*

Esther López García. *UAM representative*

Miguel Ángel Andrés Molinero. *HUG manager*

Óscar García López. *UEM representative*

Secretary

Ana Coloma Zapatero. *Director of FIBHULP*

Executive Committee

Chairman

Rafael Pérez-Santamarina Feijóo. *Chairman of the Board of FIBHULP; permanent delegation to Rodolfo Álvarez-Sala Walther.*

Members

José Luis López-Sendón Hentschel. *IdiPAZ Scientific Director/Stabilized Research*

Eduardo López Collazo. *Assistant Scientific Assistant Director and stabilized researcher representative*

Juan José Ríos Blanco. *HULP Representative*

Exuperio Díez Tejedor. *HULP Representative*

Paloma Gómez Campelo. *IdiPAZ Technical Assistant Director*

Carlos Félix Sánchez Ferrer. *Dean UAM*

Francisco Arnalich Fernández. *UAM Representative*

Miguel Ángel Andrés Molinero. *HUG Manager*

Rosa Carmen Fernández Lobato. *HUG Representative*

Óscar García López. *UEM Representative*

Celestino Viñuela Suárez. *Permanent Guest*

Secretary

Ana Coloma Zapatero. *Director of FIBHULP*



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External Scientific Committee



Juan Tamargo Menéndez. Professor. Institute of Pharmacology and Toxicology, Spanish National Research Council (CSIC)- Complutense University of Madrid. Madrid.



Joaquín Arribas López. Director of Research at Parc de Salut Mar (PSMAR) and director of the Institut Hospital del Mar d'Investigacions Mèdiques (IMIM), as well as ICREA research professor at the Vall d'Hebron Institut d'Oncologia (VHIO) Barcelona. Chairman of the Technical Committee on Cancer Screening Health Research Fund (FIS). Institute of Health Carlos III.



Jacinta Cecilia Bustamante. Associate Professor. Paris Descartes University, Laboratory of Human Genetics of Infectious diseases (INSERM U980), Imagine Institut. Center for the Study of Primary Immunodeficiencies, Necker Enfants-Malades Hospital. Paris.



Isabel Fabregat Romero. Research Group Coordinator. Centre d'Oncología Molecular. L'Hospitalet, Barcelona IDIBELL- Bellvitge Biomedical Research Institute. Barcelona.



Juan Pedro Bolaños Hernández. . Departament of Biochemistry and Molecular Biology. University of Salamanca. Institute of Functional Biology and Genomics. Salamanca.



Santiago Rodríguez de Córdoba. Professor. Cellular and Molecular Medicine Department. Center of Biological Research. CSIC. Madrid.



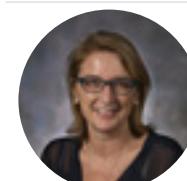
Pablo Pelegrin Vivancos. Scientific Assistant Director. Principal Investigator in Group: Digestive Surgery, Endocrine and Abdominal Organ Transplantation. Virgen de la Arrixaca Biosanitary Research Institute. Murcia.



Elisa Martí Gorostiza. Head researcher of Development of the Spinal Cord in health and disease. Instituto de Biología Molecular de Barcelona (CSIC). Barcelona.



Stanley Thomas Carmichael. Chair of the Department of Neurology at UCLA: Neurologist and neuroscientist in the Department of Neurology at the Geffen School of Medicine at UCLA.



Asuncion Mejías. Principal investigator in the Center for Vaccines and Immunity at The Research Institute at Nationwide Children's Hospital. Professor of Pediatrics at The Ohio State University College of Medicine and faculty from the Division of Pediatric Infectious Diseases.



Judith Hochman. Director of the Cardiovascular Research Institute at New York University (NYU).



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Animal Welfare Organ

Carmen Fernández Criado. Director of the Veterinary Office of the Faculty of Medicine of the UAM. Specialist in Animal Health and Welfare as an external consultant

Fernando Carceller Benito. Deputy Neurosurgery Service HULP as optional and researcher of the "Neurology and Cerebrovascular Disease" from IdiPAZ

Nuria Vilaboa Díaz. IdiPAZ's researcher. Internal consultant
Carlota Largo Aramburu. Head of the Animal Service HULP Experimental Surgery Specialist in Animal Health and Welfare Center.

Secretary

Irene Cuevas Gordo. Administrative

Technical Secretary

Mercedes Ruiz Balibrea

Daniel Quijada Alcón

Internal Scientific Committee

Chairman

José Luis López-Sendón Henstchel. Scientific Director

Secretary

Nora Butta Coll. HULP representative

Members

Eduardo López Collazo. Scientific Assistant Director and HULP representative.



Paloma Gómez Campelo. Technical Assistant Director

Javier de Castro Carpeño. Innovation Support Unit Coordinator

José Jonay Ojeda Feo. Quality Committee Coordinator

Bárbara Martínez de Miguel. Training Committee Coordinator

Javier Pozo Novoa. Postdoctoral research representative (R1)

Member by Hospital Universitario La Paz

Antonio Pérez Martínez

Jaime Feliú Batlle

José Luis Merino

María Gutiérrez Fernández

Nuria Vilaboa Díaz

Blanca Fuentes Gimeno

Inmaculada Ibáñez de Cáceres

Alejandro Martín Quirós

Members by Universidad Autónoma de Madrid

María Carmen Sellán Soto

Esther López García

Francisco Arnalich Fernández

Belén Pérez González

Members by Hospital Universitario de Getafe

Javier Sánchez-Rubio Ferrández

Andrés Maldonado Morillo

Raquel Herrero Hernández

Members by Universidad Europea de Madrid

David Sanz Rosa

FIBHULP

Director

Ana Coloma Zapatero

Human Resources Manager

Head: María Quintanar Jaime
Ángela Hernández Balladares

Private Projects Manager

Head: F. G. G.
Nathalia García Quero

Clinical Trial Manager

Head: Sara Moral Álamo
Desirée Hernández López
María Serrano Ortiz

Public Projects Manager

Head: Silvia Arce Santamaría
Raquel Carmona del Mazo
Jessica García moscatel

Institutional Projects Manager

José Luis Narro Villanueva

European Projects Manager

Head: José Luis Narro Villanueva
Santiago Rello Varona

Contracting and Legal Department

Head: Sara Fernández Morata
Miriam Martín Bello
Irene Montero
Emilia Cerezuela Caravaca

Accountants

Head: Laura López Revuelta
Mónica García López





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Research Ethics Committee with Medical Products

President

Almudena Castro Conde. Head of Section of Cardiology Department

Vicepresident

Rosa Villanueva Peña. Assistant Physician-Psychiatry Department

Members

Fernando Cabañas González. Head of Pediatrics and Neonatology Quiron Salud Madrid University Hospital. Researcher of the IdiPAZ

Antonio J. Carcas Sansuán. Head of Clinical Pharmacology

Filiberto Chuliá Fernández. Non-health member. Law Degree. Head of the Legal Advisory Service/Patrimony Unit.

Mariana Díaz Almirón. Data analyst. Biostatistics Platform

María Dolores Diestro Tejeda. Assistant Physician-Gynaecology and Obstetrics Department

Jaime Fernández-Bujarrabal Villoslada. Assistant Physician-Pneumology Department

Irene García García. Specialist Physician-Clinical Pharmacology

María Justa García-Matres Cortés. Assistant Physician-Urology Department. Representative of Clinical Ethics Committee

Mercedes Gasior Kabat. Assistant Physician-Hematology Department

Carlos Lahoz Rallo. Assistant Physician-Internal Medicine Department

Paloma Oliver Sáez. Assistant Pharmacist. Clinical Analysis Service

Nuria Rodríguez Salas. Assistant Physician-Medical Oncology Department

Miriam Romero Portales. Assistant Physician-Digestive System Department

Filomena Trocoli González. Nurse. Supervisor of Nephrology Department

Alejandra Vilanova Sánchez. Assistant Physician-Pediatric Surgery Department

Angelo Gámez Pozo. Researcher at INGEMM - IdiPAZ

Elena Villamañán Bueno. Assistant Clinical Pharmacist. Pharmacy Department

Yale Tung Chen. Assistant Physician-Internal Medicine Department

Montserrat Aránzazu Rodríguez Aguirregabiria. Assistant Physician-Intensice Medicine Department

Jorge Díaz-Garzón Marco. Assistant Pharmacist. Clinical Analysis Service

Rosa Adelaida Feltes Ochoa. Dermatology Doctor

Natalia Hormaeche Abecassis. Head of Legal Advisory Service, data protection expert

Members from outside the institution

Evaristo Moliné Jorques. Patient representative

Eva Prieto Utiel. Assistant Clinical Pharmacist of Primary Care-Pharmacy Department

Juan Manuel Martín Baranda. Patient representative

Technical Secretary

Head: Emma Fernández de Uzquiano

Elena García Mendez. Pharmacist

Sol de Gracia García. Administrative Assistant

María Isabel Arribas Álvarez. Administrative

Quality Committee



Coordinator

José Jonay Ojeda Feo. HULP Representative

Members

Blanca Fuentes Gimeno. HULP Representative

María Luisa Díaz Martínez. UAM Representative

Gema Vallés Pérez. FIBHULP Representative

Paloma Gómez Campelo. FIBHULP Representative

Ana Coloma Zapatero. FIBHULP Representative

Aitana López Redondo. FIBHULP Representative

Estela Sánchez Simón. FIBHULP Representative

Paloma Moraga Alapont. FIBHULP Representative

Irene Montero Morales. FIBHULP Representative

Begoña Pérez Encinas. External Consultancy

Unit of Scientific Culture and Innovation Unit

Paloma Gómez Campelo

Aitana López Redondo

Lucía Medina Royo

Gema Vallés Pérez

Estela Sánchez Simón

Daniel Quijada Alcón

Santiago Rello Varona

Ana Sastre Perona

María Gutiérrez Fernández

Susana Reverter Vázquez



Training Committee

President

Bárbara Martínez de Miguel. HULP Representative

Secretary

Mercedes Ruiz Balibrea. HULP Representative

Members

Alberto Borobia Pérez. HULP Representative

Ana García Redondo. Researcher R3. UAM Representative

Paloma Gómez Campelo. FIBHULP Representative

María Fernández Velasco. Researcher R4. FIBHULP Representative

Alejandro Martín Quirós. Researcher R4. HULP Representative

Ana Martínez Virto. HULP representative

Irene Montero. FIBHULP Representative

Julián Nevado Blanco. Researcher R3. HULP Representative

Rocío Rosas Alonso. FIBHULP Representative

Pilar Sánchez-Corral Gómez. Researcher R4. Works Council Representative

Talía Sainz Costa. Researcher R4. HULP Representative

Ana Sastre Perona. Researcher R3. FIBHULP Representative

Aitana López Redondo. FIBHULP Representative





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Equality and Diversity Commission

Members

Maria Quintanar Jaime. *FIBHULP representative*
 Paloma Gómez Campelo. *FIBHULP representative*
 Aitana López Redondo. *FIBHULP representative*
 Nuria Vilaboa Díaz. *Employee's representative of FIBHULP*
 Juan Ángel Fresno Vara. *Employee's representative of FIBHULP*
 Ágela García García. *External Consultancy*

Contact

Igualdadydiversidad@idipaz.es

23th July of 2019, we decided to join as the Equality and Diversity Committee in the Foundation for Biomedical Research of La Paz University Hospital (FIBHULP) because we think it is important to improve equality in the community respecting the differences, and to contribute to their promotion in science.

In a short period, this committee has achieved significant results:

- Prevention and action protocol against discriminatory harassment, moral, sexual harassment and harassment based on sex
- Equality and Diversity Plan

In addition, in December 2019, FIBHULP/IdiPAZ signed the diversity charter, the initiative of the Fundación Diversidad - of the European Institute of Diversity Management and the Alares Foundation with the support of the Spanish Ministry of Equal Opportunities, added at the European diversity Charter.



By signing this document, IdiPAZ/FIBHULP assumes the guidelines of its Decalogue of principles:

1. To sensitize employees in line with the values of equal opportunities and respect for diversity.
2. To advance in the construction of a diverse workforce
3. To promote the inclusion in the workplace
4. To consider policies to promote diversity in the workplace
5. To promote of work-life balance for employees
6. Recognition of the diversity of clients
7. To communicate the compromise around these principles to the employees.
8. To communicate the compromise around these principles to the suppliers.

9. To communicate the compromise around these principles to the public administrations, business organizations, trade unions and other stakeholders.
10. To highlighting activities in support of non-discrimination -and their results- in its Annual Report.

includes the SDGs and we have defined a survey to establish those aspects that are most relevant to our institution.

Thereby, we are immersed in a process of integration of the Sustainable Development Goals and that is why, through the Commission for Social and Scientific Responsibility of IdiPAZ, we have launched the project.

Health and Safety Committee

Composition

Gema Vallés Pérez. *FIBHULP Representative/President*
 Sara Fernández Morata. *FIBHULP Representative*
 Jesús Mingorance Cruz. *FIBHULP Representative*
 Laura Saldaña Quero. *Risk Prevention Delegate/Secretary*
 Berta Rodés Soldevilla. *Risk Prevention Delegate*
 F. G. G. *Workers' Representative*

External Prevention Service

Quirón Prevención

Delegate of the External Prevention Service

Raquel Fernández García

Contact

CSS.FIBHULP@idipaz.es

Works Council

President

Ángel Campos Barros

Members

Juan Ángel Fresno Vara (Secretario)
 Nuria Vilaboa Díaz
 Laura Saldaña Quero
 Berta Rodés Soldevilla
 Rosa Rodríguez Pérez
 Pilar Sánchez-Corral Gómez
 Francisco Gil Gadea
 Sara García Barcenilla
 Vega Mauleón Martínez
 Laura Vitón Vara
 Laura González Rodríguez
 Marina Arranz Álvarez

Secretary

Rocío López Vacas

Secretary

Aitana López Redondo. *Responsible for SDGs and Agenda 2030 at IdiPAZ/FIBHULP*

Contact

RSC@idipaz.es

IdiPAZ/FIBHULP has the certification of Corporate Social Responsibility through the IQNet SR10 standard, within the Integrated Management System of the Hospital Universitario La Paz.

In addition, we are working on joining the commitment to the Sustainable Development Goals defined by the United Nations, which includes 17 goals and 169 targets, including new areas such as climate change, economic inequality, innovation, sustainable consumption, peace and justice, among other priorities. To this end, we are working to establish a model that



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RESEARCH AREAS



Neurosciences Area

Area Coordinator: Exuperio Díez Tejedor

Psychiatry and Mental Health Group

Director: María Fe Bravo Ortiz

Neurology and Cerebrovascular Diseases Group

Director: Exuperio Díez Tejedor

Neuroprotective Strategies in Neurodegenerative Diseases Group

Director: Ana Isabel Rojo Sanchís

Involvement of Glycinergic and Glutamatergic Systems in Central Nervous System Pathologies Group

Director: Francisco Zafra Gómez

Mechanisms and Biomarkers in Neurodegenerative Diseases Group

Director: Isabel Lastres Becker



Cardiovascular Area

Area Coordinators: José Raúl Moreno Gómez
María Fernández Velasco

Research on Invasive Clinical Cardiology – ICCL-Paz Group

Directors: José Raúl Moreno Gómez
María Fernández Velasco

Coagulopathies and Alterations of Haemostasis Group

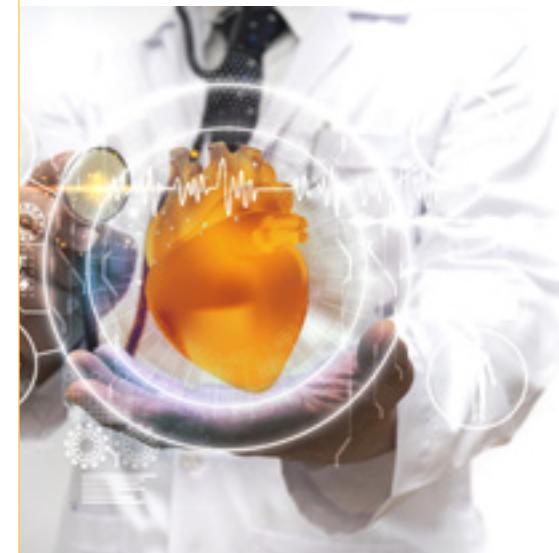
Director: Víctor Jiménez Yuste

Vascular Physiology and Pharmacology Group

Director: Mercedes Salas Sánchez

Vascular Pharmacology and Metabolism (FARMAVSM) Group

Director: Carlos F. Sánchez Ferrer



Infectious Diseases and Immunity Area

Area Coordinator: Eduardo López-Collazo

AIDS and Infectious Diseases Group

Director: José Ramón Arribas López

Molecular Microbiology Group

Director: Jesús Mingorance Cruz

Immuno-Rheumatology Group

Director: María Eugenia Miranda Carús

Innate Immune Response Group

Director: Eduardo López-Collazo

Diagnosis and Treatment of Diseases associated with Abnormalities of the Complement System Group

Directors: Margarita López Trascasa
Pilar Sánchez-Coral Gómez

Lymphocyte Pathophysiology in Immunodeficiencies Group

Director: Eduardo López Granados

Drug Hypersensitivity and Innate Immune Response Group

Director: Teresa Bellón Heredia

Immunomediate Gastrointestinal Diseases and other Digestive Pathologies Group

Director: María Dolores Martín Arranz

*MicroRNA Regulation of Immune Tolerance, Autoimmunity and Cancer Group

Director: Alicia González Martín

*Group recently created, December 2022



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Large System Pathologies Area

Area Coordinator: Francisco García Río

Internal Medicine and Systemic Diseases Group

Director: Francisco Arnalich Fernández

Organic Dysfunction and Failure in the Aggression Group

Director: José Manuel Añón Elizalde

Respiratory Diseases Group

Director: Francisco García Río

Regulation of Gene Expression and by Hypoxia Group

Director: Luis del Peso Ovalle

Nephrology Group

Director: María Gemma Fernández Juárez

Aging and Fragility in the Elderly Group

Director: Juan Ignacio González Montalvo

Diagnosis and Treatment of Allergic Diseases Group

Director: Santiago Quirce Gancedo

Patient Blood Management Group

Director: Manuel Quintana Díaz

Health Care Nurses Research Group

Director: Patricia Luna Castaño

Emergency and Critical Pathology Group

Director: Alejandro Martín Quirós

Hospital Pharmacy Group

Director: Alicia Herrero Ambrosio

Translational Hepatology Group

Director: Francisco Javier García-Samaniego Rey

Frailty and Healthy Aging Group

Director: Leocadio Rodríguez Mañas

*Frailty, Multimorbidity Patterns and Mortality in the Elderly Population Residing in the Community Group

Director: Miguel Ángel Salinero Fort



*Group recently created, December 2022



Cancer and Human Molecular Genetics Area

Area Coordinators: Javier de Castro Carpeño
Inmaculada Ibáñez de Cáceres

INGEMM- Institute of Medical and Molecular Genetics Group

Director: Pablo Lapunzina Badía

Translational Oncology Group

Director: Jaime Feliú Battle

Experimental Therapies and Biomarkers in Cancer Group

Directors: Inmaculada Ibáñez de Cáceres
Javier de Castro Carpeño

Oto-Neurosurgery Research Group

Director: Luis Lassaletta Atienza

Cancer Molecular Pathology and Therapeutic Targets Group

Director: David Hardisson Hernández

Mechanisms of Tumour Progression Group

Director: José Manuel González Sancho

Animal and Cell Models for Detection and Characterization of Leukemic Stem Cells Group

Director: Carmela Calés Bourguet

Research and Diagnosis of Inherited Metabolic Diseases Group

Director: María Belén Pérez González

Dyslipidemias of Genetic Origin and Metabolic Diseases Group

Director: Sonia Rodríguez Novoa

Human Genetic Variability Group

Director: Ana Fernández Santander



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Surgery, Transplant and Health Technologies Area

Area Coordinator: Nuria Vilaboa Díaz**Bone Pathophysiology and Biomaterials Group**

Director: Nuria Vilaboa Díaz

Cellular Engineering Group

Director: María Paz de Miguel González

Clinical Pharmacology Group

Director: Antonio J. Carcas Sansuán

Osteoarticular Surgery Research – GICOA Group

Director: Enrique Gómez Barrena

Research in Oral and Maxillofacial Surgery GroupDirectors: José Luis Cebrián Carretero
Ana Sastre Perona**Patients Safety and Quality Research Group**

Director: Elena Ramírez García

Translational Research and Innovation in General and Digestive Surgery Group

Director: Constantino Fondevila Campo



Maternal Infant Child and Youth Research Area

Area Coordinators: Cristina Calvo Rey

Antonio Pérez Martínez

Neonatology Group

Director: Adelina Pellicer Martínez

Molecular Hepatology GroupDirectors: Paloma Jara Vega
Loreto Hierro Llanillo**Maternal and Fetal Medicine Group**

Director: José Luis Bartha Rasero

Pediatric Respiratory, Systemic and Neurological Infections & Host Immune Response Group

Director: Cristina Calvo Rey

Pediatric Systemic Infections; HIV, tuberculosis, Imported and Emergent Diseases Group

Director: Talía Sainz Costa

Translational Research in Pediatric Oncology, Hematopoietic Transplantation and Cell Therapy Group

Director: Antonio Pérez Martínez

Congenital Malformations and Transplantation Group

Director: Francisco Hernández Oliveros

Research in Endometriosis Group

Director: Alicia Hernández Gutiérrez

***Research on Comprehensive Care for Transplanted Children and Adolescents Group**Directors: María Jesús Pascau González-Garzón
Luz Yadira Bravo Gallego

*Group recently created, December 2022



Multidisciplinary Research in Healthy Aging Area

Under construction



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Public Research Contracts

Ramón y Cajal Stabilisation Contracts (13) - CM

- Karen Elise Heath. INGEMM - Institute of Medical and Molecular Genetics Group
- Jesús Mingorance Cruz. Molecular Microbiology Group
- Rebeca Pérez de Diego. Innate Immune Response Group

Miguel Servet Stabilisation Contracts (12) - ISCIII/ CM

- Teresa Bellón Heredia. Drug Hypersensitivity and Innate Immune Response Group
- Juan Ángel Fresno Vara. Translational Oncology Group
- Ángel Campos Barros. INGEMM - Institute of Medical and Molecular Genetics Group
- María Paz de Miguel González. Cellular Engineering Group
- Eduardo López-Collazo. Innate Immune Response Group
- Berta Rodés Soldevila. AIDS and Infectious Diseases Group
- Pilar Sánchez-Corral Gómez. Diagnosis and Treatment of Diseases Associated with Abnormalities of the Complement System Group
- María Rosa Torres Jiménez. Metabolic-Vascular Unit Group
- David Vicent López. Molecular Hepatology Group
- Nuria Vilaboa Díaz. Bone Pathophysiology and Biomaterials Group
- Nora Viviana Butta Coll. Coagulopathies and Alterations of Haemostasis Group
- María Inmaculada Ibáñez de Cáceres. Experimental Therapies and Biomarkers in Cancer Group
- Rosa María Rodríguez Pérez. Diagnosis and Treatment of Allergic Diseases Group

- Laura Saldaña Quero. Bone Pathophysiology and Biomaterials Group
- María Fernández Velasco (CPII16/00047). Innate Immune Response Group

Miguel Servet Contracts Type I - ISCIII

- Carolina Cubillos Zapata (MS18/00208). Respiratory Diseases Group
- Ana Sastre Perón (MS19/00033). Experimental Therapies and Biomarkers in Cancer Group
- Carlos del Fresno Sanchez (CP20/00106).
- Laura Otero Ortega (CP20/00024). Neurology and Cerebrovascular Diseases Group

Miguel Servet Contracts Type II - ISCIII

- María Dolores Gutiérrez (MSII20/00002). Neurology and Cerebrovascular Diseases Group

Intensification Contracts – ISCIII

- María Alonso de Leciñana Cases (INT21/00017)
- Talía Sainz Costa (INT21/00064)
- Alberto Borobia Pérez (INT22/00016)
- Blanca Fuentes Gimeno (INT22/00039)
- Antonio Carcas Sansuan (INT22/00054)

Río Hortega Contracts - ISCIII

- Clara Isabel Udaondo Gascón (CM21/00012)
- Cristina Marcelo Calvo (CM21/00030)
- Paula Rodríguez Molino (CM21/00174)
- Gabriel Torres Iglesias (CM22/00065)
- Elena de Celis Ruiz (CM22/00077)
- Víctor Galán Gómez (CM22/00078)
- Mikel Urroz Elizalde (CM22/00085)
- Enrique Seco Meseguer (CM22/00156)
- Luis Ramos Ruperto (CM22/00160)

Juan Rodés Contracts - ISCIII

- Rocío Rosas Alonso (JR21/00003)
- Sara Ruiz Martínez (JR22/00019)
- Carlos Daniel Grasa Lozano (JR22/00044)
- Irene García García (JR22/00036)

Sara Borrell Contracts - ISCIII

- Javier Rodríguez Centeno (CD21/00051)
- Francisco Javier Cueto Rodríguez (CD21/00185)
- Luna Rindan Cordeiro Minute (CD22/00042)
- Almudena Val Blasco (CD22/00055)
- Olga Vera Puente (CD22/00040)

Predoctoral Fellowship - ISCIII

- Carmen Mestre Duran (FI19/00176). Translational Research in Pediatric Oncology, Hematopoietic Transplantation and Cell Therapy Group
- Miranda Burdiel Herencia (FI19/00061). Experimental Therapies and Biomarkers in Cancer Group
- Roberto Lozano Rodríguez (FI19/00334). Innate Immune Response Group
- Enrique Alfaro García (FI20/00059)
- Rebeca Gallego Ruiz (FI21/00033)
- Andrea Bueno Sen (FI21/00259)
- Andrea Guzmán de Antonio (FI22/00182)
- María Paz López Molina (FI22/00009)
- Javier Pozo Novoa (FI22/00187)

Bioinformatics Technical Contract – ISCIII

- Carlos Rodríguez Antolín (CA22/00002)

Seal of Excellence ISCIII-HEALTH - ISCIII

- Mirjam Brackha (IHCM22/00032)

Predoctoral Contract – MINECO

- Miguel Angel Lerma Juarez (PRE2019-090430).

- Elsa Lucas Castro (PRE2021-098PRE2021874)

Technical Support Stabilisation Contracts - CM

- Francisco Gayá Moreno. AIDS and Infectious Diseases Group
- María Teresa Vallejo Cremades. Congenital Malformation Surgery Group

Youth Guarantee Contracts - CM Graduate

- Julia del Prado Montero (PEJ-2021-AI/BMD-22842)
- Katya Barros March (PEJ-2021-AI/BMD-22352)

Technical Support

- Jaime Fernández Pascual (PEJ-2021-TL/BMD-21048)
- Sara Fernández Díaz (PEJ-2021-TL/BMD-21631)
- Beatriz García Brihuega (PEJ-2021-TL/BMD-22184)
- Diana Soledad Reyes Zuñaga (PEJ-2021-TL/BMD-22295)

Investigo Programme Contracts - SEPE

- Pouya Alikhani
- Rocío Sánchez León
- Cristina López Fernández
- Irene Casado Juárez
- Álvaro Clemente Bernal
- Carmen Ruiz Fernández
- Ana Belén Griso Acevedo
- Alicia Román San Martín
- Gonzalo Saenz de Santa María
- Andrés París Muñoz
- Laura Bravo Robles
- Jesús Fernández Felipe
- Marta Cadenas Martín
- Gulce Bicakcioglu
- Beatriz Sanz Verdejo



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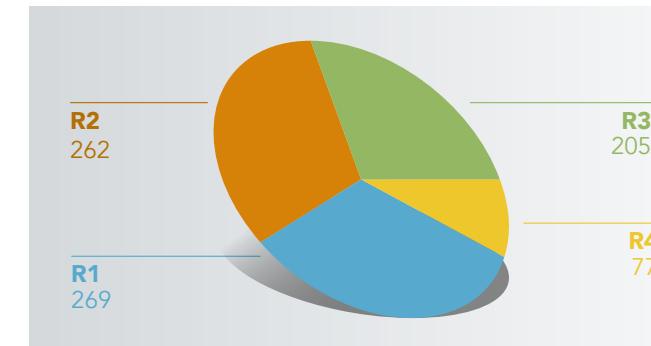
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Programme	Organisation	Total
Ramón y Cajal Stabilisation Contracts (I3)	CM	3
Miguel Servet Stabilisation Contracts (I2)	ISCIII/ CM	15
Technical Support Stabilisation Contracts	CM	2
TOTAL ESTABLISHED	20	
Miguel Servet Contracts CP Type I	ISCIII	4
Miguel Servet Contracts CP Type II	ISCIII	1
Intensification Contracts	ISCIII	5
Río Hortega Contracts	ISCIII	9
Juan Rodés Contracts	ISCIII	4
Bioinformatics Technical Contract	ISCIII	1
Sara Borrell Contract	ISCIII	5
Seal of Excellence ISCIII-HEALTH	ISCII	1
Predoctoral Fellowship	ISCIII	9
Investigo Programme Contracts	SEPE	15
Predoctoral Contract	MINECO	2
Youth Guarantee Contracts	CM	6
TOTAL PROGRAMMES	62	
TOTAL ESTABLISHED + PROGRAMMES	82	
UCICEC	CAIBER	11
FIS Projects	ISCIII	15
European Projects	EU	21
Research Network	ISCIII	8
Research Network	CM	1
SAF/MAT	MINECO	3
Biobank	ISCIII	5
Commercial clinical trials	ISCIII	5
Commercial clinical trials	EECC Promoters	44
Private projects	Pharmaceutical Industry	87
In-house Projects	FIBHULP	8
ITEMAS Network	ISCIII	3
TOTAL EMPLOYEES DEPENDENT ON PI.	211	
TOTAL STAFF DEPENDENT ON PI.	293	
Technical Unit Staff	FIBHULP	19
TOTAL TECHNICAL UNIT	19	
TOTAL	312	

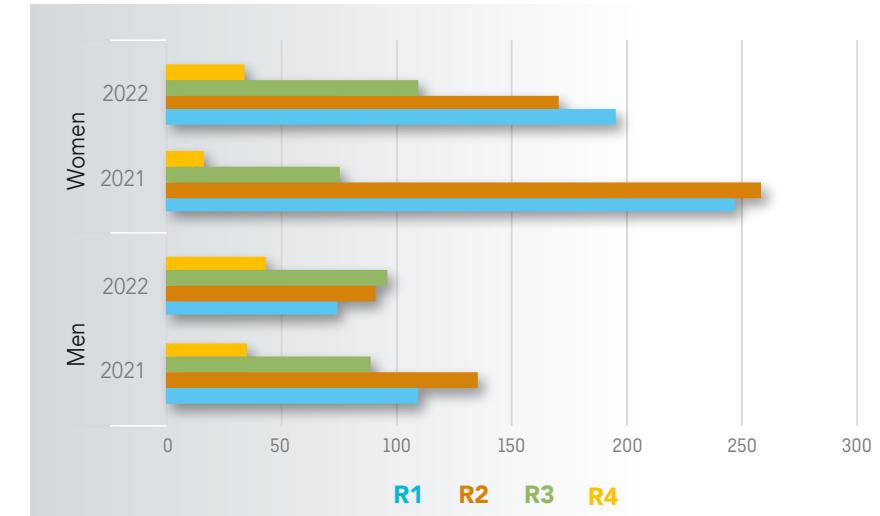
Researcher profile

The following graphs show the classification of IdiPAZ researchers according to the EURAXES regulations proposed by the European Union. In addition, in the following image we can see the evolution of this classification that has occurred in the last year.

Euraxess Researcher Profile



Evolution of the Euraxess Researcher Profile





2.3 Training Report and Teaching

Some of the goals of IdiPAZ are to generate knowledge, to train specialists in the biomedical, to promote research and to transfer the knowledge not only to clinical practice but the society too.

2.3.1. DOCTORAL THESES

In 2022, 83 Doctoral Theses have been read and/or supervised by IdiPAZ researchers, and 7 of them was thesis with **International Doctorate mention**

Doctoral Student	Title	Director	University
Albert Sola M	Role of the interferon-stimulated gene 15 (ISG15) as a regulator of macrophage metabolism after Vaccinia virus infection	Guerra García MS	UAM
Alcobendas Rueda R	Infecciones osteoarticulares pediátricas. Nuevas opciones terapéuticas	Calvo Rey C	UCM
Alfonso Almazán JM	Mechanisms of individual-specific progression and long-term maintenance of atrial fibrillation	Jalife J, Filgueiras Rama D	UAM
Alonso Prieto MM	Exposición laboral a residuos ambientales de sevoflurano durante exploraciones de resonancia magnética en pacientes pediátricos	Alonso Calderón JL, Sanabria Carretero P	UAM
Álvarez Bustos A	Factores asociados a la disminución de la función física en adultos mayores	Rodríguez Mañas L, Alonso Bouzón C	UAM
Álvarez-Maestro M	Niveles de Tromboxano A2 en la deficiencia androgénica adquirida tras el tratamiento antitumoral de pacientes con cáncer de próstata	Ferrer Parra M, Rodríguez de Bethencourt Codés F	UAM
Arcos Castellanos L	Efecto del consumo habitual de un caldo ibérico enriquecido en fructooligosacáridos sobre el contenido de masa grasa corporal y diferentes marcadores hormonales relacionados con la saciedad	Plaza López B, Palma Milla S	UAM
Avilés Martínez M	El papel de la enfermera en anticoncepción posparto: el método amenorrea de la lactancia	Sellan Soto MC	UAM
Baena Nuevo M	Modulation of KV1.3 and KCa3.1 channels by indole-3-carbinol and its derivatives compounds	Valenzuela Miranda C, González Gallego T	UAM
Barahona Sanz I	PTPN1 deletion protects oval cells against lipoapoptosis by targeting cellular processes that favour lipid droplet formation and dynamics	Martínez Valverde AM, Valdecantos Jiménez de Andrade MP	UAM
Bermúdez Muñoz JM	Factores de protección contra la hipoacusia neurosensorial progresiva: mecanismos de regulación de la respuesta al daño y modulación de la defensa antioxidante	Varela Nieto I	UAM
Bustamante Madrid PP	Establecimiento de un sistema de diferenciación celular en organoides colónicos humanos. Efecto de la vitamina D	Muñoz Terol A, Fernández Barral A	UAM
Cabezas Palacios MN	Utilidad del verde de indocianina como trazador único en la biopsia del ganglio centinela en cáncer de endometrio	Zapardiel Gutiérrez I	UAM
Calvo Alemán M	VIH y gestación. Epidemiología y complicaciones obstétricas en la era TARGA	de la Calle Fernandez-Miranda M, Bartha Rasero JL	UAM



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Carrasco García I	Enfermedad hepática en niños y jóvenes que viven con infección vertical por el Virus de la Inmunodeficiencia Humana (VIH)	Sainz Costa T	UCM
Castro Sánchez S	Neuroinflamación y mitofagia en la enfermedad de Parkinson, y posibles estrategias terapéuticas para las tauopatías	Lastres Becker I	UAM
Cerro de Pablo P	El cerdo (Sus scrofa domestica) como modelo de investigación en lesión medular cervical	Collazos Castro JE, Arévalo Arévalo MA	UAM
Cordeiro Alcaine M	Evaluación de la función cerebral mediante electroencefalografía integrada por amplitud en el niño prematuro ≤ de 28 semanas de edad gestacional: parámetros de normalidad y biomarcadores de lesión cerebral y neurodesarrollo	Valverde Núñez EM	UAM
Delgado Sánchez EP	Estudio multicéntrico comparativo entre cirugía laparoscópica de puerto único y cirugía minilaparoscópica en ginecología. Estudio Ultra-Mis. (Ultra Minimally Invasive Surgery)	Zapardiel Gutiérrez I	UAM
Díaz Diñeiro M	La cirugía pediátrica en España: análisis del ejercicio de la profesión y proyección futura bajo criterios demográficos	López Santamaría M, Martínez Martínez L, Díaz Domínguez J	UAM
Díaz García E	Alteraciones en el sistema inmune y su relación con el desarrollo de comorbilidades en pacientes con apnea obstructiva del sueño	García Río F, Cubillos Zapata C	UAM
Díaz Mancebo R	La transición endotelio mesenquimal, mecanismo clave en el desarrollo de la vasculopatía hialinizante peritoneal	Bajo Rubio MA, del Peso Gilsanz G	UAM
Duarte Flórez P	Novel NRF2 inducers and selective MAO-B inhibitors for the treatment of Parkinson's disease	Cuadrado Pastor A, León Martínez R	UAM 
Espinosa González MC	Influencia de la malnutrición al ingreso y el riesgo de desnutrición en la Unidad de Cuidados Intensivos	Quintana Díaz M, Sánchez Casado M	UCLM
Espitia Corredor JA	Resolvina E1 previene la senescencia inducida por doxorrubicina en células endoteliales y fibroblastos cardiacos	Peiró Vallejo MC, Díaz Araya GA	UAM
Esteban Cantos A	Efecto de la infección VIH y el tratamiento antirretroviral en la metilación del ADN y la longitud telomérica: implicaciones sobre el envejecimiento biológico en las personas que viven con el VIH	Arribas López JR, Rodés Soldevila B	UAM 
Extremera Mazuela M	Mecanismos moleculares de resistencia a cisplatino activados por consumo de tabaco en cáncer de pulmón	Montiel López C, Arnalich Fernández F	UAM
Fernández García BV	NOD1 as a key modulator of immunometabolic processes, thyroid hormones, extramedullary hematopoiesis, atherogenesis, NETs and iron homeostasis	Boscá Gomar L, González Ramos S	UAM
Fernández Ginés R	Desarrollo de nuevos moduladores de actividad del factor de transcripción NRF2	Rojo Sanchís AI, Cuadrado Pastor A	UAM
Fernández Martín A	Evaluation of NKG2D chimeric antigen receptor redirected CD45RA- T cells as treatment for pediatric acute leukemia	Pérez Martínez A, Fernández Casanova L	UAM
Fernández Prada S	Programación de ciclos FIV-ICSI en protocolo antagonista con estrógenos o anticonceptivos orales en fase lútea previa. Comparación de resultados frente a no tratamiento	Armijo Suárez OM, Hernández Gutiérrez MA	UAM
Flores Cabeza EM	Utilidad del la MR-Proadrenomedulina en la resuscitación y la detección precoz de sepsis en el paciente quemado crítico	Sánchez Sánchez SM, García de Lorenzo Mateos A	UAM
Gallego Martínez A	Marcadores pronósticos de inflamación en el carcinoma de ovario endometrioide y de células claras	Redondo Sánchez A, García Pérez MJ	UAM
García García I	Implementación en la práctica clínica de la individualización terapéutica de voriconazol mediante una estrategia combinada de biomarcadores farmacogenéticos y farmacocinéticos	Borobia Pérez AM, Carcas Sansuán AJ	UAM
García Sánchez A	Efecto de la CPAP nasal sobre la progresión de la enfermedad vascular retiniana en pacientes con apnea obstructiva del sueño y retinopatía diabética no proliferativa	Álvarez-Sala Walther R, García Río F	UAM
García-Trevijano Cabetas M	Ánalisis de la farmacoterapia en cáncer de próstata metastásico resistente a la castración e identificación de factores predictivos de respuesta	Romero Garrido JA, Espinosa Arranz E, Benedí González J	UCM
Gómez de Frutos MC	Aplicación de ultrasonidos en la identificación de las estructuras cerebrales y la monitorización de la hemorragia intracerebral en rata	Ruiz Ares G, Gutiérrez Fernández M	UAM



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Gómez Delgado I	Contribución del FH y las proteínas FHRs del complemento en la predisposición y evolución del Síndrome Hemolítico-Urémico atípico y la nefropatía por IgA	Sánchez-Corral Gómez P	UAM 
González Fernández O	Predictors of late right heart failure after ventricular assist device implantation	López-Sendón Hentschel JL, Andrew MacGowan G	UAM 
Gortázar de las Casas S	Síndrome de resección anterior baja en pacientes intervenidas de endometriosis profunda	Pascual Migueláñez I, Hernández Gutiérrez MA	UAM 
Grasa Lozano CD	La enfermedad de Kawasaki en población española: características en los grupos de menor edad, factores de riesgo de mal pronóstico y comparativa con el síndrome inflamatorio multisistémico pediátrico asociado al COVID-19	Fernández Cooke E, Calvo Rey C	UAM 
Hontañón Antoñiana V	Evolución clínica a largo plazo de los pacientes coinfectados por VIH/VHC con hepatopatía avanzada tras la erradicación del VHC	González García JJ, Berenguer Berenguer J	UAM 
Íñigo Jaén R	Therapeutic role of lipoxins in cardiovascular disease: Mechanisms of lipoxin-mediated cardioprotection in myocarditis and dilated cardiomyopathy	Boscá Gomar L, Prieto Chinchilla P	UAM 
Lárraga García B	Automated trauma management evaluation for knowledge acquisition through simulation	Quintana Díaz M, Gutiérrez Martín A	UPM 
López López J	Efectividad del tratamiento con toxina botulínica tipo A en el manejo de la marcha de puntillas idiopática (MPI). Estudio epidemiológico, clínico y con análisis instrumental de la marcha	Rausell Tamayo E, Gómez Andrés D	UAM 
López Moreno M	Obtención de hidrolizados de quinua con actividad antioxidante y su efecto sobre el estrés oxidativo asociado a la hipertensión arterial	Miguel Castro M	UAM 
Mangas Moro A	Efecto protector de la vacuna antigripal en pacientes hospitalizados por gripe: análisis observacional de las temporadas 2009 a 2019	Álvarez-Sala Walther R, Arribas López JR	UAM 
Martínez Casales M	RF2 y KV1.3 nuevos mediadores de la inflamación y el daño cardiovascular asociado a hipertensión	Alonso Gordo MJ, Hernanz Martín R	URJC 
Martín-Ordoña P	Incidencia de los contextos culturales y sociales, las relaciones entre iguales, la participación y el juego en el aprendizaje social y cívico en Educación Infantil	Saenz Rico B	UCM 
Mateo Martínez G	La construcción de la identidad enfermera contemporánea en España. La es-cultura del cuidado: entre la cruz y el medicamento	Vázquez Sellán A, Sellán Soto MC	UAM 
Matesanz García L	Actualización de la fisiopatología de las neuropatías por atrapamiento y nuevas propuestas de intervención	Fernández Carnero J	URJC 
Mendoza Carretero MR	Detección, despistaje e intervención de alteraciones del neurodesarrollo de menores con cardiopatías congénitas al nacimiento	Sáenz-Rico B, Ares Segura S	UCM 
Meneses González DP	Respuesta histológica de la enfermedad de hígado graso no alcohólico en pacientes con obesidad mórbida sometidos a cirugía bariátrica	González Pérez de Villar N, Cos Blanco AI	UAM 
Montalbán Hernández KM	Colon cancer: an immunological approach	López Collazo E	UAM 
Muñoz Romo R	Desarrollo y resultados de un programa de toxicovigilancia activa en un hospital universitario de tercer nivel	Carcas Sansuán AJ	UAM 
Núñez Ossorio V	Neurodidáctica: efecto de la Sonrisa de Duchenne en la reorganización neurofuncional del córtex temporal y en las emociones	Saenz Rico B	UCM 
Paluso Montero AV	Tratamiento con células madre de la enfermedad aterosclerótica periférica en un modelo murino	Riera del Moral LF	UAM 
Parada Peña S	Hidrólisis de clara de huevo: obtención de un ingrediente a escala semindustrial y su utilización como sustituto en la elaboración de productos o derivados lácteos	Miguel Castro M	Universidad Santiago de Compostela 
Peláez Pérez JM	Hipnoanalgesia en cirugía pediátrica dermatológica	Quintana Díaz M, Sánchez Casado M	UAM 



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Povo Retana A	Functional and immunometabolic effects of trabectedin and lurbinectedin antitumoral molecules in human macrophages	Boscá Gomar L, Mojena Sánchez M	UAM
Ramón Patiño JL	Evaluación de las herramientas de estratificación pronóstica en el cáncer de endometrio en estadios iniciales	Mendiola Sabio M, Redondo Sánchez A	UAM
Rodríguez Cobos J	Identificación de dianas efectoras de ANp73 asociadas a angiogénesis y linfangiogénesis. Valor diagnóstico y pronóstico en vesículas extracelulares en pacientes con cáncer colorrectal	Rodríguez Salas N, Domínguez Muñoz G	UAM
Rodríguez Jiménez C	Implementación de la validación funcional de las variantes en LDLR, APOB, PCSK9 y LDLRAP1 para confirmar el diagnóstico genético de la hipercolesterolemia familiar en la práctica asistencial	Rodríguez Novoa S	UAM
Rodríguez Muñoz D	Efectos de las hormonas tiroideas en la tolerancia a la malaria cerebral	Alemany de la Peña S, Aranda Iriarte A	UAM
Rodríguez Roca MC	Dolor crónico postcesárea. Incidencia y factores de riesgo anestésicos y quirúrgicos	Gilsanz Rodríguez F, Brogly N	UAM
Ruiz de Hoyos M	Evaluación del proceso de consentimiento informado en pacientes que participan en ensayos clínicos con medicamentos	Friás Iniesta JA, Villamañán Bueno E	UAM
Sáez de la Fuente I	Utilización de marcadores de metabolismo anaeróbico como factores pronósticos en el postoperatorio inmediato del trasplante hepático	Montejo González JC, García de Lorenzo Mateos A	UAM
Sánchez García L	Viejos y nuevos virus respiratorios en neonatología: aproximación sistemática a su epidemiología e impacto en la salud	Pellicer Martínez A, Calvo Rey C	UAM
Sandoval Talamantes AK	Validación de nuevas tecnologías genómicas en la rutina clínica asistencial en pacientes con trastorno del espectro autista primario, mediante el abordaje combinado de microarrays y NGS	Lapunzina Badía P, Nevado Blanco J	UAM
Santos Simarro F	Caracterización clínica y molecular de pacientes con discapacidad intelectual sindrómica mediante aplicación de tecnologías genómicas	Palomares Bralo M, Lapunzina Badía P	UAM
Sanz Pascual E	Estudio de función ventricular por Speckle-Tracking Echocardiography 2D y resonancia magnética cardíaca Feature-Tracking en pacientes con circulación de Fontan	Gutiérrez-Larraya Aguado F, Bret Zurita M	UAM
Segura Grau E	Evaluación de nuevas indicaciones de la ecografía en anestesiología: Estudio de la variabilidad anatómica del nervio ciático	Reinoso Barbero F	UAM
Sentchordi Montané L	Caracterización clínica, radiológica y molecular de pacientes con talla baja y anomalías esqueléticas leves. Rendimiento de un panel de secuenciación masiva de genes implicados en displasias esqueléticas	Heath KE, Ros Pérez P	UAM
Serrano del Hoyo S	El papel de la proteína RING1B en el proceso de inmortalización de progenitores hematopoyéticos	Cales Bourdet MC, Vidal Caballero MA	UAM
Spagnolo E	Endometriosis intestinal y complicaciones postoperatorias: el papel de la cirugía guiada por fluorescencia	Hernández Gutiérrez MA, Pascual Migueláñez I	UAM
Tong HY	Individualización del tratamiento con acenocumarol: desarrollo de nuevos algoritmos farmacogenéticos y su validación en enfermedad tromboembólica venosa	Carcas Sansuán AJ, Borobia Pérez AM	UAM
Valbuena Garrido MT	Inmunoterapia epicutánea, nuevo tratamiento para los pacientes pediátricos con alergia persistente a la avellana	Álvarez-Sala Walther R, Reche Frutos M	UAM
Valenzuela Miranda C	Modulation of KV1.3 and KCa3.1 channels by indole-3-carbinol and its derivatives compounds	Baena Nuevo M, González Gallego T	UAM
Valencia Fernández I	La adiponquina dipeptidil peptidasa 4 (DPP4) como inductor de senescencia y disfunción endotelial asociadas a enfermedades metabólicas	Peiró Vallejo MC, Sánchez Ferrer CF	UAM 
Vázquez Naharro A	Estudio de la contribución de la proteína LOXL3 a la progresión tumoral y plasticidad celular en melanoma	González Santamaría P, Cano Garcia A	UAM
Vera Zambrano A	Pathophysiological modulation of Kv1.5 in the cardiovascular system. Role of SIGMA-1 receptor	González Gallego T, Cogolludo AL	UAM 
Vilar Tabanera A	Influencia de los valores preoperatorios de hormona paratiroides en el desarrollo de hipoparatiroidismo postquirúrgico	Gómez Ramírez J, y Jesús Acero J	UAH
Zapater Moros A	Evaluación del metaboloma sanguíneo como herramienta para el manejo de pacientes de cáncer de mama en el contexto neoadyuvante	Gamez Pozo A, Fresno Vara JA	UAM



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2.3.2 MASTER THESES

In 2022, 15 Master Theses have been read and/or supervised by IdiPAZ researchers.

Doctoral Student	Title	Director	University
Arizaga Echebarria JK	El papel potencial de las vesículas extracelulares en la recuperación tras una hemorragia intracerebral en rata	Gutiérrez Fernández M	UCM
Cazalla Ibáñez E	Role of transcription factor NRF2 in the regulation of the Blood-Brain Barrier component TIE2 receptor	Cuadrado Pastor A, García-Yagüe AJ	UAM
Chacón Moreno AD, López Gómez V	Evaluación de prevalencia de pacientes con necesidades paliativas en las plantas de hospitalización de agudos de oncología y medicina interna en dos hospitales de tercer nivel de la Comunidad de Madrid	Feliú Batlle J	UAM
Crespo C	Factores de transmisión vertical del VIH en embarazadas de 15 a 24 años	Sainz Costa T	UAM
Griso AN	Model establishment and optimization: Assessment of tumor-CAF interplay in Oral Squamous Cell Carcinomas	Sastre Perona A	UCM
Jalón Flores G	Incidencia de mujeres embarazadas con VIH en el hospital General del Norte de Guayaquil IEES los Ceibos en el año 2021	Sainz Costa T	UAM
Linzoaín Agós P	Generation of human limbal cells for use in ophthalmology	de Miguel MP	UAM
López Martín D	Validation of a tool for computational assessment of upper limb movement in patients with stroke	Alonso de Leciñana Cases M, Gutiérrez Martín A	CEU San Pablo
López Peligros MI	Study of accessibility of drugs targeted to the pediatric population in relapse or refractory scenarios	Pérez Martínez A	Universidad Francisco de Vitoria
Marchena Pasero A	Variants of aurora kinase B: New biomarkers of hepatocellular carcinoma	Madejón Seiz A	UAM
Martínez Pérez D	Estudio retrospectivo sobre derivación a cuidados paliativos en pacientes con cáncer avanzado: características, frecuencia y momento de derivación	Feliú Batlle J, Alonso A	UAM
Montes L	Torqueterenovirus como marcador inmunológico en la infección vertical por el VIH	Sainz Costa T	UAM
Pérez Wert P	Tratamiento con inhibidores de PARP en cáncer de ovario: estudio de factores predictivos de eficacia y toxicidad hematológica	Feliú Batlle J	Universitat de Girona
Rodríguez López SM	Characterization of the neuroprotective effects of CB2 cannabinoid receptor antagonist's treatment in a TAU-dependent Frontotemporal Dementia mouse models	Lastres Becker I	UAM
Sánchez León R	Genomic surveillance and molecular characterisation of rotaviruses causing acute gastroenteritis	Fernández MD, Calvo Rey C	UAM



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2.3.3 FINAL DEGREE THESES

In 2022, 27 Final Degree Theses have been read and/or supervised by IdiPAZ researchers.

Doctoral Student	Title	Director	University
Albadalejo Muñoz B	Desarrollo y aplicación de un SPOC (Samll private online course) en la enseñanza del sistema nervioso para alumnos de grado de medicina	Rodríguez Pardo de Donlebún J, Fuentes Gimeno B	UAM
Andrés Blanco L	Efecto de la pandemia COVID19 en el abuso sexual infantil	Sainz Costa T	UAM
Angulo Martínez C	Patrones de crecimiento en el embarazo gemelar normal y patológico	Bartha Rasero JL	UAM
Asensio Rodríguez M	Caracterización de nuevos biomarcadores de riesgo cardiovascular en pacientes con sospecha de Hipercolesterolémia Familiar (FH)	Rodríguez Novoa S	Universidad Francisco de Vitoria
Botella Cruces L	Análisis de las vesículas extracelulares circulantes como marcador de actividad en pacientes con Esclerosis Múltiple	Otero Ortega L	UAH
Búrdalo López C	Aplicación de enfermería en la administración de trastuzumab subcutáneo en el tratamiento de cáncer de mama HER2 positivo	Hernanz Martín R	URJC
Cruz Castellanos P	Estudio de miARNs exosomales en respuesta a platinos en cáncer de ovario: Validación en biopsia líquida	Ibáñez de Cáceres I	UCM
del Val Rey I	Conditioning regimen in pediatric acute lymphoblastic leukemia: total body irradiation, yes or not?	Pérez Martínez A	UAM
Díaz Bonete L	Manifestaciones neurológicas de la infección COVID19. Estudio retrospectivo en una consulta monográfica	Frank García A, Rigual Bobillo R	UAM
Fernández Martín F	Diseño y actualización de un sistema automático y objetivo de medida de variables cinemáticas del movimiento de la mano en pacientes con infarto cerebral	Alonso de Leciñana Cases M, Gutiérrez Martín A	UPM
Garrido López A	Diseño e implementación de un algoritmo de segmentación automática de imágenes de ecografía transcraneal aplicada al estudio de los trastornos del movimiento	Rodríguez Pardo de Donlebún J, Gutiérrez Martín A	UPM
González Jiménez A	Aproximación nutricional a la inflamación crónica de bajo grado. Estudio de marcadores inflamatorios en tejido vascular	Peiró Vallejo MC, Valencia Fernández I	UAM
González Pérez J	Community-acquired methicillin-resistant s. aureus infections and colonization in spanish children	Méndez Echevarría A	UAM
López Caballero L	Covid-19 en pacientes con enfermedades autoinmunes sistémicas y tratamiento inmunosupresor: características e influencia de la vacunación	Ríos Blanco JJ, Álvarez Troncoso J	UAM
Martín Morales L	New therapeutic strategies in high grade central nervous system pediatric tumors	Pérez Martínez A	UAM
Mínguez Navas L	Papel de la hipocretina en la narcolepsia	Hernanz Martín R	URJC
Olalla Gómez A	Inducción del parto en gestaciones gemelares con oxitocina versus prostaglandinas (dinoprostona): estudiорandomizado	de la Calle Fernández-Miranda M, González Rodríguez E	UAM
Pamela J	Diferencias entre el uso de proteínas sintéticas frente al glicomacropéptido en pacientes con fenilcetonuria en España	Tenorio J	UEM



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Pascual Hebrero L	Diseño y actualización de un sistema de análisis automático de la cinemática de la mano en pacientes con ictus	Alonso de Leciñana Cases M, Gutiérrez Martín A	UPM
Posse I	Identificación de nuevos mecanismos de resistencia a cisplatino en tumores de cabeza y cuello	Sastre Perona A	UAM
Rodríguez S	Implicación de la fosfatasa DUSP1 en la iniciación y progresión de carcinomas escamosos cutáneos	Sastre Perona A	UAM
Ruiz González A	Diseño e implementación de un sistema de análisis de correlación de datos de imagen, clínicos y cinemáticos en pacientes de ictus agudo	Alonso de Leciñana Cases M, Gutiérrez Martín A	UPM
Ruiz Vitte A	Diseño e implementación de un sistema de análisis automático y objetivo de la prueba ledged beam walking test en modelos animales en ictus	Gutiérrez Fernández M	UPM
Sánchez-Rico Lucas-Torres B	Parir tras la menopausia. Estudio observacional ambispectivo de cohortes	de la Calle Fernández-Miranda M, Cuerva González MJ	UAM
Serrano Alarcón M	Volumetría Cerebral en pacientes con Deterioro Cognitivo Post-Covid	Martín Montes A, Frank García A	UAM
Vázquez Greciano C	Relación entre ansiedad y depresión con resultados perinatales	Bartha Rasero JL	UAM
Zambrano D	Importancia del manejo nutricional en pacientes con déficit de transcobalamina II	Tenorio J	UEM





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2.3.4 SCIENTIFIC TRAINING PLAN

The Training Committee established a Training Plan, which specifies the training strategy for the institute's human resources and covers the research training needs of their members. Annually it's developed the training offer with several proposals to make up the plan. Also, it's developed a residents training program have been started for residents doctors of the University Hospital La PAZ.

The own training offer is mainly based on a series of transversal courses in research methodology and courses related of the different lines of research.

The plan is complemented by several activities such as conferences, scientific seminars and other activities linked to these areas.

In addition, The Training Committee established a Residents training program for residents of the University Hospital La Paz.



Members

President

Bárbara Martínez de Miguel

Secretary

Mercedes Ruiz Balibrea

HULP representative

Alberto Borobia Pérez
 Alejandro Martín Quirós
 Ana Martínez Virtó
 Julián Nevado Blanco
 Talía Sainz Costa

FIBHULP representative

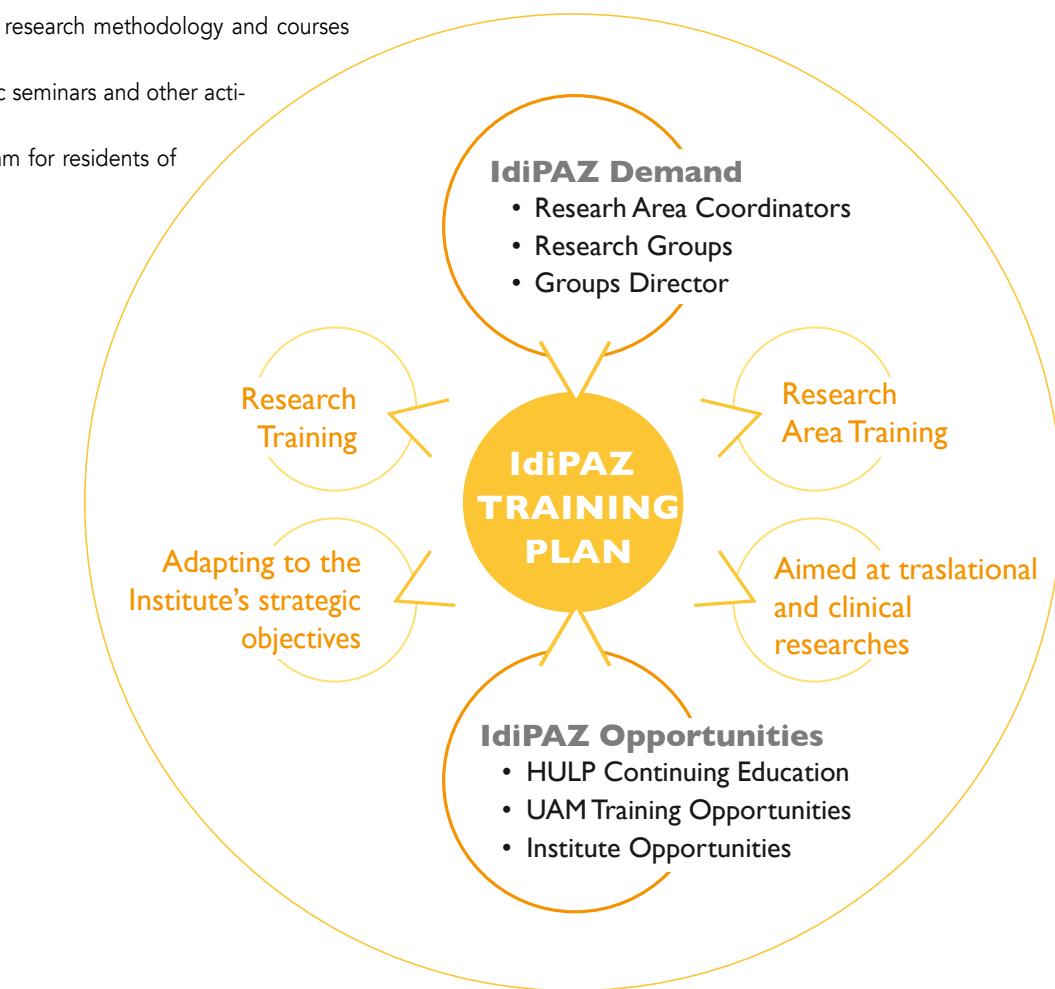
Paloma Gómez Campelo
 María Fernández Velasco
 Irene Montero
 Rocío Rosas Alonso
 Ana Sastre Perona
 Aitana López Redondo

UAM representative

Ana García Redondo

Employee's representative

Pilar Sánchez-Corral Gómez





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2.3.4.1. Training Program

Title	Coordinator	Dates	Participants
Revisiones sistemáticas de la literatura y meta-análisis	Alberto Borobia Pérez	31 st January-3 rd February	15
Introducción a las dimensiones de la investigación y la innovación responsable	Paloma Gómez Campelo	25 th -28 th April	40
Igualdad de oportunidades en la sociedad actual	Paloma Gómez Campelo	29 th April	40
Metodología en investigación: Diseño, puesta en marcha y desarrollo de estudios clínicos	Alberto Borobia Pérez	26 th ~ 29 th September	30
Bioestadística: Programa con 'R'	Alberto Borobia Pérez	17 th - 20 th October	30
Bioseguridad en laboratorios	Paloma Gómez Campelo	18 th November	30
Escritura de manuscritos	Pilar Sánchez-Corral Gómez	21 st ~ 23 rd November	30
Trabajo con herramientas informáticas de Google Workspace	Ana Rodríguez Redondo	28 th , 30 th November and 1 st December	30
Gestión inteligente del tiempo	Paloma Gómez Campelo	28 th November - 2 nd December	40

2.3.4.2. Residents Training Program

The training program has been designed to provide residents at IdiPAZ with scientific tools and skills, which are key for the development of their careers.

Soporte Vital Inmediato Residentes | Dr. Ana Martínez Virtó | 13-14/09/2022 | 5-6/10/2022 | 2-3/11/2022 | 14-15/11/2022

Simulación de Anestesia para Residentes | Dr. Elena Gredilla | 14/02/2022 | 17/02/2022

In 2022 we have established the Research Training Program for resident doctors to facilitate clinical and translational research opportunities for residents who plan to make research as part of their careers.

Title	Head
Elaboración de un proyecto de investigación. Módulo I: ¿Cómo formular una hipótesis en investigación? Módulo II: Metodología básica en investigación	Alejandro Martín Quirós
Lectura crítica	Alejandro Martín Quirós
Bioestadística: 'SPSS'	Rocío Rosas
Jornada para residentes sobre el IdiPAZ	Paloma Gómez Campelo



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2.3.4.3. Scientific Seminars

IdiPAZ Scientific Seminars program welcomes renowned researchers and clinical investigators to our Institute to share, discuss and debate latest insights, discovery and next research directions with our students, postdocs and senior faculty from our research groups. In this year, Scientific Seminars of IdiPAZ was certified by "Acreditación de Actividades de Formación Continuada de las Profesiones Sanitarias" by the Community of Madrid procedure number nº07-AFOC-00901.4/2020 and 28 seminars were held.

Scientific Coordinators: • **Paloma Gómez Campelo**
 Secretary: • **Susana García Pérez** • **Lucía Medina Royo**

Research Area	Date	Speaker	Seminar title
 Cardiovascular Area	27 th Jan.	Mirko Baruscotti Professor in the Department of Biosciences, University of Milan	Novel molecular aspects of Inappropriate Sinus Tachycardia and Brugada Syndrome
 Cardiovascular Area	4 th Feb.	Nora V. Butta Coll Senior researcher and head of Laboratory of coagulopathies and alterations of haemostasis in IdiPAZ	Importancia de los residuos glucosídicos de las plaquetas en pacientes con trombocitopenia inmune
 Cardiovascular Area	18 th Feb.	Lisardo Bosca Senior Research at Instituto de Investigaciones Biomédicas. CSIC.	Transition of macrophages to fibroblast-like cells in healing myocardial infarction. J Am CollCardiol
 Neurosciences Area	24 th Feb.	Exuperio Diez Professor of Neurology at Universidad Autonoma de Madrid and coordinator of the Neurosciences area of IdiPAZ	Área de Neurociencias 2009-2020
 Cardiovascular Area	4 th Mar.	Víctor Jiménez Yuste Head of Hematology Service of Hospital Universitario La Paz and director of "Coagulopathies and alterations of hemostasis" group of IdiPAZ	Nuevas terapias en Hemofilia
 Infectious Diseases and Immunity Area	11 st Mar.	Concepción Peiró Vallejo Professor of Pharmacology at the University of Madrid and researcher of "Vascular Pharmacology and Metabolism" group in IdiPAZ	PROYECTO SPACE2-COVID-CM: Investigando el papel de ACE2 y la proteína S en el impacto cardiovascular y renal del SARS-CoV2
 Cancer and Human Molecular Genetics Area	18 th Mar.	Xosé R. Bustelo Research Professor at the Spanish National Research Council, Consejo Superior de Investigaciones Científicas CSIC	Identificación y caracterización de un nuevo "driver" oncogénico
 Infectious Diseases and Immunity Area	25 th Mar	Carlos del Fresno Miguel Server Researcher at "Innate Immune Response" group in IdiPAZ	La inmunoterapia bacteriana MV130 protege frente a infecciones virales del tracto respiratorio y mejora la inmunogenicidad de vacunas COVID-19
 Cancer and Human Molecular Genetics Area	1 st Apr.	Paloma Cejas Assistant director at Center for Functional Cancer Epigenetics, Dana-Farber Cancer Institute, Harvard Medical School, Boston and Postdoctoral researcher at "Traslational Oncology" group in IdiPAZ	Regulación epigenética del fenotipo neuroendocrino y caracterización de subtipos tumorales



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	Cancer and Human Molecular Genetics Area	22nd Apr.	Laura Belver Leader Researcher of Leukemia and Immuno-oncology at Josep Carreras Leukemia Research Institute (IJC) in Barcelona		Aberrant enhancer function in leukemia.
	Cancer and Human Molecular Genetics Area	8th Apr	Sonsoles Hortelano Head of Pharmacological Therapies unit at Research Institute of Rare Diseases of Instituto de Salud Carlos III		Presente y futuro en el estudio y diagnóstico de enfermedades pulmonares raras.
	Cardiovascular Area	6th May	Ana María Briones Professor of Pharmacology at Universidad Autónoma de Madrid and senior researcher of "Vascular physiology and Pharmacology" group in IdiPAZ		Papel de nuevos mediadores derivados de interferón en el daño cardiovascular asociado a la hipertensión arterial.
	Cancer and Human Molecular Genetics Area	13rd May	Adrián Fernández Martín PhD student, Unidad de Investigación Clínica de Tumores Hematológicos H12O-CNIO		Evaluation of NKG2D Chimeric Antigen Receptor redirected CD45RA- T Cells as Treatment for Pediatric Leukemia.
	Surgery, Transplant and Health Technologies Area	20th May	Alberto Borobia Medical specialist in Clinical Pharmacology, Coordinator of the Clinical Trials Unit of Hospital La Paz -UICEC- and associate professor of health sciences at UAM		De los primeros pasos a la actualidad de los ensayos clínicos.
	Neurosciences Area	3rd Jun.	Laura Otero Researcher Miguel Servet at "Neurology and cerebrovascular diseases" group in IdiPAZ		El papel de las vesículas extracelulares como biomarcador en Esclerosis Múltiple.
	Infectious Diseases and Immunity Area	16th Jun.	Fernando Corvillo Pre-Doctoral Research at "Diagnosis and treatment of diseases associated with abnormalities of the complement system" group in IdiPAZ		Caracterización y asociación clínica de los autoanticuerpos frente a Perillipina 1 en pacientes con lipodistrofia generalizada adquirida (síndrome de Lawrence).
	Cancer and Human Molecular Genetics Area	8th Jul.	Olga Vera Puente Postdoctoral Fellow, Department of Molecular Oncology at Moffitt Cancer Center		MAFG is a novel oncogene in melanoma with therapeutic potential.
	Large System Pathologies Area	9th Sep.	Elena Díaz García Pre-Doctoral Research at "Respiratory diseases" group in IdiPAZ		Alteraciones en el sistema inmune y su relación con el desarrollo de comorbilidades en pacientes con apnea obstructiva del sueño.
	Neurosciences Area	16th Sep.	María Fe Bravo Head of Psychiatry service at Hospital Universitario La Paz and associate profesor of School in Medicine of Universidad Autónoma de Madrid		Desde la investigación ¿Qué sabemos sobre la prevención de suicidio?
	Infectious Diseases and Immunity Area	23rd Sep.	Irene Gómez Delgado Postdoctoral Research at "Diagnosis and treatment of diseases associated with abnormalities of the complement system" group in IdiPAZ		Contribución del FH y las proteínas FHRs del complemento en la predisposición y evolución del Síndrome Hemolítico-Urémico atípico y la Nefropatía por IgA.
	Surgery, Transplant and Health Technologies Area	30th Sep.	Ana Sastre Co-director of "Research in surgical oral and maxillofacial" group in IdiPAZ Laura Córdoba Head of Organoids HUB of IdiPAZ Biobank and researcher of the "Innate Immune Response" group in IdiPAZ		Generación de biomodelos para la investigación traslacional del cáncer



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	Maternal Infant Child and Youth Research Area	7th Oct.	José Jonay Ojeda Coordinator of quality and safety in ERN TransplantChild		TransplanChild, 5 años de la Red Europea de Referencia y participación del hospital.
	Cardiovascular Area	21st Oct.	José Luis López-Sendón Scientific Director, IdiPAZ Research Institute		Cardiovascular biomarkers. Translational pathway challenges.
	Infectious Diseases and Immunity Area	28th Oct.	Andrés Esteban Cantos Postdoctoral Research at "AIDS and Infectious diseases" group in IdiPAZ		Relojes epigenéticos: biomarcadores de envejecimiento en la infección por VIH.
	Cancer and Human Molecular Genetics Area	11st Nov	Lucía Trilla Fuertes Postdoctoral Research at "Traslational oncology" group in IdiPAZ		Identificación de procesos implicados en carcinogénesis y progresión tumoral en carcinoma ductal de páncreas mediante proteómica de alto rendimiento.
	Surgery, Transplant and Health Technologies Area	18th Nov.	Jordi Vengohechea Llorens Pre-Doctoral Research at "Traslational Research and Innovation in general and digestive surgery" group in IdiPAZ		Regeneración hepática: ¿terapia o enfermedad?
	Infectious Diseases and Immunity Area	2nd Dec.	Rocio Montejano Postdoctoral Research at "AIDS and Infectious diseases" group in IdiPAZ		VIH, 40 años después: ¿hacia dónde vamos?
	Infectious Diseases and Immunity Area	16th Dec.	Jesús Vicente Guinea Ortega Clinical Microbiologist, focused on Medical Mycology. Hospital General Universitario Gregorio Marañón		Resistencia antifúngica en levaduras del género Candida: ¿Una nueva pandemia?

2.3.4.4. Scientific Clinical Sessions-Hospital Universitario La Paz

Date	Talk Title	Speaker	Moderator
21st December	Consulta de Medicina Fetal. Abordaje multidisciplinar del derrame pleural fetal a través de un caso clínico	<ul style="list-style-type: none"> • Beatriz Herrero, Servicio de Obstetricia y Ginecología • Fe García Santiago, Servicio de Genética • Dolores Elorza, Servicio de Neonatología • José Luis Encinas, Servicio de Cirugía Pediátrica 	<ul style="list-style-type: none"> • José Luis Bartha, Servicio Obstetricia y Ginecología • Eugenia Antolín , Servicio Obstetricia y Ginecología
14th December	Once upon a time'. Rehabilitación de la COVID	<ul style="list-style-type: none"> • Rosario Urbez Mir, Servicio de Rehabilitación • Daniela Alexardres, Servicio de Rehabilitación • Ríos de los Ríos, Servicio de Rehabilitación 	• David Hernández Herrero, Servicio de Rehabilitación
3rd December	Varón de 84 años con encefalitis límbica de etiología incierta (infecciosa o autoinmune)	<ul style="list-style-type: none"> • Laura Lacruz Ballester, Servicio de Neurología • Marta de Uribe Viloria, Servicio de Anatomía Patológica 	<ul style="list-style-type: none"> • Ana Frank, Servicio de Neurología • M^a Carmen González García, Servicio de Anatomía Patológica
23rd November	PROA en el Hospital de la Paz	<ul style="list-style-type: none"> • Francisco Moreno Ramos, Servicio de Farmacia • Belén Loches Yagüe, Unidad Infecciosas • Rosa Gómez Gil, Servicio de Microbiología • Ana Robustillo, Servicio de Medicina Preventiva • Luis Escosa, Servicio de Pediatría 	<ul style="list-style-type: none"> • José Ramón Arribas, Servicio de Medicina Interna • Julio García Rodríguez, Servicio de Microbiología



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16 th November	Implementación de la NGS asistencial en el cáncer: avanzando hacia una oncología de precisión	<ul style="list-style-type: none"> • Marta Mendiola, Servicio Oncología Médica (Anatomía patológica. IdiPAZ) • Laura Gutiérrez, Servicio Oncología Médica • David Viñal, Servicio Oncología Médica • Nuria Rodríguez, Servicio Oncología Médica 	<ul style="list-style-type: none"> • Jaime Feliú, Servicio Oncología Médica • David Hardisson, Servicio de Anatomía patológica)
2 nd November	Tratamiento multidisciplinar del gran quemado	<ul style="list-style-type: none"> • Manuel Sánchez Sánchez, Servicio de Medicina Intensiva • José Ramón Martínez Méndez, Servicio Cirugía Plástica 	<ul style="list-style-type: none"> • José Ramón Martínez Méndez Servicio Cirugía Plástica
26 th October	Varón de 643años con melanoma coroideo metastásico, diseminado	<ul style="list-style-type: none"> • Enrique Espinosa, Servicio Oncología médica • Eduardo Miraval Wong, Servicio. Anatomía patológica 	<ul style="list-style-type: none"> • Jaime Feliú, Servicio Oncología médica • M^a Carmen González García, Servicio Anatomía Patológica
19 th October	Incongruencia de género en la infancia y la adolescencia	<ul style="list-style-type: none"> • Cristina Mora Palma, Servicio Endocrinología pediátrica • Arancha Ortiz Villalobos, Servicio de Psiquiatría 	<ul style="list-style-type: none"> • Isabel González Casado, Servicio de Endocrinología Pediátrica
5 th October	Esclerosis múltiple: nuevos enfoques en el diagnóstico y tratamiento. Últimos avances en investigación traslacional	<ul style="list-style-type: none"> • Inmaculada Puertas Muñoz, Servicio de Neurología • Laura Otero Ortega (Lab. Cienciasneurológicas. IdiPAZ) • Marta Moreno Palomino Servicio de Farmacia hospitalaria. 	<ul style="list-style-type: none"> • Alicia Herrero, Servicio de Farmacia Hospitalaria • Ana Frank, Servicio de Neurología
28 th Sept.	Obesidad y enfermedad metabólica ¿se nace o se hace?	<ul style="list-style-type: none"> • Irma García-Martínez. IIBm Alberto Sols, CSIX/UAM. CIBERdem 	<ul style="list-style-type: none"> • Ángela María Martínez Valverde, IIBm Alberto Sols, CSIC/UAM. CIBERdem
29 th June	Implantación, situación actual y futuro del Cuadro de Mandos del hospital	<ul style="list-style-type: none"> • Gloria Forés, Subdirectora médico del Área de Organización y Sistemas. • Miguel de Blas, Subdirector médico del Área Quirúrgica • Rosario Torres, Coordinadora de Urgencias • José Jonay Ojeda, Unidad de Calidad • Gemma Yagüe, Unidad de Calidad • Rubén Ochoa, empresa Dedalus 	<ul style="list-style-type: none"> • Gloria Forés. Subdirectora médico del Área de Organización y sistemas • Esther Rey Cuevas, Directora de enfermería
22 nd June	Unidad multidisciplinar de asma grave	<ul style="list-style-type: none"> • Pilar Barranco, del Servicio de Alergia • Elena Villamañán, del Servicio de Farmacia Hospitalaria • David Romero, del Servicio de Neumología. 	<ul style="list-style-type: none"> • Santiago Quirce, jefe de Servicio de Alergia • Alicia Herrero, jefa de Servicio Farmacia Hospitalaria • Rodolfo Álvarez-Sala, jefe de Servicio de Neumología.
15 th June	Experiencia pandémica en trabajadores sanitarios: Seguimos avanzando	<ul style="list-style-type: none"> • Juan González de Abreu, Servicio Prevención de Riesgos Laborales • Concepción Núñez López, Jefa de Servicio de Riesgos Laborales • Eduardo López Granados, Jefe de Servicio de Inmunología 	<ul style="list-style-type: none"> • Concepción Núñez López, Jefa de Servicio de Riesgos Laborales
8 th June	Varón de 53 años con astenia, febrícula y signos analíticos de daño miocárdico	<ul style="list-style-type: none"> • Juan Caro Codón, Servicio de Cardiología • Samuel López Muñoz, médico residente Servicio Anatomía Patológica 	<ul style="list-style-type: none"> • Esteban López de Sá Areses, jefe de Sección de Cardiología • Alberto Berjón García del Servicio de Anatomía Patológica
1 st June	Cuidados de la pareja con una muerte fetal	<ul style="list-style-type: none"> • Elena Martín Boado, Servicio de Obstetricia • Elena Mansilla, Servicio de Genética • Rita María Regojo, Servicio de Anatomía Patológica • Arancha Fernández, Servicio de Psiquiatría 	<ul style="list-style-type: none"> • José Luis Bartha, Jefe de Servicio de Obstetricia • María de la Calle, Jefa de Sección de Obstetricia
18 th May	Varón de 30 años, natural de Paraguay con LOE cerebral y fiebre	<ul style="list-style-type: none"> • Carmen Busca Arenzana, del Servicio de Medicina Interna • Emilia Brizzi, médico residente del Servicio de Anatomía Patológica 	<ul style="list-style-type: none"> • Juan González García, jefe de Sección de Medicina Interna • Alberto Berjón García del Servicio de Anatomía Patológica.



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11 th May	Cirugía endoscópica endonasal de base de cráneo	<ul style="list-style-type: none"> • Carolina Alfonso Carrillo, del Servicio de Otorrinolaringología • Carlos Pérez López, del Servicio de Neurocirugía. 	<ul style="list-style-type: none"> • Alberto Isla Guerrero, jefe de Servicio de Neurocirugía
5 th May	Proyectos de coordinación Medicina Interna- Pediatría: Paciente pediátrico complejo y Síndrome de Down	<ul style="list-style-type: none"> • Giorgia Salgueiro Origlia y Francisca García Iglesias, del Servicio de Medicina Interna, • Francisco Climent Alcalá, del Servicio de Pediatría. 	<ul style="list-style-type: none"> • Carmen Fernández Capitán, jefa de Sección de Medicina Interna, • Cristina Calvo Rey, jefa de Sección de Pediatría.
27 th April	TransplantChild, 5 años de la red y participación del hospital	<ul style="list-style-type: none"> • Paloma Jara Vega, Coordinadora de la Red TransplantChild • José Jonay Ojeda Feo, Servicio de Calidad • M^a Jesús Pascau González-Garzón, Coordinadora del equipo de Enfermería de la Red de TransplantChild • Javier Cobas Gamallo, Subdirector Gerente del Hospital 	<ul style="list-style-type: none"> • Paloma Jara Vega, Coordinadora de la Red TransplantChild
20 th April	Varón de 72 años, con mieloma múltiple e insuficiencia cardiorrespiratoria	<ul style="list-style-type: none"> • Teresa de Soto Álvarez, del Servicio de Hematología • Álvaro López Janeiro, del Servicio de Anatomía Patológica 	<ul style="list-style-type: none"> • Víctor Jiménez Yuste, jefe de Servicio de Hematología • Alberto Berjón García del Servicio de Anatomía Patológica
6 th April	Terapia dirigida en las anomalías vasculares congénitas	<ul style="list-style-type: none"> • Juan Carlos López Gutiérrez, jefe de Sección de Cirugía Pediátrica • Marta Feito Rodríguez, del Servicio de Dermatología, • Víctor Martínez González, del Servicio de Genética. 	<ul style="list-style-type: none"> • Juan Carlos López Gutiérrez, jefe de Sección de Cirugía Pediátrica.
30 th March	Tele-Dermatología: acercando el Hospital a las Residencias de Personas Mayores	<ul style="list-style-type: none"> • Rocío Menéndez Colino, Servicio de Geriatría-Ana Merello de Miguel, Servicio de Geriatría • Elena Sendagorta Cudos, Servicio de Dermatología 	<ul style="list-style-type: none"> • Juan Ignacio González Montalvo, Jefe de Servicio de Geriatría • Pedro Herranz Pinto, Jefe de Servicio de Dermatología
16 th March	Crioablación en cáncer de mama como expectativa de tratamiento	<ul style="list-style-type: none"> • Jose María Oliver, Jefe de Sección Servicio de Radiología • José Ignacio Sánchez-Méndez, Jefe de Sección Servicio de Ginecología • Laura Yébenes, Servicio de Anatomía Patológica 	<ul style="list-style-type: none"> • Gonzalo Garzón, Jefe de servicio de Radiología • David Hardisson, Jefe de Servicio de Anatomía Patológica • Alicia Hernández, Jefa de Servicio de Ginecología
9 th March	Medicina Interna-Urgencias, ejemplo de atención coordinada y multidisciplinar	<ul style="list-style-type: none"> • Alicia Lorenzo Hernández, del Servicio de Medicina Interna • Rosario María Torres Santos-Olmo y Angélica Rivera Núñez coordinadoras del Servicio de Urgencias. 	<ul style="list-style-type: none"> • Angélica Rivera Núñez, Servicio de Urgencias
2 nd March	La agenda de salud sostenible del Hospital La Paz	<ul style="list-style-type: none"> • Susana Reverter Vázquez, jefa de la Oficina de Sostenibilidad y Agenda 2030 del hospital • Ángel Abad Revilla, adjunto a la Gerencia • Jaime Fernández de Bobadilla Osorio, del Servicio de Cardiología y presidente de la Comisión Antitabaco del hospital. 	<ul style="list-style-type: none"> • Susana Reverter Vázquez, Jefa de la Oficina de Sostenibilidad y Agenda 2030 del hospital
23 rd February	Varón de 46 años, con insuficiencia renal	<ul style="list-style-type: none"> • Juan José Ríos Blanco del Servicio de Medicina Interna • Clara Cabañuz, del Servicio de Anatomía Patológica. 	<ul style="list-style-type: none"> • Carmen Fernández Capitán, jefa de Servicio de Medicina Interna • M^a del Carmen González, del Servicio de Anatomía Patológica
16 th February	Bloque quirúrgico de Ginecología: Mejorando estándares en calidad y seguridad	<ul style="list-style-type: none"> • Jaime Siegrist Ridruejo, del Servicio de Ginecología • Eduardo Alonso Yanci del Servicio de Anestesiología y Reanimación • Ana López Abuja, enfermera de quirófanos del Hospital Maternal 	<ul style="list-style-type: none"> • Alicia Hernández, jefa de Servicio de Ginecología • Francisco Reinoso jefe de Servicio de Anestesiología y Reanimación Infantil • Esther Rey Cuevas directora de Enfermería del Hospital



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9 th February	Abordaje multidisciplinar de las intolerancias y alergias alimentarias	<ul style="list-style-type: none"> • Alicia Lorenzo Hernández, del Servicio de Medicina Interna • Rosario María Torres Santos-Olmo y Angélica Rivera Núñez coordinadoras del Servicio de Urgencias. 	<ul style="list-style-type: none"> • Angélica Rivera Núñez, Servicio de Urgencias
2 nd March	La agenda de salud sostenible del Hospital La Paz	<ul style="list-style-type: none"> • Susana Reverter Vázquez, jefa de la Oficina de Sostenibilidad y Agenda 2030 del hospital • Ángel Abad Revilla, adjunto a la Gerencia • Jaime Fernández de Bobadilla Osorio, del Servicio de Cardiología y presidente de la Comisión Antitabaco del hospital. 	<ul style="list-style-type: none"> • Susana Reverter Vázquez, Jefa de la Oficina de Sostenibilidad y Agenda 2030 del hospital
23 rd February	Varón de 46 años, con insuficiencia renal	<ul style="list-style-type: none"> • Juan José Ríos Blanco del Servicio de Medicina Interna • Clara Cabañuz, del Servicio de Anatomía Patológica. 	<ul style="list-style-type: none"> • Carmen Fernández Capitán, jefa de Servicio de Medicina Interna • M^a del Carmen González, del Servicio de Anatomía Patológica.
16 th February	Bloque quirúrgico de Ginecología: Mejorando estándares en calidad y seguridad	<ul style="list-style-type: none"> • Jaime Siegrist Ridruejo, del Servicio de Ginecología • Eduardo Alonso Yanci del Servicio de Anestesiología y Reanimación • Ana López Abuja, enfermera de quirófanos del Hospital Maternal. 	<ul style="list-style-type: none"> • Alicia Hernández, jefa de Servicio de Ginecología • Francisco Reinoso jefe de Servicio de Anestesiología y Reanimación Infantil • Esther Rey Cuevas directora de Enfermería del Hospital
9 th February	Abordaje multidisciplinar de las intolerancias y alergias alimentarias	<ul style="list-style-type: none"> • Silvia Gómez Senent, del Servicio de Aparato Digestivo • Ana Fiandor, del Servicio de Alergología • Beatriz Rodríguez Vega del Servicio de Psiquiatría y Samara Palma del Servicio de Endocrinología y Nutrición. 	<ul style="list-style-type: none"> • Pedro Mora, Jefe de Servicio de Aparato Digestivo
2 nd February	Avances en el tratamiento de la carcinomatosis peritoneal	<ul style="list-style-type: none"> • Ismael Ghanem Cañete, Servicio de Oncología Médica • Mará Claudia Pulido Rozo, Servicio de Radiología • Omar Alejandro Cervera Gil, Servicio de Anestesia • Santiago Valderrábano González, Servicio Cirugía General • Isabel Prieto Nieto, Servicio Cirugía General 	<ul style="list-style-type: none"> • Constantino Fondevila Campo, Jefe de Servicio Cirugía General • Juan Pedro Pérez Robledo, Servicio Cirugía General
26 th January	Clave en el paciente crónico con complejidad	<ul style="list-style-type: none"> • Begoña Ortiz Ortega, enfermera • Antonio Polo Lucero, Continuidad Asistencial 	<ul style="list-style-type: none"> • Esther Rey Cuevas, Dirección Enfermería
19 th January	Varón 54 años con pancreatectomía tumoral e insuficiencia hepática	<ul style="list-style-type: none"> • Ana Custodio, del servicio de Oncología Médica y Víctor Baena Romero, del servicio de Anatomía Patológica. 	<ul style="list-style-type: none"> • Jaime Feliú, Jefe de servicio de Oncología Médica, y Alberto Berjón García, del servicio de Anatomía Patológica.
12 th January	Manejo de la hiperglucemia en el hospital	<ul style="list-style-type: none"> • Noemí Pérez de Villar, del servicio de Endocrinología, Begoña Ortiz Ortega, de la Unidad de Atención Domiciliaria • Ana Laila Qasem Moreno, del servicio de Análisis Clínicos. 	<ul style="list-style-type: none"> • Lucrecia Herranz, Jefa de Servicio de Endocrinología • Miguel Amengual, Subdirector Médico



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2.3.4.5. Another Scientific activities

13th December 2022: clIBIS Presentation



14th November 2022: Presentation Scientific Report 2021



15th December 2022: 4th PhDay IdiPAZ

Best thesis award: clinical research category

Marta Pacio Miguez

"Implementación de un protocolo secuenciación rápida del exoma completo en pacientes pediátricos ingresados en unidades de cuidados intensivos del Hospital Universitario La Paz".

Best thesis award: first stage traslational research category

Laura Clares Villa

"BrainTRUCK: Turning CAR T therapy into iIL18 TRUCK as treatment for pediatric Central Nervous System tumors".

Best thesis award: advanced stage traslational research category

Marta Cadenas Martín

"Generación de córnea biomimética con células madre mesenquimales de tejido adiposo".





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2.3.5 SCIENCE AND SOCIETY-SCIENTIFIC OUTREACH INITIATIVES

The Unit of Scientific Culture and Innovation of IdiPAZ (UCC+i) has the aim of dissemination of science and innovation performed in our institution and as a key service to increase the scientific education and culture, to promote scientific vocations and innovative talent, to communicate researchers' findings, and to foster research among new generations, knowledge the population and patients.

Unit of Scientific Culture and Innovation of IdiPAZ

Members:

- Paloma Gómez Campelo
- Aitana López Redondo
- Lucía Medina Royo
- Gema Vallés Pérez
- Estela Sánchez Simón
- Daniel Quijada Alcón
- Santiago Rello Varona
- Ana Sastre Perona
- María Gutiérrez Fernández

IdiPAZ participated in the International Day of Women and Girls in Science, to promote full and equal access and participation in science for women and girls. Gender equality is a global priority for UNESCO, and the support of young girls, their education, and their full ability to make their ideas heard are levers for development and peace. This year was focus on the role of Women and Girls and Science as relates to the Sustainable Development Goals namely Sustainable Development Goals 5 (Achieve gender equality and empower all women and girls) and Sustainable Development Goals 10 (Reduce inequality within and among countries).



The infographic features a stylized illustration of a woman's head filled with colorful brain activity. To the right, there are five circular portraits of women. Below the portraits is a section titled "MENSAJE CONTRARIO" with the names and titles of five women: Cristina Calvo, Esther Rez, María Victoria, Nuria Martínez, and Paloma Gómez. At the bottom, there is contact information for "IdiPAZ Science".

Also, IdiPAZ participated in the 23rd edition of the Madrid Science and Innovation Week and in the European Researchers' Night.



In 2022, IdiPAZ development **Ciencia por la Calle** an initiative through which scientific dissemination activities were organized for society in general. All these activities are free of charge and allow attendees to learn first-hand about R&D&I and the institution's researchers through talks in schools, workshops, fast meetings, guided tours, etc.



Rocío Muñoz de la Cruz, Responsable de la Plataforma de Encuentro, Kilian Gutiérrez Pérez, Responsable del Laboratorio de Química de R&D, María Teresa Vallejo-Cremades, Responsable de la Unidad de Fisiología e Inmunofisiología.

Gema Vallés Pérez, Coordinadora de Laboratorios Comunes, Ana Sofía Perea, Investigadora Miguel Servet, Aitana López Redondo, Ensayos de GC3 y Agosto 2020.



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Date	Activity
10 th February	International Day of Women and Girls in Science: Workshops and activities held in schools. Scientific seminar: women in IdiPAZ Cristina Calvo Esther Rey Nuria Vilaboa Bárbara Martínez Paloma Gómez
8 th March	Ciencia por la calle: International Women's Day: Workshops and activities held in schools. Mayte Vallejo Rocío Mena Gema Vallés Aitana López Paloma Gómez

31st May
21st June
Ciencia por la calle: Humanising Science- Workshops and activities held in schools.

Gema Vallés
Ana Sastre
Aitana López



Aitana López
Rocío Mena
Kilian Gutiérrez

10th November
17th November
Science and Innovation Week: Light and colour to track the molecular footprints of disease in our cells

Onys Ortega
Mayte Vallejo

15th November
Science and Innovation Week: Separating the wheat from the chaff: How to find an oasis in the information desert.
Raúl Román

8th November
10th November
Science and Innovation Week: CULTIVATE

Gema Vallés
Lucía Aceró
Ana Sastre



16th November
Science and Innovation Week: The future needs the best ...biobanqueros!

Paloma Gómez
Yaiza Pedroche
Sandra Nieto
Celia García
Laura Córdoba



15th November
Science and Innovation Week: Recruitment in Research
María Quintanar
Juan Ángel Fresno



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2.4 Innovation and Transfer Activities

2.4.1. INNOVATION AND TRANSFER ACTIVITIES

The Innovation Support Unit (or Innovation Unit), UAI, of FIBHULP was created in June 2010 within the framework of the ITEMAS Network –currently called ITEMAS Platform- of the Carlos III Institute of Health. Since its creation, the Innovation Support Unit has contributed to promoting and protecting innovative/ground breaking research conducted by IdiPAZ. The Innovation Unit also intends to harness our institute's considerable innovative potential generated, as a step prior to its subsequent transfer to society.

Therefore, one of the main commitments of the Innovation Unit is that researchers and health personnel perceive it as a resource at their service, to provide support and advice in all that relates to the identification, management, protection, transfer, marketing and dissemination of their research results.

Activities

The main aim of the Innovation Support Unit is to identify the potential transferable research results generated within our institute and to accompany and support the researcher throughout the whole innovation process: from the birth of the idea to its placement on the market.

Since the Innovation Unit has been in operation, several projects sponsored by the institute itself have been managed and different collaboration agreements have been signed with important private institutions and organisations to promote innovation.

Our main objectives are:

- Promoting a culture of innovation and entrepreneurship within the institute by fostering the generation of innovative ideas and solutions that meet the needs of patients and society, in general, and supporting their development through various initiatives.
- Actively searching and identifying knowledge and research results emerged within the institute and transferable to the market.
- Fostering and managing the protection and transfer of knowledge and research results to society and promoting

the current technology portfolio of the institute while getting an economic return which allows its reinvestment in research and development.

- Promoting the participation of industry in the innovation process acting as a stakeholder actively involved in it.
- Formalising business alliances, including technology companies as well as industrial and financial partners, to develop collaborative projects and to transfer the results to the market.
- Generating resources that achieve the greatest impact on society, enabling a better quality health care and at the same time contributing to the sustainability of the National Health System.
- Boosting a fruitful collaboration among all entities that make up the ITEMAS Platform.

In the last years the UAI has definitely consolidated its presence and visibility in the whole environment Hospital-Institute. Its impact in the Hospital has been strengthened by the creation of both the Innovation Platform and the Innovation Committee as two linked structures within the organisation. The Innovation Platform is an initiative launched from the Hospital's Management Board in order to promote, extend, enhance and stimulate



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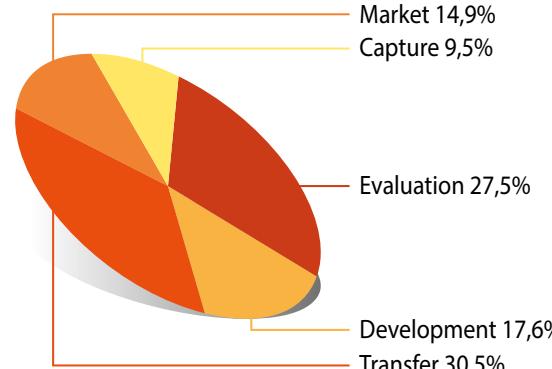
innovation throughout the Hospital. The main mission of the Innovation Platform is to build a culture of innovation among all Hospital and Institute staff. The Innovation Unit is integrated into this platform as its main driver and, as such, it establishes its objectives and marks its lines of action and will be responsible for channelling the entire workload. It also forms part of the Innovation Committee, a decision-making body on the ideas to be supported by FIBHULP.

Among the greatest achievements of the Innovation Support Unit are the following:

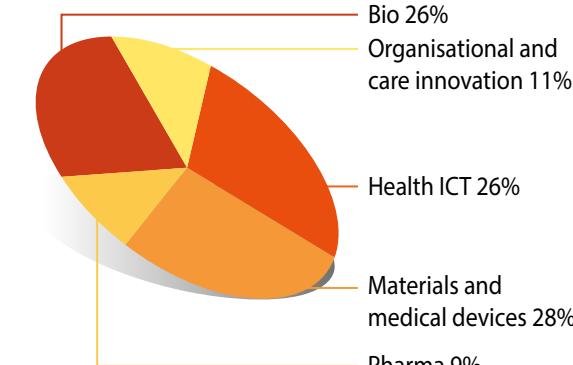
1. The UAI has become one of IdiPAZ's most in-demand and requested platforms as it is responsible for promoting, supporting and managing all innovation projects.

At December 31 2022 the UAI had 262 innovation projects or ideas in active state, 25 of which were in the capture phase, 72 in the evaluation phase, 46 in development, 80 in transfer and 39 in the market. According to these data, it follows that 15% of the projects have been successfully exploited and positioned in the market, a very positive percentage (although far lower than the aspired figure) given the precariousness of the times we go through and the resources (both human and financial) with which the UAI counts. The analysis of IdiPAZ's technology portfolio according to the type of project show how Health ICT, Bio and Medical Device, and Materials and Devices types stand out above the others, with practically the same number of projects for all three types.

UAI PORTFOLIO BREAKDOWN BY PROJECT DEVELOPMENT PHASE (2022)



UAI PORTFOLIO BREAKDOWN BY PROJECT TYPE (2022)

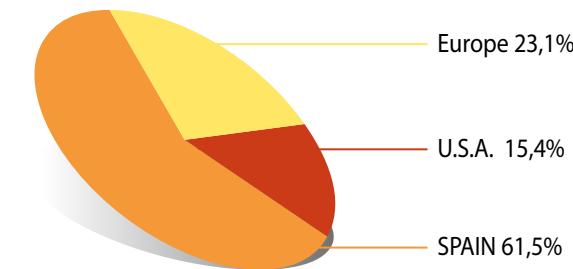


2. The UAI has built a wide and diverse technology portfolio. Each year the number of innovation projects managed by the UAI increases with respect to the previous year, also increasing the number of Hospital services, research groups and professionals in general who join IdiPAZ's innovation community.

During 2022 the UAI filed 3 priority patents (one Spanish patent and two European patents), 1 PCT and 3 national or regional phase entry applications (2 at the EPO, 1 at the USPTO), and one U.S. patent was granted.

UAI's portfolio of patent families in active state during the period 2022 reached the figure of 13 patent families (8 of them with Spanish priority, 3 of them of European priority and 2 of them having US priority).

PRIORITY OF IdiPAZ's PATENT FAMILIES IN FORCE DURING 2022

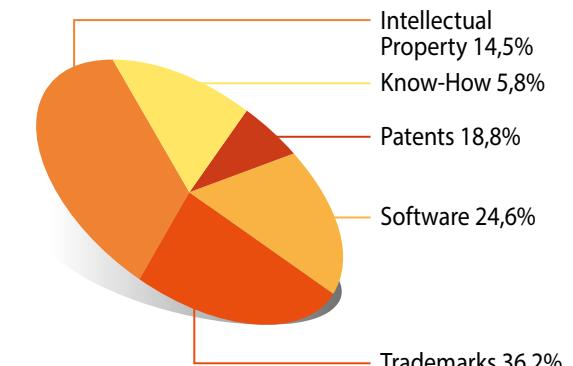


As for the software, during the period 2022 IdiPAZ had 17 computer software registered. The period of 2022 has been remarkable in this aspect, protecting 5 new computer softwares.

Special mention should also be made to the UAI trademark portfolio. During the period 2022, 1 Spanish and 1 European trademark applications were filed and 1 European trademark was granted. The total number of trademark families active and in force during 2022 was 25.

The total tally of Intellectual Property figures in force during 2022 is the following 13 patent families, 17 SW, 25 trademark families, 10 IP Works and 4 know-how.

TOTAL TALLY OF IP LEGAL FIGURES IN FORCE DURING 2022



It is important to note that these trademarks, besides allowing IdiPAZ to distinguish its products or services from competitors' products or services, are associated with the know-how of the institution, know-how that has been transferred along with the distinctive sign in the case of the license agreements signed by the institution in respect of trademarks.

3. The UAI has prepared a catalogue of technology offers -based on specification sheets-, which includes the complete portfolio of exploitable IdiPAZ results. This catalogue aims to promote the transfer of IdiPAZ's technology portfolio to the industrial sector, generate collaborative projects for technological development and foster the exploita-



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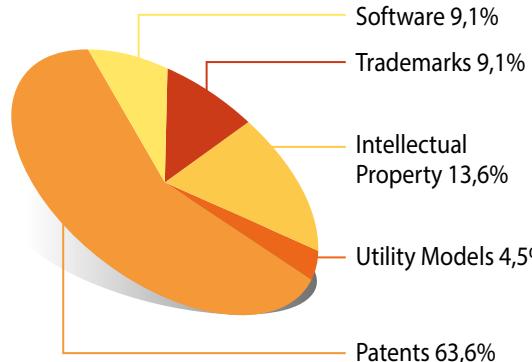
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tion of research results. Those validated specification sheets are published on IdiPAZ's website. The catalogue is updated as the Institute's technology portfolio grows.

4. The UAI has been, is, and will continue to be the principal architect for the transfer and exploitation of IdiPAZ's technology portfolio. During 2022, the UAI succeeded in signing 17 license agreements -16 of which related to intellectual property works and 1 to know-how- and the portfolio of licensed or commercially exploited inventions reached the figure of 23 technologies, 14 patents, 1 utility model, 2 SW, 2 trademarks, 3 IP Works and 1 know-how.

TECHNOLOGIES LICENSED OR IN COMMERCIAL EXPLOITATION (2022)



5. Thanks to UAI's support and management it has been possible to create and consolidate the first technology-based company of the Hospital (and also of the region of Madrid) according to the regulations established by the Department of Health of the Community of Madrid. The spin-off concerned, Biomedical Molecular Medicine, exploits the research results in oncology –specifically, a genomic test to determine whether breast cancer patients should have chemotherapy – designed by some members of IdiPAZ. As of 31 December 2022, 4 spin-off projects existed and were being managed by the UAI, 2 of which were expected to be set up in the short-medium term.

6. Through the promotion of a culture of innovation, the UAI has managed to create a large community of in-

novative professionals. Over the last year, its promotional activity has consisted in the celebration of several working days, workshops, seminars, etc. Among all the promotional activities organised, the following stand out:

- 1st Quality Commission Training Day: "Cómo sobrevivir a una auditoría de calidad". 16/02/2022. 13:30-14:45.
- 2nd Quality Commission Training Day: "Indicadores de calidad, en busca del indicador perfecto". 20/04/2022. 13:30-14:45.
- Workshop: Seminars for the preparation of the AES proposal: Scientific data management plan. Data Protection. 03/02/2022. 09:00-10:30

In addition, the UAI has collaborated with important institutions and private entities to promote innovation, in particular, it has participated in various forums and round tables organized by various stakeholders of the biomedical sector.

7. The UAI has succeeded in creating a wide-ranging network of contacts. By virtue of its membership in the ITEMAS Platform, the Unit has continued to strengthen ties and creating synergies with the members of this Platform in order to achieve its established objectives.

Apart from the above results, it is important to highlight the increasing amount of innovation projects managed by the Innovation Unit that has been awarded with prestigious awards and aids. The following are some of the projects that won grants or awards during 2022:

- A) Doctor Gerardo Ruiz Ares was awarded the third scientific award "TecnoSEN" for the development of a software to improve communication among patients with post stroke aphasia. User satisfaction and feasibility.
- B) Three projects whose PI belong to IdiPAZ have received the XIX Grants for Health Research, given by La Fundación Mutua Madrileña. Among those projects, "Immunotherapy in lung cancer" is a remarkable project in the Oncology field, led by Doctor Javier de Castro, director of the research group "Experimental therapies and cancer biomarkers" at IdiPAZ. The project aims to identify new genetic and epigenetic mechanisms related to the immunotherapy resistance in the most common cancer treatment for a specific profile of patients.

C) Doctor Blanca Fuentes, leader at the Neurology section and coordinator of the Stroke Unit at the Hospital Universitario La Paz, was awarded with the Innovadoras Award 2022 by Proyecto Dulcinea as the best innovative solution with a digital or technological component.

D) NeoHeart Predictor project, from María Carmen Bravo Laguna, researcher at the Neonatology group, was one of the 5 finalists at the VI edition of the Premios HealthStart Madri+d. NeoHeart Predictor is an AI based assistant software supporting decision making in drug administration to newborn babies in order to re-establish blood flow. HealthStart Madri+d, from the Fundación para el Conocimiento Madri+d, aims to boost start-up creation in the health technology fields at the hospital environment.

E) Fundación Mapfre awarded Ana María Méndez Echeverría, researcher at IdiPAZ (Hospital Universitario La Paz) and at the Centro de Investigación en Sanidad Animal del Instituto Nacional de Investigación y Tecnología Agraria y Alimentaria (CISA-INIA-CSIC). In her study, she developed a survey for vets in order to identify the risks and give advice to the immunosuppressed patients that own a pet (mainly cat or dog).

8. On the other hand, it is important to mention a sudden event that had happened in the last year, 2022. It was based on the fact that FIBHULP has introduced ciBIS, the cluster of researching platforms creating a central Unit of clinical-health research and Clinical trials (UCICEC by its Spanish acronym), biobank and innovation platform, recognised by ISCIII. These three platforms by La Paz-IdiPAZ works in coordination with three other matrix platforms by Institute of Health Carlos III (ISCIII) such as Supporting Unit to support of researching clinical Investigation, biobanks platforms, Biomodels and the ITEMAS platform to endure the innovation and boost the industrial abilities of the National Spanish Health System. The Key effort of this unit is the creation of an innovative culture and the dissemination and diffusion of the main ideas building a brand-new strategy to entrepreneurs in the health field. All of this had happened thanks to the work of UAI. As a consequence of it, there was a development of a new portfolio of intellectual property with more



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than 40 patent families, brands, trademarks, licences, and corporate agreements including spin-off. Currently the main targets have been set in order to promote the transfer of the value in all the scenarios around the health field, General Practitioners, health research Institutes, universities and independent entrepreneurs exclusively within the Community of Madrid.

Another great milestone achieved is a better connection between the patient and the professional: The Medical Oncology Service of the Hospital Universitario La Paz, together with the medical technology company Cureety, launches the Enlace project. This is a telemedicine solution that will allow remote monitoring of adult cancer patients from La Paz, regardless of their tumor and treatment. The project will make it possible to assess whether this type of digital solutions should be incorporated into regular care practice. The tool aims to reduce barriers between the patient and health professionals by allowing the continuity of medical care and a better connection between them. Moreover, it is focused on the patients, reducing their vulnerability and enhancing their autonomy. The head of the Medical Oncology Service, Jaime Feliu, together with Javier de Castro, lung cancer specialist and Innovation coordinator, and Patricia Cruz, oncologist from the Thoracic Oncology team, have coordinated the implementation of this platform through the Unit of Support for Innovation from IdiPAZ, the Research Institute of Hospital La Paz.

Organisation



Since its implementation, the Innovation Support Unit has been integrated into the organisational structure of FIBHULP, as one of the Support Platforms for IdiPAZ research.



The Innovation Unit is directed by Dr. Javier de Castro Carpeño, M.D. and Ph.D. in Medicine and he's a member of the Medical Oncology Department of the La Paz University Hospital, Autonomous University of Madrid and of the Translational Oncology Unit of IdiPAZ.

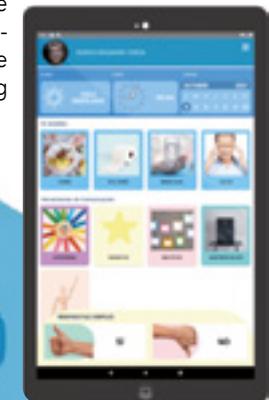
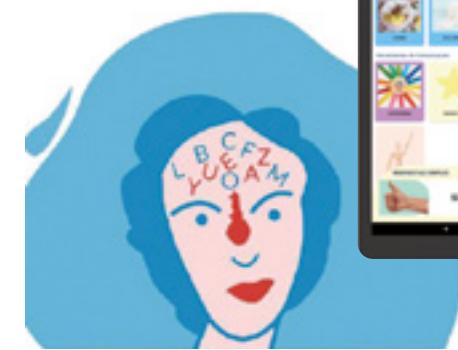
10. The UAI helps projects based on virtual reality to materialize into clinical practice: The Hospital Universitario La Paz in Madrid leads a pioneering project to improve the stay of patients admitted to the Pediatric Intensive Care Unit (PICU) through a virtual reality tool that simulates outdoor spaces. Specifically, through the Eyes On Picu tool, the child's stress caused by long-stay admissions is reduced, the perception of pain is reduced and it allows motor or cognitive rehabilitation processes to be optimized.

On the other hand, La Paz University Hospital has implemented 'Virtual Transplant Reality (VTR)', a pioneering project created with the aim of improving the quality of life and psycho-emotional well-being of pediatric liver transplant patients and their families through experiences in virtual and augmented reality. Controlled at all times by a psychologist, 'VTR' is a technological platform that incorporates and manages virtual and augmented reality experiences where, through games and narrative and interactive techniques, immersive worlds are created, adapted to the problems of each patient.

11. Increased collaborations with industry: Kairós DS and the Instituto de Investigación Sanitaria del Hospital Universitario La Paz (IdiPAZ) have joined forces to help patients suffering from post-stroke aphasia through the VerbalizApp platform. In Spain, 25,000 new cases of aphasia are diagnosed each year, a language disorder characterized

by the inability or difficulty in communicating through speech, writing or mimicry. It is caused by a wide variety of events, from strokes, head injuries or brain tumors, to even the most serious cases of COVID-19. To combat it, Kairós DS and IdiPAZ have joined forces to help patients suffering from post-stroke aphasia through the VerbalizApp platform.

The new app promotes communication and the recovery of patients with language disorders from the acute phase of the stroke. The use of artificial intelligence and machine learning can help recovering the communication skills of these patients. "With projects like this we can really change things, helping people and their families"



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2.4.2. PATENTS AND TRADEMARKS



Neurosciences Area

Psychiatry and Mental Health Group

Rodríguez Vega B, authors; FIBHULP, assignee. Brand name: En calma; ESM 3.695.071; 2017 December 12.



Rodríguez Vega B, Mediavilla Torres R, Bravo Ortiz MF, Muñoz San José A, Bayón Pérez C, Lahera Forteza G, Palao Tarrero A. authors; FIBHULP, assignee. Brand name: SocialMind; ESM 3.748.550; 2018 December 17.



Neurology and Cerebrovascular Diseases Group

Valdivieso Amate F, Bullido Gómez-Heras MJ, Martínez García A, in-

ventors; UAM, assignee. Method of identifying compounds that induce or inhibit endoplasmic reticulum stress or oxidative stress. P200702997, PCT/ES2008/000705, EP2221379, US20100304384; 2007 November 13.

Vergés Milano J, García García A, Ruhí Roura R, Montell Bonaventura E, García López M, Aláez Versón CR, Escaich Ferrer J, Egea Maíquez J, Lorrio González S, Negredo Madrigal P, inventors; BIOIBERICA S.A., UAM, assignees. Sulphated disaccharides for the treatment of neurodegenerative and/or neurovascular diseases. P200902399, PCT/EP2010/070613, US20120309707, CA20102785237; 2010 December 22.

Valdivieso Ámate F, Burgos Muñoz JS, Ramírez Moreno C, Sastre Merlin I, inventors; UAM, CSIC, assignees. Method of identifying therapeutic compounds which can be used for the treatment and/or prevention of infections and diseases caused by human herpes viruses. P200400965, PCT/ES2005/000209, EP1769677, US20070218004, AT447321, AU2005235319, CA2562787, JP2007533315; 2004 April 21.

Valdivieso Ámate F, Montoliú JL, Pozueta Larios J, inventors; UAM,

CSIC, assignees. Alzheimer's disease animal model, method for obtaining same and uses thereof. P200503002, PCT/ES2006/000673, EP1956091, EP20060841725, US20090222932, CA2638983, JP2009517066; 2005 December 02.

Ballesteros García P, López Larribia P, Domínguez Mateo L, Marco Contelles JL, Cerdán García-Esteller S, inventors; Universidad Nacional de Educación a Distancia, CSIC, assignees. Set of magnetic resonance imaging and spectroscopy cell acidity extrinsic indicators comprise polyol derivatives based on aldolitols. P200300936; 2003 April 23.

Gil Martínez A, author; FIBHULP, assignee. Brand name: Specular Face; ESM 4.022.981; 2019 June 10.



Egea Maíquez FJ, Farré Alins V, Palomino Antolín A, Narros Fernández P, Martins Rosa J, Parada Pérez E, Hernández García BJ, Roda Fra-de JM, Yus Teruel S, Lagares Gómez-Abascal A, Sánchez Carabias C, Gandia Juan L, inventors; Fundación Hospital La Princesa, FIBHULP, Fundación Hospital 12 de Octubre, UAM, assignees. Method for determining the progression of acute brain damage and pharmaceutical composition for its treatment. P202031194; 2020 November 30.

Gil Martínez A, Gil Castillo J, inventors; FIBHULP, Centro Superior de Estudio Universitarios La Salle, Javier Gil Castillo, assignees. Dispositivo de medición y/o entrenamiento de la fuerza o presión de los músculos de la cavidad oral y su uso para rehabilitación. MU 1201U MU202230128. 2022 July, 26.

Neuroprotective Strategies in Neurodegenerative Diseases Group

Cuadrado Pastor A, Innamorato NG, inventors: CSIC, UAM. Use of sulforaphane as supplementary therapy for early-stage neurodegenerative disease. P201231693; 2012 November 06.

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Cardiovascular Area

Research on Invasive Clinical Cardiology- ICCI-PAZ Group

Riera del Moral LF, inventor; FIBHULP, assignee. Aortic endoprosthesis for the treatment of aneurysm. P201231638, PCT/ES2013/070712; 2012 October 24.

Filgueiras Rama D, López de Sá y Arese E, Millet Roig J, Calvo Saiz CJ, inventors; Centro Nacional de Investigaciones Cardiovasculares Carlos III (CNIC), FIBHULP, Universidad Politécnica de Valencia, assignees. Method of predicting or prognosticating neurological performance in patients who have suffered a cardiac arrest and optionally comatose status due to ventricular fibrillation. PCT/EP2015/076893, EP3020333; 2014 November 17.

Castro Conde A, author; FIBHULP, assignee. Trademark name: RECAR Programa de Rehabilitación Cardíaca; CM 18457042; 2021 April 20.



Coagulopathies and Alterations of Hemostasis Group

Nora Butta JY. Trademark name: WELCOME von willebrand active e-learnig course. CM M4190835; 2022 November 8.

Arias-Salgado, MT Álvarez Román, V Jiménez Yuste, N Butta Coll, García Rivera FJ, García Rivera MC, Carballo García MA, inventors. FIBHULP, García Rivera Mª Carmen, Carballo García Mª Ángeles, assignees. Dispositivo de recogida de muestras biológicas. P202230651. 2022 July 22.

Vascular Physiology and Pharmacology Group

Pérez Girón JV, Ruiz-Castellanos MJ, de Luis Jiménez O, Pérez Boto V, Sanz González R, Hernández Vélez MC, Mas Gutiérrez JA, Alonso Gordo MJ, Salaices Sánchez M, Ros Pérez M, Coloma Jerez A, Asenjo Barahona A, Sanz Montaña JL, Puente Prieto J, Jensen J, inventors; NANOATE, S.L., assignee. Method for producing biosensors. P201031224, PCT/ES2011/070536; 2010 August 05.

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leggie



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Infectious Diseases and Immunity Area

AIDS and Infectious Diseases Group

Romero Gómez M, Solá Lamoglia R, González García JJ, inventors; Servicio Andaluz de Salud, Universidad de Sevilla, Fundació Institut Mar D'Investigacions Mèdiques, FIBHULP, assignees. Kit for decision making in patients with Hepatitis C genotypes 1 and 4. P201330731; 2013 May 21.

Molecular Microbiology Group

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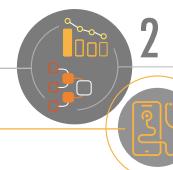
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Large System Pathologies Area

Organic Dysfunction and Failure in the Aggression Group

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Translational Hepatology

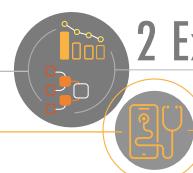
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Cancer and Human Molecular Genetics Area

INGEMM- Institute of Medical and Molecular Genetics Group

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Associated Clinician

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Surgery, Transplant and Health Technologies Area

Bone Pathophysiology and Biomaterials Group

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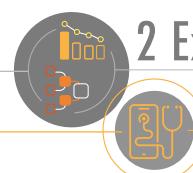
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2.4 Innovation and Transfer Activities

Associated Clinician

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2.4 Innovation and Transfer Activities



Maternal Infant Child and Youth Research Area

Neonatology Group

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Translational Research in Pediatric Oncology, Hematopoietic Transplantation and Cell Therapy Group

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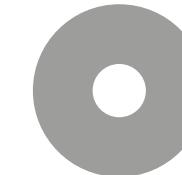
Congenital Malformations and Transplantation

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Associated Clinician

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Instituto de Investigación
Hospital Universitario La Paz

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Centro Avanzado de Simulación
y Entrenamiento Clínico



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2.5 Quality Committee



IdiPAZ maintains its goal, which is to become a reference centre for multidisciplinary translational biomedical research at national and European level. To achieve this objective, the institution combines its efforts to ensure the quality of all its processes, thus ensuring the provision of the best service, research and teaching.

IdiPAZ is committed to a comprehensive quality model backed by the maturity of the quality management teams of the IdiPAZ institutions. To support and facilitate the corporate integrated management system, the institution maintains a Quality Committee.

During 2022, the Quality Committee fostered these principles but also achieved specific goals. According to the current working plan the IdiPAZ integrated management system has been maintained once more under the requirements of the ISO 9001:2015 (<https://www.aenor.com/certificacion/certificado/?codigo=170675>) and the UNE 166002:2021 (<https://www.aenor.com/certificacion/certificado/?codigo=184564>) and its scope has been reviewed for the unit giving support to projects application and the unit in charge of the scientific production and communication management.

Delivery of certificates



6th April 2022



14th December 2022

Moreover, for a second year in a row specific training webinars were developed by the Committee in order to strengthen the competence of IdiPAZ members in quality management, thus ensuring the sharing of best practices among them. These webinars are accessible at IdiPAZ website: <https://idipaz.es/PaginaDinamica.aspx?dPag=20&Lang=ES>

Finally, considering that IdiPAZ is a continuously evolving organisation, the Quality activities of our institution have been enriched by the different achievements made by its member organizations.

The Hospital Universitario La Paz has attended to the remaining challenges of the COVID-19 pandemic, and also managed to develop and review several protocols, clinical pathways and clinical practice guidelines. The attached tables show the clinical pathways reviewed in 2022 as well as the protocols developed or updated in the same period. In addition, the staff members continuously collaborate in the improvement of the institution by participating in clinical committees and creating improvement groups, as well as implementing satisfaction surveys for patients and professionals. Also during 2022 hospital departments' quality management have consolidated in an overall management system according to the several national and international ISO standards. The hospital has also several recognitions within the Spanish National Accreditation System for Reference Units and the European Commission's European Reference Networks.



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Protocol/Clinical pathway	Status
Acondicionamiento en Trasplante Alogénico en hemopatías malignas	Updated
Actuación frente a posible RAM en Cirugía pediátrica	New
Actuación trabajadores sintomáticos y contactos estrechos de COVID-19	Updated
Administración de Nutrición Parenteral en la Unidad de TPH	Updated
Alergia al dializador	Updated
Alimentación oral en pacientes sometidos a TPH	Updated
Alosensibilización trasplante cardiaco de adultos	New
Antiagregación y anticoagulación en los procedimientos de Aparato Digestivo	Updated
Anticoagulación en procedimientos de ablación	Updated
Asistencia a los pacientes trasladados desde el Hospital Infanta Sofía para realización de cateterismo cardíaco	Updated
Atención a la crisis epiléptica urgente en la Comunidad de Madrid	New
Atención a la enfermedad por reflujo gastroesofágico con Atención Primaria	New
Atención a la insuficiencia cardíaca comunitaria	Updated
Atención a la microftalmía y anoftalmía	Updated
Atención a la paciente con Síndrome de ovario poliquístico en las consultas de ginecología	Updated
Atención a la ptosis palpebral	Updated
Atención a las complicaciones post-endoscopia	New
Atención a las vasculitis necrotizantes sistémicas	Updated
Atención a pacientes con ingesta de cáusticos	New
Atención al Angioedema hereditario en Urgencias de Pediatría	New
Atención al Cáncer de endometrio	Updated
Atención al niños con mordedura de garrapata	Updated
Atención al paciente con acondroplasia	Updated
Atención al paciente con cáncer diferenciado de tiroides	Updated
Atención al paciente con colecistitis aguda	Updated

Atención al paciente con deformidades y ATM	New	Diagnóstico anatomopatológico de biopsias de próstata	Updated
Atención al paciente con diverticulitis aguda	Updated	Diagnóstico anatomopatológico de biopsias de pulmón	Updated
Atención al paciente con frenillo labial y frenillo lingual	New	Diagnóstico anatomopatológico de biopsias ginecológicas	Updated
Atención al paciente con hernia inguinal complicada	Updated	Diagnóstico anatomopatológico de citologías no ginecológicas y PAAF	Updated
Atención al paciente con hernia inguinal no complicada	Updated	Diagnóstico anatomopatológico de la mama	Updated
Atención al paciente con invaginación intestinal pediátrica	Updated	Diagnóstico del hidrops fetal	New
Atención al tromboembolismo intrahospitalario	New	Dispositivos de Asistencia Ventricular Izquierda de larga duración	Updated
Atención diagnóstico-terapéutica en hipertensión pulmonar	Updated	Donación cardíaca en asistolia controlada en el paciente pediátrico	New
Atención en la Unidad de aislamiento de alto nivel	Updated	ECMO	Updated
Atención en Urgencias a la mujer víctima de violencia sexual - VISEM	Updated	Ecocardiografía Fetal	New
Atención sanitaria a los niños con trastorno del espectro autista en la unidad de Urgencias pediátricas del Hospital Universitario La Paz	New	Ecografía de primer trimestre 11-13.6 semanas	New
Atención, tratamiento y seguimiento en angioplastias pulmonares	New	Enfermedad hemolítica del feto y recién nacido	Updated
Bacteriemia asociada a catéter de Hemodiálisis	New	Enfermedades del viajero menos prevalentes	Updated
Cambio de cánula sin sedación en pacientes con Esclerosis Lateral amiotrófica con Ventilación invasiva en domicilio	Updated	Enfermedades tropicales más prevalentes	Updated
Cataratas congénitas e infantiles	Updated	Evaluación endocrina en el postoperatorio inmediato tras IQ hipofisaria en adultos	Updated
Círculo transfusional	Updated	Funcionamiento de la consulta de vacunas del Servicio de Medicina Preventiva	New
Cirugía endovascular de aorta	Updated	Hipertensión pulmonar en el recién nacido	New
Código Sepsis	Updated	Hipertensión pulmonar en el RNPT	New
Comprobación en estudios electrofisiológicos y procedimientos de ablación con catéter	New	Hipertensión pulmonar en la DBP	New
Conciliación del tratamiento farmacológico en pacientes con disfagia	New	Hospitalización a domicilio de paciente quirúrgico de cirugía general y digestiva	New
Crioanalgésia para cirugía de Pectus Excavatum	New	Identificación de Jeringas en Anestesia Pediátrica	Updated
Crisis convulsiva/estatus epiléptico en niños > 1 mes	Updated	Identificación inequívoca en Neonatología	New
Cuidados de la pareja con una muerte perinatal	New	Implante y seguimiento de pacientes portadores de CRT-D	Updated
Derivación desde Atención Primaria a las consultas de Reproducción Humana Asistida	New	Implante y seguimiento de pacientes portadores de DAL	Updated
Desensibilización del paciente hiperinmunizado	New	Infección en paciente inmunodeprimido	Updated
		Infusión de Granulocitos	Updated



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Infusión de medicamentos CART	Updated	Optimización de terapias biológicas e inhibidores de diana específica	Updated	Recomendaciones preventiva manejo pacientes hospitalizados por COVID-19	Updated
Insulinización en el paciente hospitalizado	New	PAAF con control ecográfico en el Hospital Infantil	New	Recuperación intensificada (ERAS) en cirugía pancreática	Updated
Limpieza y desinfección de la UAT y el equipamiento de aféresis	Updated	Peritonitis en diálisis peritoneal	Updated	Regulación general de visitas y acompañantes de pacientes	Updated
Manejo anestésico en Cirugía Fetal	Updated	Plan de prevención y control de enterobacterias productoras de carbapenemas en el Hospital Universitario La Paz	Updated	Rehabilitación cardiaca "virtual" de los distintos programas: cardiopatía isquémica, insuficiencia cardiaca y fibrilación auricular	Updated
Manejo anestésico para trasplante pulmonar	Updated	Preacondicionamiento Farmacológico Preoperatorio en el Paciente Pediátrico con Disfunción Ventricular	Updated	Sedación consciente para procedimientos oftalmológicos con anestesia tópica	New
Manejo de antibioterapia en Neonatología	Updated	Prevecolon en Atención Primaria	New	Sedoanalgesia en procedimientos de ablación	Updated
Manejo de espondiloartritis	New	Prevención de bacteriemias relacionadas con la asistencia sanitaria. Manejo de dispositivos intravasculares	Updated	Seguimiento de polipos con Atención Primaria	New
Manejo de hiperglucemia hospitalaria	New	Prevención de la neumonía relacionada con la asistencia sanitaria	Updated	Seguimiento remoto de pacientes portadores de dispositivos	Updated
Manejo de inmunosupresión en pacientes con trasplante renal con infección COVID 19	New	Primera consulta en la Unidad de Ell pediatrica	New	Stents en endoscopia	Updated
Manejo de la artritis psoriásica	Updated	Proceso Asistencial Integrado (PAI) de Insuficiencia Cardiaca con Atención Primaria	Updated	Sujeción Física del paciente agitado	Updated
Manejo de la artritis reumatoide	Updated	Profilaxis a largo plazo en Angioedema hereditario	Updated	Técnicas de Punción Lumbar (PL) y Aspirado y biopsia de medula osea (MO) para pacientes con TPH	Updated
Manejo de la Enfermedad Inflamatoria Intestinal en Urgencias pediátricas	Updated	Punción de fistula arterio-venosa en Hemodiálisis	Updated	Test de hidrógeno en Gastroenterología infantil	Updated
Manejo de la esclerosis sistémica	New	Queratoplastias en niños	Updated	Transferencia segura de paciente Bloque quirúrgico Infantil	New
Manejo de la hiperpotasemia aguda	New	Realización de endoscopias fuera de la Unidad (quirófano, REA/UCI, Infantil)	New	Transición del paciente con patología hipotálamo-hipofisaria	Updated
Manejo de la hiponatremia	Updated	Realización de Polisomnograma nocturno	Updated	Traslado a UCI de pacientes en aféresis	Updated
Manejo de la monitorización UCIN	New	Realización de Tests de Latencias múltiples del sueño-Mantenimiento de vigilia	Updated	Tratamiento de la anemia tardía hiporregenerativa secundaria a isoimunización	Updated
Manejo de la persona con diabetes tipo 1 en el hospital	New	Realización de tinciones generales e inmunohistoquímicas en Anatomía Patológica	Updated	Tratamiento de las alteraciones palpebrales	Updated
Manejo de opioides en el hospital y centros de salud de atención primaria	Updated	Realización de VideoEEG	Updated	Tromboprofilaxis de sustitución anticoagulante/antiagregante en paciente quirúrgico y/o sometido a intervencionismo	Updated
Manejo de Vía Aérea Difícil	Updated	Recepción de hemoderivados procedentes del Centro de Transfusión	Updated	Uso Seguro de Medicamentos en el Bloque Quirúrgico Hospital Infantil	Updated
Manejo del lupus eritematoso sistémico	New	Rechazo agudo del trasplante renal	Updated	Vacunación en pacientes pediátricos con Ell crónica	New
Manejo en caso de cribado de cérvix anómalo	Updated	Recogida de muestras para estudio de portadores en los RN ingresados en el Servicio de Neonatología	New	Vía clínica de cáncer de pulmón	Updated
Manejo intraoperatorio y postoperatorio de cirugía de paratiroides	New	Recomendaciones atención a pacientes con sospecha o confirmación de Monkeypox	New	Vía clínica de Ictus	Updated
Manejo intraoperatorio y postoperatorio de cirugía de tiroides incluyendo pautas actuación ante hipocalcemia postquirúrgica	New	Recomendaciones nutricionales para pacientes con enfermedad renal crónica en tratamiento sustitutivo renal	Updated	Vigilancia y control del paciente receptor de células CART durante la hospitalización	New
Manejo intraoperatorio y postoperatorio pacientes sometidos a cirugía de pared abdominal	New				
Mantenimiento de la Normotermia Perioperatoria Hospital Infantil La Paz	Updated				
Marcaje del Sitio Quirúrgico Hospital Infantil La Paz	New				
Obtención y envío de muestras en endoscopia	New				



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2.6.1. BIOBANK

The Hospital La Paz Institute for Health Research Biobank (IdiPAZ Biobank) is a platform of support service to the Institute's research, product of the integration of different pre-existing nodes with a long and fruitful research trajectory within the University Hospital La Paz. The IdiPAZ Biobank works to obtain, store, manage and distribute large collections of human biological samples of diseases of interest for researchers.

In 2020, the Biobank increased its capacity with the incorporation of new scientific-technical services, and as result the platform has been renamed as Biobanks and Biomodels platform.

This service is created with the collaboration of the University Hospital La Paz, the Foundation for Biomedical Research of the University Hospital La Paz (FIBHULP) and the Instituto de Salud Carlos III, being integrated into the Network of Hospital Biobanks (RetBioH). The Biobank of the University Hospital La Paz - Institute of Health Research of the University Hospital La Paz -IdiPAZ is registered in the National Biobank Network of the Instituto de Salud Carlos III with the code B.0000684

The **Platform for Biobanks and Biomodels of IdiPAZ** (PT20/00004) belongs to the **ISCIII Biobanks and Biomodels platform** (<https://www.isciiiobiobanksbiomodels.es/>) to support research in Biomedicine and Health Sciences from Strategic Health Action 2017-2023 of the Instituto de Salud Carlos III.



The ISCIII Biobanks and Biomodels Platform has joined the European Biobanking Infrastructure (BBMRI-ERIC) as an observing

member, acting as the national node in BBMRI-ERIC, one of the most relevant research platforms in the European Union.

Since 2018, the Biobank of IdiPAZ was certified according to the ISO 9001:2015 quality management system standard within the scope of IQNet Certificate IdiPAZ Number ES-0512/2018.

Objectives

The main objective of the IdiPAZ Biobank is to promote biomedical research, which will increase and improve the quality of scientific production in Spain. This is a specialized work in the management of human biological samples and their associated data for biomedical research in accordance with the legislation in force in Spain, Law 14/2007 on Biomedical Research and the RD of Biobanks 1716/2011. This guarantees the confidentiality of the samples and associated data.

The IdiPAZ Biobank provides researchers with an agile channel to access samples, their products and data associated with quality assurances and ethical-legal adaptation.

The obtaining, and if necessary the revocation, of the patient's informed consent is controlled. Special attention is given to guarantee the protection of privacy and the confidential treatment of personal data contained in the IdiPAZ Biobank, clinical data and research results.

Thanks to this, the development of a continuous dynamic of analysis and evaluation of the needs of the users of the Biobank is favored. In addition, the activity of the IdiPAZ Biobank is made known and valued to society and, especially, in the field of patient and affected associations.





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The IdiPAZ Biobank will provide benefits at different levels, starting with donors, patients, society in general and the clinicians and researchers involved. It also aims to facilitate communication and cooperation of different groups with common interests both nationally and internationally.

All of this will result in a higher quality of research and an increase in scientific production, without forgetting the strict compliance with the regulations on Data Protection and the Rights to Privacy and Confidentiality of all patients (Organic Law 3/2018 and Regulation General Data Protection 2016/679).

Composition

Scientific Director

Paloma Gómez Campelo (PhD)

Coordinator

Marina Arranz Álvarez

Senior Experts in Pathology and Cytology

Sandra Nieto Torrero

Yaiza Pedroche Just

Celia García García

HUB Organoids Manager

Laura Córdoba García

Contact

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Phone: Biobank Laboratory (+34) 91 207 11 91

Secretary

Susana García Pérez

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Scientific Committee

David Hardisson Hernández (MD, PhD)

Francisco Arnalich Fernández (MD, PhD)

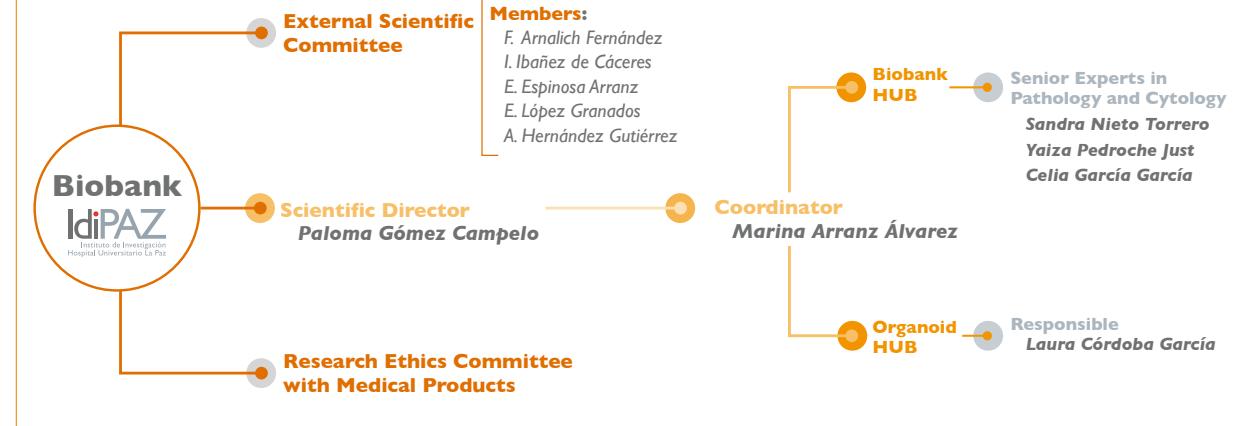
Inmaculada Ibáñez de Cáceres (PhD)

Enrique Espinosa Arranz (MD, PhD)

Eduardo López Granados (MD, PhD)

Alicia Hernández Gutiérrez (MD, PhD)

Platform for Biobank and Biomodels of IdiPAZ



Equipment

- Eight -80°C deep freezers equipped with remote alarm temperature control and a CO₂ backup system. Seven of these are equipped with an open door control software
- One tank of liquid nitrogen at its gas phase with an alarm temperature control and a lack of CO₂ detector
- W-2D tube system with a data matrix codification for liquids, with a scanner to read col boxes and reader for the identification and the traceability of the tubes
- Combined refrigerator of 4° C y – 20° C
- Cryostat to cut frozen samples
- Microtome y bath/coating to cut paraffin samples
- Laser Microdissector
- Biological safety cabins IIA
- Automatic platform to manipulate and trace liquids
- Centrifuge with capacity to process samples in tubes and Eppendorfs
- One mini coolers to freeze inclined biological samples below 1°C
- Two containers to freeze and transport Isopentane
- One container for the transport of isopentane samples
- Vortex Mixer /agitator
- Spectrophotometer (Nanodrop®)
- Fungibility: basically kits and the necessary products to process and preserve tissues, blood, and cells.
- Printer/photocopier/scanner
- 3 computers and a management computer system
- Label printing system and a bar code reader connected to the management software

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Portfolio of services



HUB Biobank

Technical and scientific assessment:

- Collection and management of new collection
- Work Methodology/ Methods
- Quality control of DNA/ARN sample treatment
- Expert training to use Biobank management system
- Training and advice on the use of Biobank management software.
- Information to the investigator on the custody, deposit, availability and transfer of samples associated with the biobank.
- Training of trainees (FCTs) of training cycles.

Sample/collection management:

- Coordinating a collection of samples in multiple study/research centers
- Storage of pre-existing collections under LIB 14/2007.
- Storage of preexisting samples in accordance with Spain's Biobank laws LIB 14/2007 and 1716/2011 Royal Decree
- Management and control of Informed Consent (CI) and/or clinic's regarding samples
- Aliquot of blood/salines/plasma/other liquids
- Sample reception and codification

Histology techniques:

- Making paraffin block
- Making frozen tissue blocks
- Paraffin/frozen cuts
- Hematoxylin and eosin stain (H&E)
- Other kinds of stains
- Laser microdissection

Cell techniques:

- Purifying and freezing of mononuclear cells of peripheral blood (PMBCs)



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Molecular Techniques:

- DNA and RNA quantification via spectrophotometer (NANODROP)

Researchers who wish to deposit their collections in IdiPAZ' Biobank will have to sign an agreement of sample deposit (in which the terms and conditions under which the Biobank will deposit the samples) and in agreement with the existing legislation on the subject. Also, researchers who wish to use our samples will have to sign a Transfer Agreement (Material Transfer Agreement) in which the terms and conditions under which the Biobank will grant the samples.



HUB Organoids

IdiPAZ's Biobank is working on the establishment of a living biobank of organoid 3D models directly generated from patient biopsies. Patient derived organoids (PDOs) are novel in vitro 3D cell models

that preserve the molecular, structural and functional characteristics of their tissues of origin, representing a clinically-relevant alternative to traditional 2D cell lines and an effective tool to study the biology of human tissues in health and disease. Currently we have a comprehensive collection of over 70 highly characterized human intestinal organoids, including rectum and colon, derived from both healthy and colorectal cancer biopsy tissue. This organoid patient-derived collection includes a detailed description of associated patient clinical and pathological data of great value for translational research purposes, as well as histological and molecular characterization of both the tissue of origin and the resulting organoid cultures.

Areas of application:

- Studies of tissue morphogenesis and organ development
- Modelling of infectious, genetic and inflammatory diseases
- Oncology and immuno-oncology
- Identification of diagnostic and prognostic biomarkers
- Drug screening for toxicity and efficacy
- Personalized and precision medicine

Portfolio of services:

- Culture of human healthy intestine organoids derived from donor biopsies
- Culture of human tumoral intestine organoids derived from donor biopsies
- Paraffin/OCT embedding and sectioning
- Hematoxilin and eosin characterization
- Characterization by immunofluorescence and confocal microscopy of organoid sections and 3D organoids
- Cryopreservation and biobanking

Biobank's scientific indicators

Stored samples

145,860

INPUT 2009-2022

41,576
Donors
→
63,239
Biological
samples

→
145,860
Aliquot

OUTPUT 2009-2022

23,781 Aliquot

→
243 Research projects

BIOBANK
IdiPAZ

Stored samples

145,860

INPUT 2009-2022

41,576
Donors
→
63,239
Biological
samples

→
145,860
Aliquot

OUTPUT 2009-2022

23,781 Aliquot

→
243 Research projects

BIOBANK
IdiPAZ



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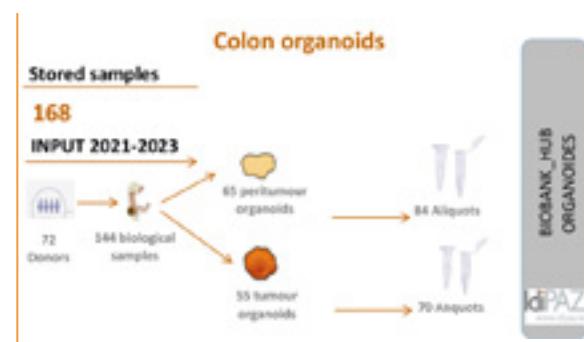
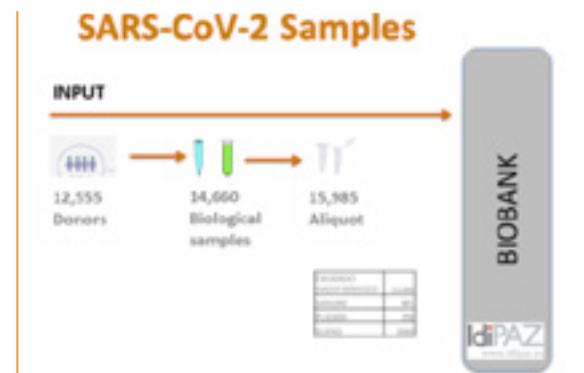
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Finally, the recent emergence of the novel pathogenic SARS-coronavirus 2 (SARS-CoV-2) and its rapid national and international spread pose, have provided the IdiPAZ Biobank the opportunity of have started a COVID-19 Collection.



Publications in 2021 with the mention of IdiPAZ Biobank authorship attribution

Papers	Journal	Impact factor	Communications and scientific publications
1	Nature Communications	16,6	Materials and Methods
Acknowledgements	Biomed Hub	Not indexed	4
3	Cancers	5,2	Co-author
Acknowledgements	Biomed Hub	Not indexed	4
1	Internal Journal of Molecular Sciences	5,6	Co-author
1	Frontiers in Pediatrics	2,6	Acknowledgements
1	Frontiers in Pharmacology	5,6	Acknowledgements
1	Biomedicines	4,7	Acknowledgements
1	European Journal of Endocrinology	5,8	Materials and Methods
Co-author	Biomed Hub	Not indexed	4
1	Journal of Investigative Dermatology	6,5	Acknowledgements
1	Modern Pathology	7,5	Acknowledgements

Publications in 2023 with the mention of IdiPAZ Biobank authorship attribution

Papers	Journal	Impact factor (2022)	Communications and scientific publications
1	Journal of clinical medicine	3,9	Materials and Methods
1	Journal of Gastrointestinal Oncology	2,1	Acknowledgements
1	Internal Journal of Molecular Sciences	5,6	Materials and Methods Acknowledgements



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2.6.2. BIOSTATISTIC

The Biostatistics Section has the mission of giving methodological support to the professionals of the "La Paz" University Hospital and, in general, to the IdiPaz professionals, and to provide technical solutions for the optimization of clinical processes by incorporating the necessary technologies for this.

Composition

Clinical Biostatistics

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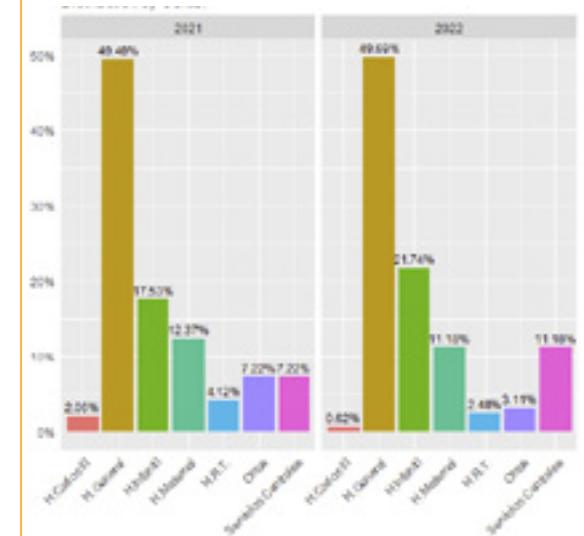
Portfolio of services

- Study design
- Creation of data collection systems (such as ms Access)
- Technical support in the development of studies.
- Support for the design and analysis of observational epidemiological studies.
- Assistance in the design, analysis and interpretation of validation studies of diagnostic tests in the clinical hospital context.

- Development of information processing systems (clinical image, readings of measuring devices, implementation of statistical methods ...). Analysis of results: Multivariate Analysis (Discriminant Analysis, Correspondence Analysis, Factor Analysis, Survival Analysis, Analysis with competitive risks ...), Generalized Linear Models including Models with Mixed Effects and Generalized Equation Models, development of Risk Models for classification and prediction, construction of Scoring Systems for Risk Assessment, Analysis of Growth Curves, Clinical Trial Methodology, Methods of Sequential Data Analysis, Analysis of High-dimensional Data (Analysis of microarrays). Bicluster Analysis. Resampling Methods (Bootstrap, Jackknife, ...).
- Presentation and dissemination of results
- Realization of training activities

Activity Carried Out During 2021

Distribution by Center



Distribution by Research Dissemination Objectives





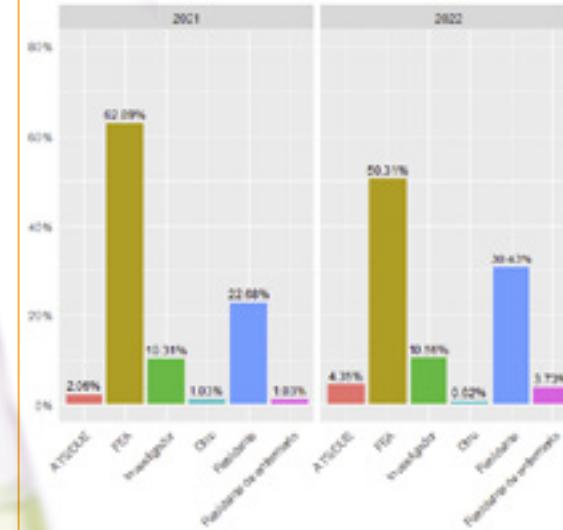
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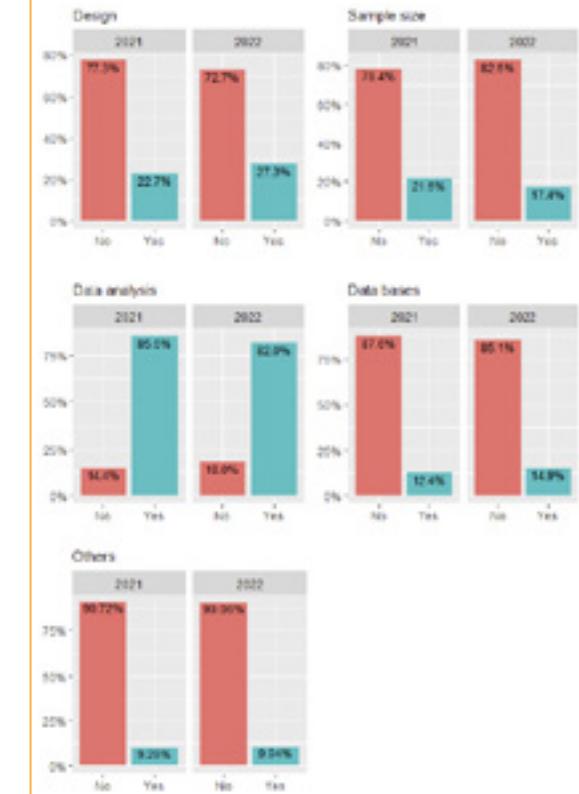


Distribution by Research Statement



Pertaining to a Research Line

Distribution by Required Support



Pertaining to a Research Line





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2.6.3. EXPERIMENTAL SURGERY

Composition

Section Head

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Technicians and assistants

Isabel Rodríguez Martín
María del Mar Varona García
Fernando Gil Villaverde
Rubén Ruiz Garzón
Paloma Guijarro Bachiller

Equipment

The Section consists of two microsurgery rooms, an operating room and an animal facility. The microsurgery room has surgical loupes and microscopes, as well as inhalers anaesthesia systems for rodents. All experimental procedures with rodents are performed in this room. Its layout, with fixed and mobile posts, allows for the implementation of microsurgical and laparoscopic courses with simulators.

The operating room is equipped with double team surgical tables and anaesthesia stations with monitoring equipment, which allow for two surgeries to be performed simultaneously. It is also equipped with laparoscopic, ultrasound and C-Arm X-ray equipment. All procedures performed on large animals are carried out here, along with training courses on surgical, laparoscopic and anaesthetic techniques. The animal facility has a total of five rooms for conventional accommodation of animals, in both the breeding phase and for experimentation. Two of these rooms have modular enclosures for housing large species such as pigs, sheep and rabbits. The remaining three accommodate rodents (rat, mouse and gerbil). The housing of rodents has controlled ventilation systems (a ventilated rack for mice and another for rats) and conventional systems in shelves. It also has a sealed positive and negative pressure room.

Animal facility

The research and teaching at IdiPAZ involving the use of laboratory animals is managed via the animal platform of IdiPAZ, and is overseen by Dra. Carlota Largo Aramburu. In this department we develop biomedical research projects, training courses specific to the various specialties as well as procedures for putting in place new diagnostic techniques or therapies that involve the use of experimental animals. In addition, the animal facility works with the Ethics Committee for Animal Wellbeing, whose authorisations are required for all procedures.

The animal facility is located in basement 2 of the IdiPAZ building within the hospital complex. The facility provides a

total of 10 rooms for animal housing, in both breeding and experimental phases, two rooms for animal handling and experimental procedures, a room for washing material, which includes a cage washer, an autoclave and a pressurebased washing system, and several storage rooms for clean materials, feed and wood shavings for cages. In addition, for its proper functioning, the animal facility is connected with the rest of the departments of Experimental Surgery where there is a double operating theatre, a microsurgery room and various additional rooms (dressing areas, offices, and store rooms).

The species typically used include: rodents (rats, mice and gerbils), rabbits, pigs, sheep and goats, and occasionally dogs, cats or guinea pigs. Recently, a fish housing unit has been established (zebra fish). To avoid contamination and permit a good workflow, the rooms for housing of large animals are physically separated from those for the rodents and the rest of the facilities (washing area, store rooms, or the handling room). In addition, all the rooms include an external video camera system to monitor the interior while avoiding the unnecessary entrance of unauthorised personnel.

The cages provide the minimum dimensions required for housing pigs and/or small ruminants. The structure of each cage is includes stainless steel anchored to the wall, with sliding separators that allow the expansion of the space by

uniting two cages. The rooms have the slope needed to encourage the elimination of solid residue via a drain located in the rear of the cage. All of the drains are equipped with protection systems to prevent the entrance of rodents or insects. For the cleanliness of the room and the animals, there are hot and cold water connections via a hose.

The rabbit room includes modular mobile crate racks of 3, 6 or 9 cages. The rabbits are kept in individual stainless steel cages with plastic grids. They also have a box structure inside that allows the animal to hide or go up to a higher position. The stainless steel feeders and drinking water are located in the cage door. Faeces and urine are collected in an extractable stainless steel tray. This room has a central drain with similar characteristics as those in the large animal room.



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The rodent area is separated from the rest of the facility via a gate system (without locking doors) where staff can dress appropriately before entering (boots, robe, gloves, hat and mask). In this area, 5 rooms are located for the housing of rats and mice in both breeding and experimental phases and a room for fish. There is a storeroom for feed and shavings and a room for handling and the performance of procedures. In addition to two large areas of animals, the animal facility includes:

- A washroom equipped with a cage washer (Hobart), a stainless steel pool and an autoclave. It also has a pressure wash system for cleaning the cages and/or visits that require it.
- A room for handling large animals for the performance of procedures with a table and surgical lamp, surgical cart, monitoring equipment and a C-arm X-Ray.
- Store room (clean material).
- Control room with computers for environmental control.

The animal facility complies with all current legislation and is registered with number ES-280790001941.

2.6.4. DOCUMENTALIST

The documentalist platform is responsible for the analysis, maintenance and dissemination of the scientific production generated by the Institute. This production is collected both in the bibliometric reports that are published on the IdiPAZ website as well as in the Institute's Research Report which is published annually and in which all the research activity of our research groups is collected. Also key is the support of the unit to the scientific management when carrying out internal evaluations of researchers or research groups.

The platform provides support to all IdiPAZ researchers when performing bibliographic searches, managing ORCID, CVN or different researcher profiles, advising on scientific evaluation, advising on quality criteria for scientific publications and any training related to this service.

This platform has also played a key role in publicizing and

Portfolio of Service

- Animals for experimentation (own breeding)
- Housing and maintenance of animals
- Leasing of spaces for conducting courses (microsurgery laboratories and operating room)
- Performance of surgical procedures on large animals (leasing space and anaesthesia, does not include surgery)

Applications for animal experimentation projects 2022

- Portal preconditioning in small liver grafts by ex situ normothermic perfusion in a porcine model. Dr. Constantino Fondevila Campo.
- Design of a preclinical model of atrial fibrillation and valvular insufficiency based on nanotechnology for its translation to the clinic. Dr. Rafael Ramírez Carracedo.
- Involvement of NLRP3 innate immune system receptors in cardiac pathology. Dra. María Fernández Velasco
- Involvement of receptors of the innate immune system Nod1 in cardiotoxicity linked to cancer treatments. Dra.

Maria Fernández Velasco

- Treatment with propagermanium, a CCR2 signaling blocker, to prevent or slow liver fibrosis. Dr. Luis Stark
- Translational study of alterations in retinol metabolism and immunological factors in the experimental model of congenital diaphragmatic hernia (CDH) induced with nitrofen. Dra. María Teresa Vallejo Cremades
- Teaching plan. Dra. Carlota Largo Aramburu
- Strategic activation of regulatory T cells to treat immune-mediated diseases that cause fibrosis. Dr. Luis Stark
- Prognostic impact of glycemic variability in acute cerebral infarction influencing corrective treatment of hyperglycemia in a rat animal model. Dra. Blanca Fuentes Gimeno.

Training activity

The experimental surgery platform has hosted 20 training activities in addition to the fine-tuning of new surgical techniques or medical device and the training of multi-disciplinary teams and residents.



Objectives

The main objectives of the platform are:

- To show society the relevance of scientific research conducted at IdiPAZ.
- Facilitate transparency and maximize the impact of the scientific production of the institute.
- Collaborate in the transmission of knowledge generated in the IdiPAZ environment.

Portfolio of services

- Elaboration of Research Report: Design of forms to collect information, bibliographic searches and calculation of bibliometric indicators.



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- Collaboration with researchers: Collaboration with research personnel in the search and location of documents useful for their research.
- Elaboration of bibliometric reports: Creation of control tools to keep a record of the Institute's publications.
- Evaluation of researchers: Calculation of bibliometric indi-

cators for decision making in calls where there is a quota of researchers.

- Bibliometric evaluation of research groups: Calculation of bibliometric indicators to determine the scientific production of both established IdiPAZ groups and new groups for their subsequent inclusion in the Institute.

- Advice on bibliographic search tools: Help in the knowledge of the different valid tools for conducting bibliographic searches in specialized databases.
- Advice on the use of bibliometric techniques: Assistance in the knowledge and application of bibliometric indicators to scientific production.
- Poster printing for congresses.



2.6.5. UICEC

La Paz Research and Clinical Trials Unit (Unidad de Investigación Clínica y Ensayos Clínicos del Hospital La Paz, HULP-UICEC), is one of the IdiPAZ supported research platforms. Its purpose is to promote and support clinical research at La Paz University Hospital and to establish collaboration links with other investigation centres. Presently HULP-UCICEC is the coordinator of the Spanish Clinical Research Network (SCReN), research platform of Instituto de Salud Carlos III.

Its wide portfolio of services provides support to researchers in design, set-up (including IRBs and Competent Authority approvals), management, data analysis and report writing of clinical trials and research projects. As Trials Managers, assists the Principal Investigators in the preparation of feasibility and financial reports, administrative tasks (i.e., investigators coordination, schedule of visits), as well as projects development and research, particularly in the recruitment and follow-up of patients and data collection, assistance in audit, inspections and adverse drug reactions management according to regulatory procedures, among other tasks. We also perform nursing activities and laboratory management, obtaining, processing and shipping the samples to central laboratories. All operations are GCP compliant as needed. HULP-UCICEC also runs a Phase I-II Trial Unit; the facilities and equipment allows harbour early phase clinical trials both in healthy volunteers and patients (children and adults).

Composition

Head

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UICEC Manager

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Irene García García (MD, PhD)
Alicia Marín Candón (MD)
Elena Diago (MD, PhD)
Mikel Urroz (MD)
Enrique Seco (MD)
Stefan Stewart (MD)
Lucía Díaz (MD)

Ethics Senior Researcher

Maria Cristina Murano

Predoctoral Researchers

Andrea Guzmán de Antonio
Francisco Javier Guijarro (MD)
Arturo Gómez López de las Huertas (MD)

Nursing Supervisor

Patricia Luna Castaño

Clinical Trials Nurses

Vega Mauleón Martínez (MsC)
Raquel de Madariaga Castell
Laura Vitón Vara (MSc)
Cristina López Crespo (MsC)
María Almena Rueda

International Project Managers

Paloma Moraga Alapont (MSc)
Paula Valle Simon (MSc)
Paula Prieto (MSc)
Verónica Sánchez (MSc)

National Project Manager

Rocío Prieto (PhD)

Clinical Research Associate

Belén Ortiz del Castillo (MsC)
Marta Muñoz Sagastibelza (MsC)
Carlota Rivera-Bengoa (MsC)
Sonia Cabornero Huecas (MsC)
Suriñe Valdespina (MsC)

Project Manager Paediatrics Oncology Trials

Pilar Guerra García (MD)
Andrés Gómez (MsC)

Project Manager Infectious Diseases Trials

Alfredo Soler

Data Management

Maria Teresa Garcia Morales

Bioestatisticians

María Jiménez González
Vega Rey Mauleón

Technical Secretary of SCReN

Victoria Hernández Rubio
María José Rubira Touriño
Gema del Prado Marugán



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Victor Alelú Hernández
Amparo Sánchez Correa

Data Entry

Silvia Llorente
Beatriz Llorente Robledo

Laboratory Technician

Pilar Ayllón

Sustainability Manager

Eduardo Royon

Communication and Dissemination

Sonia Escolano
Quality Control
Blanca Duque

Receptionist / Clinical Trials Assistant

Cristina Miragall Roig
Laura Lozano
ucicec.hulp@salud.madrid.org
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Facilities

• 6 Work offices (28 work stations)

- 1 Meeting room (with audiovisual and teleconference systems)
- 1 Archive room
- Phase I/II Clinical Trial Unit:
 - A hospital ward with eight beds and four chairs (children and adults)
 - 1 Doctor's office
 - 1 Central point for sample collection
 - 1 Sitting room
- Carlos III Satellite Unit
 - 1 Work office and doctor's office
 - 1 Laboratory

Equipment

- 1 ECG
- 1 Centrifuge (Carlos III Satellite Unit)
- 2 Refrigerated centrifuge
- 1 Refrigerator
- 1 Room temperature chamber (Carlos III Satellite Unit)
- 3 -20°C freezers (1 in Carlos III Satellite Unit)
- 2 -80°C deep freezer
- 4 Vital signs monitors

- Defibrillator
- Temperature recording system
- Digital clocks synchronised by GPS
- 2 medical scales (1 in Carlos III Satellite Unit)
- Digital blood pressure monitors and pulse oximeters
- Digital timers
- Crash trolley
- 2 Cure trolleys
- Video surveillance system
- 11 patient calling devices
- 4 patient surveillance cameras

Portfolio of services

The portfolio of services includes more than 80 tasks grouped into:

- Methodologic support
- Clinical trial pre-study activities
- Study development
- Finalization and closure tasks
- Pharmacovigilance
- Statistics and data management
- Medical and nursing tasks

2.6.6. INTERNATIONALISATION

The Internationalisation Platform of IdiPAZ is the office in charge of mobilising, promoting and managing the international projection of the research groups. Our continuous objective is to promote the different research groups that make up the institute at an international level, identifying possible synergies between groups and centres, new partners and sources of funding, as well as the formation of strategic alliances. To this end, we try to maintain open dialogues, not only with our researchers but also with the policy centres involved in the designing and planning the future of research in the European Union.

Throughout 2022, the Platform has relied on the efforts of:

José Luis Narro Villanueva, MBA
Santi Rello Varona, PhD

During 2022, the Internationalisation officers have navigated the increasing effort required to apply with success to the new Horizon Europe (HE), while managing the 28 internationally funded projects active during the year. We have attended 117 events, workshops and information days concerning the deployment of new rules, tips for proposal preparation, brokerage events and the deployment of new standards of international research and innovation. In addition, we have organised and performed five training courses, workshops or research stages. In 2022, we have participated in 25 proposals for competi-

tive international research public funding (HE, EU4HEALTH, EIT-Health and Partnerships). This represents a steady increase from the previous year, consolidating our presence in the European Research Area. IdiPAZ participates in nine funded projects submitted during 2022, attracting more than one million euros.

Besides, the Platform's staff participates directly in the IdiPAZ involvement in the Experts' Group assessing the Spanish National Representative for EU Health Research, the European Open Science Cloud Association (EOSC-A), the Coalition on Advancement of Research Assessment (CoARA) and the international projects coordinated by the institute: RISEinFAMILY and ERN TransplantChild.



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Finally, throughout 2022 we have managed the following financed and active international projects:

Project	Programme	Logo
AIMED	Antimicrobial Integrated Methodologies for orthopaedic applications	H2020-MSCA
CARE	Corona Accelerated R&D in Europe	IMI
CareInTrials	Care in Clinical Trials involving Youth. Exploring Vulnerability through Empirical Philosophy in a Clinical Trials Unit	H2020-MSCA
CORDIAL	Clinical validation of a continuous flow peritoneal dialysis system, with dialysate regeneration	H2020
EHRA-PATHS	Addressing multimorbidity in elderly atrial fibrillation patients through interdisciplinary, tailored, patient-centred care pathways	H2020
EJP -RD	European Joint Programme on Rare Diseases	H2020
EPIC-ALLIANCE	Alliance for the Exploration of Pipelines for Inhibitors of Carbapenemases	ERA-NET JPIAMR
ERA4TB	European Tuberculosis Regimen Accelerator	IMI
ERICA	European Rare Disease Research Coordination and Support Action	H2020
ERN TransplantChild (Coordinado por el IdiPAZ)	European Reference Network on transplantation in children	3rd EU Health Programme
	ERN TransplantChild Bridging Grant 2022-23	EU4HEALTH
	Support to Generic Services for the ERN TransplantChild	CEF programme
	PaEdiatric Transplantation European Registry - PETER	3rd EU Health Programme
EU-RESPONSE	European Research and Preparedness Network for Pandemics and Emerging Infectious Diseases	H2020

HosmartAI	Hospital Smart development based on AI	H2020	
IMPROVE PD	Identification and Management of Patients at Risk-Outcome and Vascular Events in Peritoneal Dialysis	H2020-MSCA	
ISIDORe	Integrated Services for Infectious Diseases Outbreak Research	HE	
NIH-11808SUB	Craniofacial Microsomia: Genetic Causes and Pathway Discovery	NIH-R01	
MPX-RESPONSE	A clinical research network to improve the management of Monkeypox virus disease	HE	
ORTHOUNION	ORTHOpedic randomized clinical trial with expanded bone marrow MSC and bioceramics versus autograft in long bone nonUNIONs	H2020	
PHF23776_ES	Enhancing Whole Genome Sequencing (WGS) and/or Reverse Transcription Polymerase Chain Reaction (RT-PCR) national infrastructures and capacities to respond to the Covid-19 pandemic in Spain	ECDC	
RESPOND	Improving the Preparedness of Health Systems to Reduce Mental Health and Psychosocial Concerns resulting from the COVID-19 Pandemic	H2020	
RISEinFAMILY (Coordinado por el IdiPAZ)	Alliance for Family Integrated Care (FiCare) Implementation in Neonatal Intensive Care Units	H2020-MSCA	
UNDINE	The human genetic and immunological determinants of the clinical manifestations of SARS-CoV-2 infection: Towards personalized medicine	HE	
VACCELERATE	European Corona Vaccine Trial Accelerator Platform	H2020	
VERDI	SARS-CoV2 variants Evaluation in pregnancy and paediatrics cohorts	HE	



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2.6.7. FLOW CYTOMETRY LABORATORY

The Flow Cytometry Core is an integrated facility into the Hospital La Paz Institute for Health Research (IdiPAZ), that provides all its members and external groups access to affordable and high-quality flow cytometry services, along with decisively scientific expertise using this technology in research.

We highlight a wide variety of flow cytometry applications: phenotypic analysis of cellular subpopulations using extracellular and intracellular staining, preliminary studies for subsequent clinical application, complex multicolor flow cytometry analysis, etc. This technology is an indispensable biomedicine tool, promoting symbiosis between clinical and basic researchers, as well as cooperation with external institutions.

The services provided include:

- Theoretical seminars and hands-on workshops in flow cytometry.
- Scientific and technical support.
- Experimental design, data analysis and interpretation assistance.
- Development of novel multicolor flow cytometry techniques assistance.

Composition

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Equipment

Currently, the unit has four analyzers:

- One Beckman Coulter Navios™ cytometer analyser:
A clinical system that delivers analytical excellence by

coupling extraordinary sensitivity, resolution and dynamic range with high-speed data collection. With superior detection capabilities, Navios Cytometer provides accurate measurements, especially for rare events, which are critical to clinical diagnosis and monitoring.

This analyser has three lasers: Blue solid state Diode (5 detectors), Red solid state Diode (3 detectors) and Violet solid state Diode (2 detectors), with which Navios can analyse ten colors simultaneously.

- Two Becton Dickinson FACSCalibur™ cytometer analyzers:

A system that supports a wide variety of research and clinical applications and is complemented by a broad suite of intuitive software solutions to streamline analysis for a wide range of applications including enumeration of lymphocyte subsets, stem cells, residual white blood cells, and reticulocytes.

Each analyser has two lasers: Blue argon laser (3 detectors), and Red solid state Diode (1 detector), with which FACSCalibur™ can analyse four colors simultaneously.

- One Becton Dickinson FACSCelesta™ cytometer analyzer:

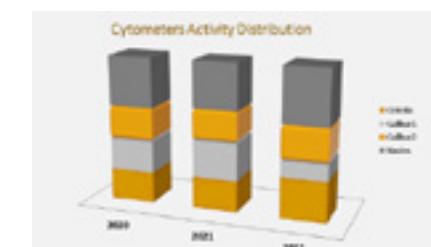
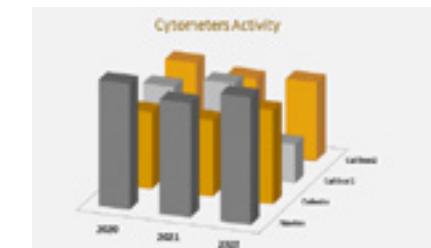
It is designed to make multicolored flow cytometry more accessible and allow researchers to benefit from new equipment and reagent technological innovations. These optical and reagent technology parallel advances allow multi-laser equipment to complement with new bright fluorochromes, providing a deeper and more powerful insight into cell analysis.

This analyser has three lasers: Blue solid state Diode (4 detectors), Violet solid state Diode (6 detectors), and Ultra Violet solid state Diode (2 detectors), with which FACSCelesta™ can analyse twelve colors simultaneously.

These support a wide range of flow cytometry applications, and the possibility of developing new ones responding to facility needs and/or upon users demand. Also during 2021, the Flow Cytometry Core endured quality levels required according to ISO 9001:2015 standard.



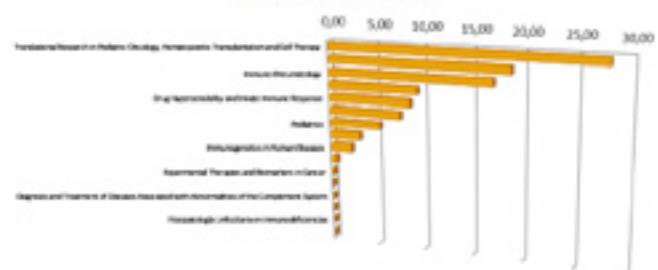
Indicators



Cytometry Core Activity



Groups Activity (%)





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2.6.8. CELL CULTURE LABORATORY

The Cell Culture Unit has been established as a core support division integrated and supported by Hospital La Paz Institute for Health Research (IdiPAZ) and La Paz University Hospital. This unit facilitates the establishment and management of in vitro model systems and the performance of experimental-related techniques for different applications and purposes. These include the elucidation of molecular and cellular mechanisms involved in different biological processes, the prediction of cellular and tissue responses to a specific microenvironments and/or the identification and development of therapeutic drugs, compounds and/or cellular targets. Therefore, this platform provides a fundamental basis for the development of research initiatives in the field of Health Sciences and Biomedical and Pharmacological Research.

Composition

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Objetives

The Cell Culture Unit accomplishes its mission by providing users with assistance and support at scientific, technical and instrumental level through access to knowledge, equipment, material and human resources. According to IdiPAZ strategic plan and other institutional guidelines, this division contributes to the translation of biomedical research by fostering the synergies and cooperation between translational-oriented research groups belonging to IdiPAZ as well as to other external institutions. It also provides a dynamic and shared opera-

tional environment with a convenient basis for the exchange and dissemination of the scientific knowledge, innovation and creativity as well as the creation of collaborations and alliances between researchers of various areas, categories and disciplines. Moreover, the association and proximity with other IdiPAZ core facilities such as the Molecular Imaging and Immunohistochemistry Unit, the Flow Cytometry Unit or the BSL2-Virology laboratory, enable users to develop complementary techniques, to explore and upgrade research hypotheses and to extend and/or improve their objectives.

Equipment and facilities

The Cell Culture Unit consists of an experimentation laboratory, a cryopreservation room and a warehouse. All facilities are located in the IdiPAZ building.

The experimentation laboratory was fitted in 2022 with the following equipment:

Cabinets

- 4 Telstar Bio-II-A biological safety cabinets
- 2 Telstar Bio-II Advanced 3 biological safety cabinets
- 2 Nuaire NU-437-400E biological safety cabinets
- 1 Heraeus HS-12 biological safety cabinet
- 1 Faster BH-EN 2004 biological safety cabinet
- 1 Gelaire BSB 4A biological safety cabinet
- 1 Esco Class II BSC biological safety cabinet
- 1 Labogene Mars Pro 1200 biological safety cabinet
- 1 Faster BIO 48 vertical laminar flow cabinet
- 1 Faster TWO 30 vertical laminar flow cabinet

Incubators

- 3 Thermo Forma Scientific incubators
- 2 HERAcell incubators
- 1 Biotech Galaxy S incubator
- 3 Nuaire Autoflow incubators
- 1 Sanyo O2/CO2 incubator
- 1 Binder CB-S 260 incubator



This equipment is complemented with a centralized and alarmed gas system, which guarantees a constant and controlled supply of CO₂ and N₂.

Microscopes

- 1 Nikon DIAPHOT TMD inverted light microscope connected to a Nikon D80 digital camera.
- 1 Leica DMIL inverted light microscope connected to a Canon Powershot S70 digital camera.
- 1 Optika inverted light microscope
- 1 Motic AE2000 inverted light microscope connected to an automatic counter Celeromics
- 1 Lan Optics inverted light microscope

Centrifuges

- 2 Eppendorf 5810R refrigerated centrifuges
- 2 Eppendorf 5804 centrifuges
- 1 Hettich Universal 32R refrigerated centrifuge
- 1 Kubota 2010 centrifuge
- 1 Eppendorf 5415D centrifuge

Freezing systems

- 2 Liebherr refrigerators (4 °C and -20 °C)
- 1 Balay refrigerator (4 °C and -20 °C)
- 1 Whirlpool refrigerator (4 °C and -20 °C)
- 1 Beko refrigerator (4 °C and -20 °C)

Other equipment

- 1 Presoclave 75 P-Selecta autoclave
- 1 Millipore water purification system
- 1 Heidolph Reax 2000 vortex
- 1 Raypa thermostatic waterbath
- 1 Memmert thermostatic waterbath
- 2 Precisterm thermostatic waterbaths
- 1 Grant JB Aqua 12 Plus thermostatic waterbath
- Vacuum pumps, pipettes, counters, automatic pipettors, freezing containers, cell counting cameras, etc



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The cryopreservation room is equipped with:

- 2 Statebourne Biorack 3000 liquid nitrogen tank
- 1 Thermo Locator 6 Plus liquid nitrogen tank
- 1 10 K Taylor Wharton liquid nitrogen tank
- 1 MVE cryosystem 4000 liquid nitrogen tank
- 1 Cryo Diffusion B2016 liquid nitrogen tank
- 1 Cryo diffusion B2048 liquid nitrogen tank
- 1 Cryo Diffusion B2011 liquid nitrogen tank
- 1 SEO GT40 liquid nitrogen tank
- 1 MVE XLC 511 liquid nitrogen tank

The infrastructure for cryopreservation is completed with a liquid nitrogen transfer device and an alarmed Oxygen O2 detector coupled to a mechanical ventilation system.

Portfolio of services

In general, this Division offers support for experimental approaches on an extensive range of matters including cell experimentation, consumables and reagents, equipment and laboratory area, technical assistance, training and research.

The main aspects of this support includes:

- Scientific and technical advice, personalized support and consultation: guidance in experimental setup and design, study planning, optimization of techniques and protocols, reagents and material acquisition, cells supply, troubleshooting, analysis and interpretation of results...
- Basic training and hands-on experiments (encouraging the self-service mode) according to biosafety, waste disposal and good laboratory practice guidelines.
- Access to facilities including instrumentation, equipment, materials and reagents.
- Preparation and supply of certain materials, reagents and sterile solutions.
- Management and general supervision including good laboratory practices and work habits, cleaning and waste disposal and operation and maintenance of the equipment.
- Performance of experimental procedures: establishment and maintenance and propagation of cell lines and primary cultures, cryopreservation and resuscitation, viability and proliferation, etc...
- Control and maintenance of cryopreserved stock cells.
- Elaboration and management of protocols and guidelines, operating procedures, reports and other required mandatory documentation.
- Detection, identification and treatment of contaminations in cell cultures.

The Cell Culture Unit was certified according to the ISO 9001:2015 quality management system standard within the scope of IQNet Certificate Instituto de Investigación Sanitaria del Hospital Universitario La Paz Number ES-0512/2018.

The personnel associated to the Unit are indebted to the users and other joint staff who directly and indirectly has contributed to this highlight

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Cell Culture Unit's scientific indicators:



COLLABORATIONS: Networks & CIBER





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2.6.9. MOLECULAR IMAGING AND IMMUNOHISTOCHEMISTRY



The Molecular Image and Immunohistochemistry Unit (UII), as a part of the network of IdiPAZ core facilities, plays an essential role in enabling scientists and clinicians to realise their goals in biomedical research. The laboratory mission is to provide a centralized service dedicated to assisting with the highest quality histology, immunohistochemistry and imaging equipment, as well as scientific and technical support to researchers. The Unit collaborates in creating a link between basic and clinical research to reach the translational research milestones, in addition of Institute training and education plans. Therefore, the unit is open to all researchers, including; IdiPAZ and their affiliates, commercial and not-for-profit biotechnology companies, and other academic institutions.

Specialized staff provides histological and molecular technical support to the researchers' requirements, which produces high quality data interpretation to support grant applications and national and international scientific publications. Currently a broad range of techniques ranging from classical histology, to molecular techniques as immunohistochemistry, immunofluorescence and image and digital analysis are available at the facility. The Unit, located in the IdiPAZ building at the La Paz University Hospital, consists of two sections, the Immunohistochemistry and the Microscopy laboratories.

Immunohistochemistry laboratory, housed in the first floor of IdiPAZ building, offers protocols and automated high-throughput equipment allowing citospines, fixation techniques (paraffined or freezed), sectioning of tissues (microtomes and cryostats), and classical or advanced immuno-staining (Dako Autostainer). Microscopy Lab is in the -1 floor of IdiPAZ building and offers facilities to perform a range of real time and end-point assays, including cell number, proliferation, apopto-

sis, cell size, and shape and viability measures. The equipment of Microscopy's lab allows to do conventional, fluorescence, confocal and high-content microscopy, includes a Leica TCS SPE inverted confocal, Leica DM6000 inverted fluorescence microscope, a microscope inverted Nikon Eclipse Ti with in vivo incubation system and a microscope Nanosight with a system of tracking nanoparticles. In addition, the lab offers image analysis programmes (NIS Elements AR, Nanosight 3.1, LASAF, Image ProPlus and ImageJ).

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Resources, Equipment and Management of the Laboratory

The services of the ImageM_IHQ core facility are available to all scientists in different models; collaboration, Do-It-Yourself

(DiY) or in a fee (in this case, it must be consulted the head of the laboratory, the lab will support the service depending on staff availability). DiY users are allowed to access the facilities ONLY after training by the lab staff, training sessions can be scheduled at any time of the year. In addition, the lab provides fee-for-service model of use to external institutions and private companies. Access to the Immunohistochemistry Lab is free but access to the Microscopy requires the magnetic individual identification card.

The laboratory staff will give the basic rules to new users for good practices and safety work in the laboratory. Users should not use the equipment until the laboratory personnel have checked their correct training. Users must schedule the time of work in any equipment and booking reserve it is mandatory in all the facility.

Equipment in Immunohistochemistry Laboratory

Immunohistochemistry Laboratory:

- Tissue processor providing efficient, reliable and timely processing of paraffin wax (Leica TP1020)
- Embedding unit for high quality paraffin blocking (Leica EG1160)
- Selecta Wax dispenser, paraffin wax dispenser with adjustable temperature from ambient to 100 °C
- 2 microtomes for specimen sectioning Leica RM2255
- 1 microtome for specimen sectioning Shandon AS325
- Leica EG 1150C Cold plate
- 2 thermostatic water Leica HI 1210 baths
- 1 thermostatic water Selecta Thermofn bath



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- Automated Immunohistochemistry autostainer (Autostainer Plus DAKO)
- 2 Cryostat for frozen sectioning (Leica CM 3050S and Leica CM1950)
- PTLink DAKO
- Crison pH meter
- Liebher upright freezer (-20°C and 4°C)
- Liebher economy freezer (-20°C)
- Shandon Cytospin 2
- Memmert BE 500 and UN30 oven.
- Selecta Agimatic-E magnetic stirrer with heating
- Olympus CH microscope, for practical laboratory applications
- Gilson pipette sets
- NUaire laboratory fume hood.

Staining area with manual options for Do-It-Yourself staining and cover slipping.

The laboratory is equipped with shared facilities from Translational Oncology and Anatomopathology Breast and Gynecological Cancer groups that use them for diagnostic and clinical research purpose (ESCO fume hood and Crison Microtome). Permission to use must be asked to the head of these laboratories.

The Microscopy laboratory equipment includes:

- Leica TCS SPE inverted confocal. Leica DMI4000B inverted microscope; illumination source, Lasers diode 405, Lasers diode 488, Lasers diode 532 and Lasers diode 635; Dishes, Standard microscope slides.
- NIKON microscope ECIPSE IT to conventional and fluorescence microscopy, *in vivo* imaging and High Content (equipped with incubation chamber).
 - Camera IMAGING SOURCE
 - Lauda Ecoline Star incubator edition 003
 - Hotplate (OKO LAB)
 - D gas (Okolab)
 - Microscope culture plates adapter
- Leica DMI6000B inverted microscope. Filter cubes: A4(UV), L5 (green), N3 (red) and Y5 (far red)
- Olympus BX41 (Bright field) upright microscope with an attached Digital camera
- Zeiss AxioPlan 2 upright microscope with five objectives

from 5x to 100x, phase contrast and fluorescent capabilities

- Zeiss Axio Lab.A1 microscope five objectives from 5x to 100x. ERC5S Axocan camera.
- Nanosight LM10 viewing unit measures nanoparticles, exosomes, vesicles's size based on the scattering of light, includes a microscope, a LM10 viewing unit, a Marlin camera, an objective x20 and is connected to a image analysis software.
- Digital microscopy (photography with a Leica DFC 350 FXR2 digital camera attached)
- Image ProPlus 5.0 image analysis software
- Leica LAS AF image analysis software
- Analysis work station with Huygens deconvolution software, Image J, LASAF Lite programme and related image analysis software.
- Nanosight NTA 3.1 analytical software.

The laboratory is equipped with shared facility from Neuroscience group (Leica TCS SPE inverted confocal).

Service Portfolio

- Collection and processing for fixing and decalcification of samples.
- Sample processing in paraffin by hand or automatic.
 - Complete paraffin embedding processing.
 - Serial cut in microtome and tissue assembly.
- Antibodies' validation.
- Buffer preparation and distribution of consumables.
- Sample processing frozen.
 - Preparation of freeze blocks.
 - Serial sections of blocks freeze and cuts collected on slides or floating.
- Staining.
 - Hematoxylin - eosin.
 - Masson trichrome.
 - PAS.
- Cytochemical and immunohistochemical techniques.
 - Decalcification of samples required.
 - Dewaxing cuts, performing staining.
 - Immunohistochemical staining automated system Autostainer.

- Protocols for Immunofluorescence in frozen tissue and paraffin.
- Dehydration and slide assembly.

- Image acquisition. Viewing and digital format acquisition.
 - Light microscopy.
 - Light microscopy with phase contrast.
 - Epifluorescence.
 - Confocal microscopy.
 - Advanced Microscopy in living cell.
- Fluorescence colocalization by confocal microscopy.
- 3D reconstruction.
- *In vivo* image acquisition of biological samples (incubation system for the temperature and CO₂).
- Morphometry in biological samples.
- Large images acquisitions (scanning the entire slide) for bright field and fluorescence.
- Collaboration for sample processing protocols for microscopy (fastening, staining, marking, etc.) and advice for planning projects that could require the use of microscopy.

Research Highlights

During 2022, the facility and staff have provided molecular and histological technical support. This support implies economic benefit to researchers because the concentrate their grant funds to their protocols, without the expense for hiring technical personnel or buying costly instrumentation. The benefice scientific effects produced by all routine procedures along with specialty equipments offered in unit, are translated in the high-quality data which are necessary to support grant applications and high-impact national and international scientific publication. The Unit collaborates with groups belonging to IdiPAZ's research areas; Neurosciences, Infectious diseases and immunity, Cancer and human molecular genetics, Cardiovascular, Pathologies of the organ system and Surgery, transplantation and health technologies.

The results of this collaboration are reflected in projects awarded (public or private, national or international grants),



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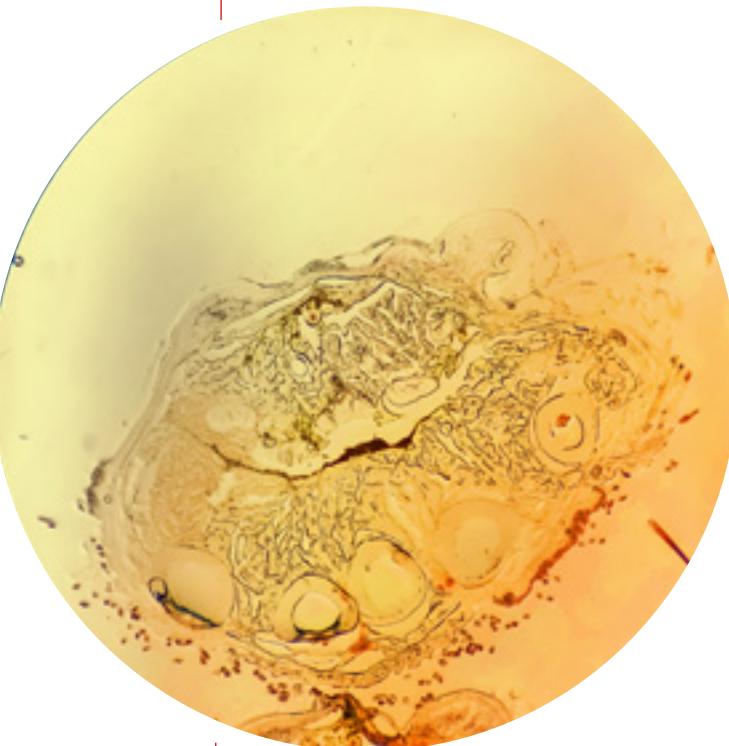
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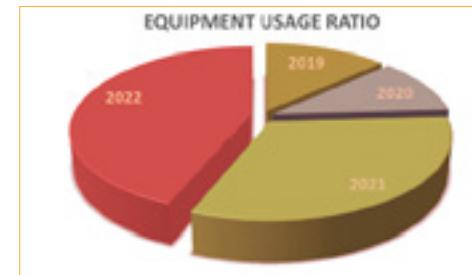
4 Associated Clinicians



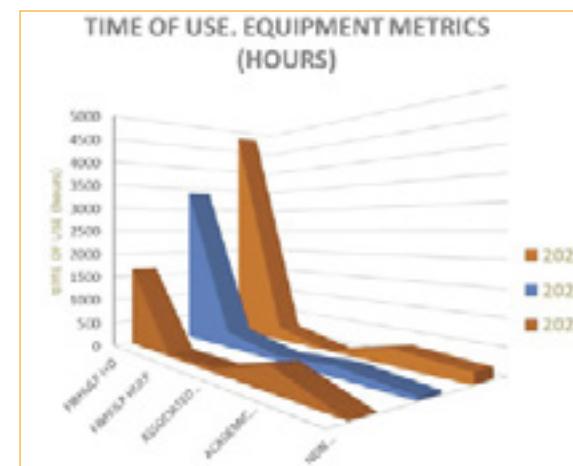
scientific dissemination (thesis) and high-impact international publications as:

1. Val-Blasco A, Prieto P, Jaén RI, Gil-Fernández M, Pajares M, Domenech N, Terrón V, Tamayo M, Jorge I, Vázquez J, Bueno-Sen A, Vallejo-Cremades MT, ET AL. Specialized Proresolving Mediators Protect Against Experimental Autoimmune Myocarditis by Modulating Ca²⁺ Handling and NRF2 Activation. *JACC Basic Transl Sci.* 2022 May 18;7(6):544-560. doi: 10.1016/j.jacbs.2022.01.009. PMID: 35818504;
2. Molina YL, García-Seisdedos D, Babiy B, Lerma M, Martínez-Botas J, Casarejos MJ, Vallejo MT, ET AL. Rottlerin Stimulates Exosome/Microvesicle Release Via the Increase of Ceramide Levels Mediated by Ampk in an In Vitro Model of Intracellular Lipid Accumulation. *Biomedicines.* 2022 Jun 3;10(6):1316.

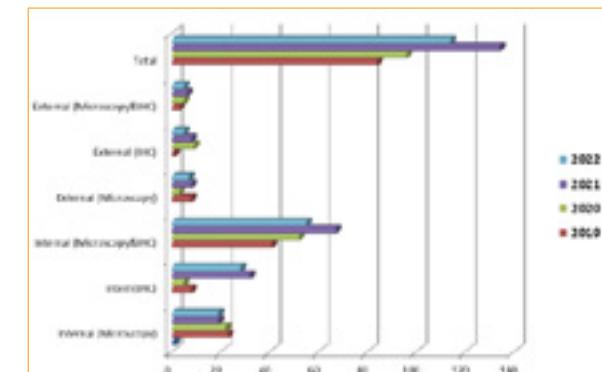
In the last year, the time of use of the equipment has increased compared to the previous three years. In 2022, there is a 20% increase in equipment usage time compared to 2021.



During 2022 the users who have made the most use of the platform are those from FIBHULP, both basic and clinical (FIBHULP I+D and HULP) and the usage time of external research groups (UCM, CSIC, etc.) remains practically the same.



The increase in the time of use is not due to the increase in users but rather to the increase in hours of use per user. As can be seen, the number of users in 2022 is slightly lower than in 2021 although.



In addition, the unit belongs to the Spanish network of microscopy cores (REMOA) and in November of 2022, the staff of the platform attended with a communication to the SPAOM Spanish-Portuguese Meeting for Advanced Optical Microscopy organized by the Spanish Network of Advanced Optical Microscopy (REMOA) in Salamanca.

1. HOW TO IMPLEMENT ISO9001 IN AN IMAGE AND IMMUNOHISTOCHEMISTRY PLATAFORM? Camps-Ortega Onys1, Vallejo-Cremades MT1. SPAOM COMGRESS 23-25 November 2022.Salamanca

This allows us to implement the collaboration with other image core platforms and the knowledge of recent advances in the field of bioimaging techniques.

The platform began during 2018 to develop a system of quality management following the ISO9001:2015 standard. In this line, the unit has maintained its quality certificate in 2022 according to the ISO9001:2015 management standard.



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2.6.10. RADIOISOTOPE

The radioisotope laboratory of IdiPAZ is a second category radioactive facility authorized by the Nuclear Safety Council for the use of non-encapsulated radioactive sources. The radioisotopes authorized at the facility are: 3H, 33P, 32P, 125I, 14C, 51Cr.

The laboratory, in addition to the beta counter, has equipment and working space for the performance of molecular biology and biochemical procedures and experiments with cell cultures. Currently the most common procedures are cell proliferation tests with tritiated thymidine.

The use of the facility both by staff of the institution and by external users requires prior authorization by those responsible.

ble for the facility that approves both the technical suitability of the users to work with radioactivity, and the procedures to be employed. The HULP Radiation Protection Service is responsible for control of the facility and of the radioactive wastes generated.

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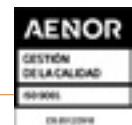
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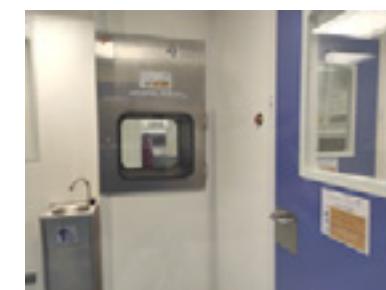


2.6.11. BSL2-VIROLOGY LABORATORY

The BSL2-Virology laboratory is part of the Joint Laboratories platform of idipAZ, which was created in September 2019 to support the Institute's research in infectious diseases. Many research groups have benefited from the platform to conduct their research safely, since working with samples infected with a certain type of pathogen requires facilities with an adequate level of biosafety. The BSL2-Virology laboratory is certified according to ISO 9001 quality management standard within the scope of IQNet.

Objetives

The BSL2-virology laboratory has been adapted to work with bloodborne pathogens such as HIV, HBV and HCV; as well as GMOs of risk group 1 and 2. It also allows developing certain experimental processes with other viral pathogens that require a biosafety level 2. The laboratory provides researchers with the necessary equipment to perform their own experimental processing and analysis, as well as training and assistance.



Composition

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Resources

The new BSL2-Virology Laboratory consists of an anteroom equipped with SAS, a pass-through autoclave and a hand-washing sink with hand free operations, followed by a changing room located right before entering the experimental laboratory. The laboratory has a negative air pressure system in relation to adjacent non-laboratory areas and the airflow passes through HEPA filters. The facility located in the IdiPAZ building complies with all biosafety requirements for a level 2 containment laboratory.

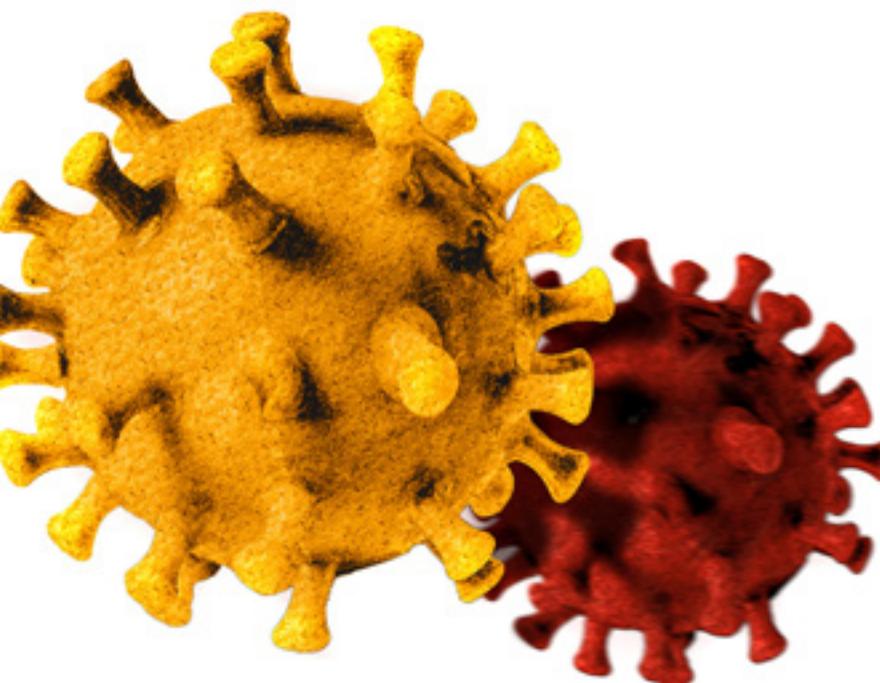
The experimental laboratory is equipped with the following equipment:

Type II Biological Safety Cabinets (BSC)

- 2 BSC Telstar BIO-II-A/P
- 1 BSC Neuroaire CSB120

CO₂ incubators

- 2 HERAEUS BB-6220 incubators



Centrifuges

- 1 HERAEUS Biofuge primor refrigerated centrifuge
- 1 Hettich Universal 320 non-refrigerated centrifuge
- 1 Hettich Universal 320 R
- 1 Hettich Mikro 220 R

Microscope

- 1 NIKON Eclipse TS100 Inverted Optical Microscope
- 1 OPTIKA XDS3 Inverted Optical Microscope

Refrigeration systems

- 1 Liebherr upright freezer (-20°C)
- 1 Liebherr profi line fridge (4°C)

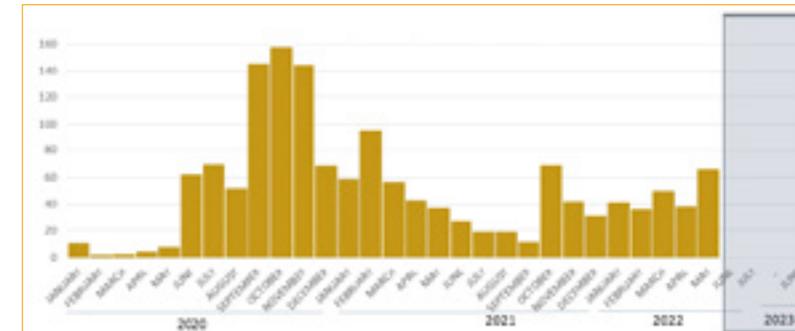
Other equipment

- 1 P-Selecta Precistem thermostatic waterbath
- 1 Inteliwasher 3D-IW8 BIOSAN
- 1 Automatic cell counter LUNA II

Permitted techniques

- Processing of different types of blood cells.
- Preparation of samples from HIV+ patients for cytometry.
- Studies of cellular polyfunctionality in the immune response against HIV.
- Handling and experimental processes of cell cultures.

Use of laboratory (hours)



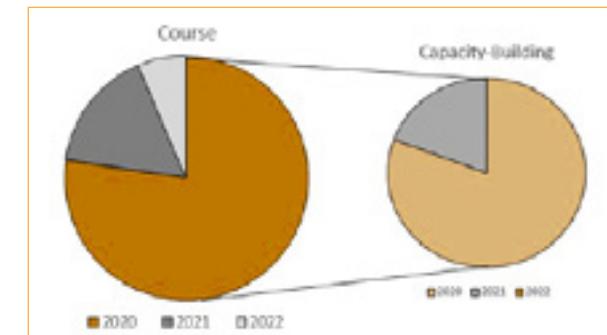
In June 2022, work began on a new laboratory with more m².

One year later, the laboratory opens its doors to process infectious samples. The new laboratory is now equipped with new equipment to improve work efficiency.

- Measurement of the impact of antiretroviral drugs on mitochondrial function in PBMCs.
- Construction of viral protein expression vectors in eukaryotic expression vectors.
- Constructs of gene expression with lentiviral vectors
- ELISA techniques of infectious samples.
- In May 2020 the laboratory was authorized for use of blood samples from patients with covid-19 and certain related processes.

BSL2-virology laboratory management indicators

Persons taking a biosafety course/capacity-building





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2.6.12. SEQUENCING PLATFORM

The research support activity is one of the basic pillars of the institute and our laboratory is proud to participate in this strategic line. There was a need for a service in the genomics area that would allow connecting research into the genomic area to the institute's precision medicine research lines. The laboratory also supports the different diagnostic units of the hospital that have incorporated the advances obtained in research. Thus, we have always been characterized as a clear example of translational research.

Our laboratory has the necessary equipment and infrastructure to perform tasks such as conventional sequencing (Sanger method), marker DNA genotyping and other molecular biology techniques based on capillary electrophoresis. The equipment can use up to five simultaneous colours on the same sample when it migrates to the genetic analyzers. Therefore, we are able to detect more than 30 polymorphic markers per sample. The knowledge of the staff allows us to offer design, protocol development, and data analysis support and task training in genomic techniques.

Since last year, collaboration/synergy has been maintained with the Genomic Analysis platform to offer new services in Next Generation Sequencing techniques to the institute's research lines, and new synergies are currently being created to offer researchers the necessary support.

During the last year, the close interaction with research groups at different levels has resulted in the co-authorship of fourteen articles in international journals, and the contribution to more than sixty articles in which the facility has contributed its resources.

The close working relationship with the research lines allows the laboratory staff to participate as a collaborating researcher in one of the FIS projects awarded to the institute.

The laboratory is committed to quality work by maintaining ISO 9001:2015 certification, obtained in 2018. In addition, lab participate in international external quality controls annual evaluations (EMQN).

Composition

Person in charge

María del Rocío Mena de la Cruz

mariarocio.mena@salud.madrid.org
Phone: +34 912071214

Conventional sequencing

Person in charge

María del Rocío Mena de la Cruz

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Phone: +34 912071214

Technical Staff

María Fernández Elvira

mfelvira@salud.madrid.org

Carolina Pilar Blanco Agudo

carolinapilar.blanco@salud.madrid.org

Genomic Analysis

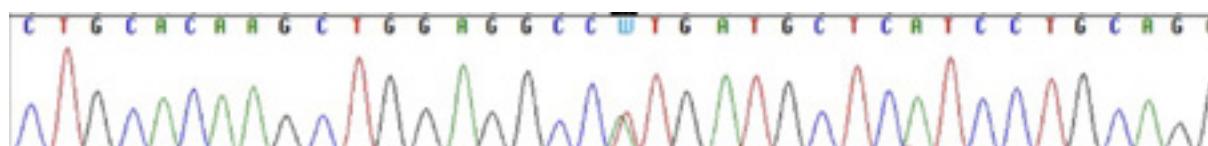
Person in charge

Rebeca Pérez de Diego

rebeca.perez@idipaz.es
Phone: +34 91 207 10 32

Technical Staff

Ana María Van Den Rym Mayoral



Equipment

- Eppendorf 5415D Centrifuge.
- Veriti Termocycler(Applied Biosystems).
- Genetics Analyzers 3130xl y 3730xl (Applied Biosystems-Life Technologies).

Software

- Sequencing Analysis v5.3.1
- Sequence Scanner v1.0
- GeneMapper v4.0
- Peak Scanner v1.0
- Variant report v1.0

Portfolio Service

Conventional sequencing

- Nucleic Acid quantitation (Tecan, Nanodrop).
- PCR purification for Sanger sequencing (Exosap).
- Sanger Sequencing.
- Migration Sanger samples.
- Fragments Analysis:
 - STRs analysis
 - QF-PCR.
 - MLPA (multiplex ligation-dependent probe amplification).
 - Microsatellite instability (MSI).
 - AZF.
 - SnapShot.
 - TP-PCR
 - ARMS
 - AFLPs

Genomic Analysis

- Genetic analysis from annotated variants of PID Sequencing Panel.
- Genetic analysis from annotated whole exome sequencing (WES) variants.
- Genetic analysis from annotated whole genome sequencing (WGS) variants.
- Genetic analysis from raw data in FASQ format from PID Sequencing Panel.
- Genetic analysis from raw data in whole exome sequencing (WES) FASQ format.



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2022 Facility Activity

Conventional sequencing

Research Area	Genotyping products	Sanger Sequencing products	Sanger Sequencing	Total samples
Infectious diseases and immunity	1982	1090	300	3372
Cardiovascular	110	2731	-	2841
Organ system pathologies	425	1780	-	2205
Cancer and human molecular genetics	10077	14969	2768	27814
External synergy	16	662	-	678
Total	12654	21602	3068	37324

Genomic Analysis

Research Area	Genetic analysis from annotated variants of PID Sequencing Panel	Genetic analysis from annotated whole exome sequencing (WES) variants	Genetic analysis from annotated whole genome sequencing (WGS) variants	Total samples
External researches	3	30	0	30

Publications

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Medina RA, Kisand K, Puel A, Jouanguy E, Abel L, Cobat A, Trouillet-Assant S, García-Sastre A, Casanova JL. *J Exp Med.* 2022 Nov 7;219(11):e20220514. doi: 10.1084/jem.20220514. Epub 2022 Sep 16. PMID: 36112363 Free PMC article.

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DE, Prando C, Pujol A, Reyes LF, Rivière JG, Rodriguez-Gallego C, Rojas J, Rovere-Querini P, Schlüter A, Shahrooei M, Sobh A, Soler-Palacin P, Tandjoui-Lambotte Y, Tipu I, Tresoldi C, Troya J, van de Beek D, Zatz M, Zawadzki P, Al-Muhsen SZ, Baris-Feldman H, Butte MJ, Constantinescu SN, Cooper MA, Dalgard CL, Fellay J, Heath JR, Lau YL, Lifton RP, Maniatis T, Mogensen TH, von Bernuth H, Lermine A, Vidaud M, Boland... See abstract for full author list medRxiv. 2022 Oct 25:2022.10.22.22281221. doi: 10.1101/2022.10.22.22281221. Preprint. PMID: 36324795 Free PMC article. Updated

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PMID: 36009567 Free PMC article.

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Guevara-Hoyer K, Fuentes-Antrás J, de la Fuente-Muñoz E, Fernández-Arquero M, Solano F, Pérez-Segura P, Nieves E, Ocaña A, **Pérez de Diego R**, Sánchez-Ramón S. *Front Immunol.* 2022 Aug 5;13:937872. doi: 10.3389/fimmu.2022.937872. eCollection 2022. PMID: 35990641 Free PMC article.

5. Recessive inborn errors of type I IFN immunity in children with COVID-19 pneumonia.

Zhang Q, Matuzo D, Le Pen J, Lee D, Moens L, Asano T, Bohlen J, Liu Z, Moncada-Velez M, Kendir-Demirkol Y, Jing H, Bizien L, Marchal A, Abolhassani H, Delafontaine S, Bucciol G; COVID Human Genetic Effort; Bayhan GI, Keles S, Kiykim A, Hancerli S, Haerlynck F, Florkin B, Hatipoglu N, Ozcelik T, Morelle G, Zatz M, Ng LFP, Lye DC, Young BE, Leo YS, Dalgard CL, Lifton RP, Renia L, Meyts I, Jouanguy E, Hammarström L, Pan-Hammarström Q, Boisson B, Bastard P, Su HC, Boisson-Dupuis S, Abel L, Rice CM, Zhang SY, Cobat A, Casanova JL. *J Exp Med.* 2022 Aug 1;219(8):e20220131. doi: 10.1084/jem.20220131. Epub 2022 Jun 16. PMID: 35708626 Free PMC article.

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7. Respiratory viral infections in otherwise healthy humans with inherited IRF7 deficiency.

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S, Jouanguy E, Karabela ŞN, Khan T, Kendir-Demirkol Y, Arias AA, Mansouri D, Marits P, Marr N, Migeotte I, Moens L, Ozcelik T, Pellier I, Sendel A, Şenoğlu, S, Shahrooei M, Smith CIE, Vandernoot I, Willekens K, Kart Yaşar K; COVID Human Genetic Effort; Bergman P, Abel L, Cobat A, Casanova JL, Meyts I, Bryceson YT. *J Exp Med.* 2022 Jul 4;219(7):e20220202. doi: 10.1084/jem.20220202. Epub 2022 Jun 7. PMID: 35670811 Free PMC article.

8. Case Report: Novel STIM1 Gain-of-Function Mutation in a Patient With TAM/STRMK and Immunological Involvement. de la Fuente-Munoz E, Van Den Rym A, García-Solís B, Ochoa Grullón J, Guevara-Hoyer K, Fernández-Arquero M, Galán Dávila L, Matías-Guiú J, Sánchez-Ramón S, **Pérez de Diego R**. *Front Immunol.* 2022 Jun 24;13:917601. doi: 10.3389/fimmu.2022.917601. eCollection 2022. PMID: 35812399 Free PMC article.

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10. Prior SARS-CoV-2 infection balances immune responses triggered by four EMA-approved COVID-19 vaccines: An observational study. Lozano-Rodríguez R, Terrón-Arcos V, Montalbán-Hernández K, Casalvilla-Dueñas JC, Bergón-Gutierrez M, Pascual-Iglesias A, Quiroga JV, Aguirre LA, **Pérez de Diego R**, Vela-Olmo C, López-Morejón L, Martín-Quiros A, Del Balzo-Castillo Á, Peinado-Quesada MA, García-Garrido MA, Gómez-Lage L, Herrero-Benito C, Llorente-Fernández I, Martín-Miguel G, Torrejón M, Cubillos-Zapata C, Del Fresno C, Avendaño-Ortíz J, López-Collazo E. *Clin Transl Med.* 2022 May;12(5):e869. doi: 10.1002/ctm2.869. PMID: 35538923 Free PMC article. No abstract available.

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Purinergic Signaling and Thromboinflammation. Díaz-García E, García-Tovar S, Alfaro E, Zamarrón E, Mangas A, Galera R, Ruiz-Hernández JJ, Solé-Violán J, Rodríguez-Gallego C, Van-Den-Rym A, **Pérez de Diego R**, Nanwani-Nanwani K, López-Collazo E, García-Rio F, Cubillos-Zapata C. *Front Immunol.* 2022 Jan 31;13:847894. doi: 10.3389/fimmu.2022.847894. eCollection 2022. PMID: 35173744 Free PMC article.

12. Variability in Phelan-McDermid Syndrome in a Cohort of 210 Individuals. Nevado J, García-Miñaúr S, Palomares-Bralo M, Vallespín E, Guillén-Navarro E, Rosell J, Bel-Fenollés C, Mori MÁ, Milá M, Del Campo M, Barrúz P, Santos-Simarro F, Obregón G, Orellana C, Pachajoa H, Tenorio JA, Galán E, Cigudosa JC, Moresco A, Saleme C, Castillo S, Gabau E, Pérez-Jurado L, Barcia A, Martín MS, Mansilla E, Vallcorba I, García-Murillo P, Cammarata-Scalisi F, Gonçalves Pereira N, Blanco-Lago R, Serrano M, Ortigoza-Escobar JD, Gener B, Seidel VA, Tirado P, Lapunzina P. **Spanish PMS Working Group.** *Front Genet.* 2022 Apr 12 13:652454. doi: 10.3389/fgen.2022.652454

13. Rapidly Progressing to ESRD in an Individual with Coexisting ADPKD and Masked Klinefelter and Gilteman Syndromes, Peces R, Peces C, **Mena R**, Cuesta E, García-Santiago FA, Ossorio M, Afonso S, Lapunzina P, Nevado J. *Genes (Basel)*. 2022 Feb 23 13(3):394. doi: 10.3390/genes13030394.

14. Broadening the phenotypic spectrum of EVEN-PLUS syndrome through identification of HSPA9 pathogenic variants in the original EVE dysplasia family and two sibs with milder facial phenotype. Pacio-Miguez M, Parrón-Pajares M, Gordon CT, Santos-Simarro F, Rodríguez Jiménez C, **Mena R**, Rueda Arenas I, F Montaño VE, Fernández M, Solís M, Del Pozo Á, Amiel J, García-Miñaúr S, Palomares-Bralo M., *Am J Med Genet A.* 2022 Sep 188(9):2819-2824. doi: 10.1002/ajmg.a.62883. Epub 2022 Jul 2.



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2.6.13. BIOINFORMATICS SERVICE

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Services

1. Experimental design. Advice to decide the sample size, the design of the study and the planning of the methodology.

2. Data analysis. The bioinformatic processing of the data obtained is carried out in various high-performance technological platforms used in the field of genomics. These analyzes include normalization, statistical analysis, and representation of the results. The most common analyzes are:

- I. Differential expression of genes, miRNAs or lncRNAs. The technology of origin of the experiments can be microarrays (Affymetrix, Agilent) or RNA-seq (Illumina, Ion Torrent).
- II. Protein-DNA interactions from immunoprecipitation and microarray (ChIP-chip) or sequencing (ChIP-seq) experiments.
- III. Helps to interpret results. Once the genes of interest have been selected, biological-functional assignment studies are carried out, such as the study of functional enrichment of gene / protein lists.
- IV. Design, implementation and administration of databases (eg of patients, samples, etc.).
- V. Individualized training activities: Training for users (scientific / technical) in the main theoretical and practical foundations for handling results and their interpretation.

Functioning

The procedure to follow is as follows:

- Fill in the "Job Application" form and send it to carolina.rubio.martin@idipaz.es. Fill in what you want to do by means of a short memory in which the primary objective of the study and the secondary objectives, if any, are clearly specified.
- Meeting with the Bioinformatics Platform to share questions such as the sample size with which it is going to work, the statistical power to be obtained and the variables to be analyzed.
- Preparation and delivery of the data to be analyzed in the format previously agreed between both parties.
- Carrying out the analysis.
- Delivery of results in the pertinent formats.

Equipment

High technical computer

Intel Core i9 9900K

Gigabyte Z390 D ATX 1151 1

MEMORY HYPERX FURY 16GB

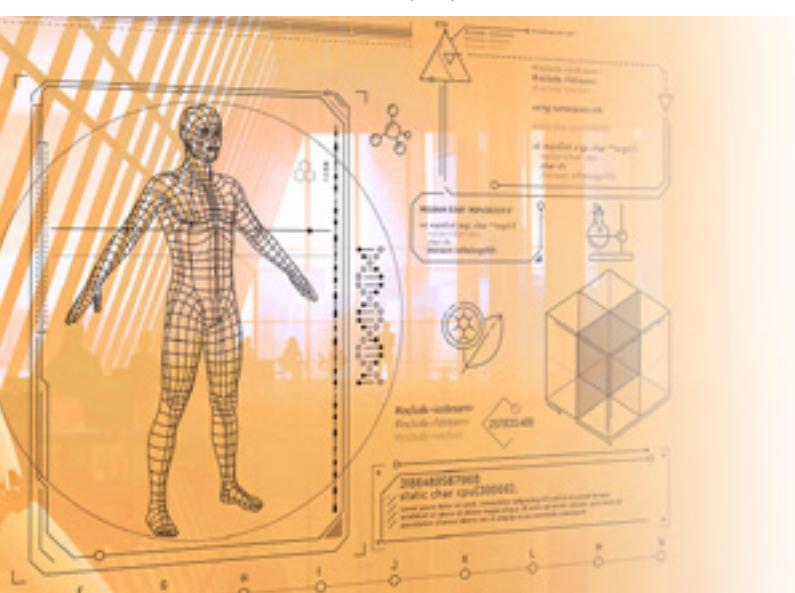
Activity in 2022

All the projects based on the work of bioinformatic platform are actually resulting in several research papers:

- Colorectal Cancer Stem Cells Fuse with Monocytes to Form Tumour Hybrid Cells with the Ability to Migrate and Evade the Immune System
- mRNA-1273 boost after BNT162b2 vaccination generates comparable SARS-CoV-2-specific functional responses in naïve and COVID-19-recovered individuals

Also, during 2022, the platform offered help in other projects such as the "**Programa Mentor**", helping clinical researchers to develop and present their projects:

- Programa de trasplante de unidades foliculares en niños con alopecia cicatricial (Carlos Delgado Miguel)
- Inmunoterapia bacteriana MV130 como modulador de la respuesta inmune frente a infecciones en pacientes pediátricos con fibrosis quística. (Cristina de Manuel Gómez)
- Estudio para la implementación de la tecnología -ómica en la identificación de marcadores asociados a la transformación maligna de la endometriosis ovárica (Emanuela Spagnolo)
- Desarrollo y aplicación terapéutica de un sistema de perfusión normotérmica extracorpórea en trasplante intestinal: el final de la edad de hielo (Javier Serradilla Rodríguez)
- Dinámica de las células dendríticas y células T en Enfermedad Inflamatoria Intestinal. Medicina personalizada con terapias biológicas basadas en la vía de señalización de la interleucina 12-23 (María Dolores Martín Arranz)
- Tolerancia inmunológica en trasplantes hematopoyéticos (Virginia Amnesty Morello)
- Anestesia general versus sedación con gafas nasales de





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alto flujo para el tratamiento endovascular del ictus isquémico agudo. Estudio GHIFTS (General anesthesia vs High Flow nasal cannula for Thrombectomy on Stroke). (Pedro Navia y Mercedes López)

- Identificación de factores para la detección de pacientes con cáncer de recto localmente en los que no es necesario el tratamiento quirúrgico (Elisabet González del Portillo)
- Impacto pronóstico de nuevos biomarcadores inmunológicos y su aplicabilidad en el cáncer de endometrio en la era de la inmunoterapia (Virginia Pineda García)
- An intervention to reduce loneliness in persons living with HIV (Rosa de Miguel Buckley)
- Utilización de Inteligencia artificial en el diagnóstico por imagen ecográfica (Yale Tung Chen)

Counselling services in different researching projects for example the statistical model to development of a project based on robotic pets in patients with VIH (Rosa de Miguel) and some predictive models.

Also, this platform has developed real time databases for IdiPAZ researchers in sepsis (Francisco Cueto) and Pediatric Hepatitis from unknown origin (Roberto Lozano).

2.6.14. PAIN PLATFORM

The Early-Stage Researcher Support Platform (Plataforma de Apoyo al Investigador Novel) from IdiPAZ is a platform that aims to promote the design and development of research projects in health areas. Focused in our early-stage professional researchers, training and research development will be encouraged to achieve our clinicians a better performance in competitive calls.

Composition

Head

Paloma Gómez Campelo

Staff

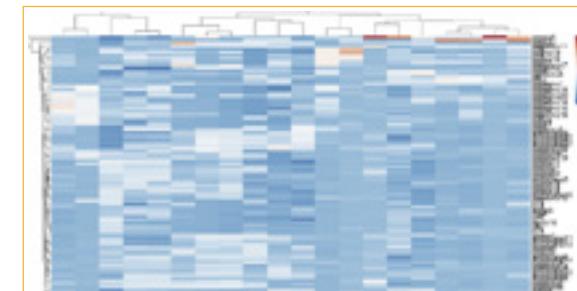
Daniel Quijada Alcón

mentor@idipaz.es

Phone: (+34) 91 207 17 40

Bioinformatics platform has designed and developed the project petition to study pediatric hepatitis of unknown origin in collaboration with pediatrics and ICU units form Hospital La Paz.

In terms of bioinformatics analysis, the platform created and made a proof of concept of next generation heatmap analysis with clustering and PCA algorithm for Carlos del Fresno in the context of colon cancer prediction from patients.



This platform participated in the II Jornadas de Plataformas de IdiPAZ, on June 6th, presenting the methods and all the tools developed by us.



Portfolio of services

- Methodological and epidemiological support to the study design of the professionals in early-stage research.
- Technical and methodological support in developing a research protocol for a study.
- Analysis of the grounds for refusal of rejected projects.
- Methodological support to write grant proposals to access all available funding programs.
- Technical support in writing other scientific documents.
- Mentor Program

Mentor Program

IdiPAZ, with the support of La Paz University Hospital, in 2022 has implemented the 2nd Mentor Program with the purpose of supporting our clinical early career researchers in the achievement of competitive projects, mainly from the main

national call for health research projects: "Acción Estratégica en Salud (AES)", granted by Instituto de Salud Carlos III. The Mentor Program plans a scientific and technical support in the preparation and tracking of research proposals. Furthermore, it take into account the experience and scientific knowledge from our senior researchers to help our earlystage researchers from the beginning of their research carrear.

The objectives of the program are:

- Increasing the number of clinical research in IdiPAZ.
- Avoiding a generational leap of clinical researchers.
- Strengthening the research profile of our clinical staff.
- Becoming IdiPAZ a clinical research model, as the same level that IdiPAZ is in the clinical trials.
- Performing an internal cultural change in clinical research.



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2.6.15. FOOD, NUTRITION AND HEALTH

The IdiPAZ Food, Nutrition and Health Platform (NUTRInvest) is a structure created to provide scientific-technical service and support in Human Research and Specialized Advice in Nutrition and Food issues.

The Platform provide service of Specialized Advice in Nutrition and Food at 3 levels:

1. Industries (agro-food or pharmaceutical sector) interesting in the new products development with an improved nutritional profile.
2. Companies interested in creating new technological tools to facilitate the acquisition of guidelines and healthy habits (web, app, etc.) and healthy habits.
3. Individual interested in knowing their nutritional status through a precision and individualized nutritional assessment.

Composition

Principal Researcher

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Project manager

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Clinical Research Associate

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Rosa María García Moreno (Endocrinologist)
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Marlhyn Valero Pérez (Nutricionist).
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Natalia García Vázquez (Pharmacist)
ngarcia.hulp@salud.madrid.org

Lucía Arcos Castellanos (Nutricionist)
larcoscastellanos@gmail.com

Main sectors

- Agri-food/pharmaceutical industries interested in designing or validating the effectiveness of new products.

- Institutions/government agencies with an interest in expanding knowledge in the area of nutrition for the generation/implementation of political measures in Public Health.
- Public or private institutions that want to develop computer applications, or information or communication programs in the field of Nutrition of interest to health professionals, consumers or patients.
- Researchers with interest in the inclusion of nutritional variables in their research projects.
- Individuals interested in obtain information about their nutritional health and who wish to receive precision and individualized nutrition through detailed analysis.

Portfolio of services

- Scientific advice to improve nutritional profiles of foods or nutritional formulas.
- Scientific-technical support in the area of Human Nutrition research:
 - Create well designed Project Plan for Clinical Trials and other human studies.
 - Management and Submission of applications to the Ethics Committee: The platform prepares and management all the documents required by obtain the approval of the Ethics Committee (Informed consent form, Letters from ethics committees. Study questionnaire (copies of any questionnaires or draft questionnaires), Case Record Forms (CRFs), Budget details, etc.)
 - Field work execution (all activities are carried out by members of the platform team with consolidated qualifications in the area):
 - Individualized dietary studies: through the use of validated tools (Food records (24h, 3-7 days), Food Frequency Questionnaires, Weighted food records, DIAL software, calorimetry ...)
 - Diagnostic and screening nutritional studies: using validated methodology (Subjective Global Assessment (SGA), Nutritional Status Assessment (NSA), Malnutrition Universal Screening Tool (MUST), Mini Nutrition Assessment (MNA)).
 - Anthropometric studies: Weight, Height, Circumferences, Folds, Bioelectrical Impedance, DXA...
 - Biochemical studies (blood, urine, feces): measurements of health markers related to the area of nutrition (glucose metabolism parameters, curves for calculating the glycemic index, lipid metabolism, inflammation, oxidation and hormonal biomarkers...)
- Physical activity studies: through the use of validated questionnaires (IPAQ, MINNESOTA...).
- Evaluate the use of sensors, control devices and monitoring support (blood glucose, weight, eating disorders, food photographs, physical activity, etc.).
- Evaluate the use of specific nutrient modules, oral nutritional supplements and highly specialized artificial nutrition (enteral and parenteral).
- Functional capacity studies: through dynamometry and validated questionnaires.
- Sensory perception studies: through the use of validated questionnaires
- Satiety control studies: using biochemical markers and handling of validated questionnaires
- Quality of life studies: through the use of validated questionnaires.
- Tolerance Studies: through the use of validated questionnaires.
- Nutrigenetics and Metabolic Studies with our collaborating centers.
- Production of scientific and technical report.
- Development of computer applications for websites or mobile apps in the nutrition / food area.
- Individual nutritional status evaluations and proposals for individualized nutrition intervention programs.
- To contribute and design components for nutrition education strategies and programs
- To implement clinical trials or epidemiological studies well designed in the area of human nutrition, in order to validate the activity and efficacy of bioactive compounds, nutrients, foods, dietary patterns or artificial nutrition, on different parameters related to the health promotion, the disease prevention or its therapeutic activity.

Equipment

- Dual-energy x-ray absorptiometry (DXA)
- Bioelectric Impedance System (BIA) for body composition measurement through Inbody device.

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- Ultrasound machine for advanced high resolution diagnosis.
- Holtain Skinfold Calipers
- Tanita digital healthcare scales
- Executive Diameter Tape
- Indirect calorimetry
- Accelerometers

Activity indicators

Articles:

1. López-Plaza B, Loria-Kohen V, González-Rodríguez LG, Fernández-Cruz E. Alimentación y estilo de vida en la prevención del cáncer [Diet and lifestyle in cancer prevention]. *Nutr Hosp.* 2022 Sep 1;39(Spec No3):74-77. Spanish. doi: 10.20960/nh.04317. PMID: 36040006.
2. Jiménez Ortega AI, López-Plaza B, Ortega RM, Lozano Estevan MDC, Martínez García RM. Problemática nutricional en pacientes celíacos. Dificultades para conseguir una situación nutricional adecuada [Nutritional problems in celiac



patients. Difficulties in achieving an adequate nutritional status]. *Nutr Hosp.* 2022 Sep 1;39(Spec No3):60-64. Spanish. doi: 10.20960/nh.04314. PMID: 6040008.

3. Quirós-Fernández R, López-Plaza B, Bermejo LM, Palma Milla S, Zangara A, Candela CG. Oral Supplement Containing Hydroxytyrosol and Punicalagin Improves Dyslipidemia in an Adult Population without Co-Adjuvant Treatment: A Randomized, Double-Blind, Controlled and Crossover Trial. *Nutrients.* 2022 Apr 29;14(9):1879. doi: 10.3390/nu14091879. PMID: 35565844; PMCID: PMC9103949.
4. Arcos Castellanos L, López Plaza B, Morato Martínez M, Valero Pérez M, PalmaMilla S, Gómez Candela C. El consumo regular de un caldo funcional enriquecido con FOS aumenta los niveles de las hormonas relacionadas con la saciedad en las personas sanas. Ensayo clínico aleatorizado y controlado [Regular consumption of a functional broth enriched with FOS increases the levels of hormones related to satiety in healthy people. A randomized, controlled clinical trial]. *Nutr Hosp.* 2022 Jun 24;39(3):629-637. Spanish. doi: 10.20960/nh.03896. PMID: 34784719.
5. Burgos Peláez R, García Almeida JM, Matía Martín P, Palma Milla S, Sanz ParisA, Zugasti Murillo A, Alfaro Martínez JJ, Artero-Fullana A, Calañas ContinenteA, Chinchetu M^aJ, González-Díaz Faes Á, González-Sánchez V, Laínez López M, Martínez Ortega AJ, Oliva Roldán J, Serrano-Moreno C, Suárez Llanos JP. Abordaje de la desnutrición en pacientes hospitalizados con diabetes/hiperglucemia e insuficiencia cardíaca [Malnutrition management of hospitalized patients with diabetes/hyperglycemia and heart failure]. *Nutr Hosp.* 2022 Dec 28;39(Spec No4):23-30. Spanish. doi: 10.20960/nh.04508. PMID: 36546329.
8. Burgos Peláez R, García Almeida JM, Matía Martín P, Palma Milla S, Sanz ParisA, Zugasti Murillo A, Alfaro Martínez JJ, Artero-Fullana A, Calañas ContinenteA, Chinchetu M^aJ, García Malpartida K, González-Díaz Faes Á, González-Sánchez V, Laínez López M, Martínez Ortega AJ, Oliva Roldán J, Serrano-Moreno C, Suárez Llanos JP. Abordaje de la desnutrición en pacientes hospitalizados con diabetes/hiperglucemia y otras patologías [Malnutrition management of hospitalized patients with diabetes/hyperglycemia and concurrent pathologies]. *Nutr Hosp.* 2022 Dec 28;39(Spec No4):1-8. Spanish. doi: 10.20960/nh.04505. PMID: 36546334.
9. Cuerda C, Sánchez López I, Gil Martínez C, Merino Viveros M, Velasco C, Cevallos Peñaflor V, Maíz Jiménez M, Gonzalo I, González-Sánchez V, Ramos Carrasco A, Díaz Guardiola P, Marcuello Foncillas C, Sampedro-Núñez MA, Morato Martínez M, Galicia I, Modroño Móstoles N, Blanca Martínez-Barbeito M, Mola Reyes L, Navea Aguilera C, Arhip L, Del Olmo García D, Huelves Delgado M, Cáceres Minchot E, Pastor García M, Pelegrina-Cortés B, Olivari Roldán J, Machile S, Molina Bahena B, García Vázquez N, Atienza E, Hoyas Rodríguez I, Amengual Galbarte Á, Morales Á, Valero Zanuy M, Matía Martín P, Knott C, Agrifoglio Rotaeche A, Ortiz A, Gómez Montes M, Ramírez Ortiz M, Ruiz Aguado M, Palma Milla S, Montoya Alvarez T, Sanz Martínez E, Rodríguez De Codesal M, Quesada Bellver B, Aceituno S, Pérez-Sádaba FJ, Álvarez-Hernández J; NUTRICOVID study research group of SENDIMAD. Impact of COVID-19 in nutritional and functional status of survivors admitted in intensive care units during the first outbreak. Preliminary results of the NUTRICOVID study. *Clin Nutr.* 2022 Dec;41(12):2934-2939. doi: 10.1016/j.clnu.2021.11.017. Epub 2021 Nov 23. PMID: 34893357; PMCID: PMC8609675.
10. Wanden-Berghe C, Campos Martín C, Álvarez Hernández J, Burgos Peláez R, Matía Martín P, de la Cuerda Compés



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2.6 Platforms

- C, Lobo G, Martínez Olmos MÁ, De Luis Román DA, Palma Milla S, Gonzalo Marín M, Padín López S, Luengo Pérez LM, Santacruz Carmona N, Pintor de la Maza B, Suárez Llanos JP, Irles Rocamora JA, Forga Visa MT, Martín Palmero MÁ, Sánchez Sánchez R, Cardona Pera D, Tejera Pérez C, mBallesta Sánchez C, Higuera Pulgar I, Bonada Sanjaume A, Penacho Lázaro MÁ, m Garde Orbaiz C, Arraiza Irigoyen C, Martín Folgueras T, Virgili Casas N, Cánovas Gaillenín B, Maíz Jiménez MI, Del Olmo García MD, Carabaña Pérez F, Parés Marimón RM, Morán López JM, Mauri Roca S, García Puente I, Sánchez-Vilar Burdiel O, García Delgado Y, Miserachs Aranda N, Calañas Contíente A, Apezetxea Celaya A, Pereira Soto MÁ, Sánchez Martos EA, Ponce González MÁ. Registro del Grupo NADYA-SENPE de Nutrición Enteral Domiciliaria en España: años 2018 y 2019 [The NADYA-SENPE Home Enteral Nutrition Registry in Spain: years 2018 and 2019]. *Nutr Hosp.* 2022 Feb;9;39(1):223-229. Spanish. doi: 10.20960/nh.03663. PMID: 34431302.
11. Matía Martín P, González-Sánchez V, Burgos Peláez R, García Almeida JM, Palma Milla S, Sanz Paris A, Zugasti Murillo A, Alfaro Martínez JJ, Artero-Fullana A, Calañas Contíente A, Chinchetrú MºJ, García Malpartida K, González-Díaz Faes Á, Laínez López M, Serrano-Moreno C, Martínez-Ortega AJ, Suárez Llanos JP, Oliva Roldán J. Abordaje de la desnutrición en pacientes hospitalizados con diabetes/hiperglucemia y cirrosis hepática [Malnutrition management of hospitalized patients with diabetes/hyperglycemia and liver cirrhosis]. *Nutr Hosp.* 2022 Dec 28;39(Spec No4):47-54. Spanish. doi: 10.20960/nh.04511. PMID: 36546332.
12. García Almeida JM, Laínez López M, Burgos Peláez R, Matía Martín P, Palma Milla S, Sanz Paris A, Zugasti Murillo A, Alfaro Martínez JJ, Artero-Fullana A, Chinchetrú MºJ, García Malpartida K, González-Díaz Faes Á, González-Sánchez V, Martínez Ortega AJ, Oliva Roldán J, Serrano-Moreno C, Suárez Llanos JP, Calañas Contíente A. Abordaje de la desnutrición en pacientes hospitalizados con diabetes/hiperglucemia y sarcopenia [Malnutrition management of hospitalized patients with diabetes/hyperglycemia and sarcopenia]. *Nutr Hosp.* 2022 Dec 28;39(Spec No4):15-22. Spanish. doi: 10.20960/nh.04507. PMID: 36546336.
13. Palma Milla S, García Malpartida K, Burgos Peláez R, García Almeida JM, Matía Martín P, Sanz Paris A, Zugasti Murillo A, Alfaro Martínez JJ, Artero-Fullana A, Calañas Contíente A, Chinchetrú MºJ, González-Díaz Faes Á, González-Sánchez V, Laínez López M, Oliva Roldán J, Serrano-Moreno C, Suárez Llanos JP, Martínez Ortega AJ. Abordaje de la

desnutrición en pacientes hospitalizados con diabetes/hiperglucemia en el contexto perioperatorio [Malnutrition management of hospitalized patients with diabetes/hyperglycemia in the perioperative setting]. *Nutr Hosp.* 2022 Dec 28;39(Spec No4):31-39. Spanish. doi: 10.20960/nh.04509. PMID: 36546328.

14. Burgos Peláez R, Suárez Llanos JP, García Almeida JM, Matía Martín P, Palma Milla S, Sanz Paris A, Zugasti Murillo A, Artero-Fullana A, Calañas Contíente A, Chinchetrú MºJ, García Malpartida K, González-Díaz Faes Á, González-Sánchez V, Laínez López M, Oliva Roldán J, Serrano-Moreno C, Martínez-Ortega AJ, Alfaro Martínez JJ. Abordaje de la desnutrición en pacientes hospitalizados con diabetes/hiperglucemia y caquexia tumoral [Malnutrition management of hospitalized patients with diabetes/hyperglycemia and cancer cachexia]. *Nutr Hosp.* 2022 Dec 28;39(Spec No4):40-46. Spanish. doi: 10.20960/nh.04510. PMID: 36546331.
15. García-Moreno RM, Benítez-Valderrama P, Barquiel B, Hillman N, Herranz L, Pérez-de-Villar NG. Predictors of postpartum glucose metabolism disorders in women with gestational diabetes mellitus. *Diabetes Metab Syndr.* 2022 Oct;16(10):102629. doi: 10.1016/j.dsx.2022.102629. Epub 2022 Sep 23. PMID: 36191536.
16. Expósito-Campos P, Gómez-Balaguer M, Hurtado-Murillo F, García-Moreno RM, Morillas-Ariño C. Medical detransition following transgender identity reaffirmation: two case reports. *Sex Health.* 2022 Jan;18(6):498-501. doi: 10.1071/SH21089. PMID: 34883041.
17. García-Moreno RM, Benítez-Valderrama P, Barquiel B, González Pérez-de-Villar N, Hillman N, Lora Pablos D, Herranz L. Efficacy of continuous glucose monitoring on maternal and neonatal outcomes in gestational diabetes mellitus: a systematic review and meta-analysis of randomized clinical trials. *Diabet Med.* 2022 Jan;39(1):e14703. doi: 10.1111/dme.14703. Epub 2021 Oct 13. PMID: 34564868.
18. García-Moreno RM, Cos-Blanco Al, Calvo-Vinuela I, Zapatero-Larrauri M, Herranz L. Change in levothyroxine requirements after bariatric surgery in patients with hypothyroidism. *Endocr Regul.* 2022 Apr 30;56(2):81-86. doi: 10.2478/enr-2022-0009. PMID: 35489047.
19. Males-Maldonado D, Mola Reyes L, Martín González A, Gómez Grande A, Guadalix Iglesias S. Diabetes mellitus secondary to IgG4-related disease. *Endocrinol Diabetes Nutr (Engl Ed).* 2022 Feb;69(2):151-152. doi: 10.1016/j.endien.2022.02.003. Epub 2022 Feb 17. PMID: 35256059.

Projects:

- "Estudio clínico longitudinal prospectivo para evaluar el efecto del consumo de un suplemento nutricional oral (sno) hiperproteico/hipercalórico enriquecido en calcio, vitamina d y dha específico para pacientes diabéticos sobre la adhesión y tolerancia gastrointestinal y el estado nutricional en pacientes con dm2 y desnutrición". IP Samara Palma Milla. CElm 6092. Financiado por el Centro para el Desarrollo Tecnológico Industrial (CDTI). Proyectos I+D. Ref. IDI-20190962 y la participación de Laboratories Grand Fontaine, S.L.
- Efecto del consumo habitual de una dieta completa hiperproteica e hipercalórica parcialmente hidrolizada rica en omega 3 y fibra soluble sobre el estado nutricional y la función gastrointestinal de pacientes desnutridos sometidos a cirugía pancreática oncológica. IP Samara Palma Milla. CElm 6149. Financiado por la Sociedad Española de Endocrinología y Nutrición (SEEN).
- Efecto del consumo habitual del dmb sobre la percepción olfatógustativa y el estado nutricional de pacientes oncológicos en tratamiento con quimioterapia y/o radioterapia que presentan desnutrición moderada (CLINMIR). IP Samara Palma Milla. CElm 6164. Financiado por el Centro para el Desarrollo Tecnológico Industrial (CDTI). Proyectos I+D Transferencia Cervera. Ref. IDI-20210622 y la participación de Medicinal Gardens, S.L.

External users

Food industry

1. AB Biotics, S.A.
2. Nutricia S.R.L.
3. Go Fruselva, S.L.
4. Persán Distribuciones Farmacéuticas S.R.L.
5. Adventia Pharma, S.L.
6. Medicinal Gardens S.L..

Pharmaceutical laboratories

1. Abbott Laboratories S.A
2. Baxter S.L.
3. B. Braun Medical S.A.
4. Nestlé España S.A.
5. Cantabria Lab Nutrición Médica S.L.
6. Nutricia S.R.L.
7. Lima Pharma S.R.L



2 Executive Summary

2.6 Platforms

2.6.16. SIMULATION PLATFORM (CEASEC)

The IdiPAZ/FIBHULP Simulation Centre offers professionals from various fields the following possibilities:

- Learning and training on the approach for patients in critical clinical conditions: cardiopulmonary resuscitation, shock of various origins, acute respiratory failure of various aetiologies, multiple trauma, arrhythmias, complicated births, difficult airways, safety, and leadership.
- Ongoing training of teams who treat patients in critical conditions: ICU, anaesthesia, emergency department, surgery.
- Learning and training on managing patients with technology-dependent conditions: mechanical ventilation, extracorporeal membrane oxygenation, dialysis, haemodialysis and haemofiltration and external ventricular assistance.
- Learning and training on managing technology for diagnostic and therapeutic use: echocardiography, abdominal ultrasonography, catheterisation, laparoscopic surgery, bronchoscopy, laryngoscopy, endoscopy and colonoscopy.
- Learning the use of invasive techniques: arterial and central venous cannulation, nasogastric and vesical catheterisation, suturing, thoracentesis, paracentesis, tracheostomy, nerve blocks.
- Learning to perform a correct medical history review and physical examination and communicating and contacting patients, using actors and advanced simulators.

Composition

Governing Council

- Dr. Javier Cobas Gamallo
 Dª. Ana Coloma Zapatero
 Dra. Carlota Largo Aramburu
 Dª. Elena Martín de Castro
 Dª. Alicia Portas Martínez
 Dr. Manuel Quintana Díaz
 Dr. Pedro de la Oliva Senovilla
 Dr. Ramón Cantero Cid
 Dra. Ana Mª Sánchez Torres
 Dª. Estela Sánchez Simón
 Dra. Emilia Guash Arévalo
 Dª. Irene Cuevas Gordo
 Dr. Ignacio Zapadiel Gutierrez

Dra. Esther Rey Cuevas

Dr. Juan José Ríos Blanco

Dra. Marta Cortés León

Chairman Governing Council

Dr. Manuel Quintana Díaz

Secretary Governing Council

Dª Ana Coloma Zapatero

Dª Estela Sánchez Simón

Contact

Dña. Irene Cuevas

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Clinical Simulation Technician

Javier Rubio Bolívar

Activity of CEASEC

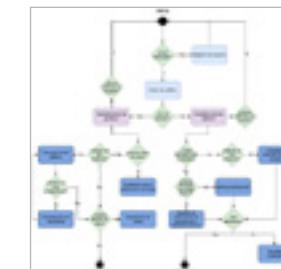
CEASEC is the Advanced Clinical Training and Simulation Center. During 2022, the CEASEC activity has highly increased compared to 2021. The platform has provided assistance and support for research and teaching in more than 80 courses. Some of them: Advanced Course for Instructors in Clinical Simulation, Initial Assistance to Pediatric Trauma, Donation Simulation Conference in Asystole, Action in a neonatal crisis situation, SVB, SVI, SVA, CRM, Course on pediatric donation, simulation workshop for less invasive administration of surfactant, the first simulation course with a presence in the metaverse, etc.

Innovation projects in new technologies

The CEASEC collaborates with the Polytechnic University of Madrid in the development of new clinical training devices. During 2022, technological projects were carried out to train the technical skills of different medical specialties to address pathologies of various kinds: stroke, pulmonary ultrasound, hemorrhagic trauma, tracheotomies, intubation and lumbar punctures, and monitoring for the traceability of a transplant system organs, among others.

During this period, 5 biomedical engineering students have carried out their curricular internships and TFG work tutored by the Center's staff. All of them were clinically validated or are currently undergoing validation with great acceptance and projection for patents and publications to be developed in 2023. Some of them:

Clinical simulator for training in thoracic ultrasound technique and treatment of pneumothorax and pleural effusion in neonates

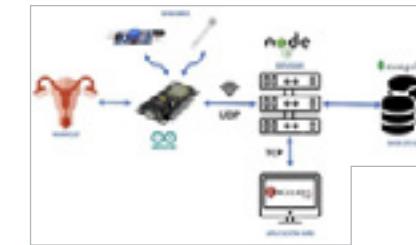


Simulator flowchart

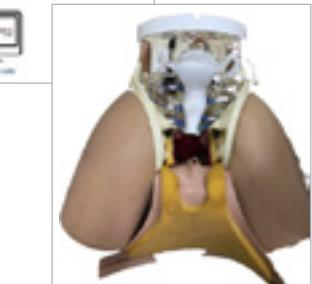


Final view of the system

Clinical simulator for training in the technique of embryo transfer



Architecture diagram



Final view of the system



2 Executive Summary

2.6 Platforms

2.6.17. TISSUE ENGINEERING AND 3D PRINTING PLATFORM

The Tissue Engineering and 3D Printing Platform purpose is to promote the development of biomedical research and clinical applications based on tissue engineering and bioprinting and offer different services as 3D printing technologies, computer imaging, virtual planning and computer aided design to the professionals of HULP an IDIPAZ.

Research and activity areas of the platform are:

- Establishment of a patient-derived organoid biobank
- Bioprinting of tissues and organs > development of a skin and colon model
- Lab on a Chip (LOC) and Organ on a Chip (OOC) devices
- Tissue engineering approaches to develop tissue models and organs
- Development of new medical devices (biomodels, surgical guides, prosthesis and implants) based on emerging technologies as 3D printing
- Computer imaging, virtual planning and 3D printing to plan surgeries

During this year, and in collaboration with the IdiPAZ Biobank platform, the tissue engineering and 3D printing platform has generated a living biobank of intestinal organoids from patient biopsies. Organoids are three-dimensional structures developed in the laboratory from stem cells, which self-organize, self-renew, and recapitulate the function and structure of the equivalent organ *in vivo*, representing a clinically relevant alternative to traditional 2D cell lines and a valuable tool for basic and translational research. Tissue Engineering and 3D Printing in collaboration with IdiPAZ Biobank has produced a collection of cultures of human intestinal organoids, including the rectum and colon, derived from patients with colorectal cancer (CRC) in three-dimensional extracellular matrices. We have also verified the functionality of the proposed methodology through the morphological and cellular characterization of the organoids generated, confirming that they retain the molecular, structural and functional characteristics of their tissues of origin, constituting an invaluable tool for the development of personalized therapies against CRC.



Composition

Director

Ramón Cantero Cid

Scientific advisor

Maria P. de Miguel González

Contact

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Equipment

- Bioprinter Unit (V1 REGEMAT 3D) for thermoplastics, microextrusion, UV curing, temperature control and injection of cell laden biomaterials
- Fused deposition modelling (FDM) 3D printer for prototyping
- A Bioreactor to mature tissues based on mechanical excitation

Portfolio of services

- Bioprinting of meshes structures with or without cells
- 3D cell cultures
- Cell viability and proliferation assays to assess biocompatibility of reactives and materials
- Development of biofabrication processes
- Development of Lab on a Chip (LOC) and Organ on a Chip (OOC) devices
- Computer imaging and tissue segmentation from TAC and MRI
- 3D virtual planning
- Computer Aided Design (CAD)
- 3D printing of biomodels, surgical guides, prosthesis and implants in polymers and metals
- Biomaterials processing and manufacturing
- Education and training in the areas of activities



2 Executive Summary

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2.7 Scientific Production

2.7.1. JOURNAL ANALYSIS

The journals whose titles are in bold type belong to the first decile of their category

Journal	ISSN	Impact Factor	Cuartiles	Total of Documents
Acta Dermato-Venereológica	0001-5555	3.6	Q1	1
Acta Obstetricia et Gynecologica Scandinavica	0001-6349	4.3	Q1	1
Acta Otorrinolaringológica Española	0001-6519	1	Q4	2
Acta Paediatrica	0803-5253	3.8	Q1	1
Actas Dermo-Sifiliográficas	0001-7310	3.2	Q2	6
Actas Españolas de Psiquiatría	1139-9287	1.5	Q4	1
Actas Urológicas Españolas	0210-4806	1.1	Q4	4
Addiction	0965-2140	6	Q1	1
Adicciones	0214-4840	3	Q3	1
Advances in Laboratory Medicine-Avances en Medicina de Laboratorio	2628-491X	1	Q4	8
Advances in Nutrition	2161-8313	9.3	Q1	2
Advances in Therapy	0741-238X	3.8	Q2	1
Age and Ageing	0002-0729	6.7	Q1	2
Ageing Research Reviews	1568-1637	13.1	Q1	1
Aging and Disease	2152-5250	7.4	Q1	1
Aging-US	1945-4589	5.2	Q2	1
AIDS	0269-9370	3.8	Q3	8
AIDS Research and Human Retroviruses	0889-2229	1.5	Q4	1
AIDS Research and Therapy	1742-6405	2.2	Q4	1
AIDS Reviews	1139-6121	2.2	Q4	4
Alimentary Pharmacology & Therapeutics	0269-2813	7.6	Q1	3
Allergologia et Immunopathologia	0301-0546	1.8	Q4	2

Allergy	0105-4538	12.4	Q1	4
American Heart Journal	0002-8703	4.8	Q2	1
American Journal of Cardiology	0002-9149	2.8	Q3	4
American Journal of Clinical Nutrition	0002-9165	7.1	Q1	1
American Journal of Epidemiology	0002-9262	5	Q1	1
American Journal of Hematology	0361-8609	12.8	Q1	2
American Journal of Human Genetics	0002-9297	9.8	Q1	2
American Journal of Medical Genetics Part A	1552-4825	2	Q3	4
American Journal of Medical Genetics Part C-Seminars in Medical Genetics	1552-4868	3.1	Q2	1
American Journal of Neuroradiology	0195-6108	3.5	Q2	1
American Journal of Obstetrics and Gynecology	0002-9378	9.8	Q1	1
American Journal of Reproductive Immunology	1046-7408	3.6	Q2	1
American Journal of Respiratory and Critical Care Medicine	1073-449X	24.7	Q1	2
American Journal of Surgical Pathology	0147-5185	5.6	Q1	2
American Journal of Transplantation	1600-6135	8.8	Q1	1
Amino Acids	0939-4451	3.5	Q3	1
Amyotrophic Lateral Sclerosis and Frontotemporal Degeneration	2167-8421	2.8	Q3	1
Anaesthesia	0003-2409	10.7	Q1	1
Anaesthesia Critical Care & Pain Medicine	2352-5568	5.5	Q1	1
Anais Brasileiros de Dermatologia	0365-0596	1.7	Q3	1
Anales de Pediatría	1695-4033	2.1	Q3	20
Anales del Sistema Sanitario de Navarra	1137-6627	1	Q4	1



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Angiología	0003-3170	0.1	Q4	3
Angiology	0003-3197	2.8	Q3	1
Annals of Allergy Asthma & Immunology	1081-1206	5.9	Q2	1
Annals of Anatomy-Anatomischer Anzeiger	0940-9602	2.2	Q2	1
Annals of Clinical and Translational Neurology	2328-9503	5.3	Q1	1
Annals of Diagnostic Pathology	1092-9134	2	Q3	1
Annals of Hematology	0939-5555	3.5	Q2	1
Annals of Human Genetics	0003-4800	1.9	Q4	1
Annals of Medicine	0785-3890	4.4	Q2	1
Annals of Noninvasive Electrocardiology	1082-720X	1.9	Q4	1
Annals of Oncology	0923-7534	50.5	Q1	1
Annals of Surgery	0003-4932	9	Q1	1
Annals of The Rheumatic Diseases	0003-4967	27.4	Q1	1
Annual Review of Pharmacology and Toxicology	0362-1642	12.5	Q1	1
Annual Review of Public Health	0163-7525	20.8	Q1	1
Antibiotics-Basel	2079-6382	4.8	Q1	2
Antimicrobial Agents and Chemotherapy	0066-4804	4.9	Q1	1
Antioxidants	2076-3921	7	Q1	16
Applied Health Economics and Health Policy	1175-5652	3.6	Q2	1
Applied Sciences-Basel	2076-3417	2.7	Q2	2
Archives of Bone and Joint Surgery-Abjs	2345-4644	1.3	Q3	15
Archives of Disease in Childhood	0003-9888	5.2	Q1	2
Archives of Medical Science	1734-1922	3.8	Q2	1
Archives of Osteoporosis	1862-3522	3	Q2	2
Archivos de Bronconeumología	0300-2896	8	Q1	16
Archivos de la Sociedad Española de Oftalmología	2173-5794	Not Indexed	Not Indexed	1
Archivos Españoles de Urología	0004-0614	0.5	Q4	4
Archivum Immunologiae et Therapiae Experimentalis	0004-069X	3.2	Q3	1
Arthritis Research & Therapy	1478-6354	4.9	Q2	2
Artificial Organs	0160-564X	2.4	Q3	3
Atención Primaria	0212-6567	2.5	Q3	4
Atherosclerosis	0021-9150	5.3	Q2	1
Atlas of the Oral and Maxillofacial Surgery Clinics of North America	1558-4275	Not Indexed	Not Indexed	1
Best Practice & Research Clinical Obstetrics & Gynaecology	1521-6934	5.5	Q1	1

Biochimia Medica	1330-0962	3.3	Q2	1
Biochemical Pharmacology	0006-2952	5.8	Q1	1
Biochimica et Biophysica Acta-Molecular Basis of Disease	0925-4439	6.2	Q1	2
Biology-Basel	2079-7737	4.2	Q2	3
Biomacromolecules	1525-7797	6.2	Q1	1
Biomedicine & Pharmacotherapy	0753-3322	7.5	Q1	4
Biomedicines	2227-9059	4.7	Q1	12
Biomolecules	2218-273X	5.5	Q1	4
BJS Open	2474-9842	3.1	Q1	2
Blood	0006-4971	20.3	Q1	2
Blood Advances	2473-9529	7.5	Q1	4
Blood Cancer Journal	2044-5385	12.8	Q1	3
Blood Coagulation & Fibrinolysis	0957-5235	1.1	Q4	1
Blood Reviews	0268-960X	7.4	Q1	1
Blood Transfusion	1723-2007	3.7	Q2	1
BMC Bioinformatics	1471-2105	3	Q2	1
BMC Cancer	1471-2407	3.8	Q2	1
BMC Cardiovascular Disorders	1471-2261	2.1	Q3	1
BMC Geriatrics	1471-2318	4.1	Q2	5
BMC Health Services Research	1472-6963	2.8	Q3	3
BMC Medical Informatics and Decision Making	1472-6947	3.5	Q3	1
BMC Medicine	1741-7015	9.3	Q1	1
BMC Neurology	1471-2377	2.6	Q3	1
BMC Pediatrics	1471-2431	2.4	Q2	1
BMC Pregnancy and Childbirth	1471-2393	3.1	Q2	2
BMC Pulmonary Medicine	1471-2466	3.1	Q3	1
BMC Sports Science Medicine and Rehabilitation	2052-1847	1.9	Q3	1
BMJ Case Reports	1757-790X	0.9	Q3	1
BMJ Open	2044-6055	2.9	Q2	5
BMJ-British Medical Journal	0959-535X	105.7	Q1	1
Bone & Joint Journal	2049-4394	4.6	Q1	1
Bone & Joint Research	2046-3758	4.6	Q1	1
Brain & Spine	2772-5294	Not Indexed	Not Indexed	2
Brain Sciences	2076-3425	3.3	Q3	1
British Journal of Anaesthesia	0007-0912	9.8	Q1	1



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British Journal of Cancer	0007-0920	8.8	Q1	1
British Journal of Clinical Pharmacology	0306-5251	3.4	Q2	2
British Journal of Dermatology	0007-0963	10.3	Q1	1
British Journal of Haematology	0007-1048	6.5	Q1	1
British Journal of Oral & Maxillofacial Surgery	0266-4356	1.8	Q3	1
British Journal of Pharmacology	0007-1188	7.3	Q1	1
British Journal of Surgery	0007-1323	9.6	Q1	3
Burns	0305-4179	2.7	Q2	1
Cadernos de Saude Publica	0102-311X	2.8	Q3	1
Canadian Journal of Cardiology	0828-282X	6.2	Q1	1
Cancer	0008-543X	6.2	Q1	1
Cancer Chemotherapy and Pharmacology	0344-5704	3	Q3	2
Cancer Communications	2523-3548	16.2	Q1	1
Cancer Epidemiology	1877-783X	2.6	Q3	1
Cancer Investigation	0735-7907	2.4	Q4	1
Cancer Medicine	2045-7634	4	Q2	1
Cancer Research Communications	2767-9764	Not Indexed	Not Indexed	1
Cancers	2072-6694	5.2	Q2	25
Cardiology	0008-6312	1.9	Q4	1
Cardiology in the Young	1047-9511	1	Q4	1
Cardiology Journal	1897-5593	2.9	Q3	2
Cardiovascular and Interventional Radiology	0174-1551	2.9	Q2	1
Cardiovascular Intervention and Therapeutics	1868-4300	3.2	Q2	2
Cardiovascular Research	0008-6363	10.8	Q1	1
Cardiovascular Revascularization Medicine	1553-8389	1.7	Q3	2
Catheterization and Cardiovascular Interventions	1522-1946	2.3	Q3	3
Cell Calcium	0143-4160	4	Q3	1
Cell Death and Differentiation	1350-9047	12.4	Q1	1
Cell Reports	2211-1247	8.8	Q1	3
Cell Transplantation	0963-6897	3.3	Q2	1
Cells	2073-4409	6	Q2	6
Cellular and Molecular Life Sciences	1420-682X	8	Q1	2
Cephalgia	0333-1024	4.9	Q1	2
Chest	0012-3692	9.6	Q1	5
Child Abuse & Neglect	0145-2134	4.8	Q1	1
Children-Basel	2227-9067	2.4	Q2	3

Chronic Respiratory Disease	1479-9723	4.1	Q2	1
Circulation	0009-7322	37.8	Q1	2
Circulation-Arrhythmia and Electrophysiology	1941-3149	8.4	Q1	1
Circulation-Cardiovascular Imaging	1941-9651	7.5	Q1	2
Circulation-Heart Failure	1941-3289	9.7	Q1	1
Cirugía Cardiovascular	1134-0096	0.3	Q4	7
Cirugía Española	0009-739X	1.9	Q3	5
Cirugía Española (Engl Ed)	2173-5077	Not Indexed	Not Indexed	2
Cirugía Pediátrica	2445-2807	Not Indexed	Not Indexed	2
Cirugía y Cirujanos	0009-7411	0.5	Q4	1
Clinica Chimica Acta	0009-8981	5	Q1	1
Clinica e Investigacion en Arteriosclerosis	0214-9168	1.6	q3	3
Clinica e Investigacion en Ginecología y Obstetricia	0210-573X	0.1	Q4	2
Clinical & Translational Oncology	1699-048X	3.4	Q3	8
Clinical and Applied Thrombosis-Hemostasis	1076-0296	2.9	Q3	1
Clinical and Experimental Allergy	0954-7894	6.1	Q1	1
Clinical and Experimental Obstetrics & Gynecology	0390-6663	0.2	Q4	1
Clinical and Experimental Rheumatology	0392-856X	3.7	Q3	4
Clinical and Translational Allergy	2045-7022	4.4	Q2	1
Clinical and Translational Medicine	2001-1326	10.6	Q1	1
Clinical Cancer Research	1078-0432	11.5	Q1	1
Clinical Chemistry and Laboratory Medicine	1434-6621	6.8	Q1	6
Clinical Epigenetics	1868-7075	5.7	Q1	3
Clinical Genetics	0009-9163	3.5	Q2	3
Clinical Genitourinary Cancer	1558-7673	3.2	Q2	3
Clinical Infectious Diseases	1058-4838	11.8	Q1	1
Clinical Journal of the American Society of Nephrology	1555-9041	9.8	Q1	1
Clinical Kidney Journal	2048-8505	4.6	Q1	6
Clinical Lung Cancer	1525-7304	3.6	Q2	2
Clinical Lymphoma Myeloma & Leukemia	2152-2650	2.7	Q3	2
Clinical Microbiology and Infection	1198-743X	14.2	Q1	7
Clinical Neuropharmacology	0362-5664	1	Q4	1
Clinical Nutrition	0261-5614	6.3	Q1	5
Clinical Oral Investigations	1432-6981	3.4	Q2	1



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Clinical Proteomics	1542-6416	3.8	Q2	1
Clinical Reviews in Allergy & Immunology	1080-0549	9.1	Q1	1
Clinical Rheumatology	0770-3198	3.4	Q3	4
Clinical Transplantation	0902-0063	2.1	Q2	2
Clinics in Geriatric Medicine	0749-0690	3.3	Q3	1
Colorectal Disease	1462-8910	3.4	Q1	3
Communications Biology	2399-3642	5.9	Q1	1
Communications Medicine	2730-664X	Not Indexed	Not Indexed	1
Computer Methods and Programs in Biomedicine	0169-2607	6.1	Q1	1
Congenital Heart Disease	1747-079X	0.3	Q4	1
Contact Dermatitis	0105-1873	5.5	Q1	1
Cor et Vasa	0010-8650	0.2	Q4	1
Cornea	0277-3740	2.8	Q2	1
Coronary Artery Disease	0954-6928	1.8	Q4	1
Cranio-The Journal of Craniomandibular & Sleep Practice	0886-9634	1.6	Q4	1
Critical Care	1364-8535	15.1	Q1	1
Critical Care Explorations	2639-8028	Not Indexed	Not Indexed	1
Critical Reviews in Oncology Hematology	1040-8428	6.2	Q1	1
Cuadernos de Bioética	1132-1989	0.5	Q4	1
Cureus Journal of Medical Science	2168-8184	1.2	Q3	1
Current Cardiology Reports	1523-3782	3.7	Q2	1
Current Oncology	1198-0052	2.6	Q3	3
Current Treatment Options in Allergy	2196-3053	1.1	Q4	1
Data in Brief	2352-3409	1.2	Q3	1
Dermatitis	1710-3568	5.2	Q1	1
Dermatologic Therapy	1396-0296	3.6	Q1	3
Dermatology and Therapy	2193-8210	3.4	Q2	3
Diabetes & Metabolic Syndrome-Clinical Research & Reviews	1871-4021	4.8	Q2	1
Diabetes Therapy	1869-6953	3.8	Q2	1
Diabetic Medicine	0742-3071	3.5	Q3	1
Diagnostic Microbiology and Infectious Disease	0732-8893	2.9	Q3	1
Diagnostics	2075-4418	3.6	Q2	2
Digital Health	2055-2076	3.9	Q2	2
Disaster Medicine and Public Health Preparedness	1935-7893	2.7	Q3	1

Disease Models & Mechanisms	1754-8403	4.3	Q2	1
Diseases of the Colon & Rectum	0012-3706	3.9	Q1	1
Drug and Alcohol Dependence	0376-8716	4.2	Q2	1
Drugs & Aging	1170-229X	2.8	Q3	2
Ear and Hearing	0196-0202	3.7	Q1	1
Ebiomedicine	2352-3964	11.1	Q1	2
Eclinicalmedicine	2589-5370	15.1	Q1	3
Efort Open Reviews	2396-7544	3.4	Q1	5
EJSO	0748-7983	3.8	Q1	1
Elife	2050-084X	7.7	Q1	2
Emergencias	1137-6821	5.5	Q1	3
Emerging Infectious Diseases	1080-6040	11.8	Q1	2
Endocrine	1355-008X	3.7	Q3	3
Endocrine Connections	2049-3614	2.9	Q3	1
Endocrine Regulations	1336-0329	Not Indexed	Not Indexed	1
Endocrine-Related Cancer	1351-0088	3.9	Q2	1
Endocrinología Diabetes y Nutrición	2530-0180	1.9	Q4	8
Enfermedades Infecciosas Y Microbiología Clínica	0213-005X	2.5	Q4	8
Enfermería Intensiva	1130-2399	1.3	Q3	2
Environmental Research	0013-9351	8.3	Q1	2
Epidemiology and Health	2092-7193	3.8	Q2	1
Epilepsia	0013-9580	5.6	Q1	1
Epilepsy & Behavior	1525-5050	2.6	Q2	1
ERJ Open Research	2312-0541	4.6	Q2	1
Esc Heart Failure	2055-5822	3.8	Q2	1
ESMO Open	2059-7029	7.3	Q1	7
Eurasian Journal of Medicine and Oncology	2587-196X	2.5	Q2	1
Eurointervention	1774-024X	6.2	Q1	1
Europace	1099-5129	6.1	Q1	6
European Annals of Allergy and Clinical Immunology	1764-1489	2.3	Q3	1
European Archives of Oto-Rhino-Laryngology	0937-4477	2.6	Q2	1
European Geriatric Medicine	1878-7649	3.8	Q3	1
European Heart Journal	0195-668X	39.3	Q1	9
European Heart Journal. Quality of Care & Clinical Outcomes	2058-1742	5.2	Q2	1
European Heart Journal-Acute Cardiovascular Care	2048-8726	4.1	Q2	1



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European Heart Journal-Cardiovascular Imaging	2047-2404	6.2	Q1	2
European Heart Journal-Cardiovascular Pharmacotherapy	2055-6837	7.1	Q1	3
European Journal of Cardio-Thoracic Surgery	1010-7940	3.4	Q1	2
European Journal of Clinical Investigation	0014-2972	5.5	Q1	1
European Journal of Clinical Nutrition	0954-3007	4.7	Q2	1
European Journal of Dermatology	1167-1122	2.5	Q2	2
European Journal of Endocrinology	0804-4643	5.8	Q1	2
European Journal of Haematology	0902-4441	3.1	Q3	1
European Journal of Human Genetics	1018-4813	5.2	Q1	1
European Journal of Internal Medicine	0953-6205	8	Q1	1
European Journal of Neurology	1351-5101	5.1	Q1	2
European Journal of Nutrition	1436-6207	5	Q2	2
European Journal of Obstetrics & Gynecology and Reproductive Biology	0301-2115	2.6	Q3	3
European Journal of Ophthalmology	1120-6721	1.7	Q4	2
European Journal of Orthopaedic Surgery and Traumatology	1633-8065	1.7	Q4	1
European Journal of Pediatric Surgery	0939-7248	1.8	Q3	3
European Journal of Pediatric Surgery Reports	2194-7619	0.6	Q4	2
European Journal of Pediatrics	0340-6199	3.6	Q1	7
European Journal of Preventive Cardiology	2047-4873	8.3	Q1	2
European Radiology	0938-7994	5.9	Q1	1
European Respiratory Journal	0903-1936	24.3	Q1	1
European Spine Journal	0940-6719	2.8	Q2	7
European Thyroid Journal	2235-0640	4.7	Q2	1
European Urology	0302-2838	23.4	Q1	2
European Urology Focus	2405-4569	5.4	Q1	2
European Urology Oncology	2588-9311	8.2	Q1	1
European Urology Open Science	2666-1691	2.5	Q3	1
Eurosurveillance	1025-496X	19	Q1	6
Experimental Eye Research	0014-4835	3.4	Q2	1
Experimental Gerontology	0531-5565	3.9	Q2	1
Expert Opinion on Pharmacotherapy	1465-6566	3.2	Q3	2
Expert Review of Clinical Pharmacology	1751-2433	4.4	Q2	1
Expert Review of Hematology	1747-4086	2.8	Q3	4
Expert Review of Neurotherapeutics	1473-7175	4.3	Q2	1

Expert Review of Pharmacoeconomics & Outcomes Research	1473-7167	2.3	Q3	1
Expert Review of Respiratory Medicine	1747-6348	3.9	Q2	1
Farmacia Hospitalaria	1130-6343	1.4	Q4	8
Faseb Journal	0892-6638	4.8	Q1	1
Food & Function	2042-6496	6.1	Q1	1
Food Research International	0963-9969	8.1	Q1	1
Free Radical Biology and Medicine	0891-5849	7.4	Q1	4
Frontiers in Allergy	2673-6101	Not Indexed	Not Indexed	2
Frontiers in Bioengineering and Biotechnology	2296-4185	5.7	Q1	1
Frontiers in Cardiovascular Medicine	2297-055X	3.6	Q2	6
Frontiers in Cell and Developmental Biology	2296-634X	5.5	Q1	2
Frontiers in Cellular and Infection Microbiology	2235-2988	5.7	Q1	2
Frontiers in Cellular Neuroscience	1662-5102	5.3	Q1	3
Frontiers in Endocrinology	1664-2392	5.2	Q1	5
Frontiers in Genetics	1664-8021	3.7	Q2	1
Frontiers in Immunology	1664-3224	7.3	Q1	20
Frontiers in Medicine	2296-858X	3.9	Q2	7
Frontiers in Microbiology	1664-302X	5.2	Q2	5
Frontiers in Neurology	1664-2295	3.4	Q2	3
Frontiers in Nutrition	2296-861X	5	Q2	3
Frontiers in Oncology	2234-943X	4.7	Q2	5
Frontiers in Pediatrics	2296-2360	2.6	Q2	12
Frontiers in Pharmacology	1663-9812	5.6	Q1	5
Frontiers in Psychology	1664-1078	3.8	Q1	2
Frontiers in Public Health	2296-2565	5.2	Q1	4
Frontiers in Surgery	2296-875X	1.8	Q3	6
Frontiers in Veterinary Science	2297-1769	3.2	Q1	1
Frontiers in Urology	2673-9828	Not Indexed	Not Indexed	1
Future Microbiology	1746-0913	3.1	Q3	2
Future Oncology	1479-6694	3.3	Q3	1
Gastroenterología y Hepatología	0210-5705	1.9	Q4	5
Gastroenterology	0016-5085	29.4	Q1	1
Genes	2073-4425	3.5	Q2	4
Genetics in Medicine	1098-3600	8.8	Q1	3



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Geothermics	0375-6505	3.9	Q2	1
Geroscience	2509-2715	5.6	Q2	1
Global & Regional Health Technology Assessment	2284-2403	0.5	Q4	1
Gynecologic Oncology	0090-8258	4.7	Q1	4
Haemophilia	1351-8216	3.9	Q2	2
Head and Neck-Journal for the Sciences and Specialties of the Head and Neck	1043-3074	2.9	Q1	1
Headache	0017-8748	5	Q1	1
Health & Place	1353-8292	4.8	Q2	1
Health Information Science and Systems	2047-2501	6	Q2	1
Heart	1355-6037	5.7	Q2	2
Heart Rhythm	1547-5271	5.5	Q2	1
Hepatology	0270-9139	13.5	Q1	1
Hepatology International	1936-0533	6.6	Q1	1
Hipertensión y Riesgo Vascular	1889-1837	0.6	Q4	2
HIV Medicine	1464-2662	3	Q3	5
HPB	1365-182X	2.9	Q2	2
HSS Journal	1556-3316	2.5	Q2	1
Human Genetics and Genomics Advances	2666-2477	4.4	Q1	1
Human Mutation	1059-7794	3.9	Q2	2
Human Reproduction Open	2399-3529	8.3	Q1	1
Hypertension	0194-911X	8.3	Q1	4
Hypertension Research	0916-9636	5.4	Q2	1
Immunity & Ageing	1742-4933	7.9	Q1	2
Indian Journal of Critical Care Medicine	0972-5229	2	Q4	1
Infectious Diseases and Therapy	2193-8229	5.4	Q2	1
Inflammation	0360-3997	5.1	Q2	1
Inflammatory Bowel Diseases	1078-0998	4.9	Q2	1
Influenza and Other Respiratory Viruses	1750-2640	4.4	Q2	1
Insects	2075-4450	3	Q1	1
Intensive and Critical Care Nursing	0964-3397	5.3	Q1	1
Intensive Care Medicine	0342-4642	38.9	Q1	2
Internal and Emergency Medicine	1828-0447	4.6	Q2	2
International Journal of Antimicrobial Agents	0924-8579	10.8	Q1	2
International Journal of Behavioral Nutrition and Physical Activity	1479-5868	8.7	Q1	1
International Journal of Cardiology	0167-5273	3.5	Q2	4

International Journal of Chronic Obstructive Pulmonary Disease	1178-2005	2.8	Q3	2
International Journal of Clinical and Health Psychology	1697-2600	8.8	Q1	1
International Journal of Clinical Oncology	1341-9625	3.3	Q3	1
International Journal of Clinical Practice	1368-5031	2.6	Q3	1
International Journal of Environmental Research and Public Health	1660-4601	2.468	Q2	12
International Journal of Epidemiology	0300-5771	7.7	Q1	1
International Journal of Gynecological Cancer	1048-891X	4.8	Q1	5
International Journal of Molecular Sciences	1422-0067	5.6	Q1	27
International Journal of Obesity	0307-0565	4.9	Q2	2
International Journal of Pediatric Otorhinolaryngology	0165-5876	1.5	Q3	1
International Journal of Public Health	1661-8556	4.6	Q2	2
International Journal of Spine Surgery	2211-4599	1.6	Q3	1
International Journal of Surgery	1743-9191	15.3	Q1	1
International Journal of Surgery Case Reports	2210-2612	0.6	Q4	1
International Journal of Urology	0919-8172	2.6	Q3	1
International Neurourology Journal	2093-4777	2.3	Q3	1
International Nursing Review	0020-8132	4.1	Q1	1
International Ophthalmology	0165-5701	1.6	Q4	1
International Orthopaedics	0341-2695	2.7	Q2	1
International Urology and Nephrology	0301-1623	2	Q3	1
Interventional Cardiology	1756-1485	Not Indexed	Not Indexed	1
Iscience	2589-0042	5.8	Q1	1
JACC-Basic To Translational Science	2452-302X	9.7	Q1	1
JACC-Cardiovascular Interventions	1936-8798	11.3	Q1	4
JAIDS-Journal of Acquired Immune Deficiency Syndromes	1525-4135	3.6	Q3	2
JAMA Cardiology	2380-6583	24	Q1	2
JAMA Dermatology	2168-6068	10.9	Q1	2
JAMA Network Open	2574-3805	13.8	Q1	1
JAMA Neurology	2168-6149	29	Q1	2
JAMA Pediatrics	2168-6203	26.1	Q1	1
JAMA Psychiatry	2168-622X	25.8	Q1	1
JAMA-Journal of The American Medical Association	0098-7484	120.7	Q1	1
JCO Clinical Cancer Informatics	2473-4276	4.2	Q2	1
JCR-Journal of Clinical Rheumatology	1076-1608	3.4	Q3	3



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JHEP Reports	2589-5559	8.3	Q1	1
JIMD Reports	2192-8304	Not Indexed	Not Indexed	1
JMIR Serious Games	2291-9279	4	Q2	1
Joint Bone Spine	1297-319X	4.2	Q2	1
Journal for Immunotherapy of Cancer	2051-1426	10.9	Q1	3
Journal of Affective Disorders	0165-0327	6.6	Q1	1
Journal of Allergy and Clinical Immunology-In Practice	2213-2198	9.4	Q1	4
Journal of Alzheimers Disease	1387-2877	4	Q2	1
Journal of Antimicrobial Chemotherapy	0305-7453	5.2	Q1	7
Journal of Asthma	0277-0903	1.9	Q4	1
Journal of Asthma and Allergy	1178-6965	3.2	Q3	3
Journal of Burn Care & Research	1559-047X	1.4	Q3	1
Journal of Cachexia Sarcopenia and Muscle	2190-5991	8.9	Q1	6
Journal of Cardiac Failure	1071-9164	6	Q1	1
Journal of Cardiothoracic Surgery	1749-8090	1.6	Q3	1
Journal of Cellular and Molecular Medicine	1582-1838	5.3	Q2	1
Journal of Clinical Endocrinology & Metabolism	0021-972X	5.8	Q1	1
Journal of Clinical Epidemiology	0895-4356	7.2	Q1	2
Journal of Clinical Immunology	0271-9142	9.1	Q1	1
Journal of Clinical Medicine	2077-0383	3.9	Q2	47
Journal of Clinical Medicine Research	1918-3003	Not Indexed	Not Indexed	1
Journal of Clinical Microbiology	0095-1137	9.4	Q1	3
Journal of Clinical Neurophysiology	0736-0258	2.4	Q3	1
Journal of Clinical Rheumatology and Immunology	2661-3417	Not Indexed	Not Indexed	1
Journal of Clinical Sleep Medicine	1550-9389	4.3	Q2	1
Journal of Crohn'S & Colitis	1876-4479	8	Q1	1
Journal of Dermatological Treatment	0954-6634	2.9	Q2	2
Journal of Education and Health Promotion	2277-9531	1.4	Q3	1
Journal of Emergency Medicine	0736-4679	1.5	Q3	1
Journal of Experimental & Clinical Cancer Research	1756-996	11.3	Q1	1
Journal of Forensic and Legal Medicine	1752-928X	1.5	Q3	1
Journal of Functional Foods	1756-4646	5.6	Q1	2
Journal of Fungi	2309-608X	4.7	Q2	1
Journal of General Internal Medicine	0884-8734	5.7	Q1	1

Journal of Geriatric Cardiology	1671-5411	2.5	Q3	2
Journal of Geriatric Oncology	1879-4068	3	Q3	1
Journal of Global Antimicrobial Resistance	2213-7165	4.6	Q2	1
Journal of Global Health	2047-2978	7.2	Q1	1
Journal of Healthcare Quality Research	2603-6479	1.2	Q4	1
Journal of Hepatology	0168-8278	25.7	Q1	2
Journal of Hypertension	0263-6352	4.9	Q2	1
Journal of Infection	0163-4453	28.2	Q1	2
Journal of Infectious Diseases	0022-1899	6.4	Q1	3
Journal of Intellectual Disability Research	0964-2633	3.6	Q1	1
Journal of Internal Medicine	0954-6820	11.1	Q1	1
Journal of International Advanced Otology	1308-7649	1	Q4	1
Journal of Invasive Cardiology	1557-2501	1.5	Q4	1
Journal of Investigational Allergology and Clinical Immunology	1018-9068	7.2	Q1	8
Journal of Investigative Surgery	0894-1939	1.9	Q3	1
Journal of Isakos Joint Disorders & Orthopaedic Sports Medicine	2059-7754	1.6	Q4	1
Journal of Laparoendoscopic & Advanced Surgical Techniques	1092-6429	1.3	Q4	1
Journal of Materials Science-Materials in Medicine	0957-4530	3.7	Q2	1
Journal of Maternal-Fetal & Neonatal Medicine	1476-7058	1.8	Q4	7
Journal of Medical Genetics	0022-2593	4	Q2	1
Journal of Medicinal Chemistry	0022-2623	7.3	Q1	2
Journal of Minimally Invasive Gynecology	1553-4650	4.1	Q1	1
Journal of Nephrology	1121-8428	3.4	Q2	1
Journal of Neuroengineering and Rehabilitation	1743-0003	5.1	Q1	1
Journal of Neuroimmunology	0165-5728	3.3	Q3	1
Journal of Neuromuscular Diseases	2214-3599	3.3	Q2	1
Journal of Neuro-Ophthalmology	1070-8022	2.9	Q2	1
Journal of Neurosurgery-Spine	1547-5654	2.8	Q2	1
Journal of Nursing Management	0966-0429	5.5	Q1	1
Journal of Nutrition Health & Aging	1279-7707	5.8	Q1	1
Journal of Obstetrics and Gynaecology	0144-3615	1.3	Q4	1
Journal of Obstetrics and Gynaecology Research	1341-8076	1.6	Q4	1
Journal of Optometry	1888-4296	2.3	Q2	1
Journal of Orthopaedics and Traumatology	1590-9921	2.8	Q2	1



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2.7 Scientific Production

Journal of Pain	1526-5900	4	Q2	1
Journal of Palliative Medicine	1096-6218	2.8	Q3	1
Journal of Pathology	0022-3417	7.3	Q1	1
Journal of Patient-Reported Outcomes	2509-8020	2.7	Q2	1
Journal of Pediatric Endocrinology & Metabolism	0334-018X	1.4	Q4	1
Journal of Pediatric Gastroenterology and Nutrition	0277-2116	2.9	Q2	4
Journal of Pediatric Intensive Care	2146-4618	0.7	Q4	1
Journal of Pediatric Neurology	1304-2580	0.2	Q4	1
Journal of Pediatric Urology	1477-5131	2	Q3	2
Journal of Pediatrics	0022-3476	5.1	Q1	1
Journal of Personalized Medicine	2075-4426	Not Indexed	Not Indexed	9
Journal of Plastic Reconstructive and Aesthetic Surgery	1748-6815	2.7	Q2	3
Journal of Proteomics	1874-3919	3.3	Q2	1
Journal of Psychiatric Research	0022-3956	4.8	Q2	2
Journal of Rehabilitation Medicine	1650-1977	3.5	Q1	1
Journal of Rheumatology	0315-162X	3.9	Q2	2
Journal of Robotic Surgery	1863-2483	2.3	Q2	1
Journal of Sexual Medicine	1743-6109	3.5	Q2	1
Journal of Sport and Health Science	2095-2546	11.7	Q1	2
Journal of Surgical Case Reports	2042-8812	0.5	Q4	1
Journal of the American Academy of Dermatology	0190-9622	13.8	Q1	2
Journal of the American College of Cardiology	0735-1097	24	Q1	4
Journal of the American College of Surgeons	1072-7515	5.2	Q1	1
Journal of the American Heart Association	2047-9980	5.4	Q2	2
Journal of the American Medical Directors Association	1525-8610	7.6	Q1	2
Journal of the American Society of Nephrology	1046-6673	13.6	Q1	1
Journal of the European Ceramic Society	0955-2219	5.7	Q1	1
Journal of the Pediatric Infectious Diseases Society	2048-7193	3.2	Q2	2
Journal of thrombosis and Haemostasis	1538-7933	10.4	Q1	1
Journal of Travel Medicine	1195-1982	25.7	Q1	3
Journal of Ultrasound	1971-3495	2	Q3	2
Journal of Ultrasound in Medicine	0278-4297	2.3	Q2	1
Journal of Viral Hepatitis	1352-0504	2.5	Q4	1
Journal of Womens Health	1540-9996	3.5	Q2	1
Journal of Wound Care	0969-0700	1.9	Q3	1

Journals of Gerontology Series A-Biological Sciences and Medical Sciences	1079-5006	5.1	Q2	1
Korean Circulation Journal	1738-5520	2.9	Q3	1
Lancet	0140-6736	168.9	Q1	3
Lancet Child & Adolescent Health	2352-4642	36.4	Q1	1
Lancet Gastroenterology & Hepatology	2468-1253	35.7	Q1	3
Lancet Global Health	2214-109X	34.3	Q1	1
Lancet Haematology	2352-3026	24.7	Q1	1
Lancet HIV	2352-3018	16.1	Q1	2
Lancet Neurology	1474-4422	48	Q1	1
Lancet Oncology	1470-2045	51.1	Q1	1
Lancet Psychiatry	2215-0374	64.3	Q1	1
Lancet Regional Health-Europe	2666-7762	20.9	Q1	1
Langenbecks Archives of Surgery	1435-2443	2.3	Q2	2
Le Infezioni in Medicina	2532-8689	Not Indexed	Not Indexed	1
Leukemia	0887-6924	11.4	Q1	2
Leukemia & Lymphoma	1042-8194	2.6	Q3	1
Life-Basel	2075-1729	3.2	Q2	2
Liver Transplantation	1527-6465	4.6	Q1	3
Lung Cancer	0169-5002	5.3	Q2	1
Maturitas	0378-5122	4.9	Q1	1
Mayo Clinic Proceedings	0025-6196	8.9	Q1	1
Medical Imaging 2022: Computer-Aided Diagnosis	0277-786X	Not Indexed	Not Indexed	1
Medical Ultrasonography	1844-4172	1.7	Q3	1
Medicina Clínica	0025-7753	3.9	Q2	12
Medicina de Familia-SEMERGEN	1138-3593	1.1	Q4	5
Medicina Intensiva	0210-5691	3	Q3	7
Medicina-Lithuania	1010-660X	2.6	Q3	2
Medicine	0025-7974	1.6	Q3	1
Metabolism-Clinical and Experimental	0026-0495	9.8	Q1	1
Metabolites	2218-1989	4.1	Q2	1
Methods in Molecular Biology (Clifton, N.J.)	1940-6029	3.5	Q3	3
Microbes and Infection	1286-4579	5.8	Q1	1
Microbial Genomics	2057-5858	3.9	Q2	1
Microbiology Spectrum	2165-0497	3.7	Q2	3



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2.7 Scientific Production

Microorganisms	2076-2607	4.5	Q2	2
Minerva Anestesiología	0375-9393	3.2	Q2	1
Minerva Orthopedics	2784-8469	0.4	Q4	1
Minerva Urology and Nephrology	2724-6051	4.9	Q1	7
Minimally Invasive Therapy & Allied Technologies	1364-5706	1.7	Q3	1
Modern Pathology	0893-3952	7.5	Q1	1
Molecular Genetics and Metabolism	1096-7192	3.8	Q2	1
Molecular Nutrition & Food Research	1613-4125	5.2	Q1	1
Molecular Oncology	1574-7891	6.6	Q1	1
Molecular Therapy-Nucleic Acids	2162-2531	8.8	Q1	1
Molecules	1420-3049	4.6	Q2	1
Monaldi Archives for Chest Disease	1122-0643	1.9	Q3	1
Movement Disorders Clinical Practice	2330-1619	4	Q2	1
Multiple Sclerosis and Related Disorders	2211-0348	4	Q2	2
Multiple Sclerosis Journal	1352-4585	5.8	Q1	1
Musculoskeletal Science and Practice	2468-7812	2.3	Q2	1
Mycoses	0933-7407	4.9	Q1	1
Nature	0028-0836	64.8	Q1	1
Nature Biotechnology	1087-0156	46.9	Q1	1
Nature Communications	2041-1723	16.6	Q1	5
Nature Genetics	1061-4036	30.8	Q1	1
Nature Medicine	1078-8956	82.9	Q1	2
Nefrología	0211-6995	2.6	Q3	8
Neonatology	1661-7800	2.5	Q2	1
Neoreviews	1526-9906	Not Indexed	Not Indexed	1
Nephrology Dialysis Transplantation	0931-0509	6.1	Q1	4
Neurobiology of Disease	0969-9961	6.1	Q1	1
Neurocirugía	1130-1473	0.8	Q4	3
Neurología	0213-4853	3.9	Q2	6
Neurológical Sciences	1590-1874	3.3	Q2	3
Neurologist	1074-7931	1.2	Q4	1
Neurology. Genetics	2376-7839	3.1	Q2	1
Neuro-Oncology Advances	2632-2498	3.5	Q2	1
Neuroradiology	0028-3940	2.8	Q2	1
Neurospine	2586-6583	3.2	Q1	1
New England Journal of Medicine	0028-4793	158.5	Q1	2

Non-Coding RNA	2311-553X	4.3	Q2	1
Nucleic Acid Therapeutics	2159-3337	4	Q2	1
Nutrición Hospitalaria	0212-1611	1.2	Q4	19
Nutrients	2072-6643	5.9	Q1	13
Nutrition	0899-9007	4.4	Q2	1
Obesity Surgery	0960-8923	2.9	Q2	1
Oncogene	0950-9232	8	Q1	1
Oncology and Therapy	2366-1070	2.7	Q4	1
Open Forum Infectious Diseases	2328-8957	4.2	Q2	5
Open Respiratory Archives	2659-6636	Not Indexed	Not Indexed	2
Orphanet Journal of Rare Diseases	1750-1172	3.7	Q2	5
Otology & Neurotology	1531-7129	2.1	Q3	3
PACE-Pacing and Clinical Electrophysiology	0147-8389	1.8	Q4	1
Pain Management Nursing	1524-9042	1.7	Q3	1
Parkinsonism & Related Disorders	1353-8020	4.1	Q2	1
Pathológica	0031-2983	3.5	Q3	1
Pediatric Allergy and Immunology	0905-6157	4.4	Q1	2
Pediatric Blood & Cancer	1545-5009	3.2	Q2	1
Pediatric Dermatology	0736-8046	1.5	Q4	1
Pediatric Emergency Care	0749-5161	1.4	Q3	2
Pediatric Gastroenterology Hepatology & Nutrition	2234-8646	1.9	Q3	1
Pediatric Infectious Disease Journal	0891-3668	3.6	Q1	10
Pediatric Pulmonology	8755-6863	3.1	Q2	1
Pediatric Rheumatology	1546-0096	2.5	Q2	1
Pediatric Surgery International	0179-0358	1.8	Q3	3
Pediatric Transplantation	1397-3142	1.3	Q4	1
Pediatrics	0031-4005	8	Q1	1
PEERJ	2167-8359	2.7	Q2	1
Peptides	0196-9781	3	Q3	1
Pharmaceutical Biology	1388-0209	3.8	Q1	1
Pharmaceuticals	1424-8247	4.6	Q2	2
Pharmaceutics	1999-4923	5.4	Q1	5
Pharmacological Research	1043-6618	9.3	Q1	2
Physical Therapy	0031-9023	3.2	Q1	1
Plastic and Reconstructive Surgery	0032-1052	3.6	Q1	1



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2.7 Scientific Production

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3 Information Groups by Area

4 Associated Clinicians

PLOS Digital Health	2767-3170	Not Indexed	Not Indexed	1
PLOS One	1932-6203	3.7	Q2	11
PM&R	1934-1482	2.1	Q2	1
Polish Archives of Internal Medicine-Polskie Archiwum Medycyny Wewnętrznej	0032-3772	4.8	Q2	1
Postgraduate Medicine	0032-5481	4.2	Q2	1
Protein Science	0961-8368	8	Q1	1
Proteomics	1615-9853	3.4	Q2	1
Psychiatric Genetics	0955-8829	0.9	Q4	1
Radiation Protection Dosimetry	0144-8420	1	Q4	1
Radiología	0033-8338	1.3	Q4	2
Radiotherapy and Oncology	0167-8140	5.7	Q1	2
REC-Interventional Cardiology	2604-7306	1.4	Q3	5
Redox Biology	2213-2317	11.4	Q1	2
Reproductive Biomedicine Online	1472-6483	4	Q1	1
Research and Practice in Thrombosis and Haemostasis	2475-0379	4.6	Q2	3
Respiratory Care	0020-1324	2.5	Q4	1
Respiratory Research	1465-993X	5.8	Q1	1
Retina-The Journal of Retinal and Vitreous Diseases	0275-004X	3.3	Q2	1
Reumatología Clínica	1699-258X	1.5	Q4	9
Reviews in Endocrine & Metabolic Disorders	1389-9155	8.2	Q1	1
Revista Clínica Española	0014-2565	2.9	Q2	9
Revista da Associação Médica Brasileira	0104-4230	1.4	Q4	1
Revista de la Asociación Española de Especialistas en Medicina del Trabajo	1132-6255	Not Indexed	Not Indexed	1
Revista de la OFIL	1699-714X	Not Indexed	Not Indexed	1
Revista de Psicoterapia	1130-5142	0.3	Q4	1
Revista Española de Anestesiología y Reanimación	0034-9356	1.3	Q3	5
Revista Española de Cardiología	1885-5857	5.9	Q1	12
Revista Española de Cirugía Ortopédica y Traumatología	1988-8856	Not Indexed	Not Indexed	2
Revista Española de Enfermedades Digestivas	1130-0108	2	Q4	2
Revista Española de Geriatría y Gerontología	1578-1747	Not Indexed	Not Indexed	15
Revista Española de Medicina Nuclear e Imagen Molecular	2253-654X	1.2	Q4	3

Revista Española de Patología	1988-561X	Not Indexed	Not Indexed	2
Revista Española de Quimioterapia	0214-3429	1.9	Q4	8
Revista Española de Salud Pública	1135-5727	1.1	Q4	2
Revista Internacional de Medicina y Ciencias de la Actividad Física y del Deporte	1577-0354	1.3	Q4	1
Revista Latino-Americana de Enfermagem	1518-8345	1.8	Q3	2
Revista Portuguesa de Cardiología	0870-2551	1.8	Q4	2
Rheumatology	1462-0324	5.5	Q1	4
RMD Open	2056-5933	6.2	Q1	6
Scandinavian Journal of Child and Adolescent Psychiatry and Psychology	2245-8875	1.9	Q4	1
Scandinavian Journal of Rheumatology	0300-9742	2.1	Q4	1
Schizophrenia Research	0920-9964	4.5	Q2	1
Science	0036-8075	56.9	Q1	2
Science & Sports	0765-1597	1.1	Q4	1
Science Advances	2375-2548	13.6	Q1	1
Science Translational Medicine	1946-6234	17.1	Q1	1
Scientific Reports	2045-2322	4.6	Q2	16
Seizure-European Journal of Epilepsy	1059-1311	3	Q3	1
Seminars in Arthritis and Rheumatism	0049-0172	5	Q2	4
Seminars in Cancer Biology	1044-579X	14.5	Q1	1
Seminars in Dialysis	0894-0959	1.6	Q4	1
Sensors	1424-8220	3.9	Q2	2
Skin Research and Technology	0909-752X	2.2	Q3	1
Social Psychiatry and Psychiatric Epidemiology	0933-7954	4.4	Q2	2
Spine Deformity	2212-134X	1.6	Q3	1
Sports Medicine-Open	2199-1170	4.6	Q1	1
SSM-Population Health	2352-8273	4.7	Q2	2
Stroke	0039-2499	8.3	Q1	1
Supportive Care in Cancer	0941-4355	3.1	Q1	1
Surgeon-Journal of The Royal Colleges of Surgeons of Edinburgh and Ireland	1479-666X	2.5	Q2	1
Surgery	0039-6060	3.8	Q1	2
Surgery Journal	2378-5128	0.9	Q4	1
Surgical Endoscopy and Other Interventional Techniques	0930-2794	3.1	Q1	1

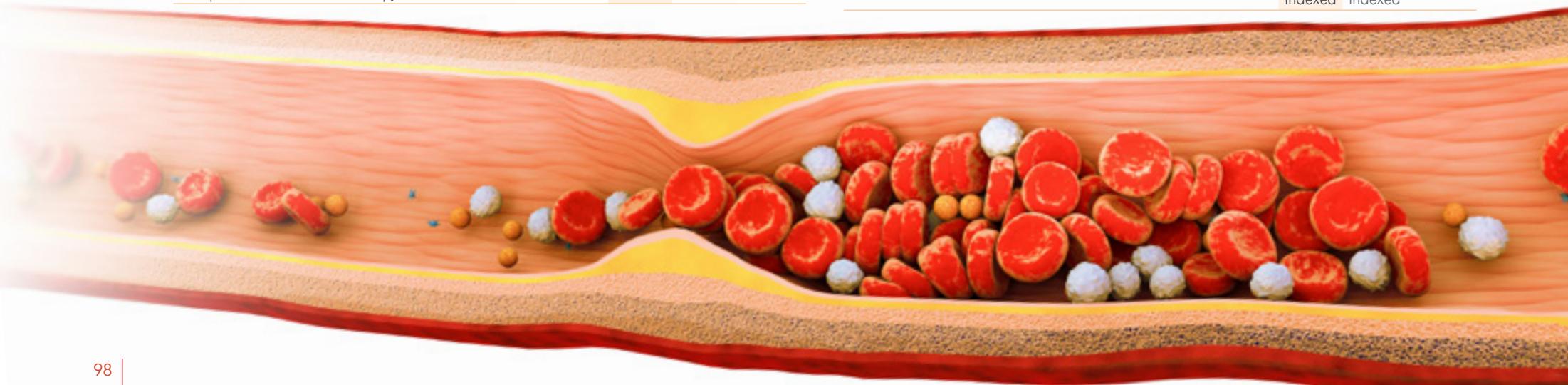


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2.7 Scientific Production

Surgical Infections	1096-2964	2	Q3	1
Techniques in Coloproctology	1123-6337	3.3	Q1	1
Th Open: Companion Journal to Thrombosis and Haemostasis	2512-9465	Not Indexed	Not Indexed	1
Therapeutic Advances in Gastroenterology	1756-283X	4.2	Q2	2
Therapeutic Advances in Hematology	2040-6207	3.4	Q2	1
Therapeutic Advances in Medical Oncology	1758-8340	4.9	Q2	1
Therapeutic Advances in Musculoskeletal Disease	1759-720X	4.2	Q2	5
Thorax	0040-6376	10	Q1	1
Thrombosis and Haemostasis	0340-6245	6.7	Q1	2
Thrombosis Research	0049-3848	7.5	Q1	2
Tiempos Modernos-Revista Electrónica de Historia Moderna	1699-7778	0.2	Q4	1
Toxicology and Applied Pharmacology	0041-008X	3.8	Q2	1
Toxicon	0041-0101	2.8	Q3	1
Transfusión	0041-1132	2.9	Q3	1
Transfusion and Apheresis Science	1473-0502	1.9	Q4	1
Translational Research	1931-5244	7.8	Q1	1
Transplant Immunology	0966-3274	1.5	Q4	1
Transplant Infectious Disease	1398-2273	2.6	Q3	1
Transplant International	0934-0874	3.1	Q1	2
Transplantation	0041-1337	6.2	Q1	7
Transplantation and Cellular Therapy	2666-6375	3.2	Q2	1

Transplantation Proceedings	0041-1345	0.9	Q4	2
Travel Medicine and Infectious Disease	1477-8939	12	Q1	4
Trials	1745-6215	2.5	Q3	3
Ultrasound in Obstetrics & Gynecology	0960-7692	7.1	Q1	1
Updates in Surgery	2038-131X	2.6	Q2	2
Urologic Oncology-Seminars and Original Investigations	1078-1439	2.7	Q2	2
Vaccine	0264-410X	5.5	Q2	2
Vaccines	2076-393X	7.8	Q1	6
Virology Journal	1743-422X	4.8	Q2	1
Vox Sanguinis	0042-9007	2.7	Q3	1
Work-A Journal of Prevention Assessment & Rehabilitation	1051-9815	2.3	Q3	1
World Allergy Organization Journal	1939-4551	5.1	Q2	1
World Journal of Emergency Surgery	1749-7922	8	Q1	1
World Journal of Gastroenterology	1007-9327	4.3	Q2	1
World Journal of Gastrointestinal Oncology	1948-5204	3	Q3	2
World Journal of Pediatrics	1708-8569	8.7	Q1	1
World Journal of Stem Cells	1948-0210	4.1	Q3	1
World Journal of Surgery	0364-2313	2.6	Q2	1
World Journal of Urology	0724-4983	3.4	Q2	2
World Neurosurgery	1878-8750	2	Q3	1
World Review of Nutrition and Dietetics	1662-3975	Not Indexed	Not Indexed	1





2.8 CIBERs and RETICs

2.8.1. CIBER- BIOMEDICAL RESEARCH NETWORKING CENTERS

Throughout 2022, IdiPAZ has participated in the following thematic networks and research consortiums legally recognized by the Instituto de Salud Carlos III.

Project	Acronym	CIBER	Funding Organisation	Principal Researcher	IdiPAZ Group	End Date
CB06/05/0007	CIBERNED 	Networked Biomedical Research Center for Neurodegenerative Diseases	Instituto de Salud Carlos III	Bullido Gómez-Heras, María Jesús	Neurology and cerebrovascular diseases	31/12/2022
CB06/05/0010			Instituto de Salud Carlos III	Cuadrado Pastor, Antonio	Neuroprotective Strategies in Neurodegenerative Diseases	31/12/2022
CB07/08/0033	CIBERDEM 	Networked thematic area of Diabetes and Associated Metabolic Diseases	Instituto de Salud Carlos III	Martínez Valverde, Ángela María	Neuroprotective Strategies in Neurodegenerative Diseases	31/12/2022
CB15/00037	CIBERES 	Networked Biomedical Research Center for Respiratory Diseases	Instituto de Salud Carlos III	García Río, Francisco	Respiratory Diseases	31/12/2021
CB06/01/0008	CIBER-BBN 	Networked Biomedical Research Center for Bio-engineering, Biomaterials and Nanomedicine	Instituto de Salud Carlos III	Vilaboa Díaz, Nuria Elda	Bone Pathophysiology and biomaterials	31/12/2023
CB06/04/0083	CIBEREHD 	Networked Biomedical Research Center for Hepatic and Digestive Diseases	Instituto de Salud Carlos III	García-Samaniego Rey, Javier	Translational Hepatology	31/12/2023
CB06/04/0011			Instituto de Salud Carlos III	Fondevila Campo, Constantino	Translational Research and Innovation in general and Digestive Surgery	31/12/2023
CB06/02/0001	CIBERESP 	Networked Biomedical Research Center for Public Health and Epidemiology	Instituto de Salud Carlos III	Rodríguez Artalejo, Fernando	Cardiovascular Epidemiology and Nutrition	31/12/2023



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2.8 CIBERs and RETICs

CB06/07/1033

CB06/07/1005

CB06/07/0004

CB06/07/1021

CB06/07/0038

CB19/07/00042



Networked Biomedical Research Center for Rare Diseases

Instituto de Salud Carlos III Caballero Molina, María Teresa

Instituto de Salud Carlos III Lapunzina Badía, Pablo

Instituto de Salud Carlos III Pérez González, María Belén

Instituto de Salud Carlos III Varela Nieto, María Isabel

Instituto de Salud Carlos III Botella Cubells, Luisa María

Instituto de Salud Carlos III López Granados, Eduardo

Diagnosis and Treatment of Allergic Diseases**INGEMM Institute of Medical and Molecular Genetics****Research and Diagnosis of Inherited Metabolic Diseases****Oto-Neurosurgery Research****Urology****Lymphocyte Pathophysiology in Immunodeficiencies**

31/12/2023

31/12/2023

31/12/2023

31/12/2022

31/12/2021

31/12/2023

CB16/11/00286

CB16/12/00295

CB16/12/00273

CB16/12/00398

CB21/13/00039

CB21/13/00025

Instituto de Salud Carlos III Salaices Sánchez, Mercedes

Instituto de Salud Carlos III Moreno Bueno, Gema

Instituto de Salud Carlos III Muñoz Terol, Alberto

Instituto de Salud Carlos III Feliú Batlle, Jaime

Arribas López, José Ramón

Instituto de Salud Carlos III Calvo Rey, Cristina

Vascular Physiology and Pharmacology**Mechanisms of Tumour Progression****Mechanisms of Tumour Progression****Trasnlational Oncology****AIDS and Infectious Diseasesy****Pediatric Respiratory, Systemic and Neurological Infections & Host Immune Response**

31/12/2022

31/12/2022

31/12/2022

31/12/2022

31/12/2024

31/12/2024

2.8.2. NETWORKS AND PLATFORMS

IdiPAZ is also part of the following Platforms and Networks for Cooperative Research in Health are organisational structures which seek to conduct cooperative research projects of transversal character.

Project	Acronym	CIBER	Funding Organisation	Principal Researcher	IdiPAZ Group	End Date
PT20/00002	ITEMAS	Plataforma ITEMAS	Instituto de Salud Carlos III	de Castro Carpeño, Javier	Experimental Therapies and Biomarkers in Cancer	31/12/2023
PT17/0005/0025	RNBB	Red de Biobancos	Instituto de Salud Carlos III	Gómez Campelo, Paloma	Frailty, Multimorbidity Patterns and Mortality in the Elderly Population Residing in the Community	28/02/2021
PT20/00004	SCReN	Plataforma de Unidades de Investigación Clínica y Ensayos Clínicos	Instituto de Salud Carlos III	Borobia Pérez, Alberto	Clinical Pharmacology	31/12/2023
PT17/0015/0025	SCReN	Plataforma ISCIII de soporte para la Investigación Clínica	Instituto de Salud Carlos III	Borobia Pérez, Alberto	Clinical Pharmacology	28/02/2021
PT20/00036	SCReN	Plataforma ISCIII de soporte para la Investigación Clínica	Instituto de Salud Carlos III	Borobia Pérez, Alberto	Clinical Pharmacology	31/12/2023
PTC20/00018	SCReN	Plataforma ISCIII de soporte para la Investigación Clínica	Instituto de Salud Carlos III	Borobia Pérez, Alberto	Clinical Pharmacology	31/12/2023



2 Executive Summary

2.8 CIBERs and RETICs

1 Introduction

2 Executive Summary

3 Information Groups by Area

4 Associated Clinicians

	INVICTUS PLUS 	Red de Investigación Cooperativa de Enfermedades Vasculares Cerebrales	Instituto de Salud Carlos III	Díez Tejedor, Exuperio	Neurology and Cerebrovascular Diseases
	RD16/0019/0005				31/12/2022
	RICORS-ICTUS 	Red de Enfermedades Vasculares Cerebrales	Instituto de Salud Carlos III	Fuentes Gimeno, Blanca	Neurology and Cerebrovascular Diseases
	RD21/0006/0012				31/12/2024
	RIS 	Red Española de Investigación en SIDA	Instituto de Salud Carlos III	González García, Juan	AIDS and Infectious Diseases
	RD16/0025/0018				30/06/2022
	RICET 	Red de Investigación Cooperativa en Enfermedades Tropicales	Instituto de Salud Carlos III	Díaz Menéndez, Marta	AIDS and infectious diseases
	RD16/0027/0002				31/12/2022
	RIER 	Red de Investigación en Inflamación y Enfermedades Reumáticas	Instituto de Salud Carlos III	Miranda Carús, María Eugenia	Immuno-Rheumatology
	RD16/0012/0012				31/12/2022
	SAMID 	Red de Salud Materno Infantil y del Desarrollo	Instituto de Salud Carlos III	Cabañas González, Fernando	Neonatology
	RD16/0022/0004				31/12/2022
	RD16/0022/0006			Martínez Martínez, Leopoldo	Associated Clinician
	RD21/0012/0014			Cabañas González, Fernando	Neonatology
					31/12/2024
	REDINREN 	Red de Investigación Renal	Instituto de Salud Carlos III	Bajo Rubio, María Auxiliadora	Nephrology
	RD16/0009/0008				31/12/2022
	KIDNEY DISEASE 	Inflamación e inmunopatología de órganos y sistemas	Instituto de Salud Carlos III	Bajo Rubio, María Auxiliadora	Nephrology
	RD21/0005/0018				31/12/2024
	RICORS2040 	Inflamación e inmunopatología de órganos y sistemas	Instituto de Salud Carlos III	Fernández Juárez, Gemma María	Nephrology
	RD21/0005/0030				31/12/2024
	ARADYAL 	Red de Asma, Reacciones Adversas a Fármacos y Alergia	Instituto de Salud Carlos III	Laguna Martínez, José Julio	Associated Clinician
	RD16/0006/0033				31/12/2022
	TERAV 	Red de Terapias Avanzadas - TerCel	Instituto de Salud Carlos III	Pérez Martínez, Antonio	Translational Research in Pediatric Oncology, Hematopoietic Transplantation and Cell Therapy
	RD21/0017/0025				31/12/2024



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2.8 CIBERs and RETICs

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	NuRCaMein 	Spanish Nuclear Receptor Research Network	Ministerio de Investigación, Ciencia y Universidades	Muñoz Terol, Alberto	Mechanisms of Tumour Progression	31/12/2022
	ECLip 	The European Consortium of Lipodystrophies (ECLip)	European Network	López Trascasa, Margarita	Diagnosis and Treatment of Diseases Associated with Abnormalities of the Complement System	31/12/2022
	CA19117 	Researcher Mental Health Observatory	Horizon Europe COST Action	Gómez Campelo, Paloma	Aging and Fragility in the Elderly	31/12/2024
	CA18211 	Perinatal Mental Health and Birth-Related Trauma	Horizon Europe COST Action	Bravo Laguna, María Carmen	Neonatology	31/12/2023
	CA20121 	Bench to bedside transition for pharmacological regulation of NRF2 in noncommunicable diseases	Horizon Europe COST Action	Cuadrado Pastor, Antonio	Neuroprotective Strategies in Neurodegenerative Diseases	31/12/2025
	EUROGEN 	ERN Urogenital Diseases	ERN European Reference Network	López Pereira, Pedro	Urology	31/12/2021
	RARE-LIVER 	ERN Hepatological diseases	ERN European Reference Network	Hierro Llanillo Loreto	Molecular Hepatology	31/12/2023
	TRANSPLANTCHILD 	ERN Paediatric Transplants	ERN European Reference Network	Jara Vega, Paloma	Molecular Hepatology	31/12/2023
	EATRIS 	EATRIS European Infrastructure for Translational Medicine	EATRIS European Infrastructure	Ibáñez de Cáceres, Inmaculada	Experimental Therapies and Biomarkers in Cancer	31/12/2023
	ECRIN 	ECRIN European Clinical Research Infrastructure Network	ERIN European Research Infrastructure Consortium	Carcas Sansuán, Antonio	Clinical Pharmacology	31/12/2023
	RELECOV 	Red de Laboratorios Españoles de secuenciación Genómica de SARS-CoV-2	European Union	Casas Flecha, Inmaculada	Pediatric Respiratory, Systemic and Neurological Infections & Host Immune Response	31/12/2023



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2.9 Institutional Projects

2.9.1. MENTOR PROGRAM

In 2022, IdiPAZ, with the support of La Paz University Hospital, has implemented the **2nd Mentor Program** with the purpose of supporting our clinical early career researchers in the achievement of competitive projects, mainly from the main national call for health research projects: "Acción Estratégica en Salud (AES)", granted by Instituto de Salud Carlos III.

The Mentor Program plans a scientific and technical support in the preparation and tracking of research proposals. Furthermore, it takes into account the experience and scientific

knowledge from our senior researchers to help our early stage researchers from the beginning of their research career.

The objectives of the program are:

- Increasing the number of clinical research in IdiPAZ.
- Avoiding a generational leap of clinical researchers.
- Strengthening the research profile of our clinical staff.
- Becoming IdiPAZ a clinical research model, at the same level that IdiPAZ is in the clinical trials.

• Performing an internal cultural change in clinical research

2nd Mentor Program included different action plans have been implemented: to update the standardized curriculum for researchers, enable synergies to create research groups, support from the different platforms of IdiPAZ, services of medical writing and stand out the impact and the strategic priorities of the projects for the National Health System.

In the **2nd Mentor Program** 76 participants were included:

Researcher	Service
Adela Escudero López	GENÉTICA
Ainoa Muñoz San José	PSIQUEIATRÍA, PSICOLOGÍA CLÍNICA Y SALUD MENTAL
Alejandro Martín Quirós	URGENCIAS
Alicia Gutiérrez Misis	ENFERMERÍA
Álvaro Pinto Marín	ONCOLOGÍA MÉDICA
Ana Belén Custodio Carretero	ONCOLOGÍA MÉDICA
Ana Fernández Santander	GENÉTICA UEM
Ana Méndez Echevarría	PEDIATRÍA, ENFERMEDADES INFECCIOSAS Y TROPICALES
Ane Miren Andrés Moreno	CIRUGÍA PEDIÁTRICA
Ángela Palao Tarrero	PSIQUEIATRÍA, PSICOLOGÍA CLÍNICA Y SALUD MENTAL
Beatriz Castelo Fernández	ONCOLOGÍA MÉDICA
Blanca Martínez Serrano	ANESTESIA Y REANIMACIÓN (UN. DEL DOLOR)
Carlos Daniel Grasa Lozano	PEDIATRÍA, ENFERMEDADES INFECCIOSAS Y TROPICALES
Carlos Delgado Miguel	CIRUGÍA PEDIÁTRICA (contratado por FIBHULP)
Carlos Javier Carpio Segura	NEUMOLOGÍA

Carlos Rodríguez Antolín	ONCOLOGÍA FIBHULP
Carmen Sobrino Jiménez	FARMACIA HOSPITALARIA
Cristina de Manuel Gómez	NEUMOLOGÍA INFANTIL
Dolores Lledín Barbacho	HEPATOLOGÍA INFANTIL
Eduardo Fernández Jiménez	PSIQUEIATRÍA, PSICOLOGÍA CLÍNICA Y SALUD MENTAL
Elena Gredilla Díaz	ANESTESIA Y REANIMACIÓN
Elena Sendagorta Cudos	DERMATOLOGÍA
Elena Vallespin García	GENÉTICA
Elena Villamañán Bueno	FARMACIA HOSPITALARIA
Elisabet González del Portillo	ONCOLOGÍA RADIOTERÁPICA
Elisabet Martínez Cerón	NEUMOLOGÍA
Emanuela Spagnolo	OBSTETRICIA Y GINECOLOGÍA
Esperanza Escribano Palomino	NEONATOLOGÍA
Francisco Hernández Oliveros	CIRUGÍA PEDIÁTRICA
Francisco Javier Cueto Rodríguez	INMUNOLOGÍA FIBHULP
Gema Muñoz Bartolo	HEPATOLOGÍA INFANTIL
Ignacio Zapardiel Gutiérrez	GINECOLOGÍA Y OBSTETRICIA

Irene García García	FARMACOLOGÍA CLÍNICA
Isabel Pascual Migueláñez	CIRUGÍA GENERAL Y DEL APARATO DIGESTIVO
Javier Saceda Gutiérrez	NEUROCIRUGÍA - SECCIÓN NEUROCIRUGÍA PEDIÁTRICA
Javier Serradilla Rodríguez	CIRUGÍA PEDIÁTRICA
Jordi Minguijón Pedreño	HEMATO-ONCO FIBHULP
Jorge Díaz-Garzón Marco	ANÁLISIS CLÍNICOS
Jorge Rodríguez Pardo de Donlebún	NEUROLOGÍA
José Luis del Castillo Pardo de Vera	CIRUGÍA ORAL Y MAXILOFACIAL
Juan Carlos López Gutiérrez	CIRUGÍA PEDIÁTRICA
Laura Córdoba García	HUB ORGANOIDES
Leticia de las Vecillas Sánchez	ALERGOLÓGIA
Luis Escosa García	PEDIATRÍA, ENFERMEDADES INFECCIOSAS Y TROPICALES
Luis González del Valle	FARMACIA HOSPITALARIA
Luis Landín Jarillo	CIRUGÍA PLÁSTICA, REPARADORA Y QUEMADOS
Luis Riera del Moral	ANGIOLOGÍA Y CIRUGÍA VASCULAR



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Luna Cordeiro Minute	INMUNOLOGÍA FIBHULP
María Cristina Murano	UNIDAD DE ENSAYOS CLÍNICOS
María de la Calle Fernández-Miranda	OBSTETRICIA Y GINECOLOGÍA
María Dolores Martín Arranz	APARATO DIGESTIVO
María Jesús Pascau González-Garzón	ENFERMERÍA UCI PEDIÁTRICA
María Nieves Moreno	OFTALMOLOGÍA INFANTIL
María Patricia Sanz de Pedro	ANÁLISIS CLÍNICOS
María Virginia Amesty Morello	CIRUGÍA PEDIÁTRICA – SECCIÓN UROLOGÍA PEDIÁTRICA
Marisa Gandía González	NEUROCRUGÍA
Marta Díaz Menéndez	MEDICINA INTERNA
Marta Duque Alcorta	ANÁLISIS CLÍNICOS
Marta Molero Luis	ANÁLISIS CLÍNICOS
Mercedes López Martínez	ANESTESIA Y REANIMACIÓN
Montserrat Bret Zurita	RADIOLOGÍA

Olaia Rodríguez Fraga	ANÁLISIS CLÍNICOS
Olga Vera Puente	ONCOLOGÍA FIBHULP
Patricia Luna Castaño	ENFERMERÍA UCI PEDIÁTRICA
Pedro Navía Álvarez	RADIOLOGÍA
Pilar Nozal Aranda	INMUNOLOGÍA
Raquel Casitas Mateo	NEUMOLOGÍA
Raquel Ramírez Martín	GERIATRÍA
Raúl Sánchez Pérez	CIRUGÍA CARDIACA INFANTIL
Rosa de Miguel Buckley	MEDICINA INTERNA
Rosa Morera López	ONCOLOGÍA RADIOTERÁPICA
Teresa del Rosal Rabés	PEDIATRÍA, ENFERMEDADES INFECCIOSAS Y TROPICALES
Virginia García Pineda	GINECOLOGÍA Y OBSTETRICIA
Yadira Bravo Gallego	TRANSPLANTCHILD
Yale Tung Chem	MEDICINA INTERNA
Ylenia Navarro Monforte	RADIOLOGÍA

The program was in collaboration with a network of seniors mentors from different fields and professional expertise. The mentors provide mentees a constructive feedback, putting at their disposal all their experience, dedication and motivation, supporting the build of the research project:

Alberto Borobia Pérez	Jaime Feliú Battle
Ana Sastre Perona	Javier de Castro Carpeño
Berta Rodés Soldevilla	Jesús Mingorance Cruz
Blanca Fuentes Gimeno	José Luis Cebrián Carretero
Carlos del Fresno Sánchez	José Luis López-Sendón Hentschel
Carolina Cubillos Zapata	José Ramón Arribas López
Constantino Fondevila Campo	Karen Heath
Cristina Calvo Rey	Laura Otero Ortega
Eduardo López-Collazo	Loreto Hierro Lanillo
Esther Pérez David	Luiz Stark
Francisco García Río	Mª Fe Bravo Ortiz
Inmaculada Ibáñez de Cáceres	Margarita López Trascasa
	María Fernández Velasco
	María Gutiérrez Fernández
	Miguel Saenz de Pipaón
	Nora Butta Coll
	Nuria Vilaboa Díaz
	Paloma Gómez Campelo
	Pilar Sánchez-Corral Gómez
	Rebeca Pérez de Diego
	Rosa Torres Jiménez
	Santiago Rello Varona
	Talía Sainz Costa



Delivery of certificates to the mentors
19th January 2022



In 2022, the programme also included several webinars:

Webinar	Speaker	Date
Claves para la preparación de propuestas AES. Evaluación de Proyectos	Daniel Quijada	13/10/2022
Planificación metodológica para proyectos	Alberto Borobia	27/10/2022
Cómo preparar un buen presupuesto	Silvia Arce y Raquel Carmona	10/11/2022
CVN e Identificador ORCID	Raúl Román	24/11/2022
Interés estratégico del proyecto y plan de difusión	Daniel Quijada	01/12/2022
Perspectiva y dimensión de género en la investigación	Daniel Quijada	15/12/2022
Plan de gestión de datos científicos. Protección de datos	Daniel Quijada y Estela Sánchez	12/01/2023
Novedades de la convocatoria AES 2023	Mercedes Ruiz y Daniel Quijada	22/03/2023
Tutorial sobre el aplicativo de la AES	Daniel Quijada y Mercedes Ruiz	29/03/2023

In its second year, all the actions developed in the mentor program have led to an increase in the number of projects submitted to the Acción Estratégica en Salud call for proposals funded by the Instituto de Salud Carlos III.





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2.9.2. TRANSVERSAL RESEARCH PROJECT

IdiPAZ's Strategic Plan has, among its prioritized lines of action, the promotion of research of excellence through the consolidation of the research areas and groups that make up the scientific structure. For this, the model of interrelation between the research areas and groups of the Institute is key and directly impacts the generation of synergies and the development of joint collaborative projects.

The main objective of the Transversal Research Projects is to strengthen the configuration of multidisciplinary research teams, participated by IdiPAZ research groups (both excellent, consolidated and emerging as young researchers).

Two Transversal Research Projects have been implemented:

Study of pathogen-host interaction: implementation of a logistic for the development of infectious disease projects.

At the IdiPAZ facilities, construction has begun on a biological containment laboratory that will allow the handling of pathogens classified as biosafety levels 2 and 3. This means the possibility of carrying out studies in a controlled environment with infectious agents whose risk of transmission and health risk is moderate (level 2) and with those that present a high risk of transmission, for example, by aerosols and that can generate serious diseases (level 3). This facility is equipped with safety systems such as hoods for handling biological agents, controlled access, exclusions and specific showers, as well as to control the exit of materials under safe conditions. This facility represents a leap in quality for IdiPAZ as it will provide the facilities required to meet the new infectious challenges that society is facing.



Biomodels for the study of multiple diseases: a tool for the development and implementation of therapies.

During this year, construction work began on a SPF (Specific Pathogen Free) animal facility. This is an area where strict microbiological control is maintained to ensure that the experimental animals housed do not suffer unwanted infections. Access to this area is controlled by a system of locks and quarantines. Similarly, all incoming materials must be previously sterilized by means of the autoclaves and sterilization systems present at the entrance to the facility. This type of animal facility allows the development of experiments with immunosuppressed animals, very useful experimental models since they allow working with human cells, which is extremely important for a health research institute such as IdiPAZ.

Approach of these Transversal Research Projects included:

- Translational vision, interrelation between the scientific

areas of IdiPAZ and orientation to the clinical practice setting.

- Participatory research projects in which collaboration between research groups from different Areas is promoted.
- Projects coordinated by a person in charge who encourages participation and collaboration between groups for the development of projects.
- Evaluation with monitoring indicators based on standards of excellence, focused on obtaining funding, scientific production and / or results in clinical practice.

In 2023, the Biosecurity Committee of HULP/FIBHULP was formally established to comply with current legislation on biological safety (RD 664/1997, Law 9/2003 and RD 178/2004). The constitution of this Committee gives the Institution a strategic advantage.



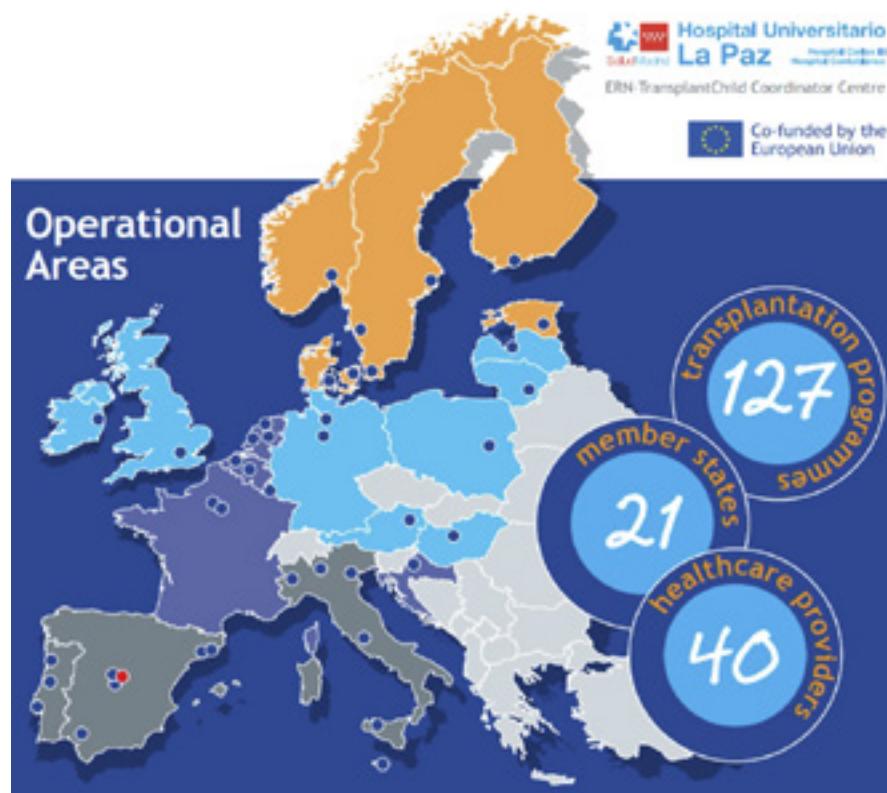


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2.9 Institutional Projects

2.9.3. TRANSPLANTCHILD

During this year, we face the sixth year of the coordination of the European Reference Network (ERN) TransplantChild (www.transplantchild.eu). ERN TransplantChild tackles a low prevalence complex procedure and condition that is the paediatric transplantation of all kind of solid organ (kidney, liver, heart, intestine and lung) and hematopoietic stem cell transplantation (HSCT). It covers more than 120 paediatric transplantation programmes at 40 healthcare providers located in 21 European countries.



The involvement of the multidisciplinary team working at IdiPAZ and La Paz University Hospital makes possible the development of important activities focused on topics related to paediatric transplantation working together with excellence centres across Europe.

During the 13th Board of the Network, organised in Porto (Portugal) October 2022 and the 14th Board of the Network, organised in Warsaw (Poland) during May 2023, we encouraged our healthcare providers to continue to collaborate in the strengthening of the networks activities. At the last Board meeting, they were also informed about the network's future and the most relevant features that could affect the members for the next four year of the new European call.

Following this expansion, the coordination team at IdiPAZ-La Paz University Hospital formed four operational regions to improve the effectiveness of operations and support the network's goals. These four operational zones are made up of European nations that, in terms of transplantation, are comparable in terms of procedures and pediatric patient management.

A fourth workshop was planned in accordance with the ERN TransplantChild's original goals of knowledge dissemination and professional education. The primary goal is to address the education and training programs currently offered in the various ERN centers in order to develop a common training program for pediatric transplantation in Europe and equip trainees with the abilities to perform a common and transversal approach to all varieties of paediatric transplantation procedures.

The pilot study for the PaEdiatric Transplantation European Registry ended in August 2022, and centres are able since to enroll patients in a prospective manner. Additionally, the PETER TransplantChild app for mobile devices has been launched. With this app, we gather the reported outcomes of the quality of life of the patients through the use of questionnaires. The aim is to put together both clinical data and patient outcome to understand better and improve their care and take over research projects.

The ERN TransplantChild continues having patients as the core of its purpose and as so has collaborated with the patients groups advocates in the study of the social resources available European patients and families and are working on a consensus document with minimum resources recommendations.



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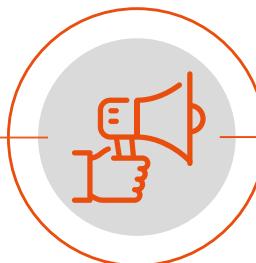
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2.10 Internationalization

Albania	Estonia	Netherlands
Argentina	Finland	New Zealand
Armenia	France	Northern Ireland
Australia	Germany	Norway
Austria	Greece	Paraguay
Belgium	Hungary	Poland
Brazil	India	Portugal
Canada	Iran	Russia
China	Italy	Serbia
Colombia	Japan	Slovakia
Croatia	Jordan	Sweden
Cyprus	Latvia	Switzerland
Czech Republic	Lithuania	Turkey
Denmark	Malta	United Kingdom
		United States of America





2.11 Communication and Public Engagement

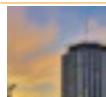
The Scientific Communications have as main tasks the publication of the research carried out by IdiPAZ's scientists and the strengthening of bonds with other institutions and the general public too.

We have increased the media coverage of our research and activities, with a significant increase in appearances in press, and also in social networks. This increase is thanks to the involvement of many of IdiPAZ's researchers.

Thanks to the many collaboration of the centre's scientists, IdiPAZ has participated in activities within the European Researcher's Night, the Science and Innovation Week or the celebration of the International Day of Women and Girls in Science. We have also organized guided visits for high school students, some virtual and some face-to-face visits, talks and workshops for kids and schools.

We would like to acknowledge the collaboration of La Paz University Hospital communication office.

2.11.1. SELECTED MEDIA APPEARANCES

**15/02/2022**

El Hospital público La Paz de la Comunidad de Madrid presenta sus avances en investigación sobre terapias avanzadas aplicadas a niños con leucemias graves

**23/02/2022**

El Servicio de Anestesia del Hospital La Paz, pionero en España en emplear sistemas de recuperación de gas anestésico

**07/03/2022**

El Hospital La Paz participa en el desarrollo de una aplicación que fomenta la recuperación de los pacientes con afasia

**16/03/2022**

El Hospital La Paz será el primer centro español en construir una 'Unidad de Investigación del Ejercicio Físico' para pacientes oncológicos pediátricos

**17/03/2022**

El Hospital La Paz, primer centro certificado por su estrategia de sostenibilidad y contribución a los Objetivos de Desarrollo Sostenible

**21/03/2022**

La Unidad de Rehabilitación Cardiaca del Hospital La Paz ha atendido ya a 4.000 pacientes

**31/03/2022**

El Hospital La Paz participa en un artículo sobre los biomarcadores de envejecimiento prematuro en personas con VIH

**07/04/2022**

El Hospital La Paz presenta los avances de su proyecto para mejorar el cuidado y la estancia hospitalaria de las personas mayores

**22/04/2022**

La Paz, primer hospital de la Comunidad de Madrid en realizar perfusión de quimioterapia en miembro aislado

**11/05/2022**

El Hospital La Paz realiza una operación en una paciente despierta para cortar el foco de la epilepsia

**13/05/2022**

El Hospital La Paz acoge la prueba ECOE que evalúa a los estudiantes de Medicina de la Universidad Autónoma de Madrid

**26/05/2022**

El Hospital La Paz lidera un proyecto pionero de realidad virtual para la mejora de pacientes ingresados en la UCI pediátrica



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10/06/2022

El Hospital público La Paz de la Comunidad de Madrid, certificado en España para producir dos nuevos medicamentos de terapia avanzada



14/06/2022

El Hospital La Paz apuesta por la economía circular incorporando equipos de impresión refabricados



30/06/2022

Tres proyectos del Hospital La Paz consiguen Ayudas a la Investigación en Salud de la Fundación Mutua Madrileña



04/07/2022

Investigadores de los hospitales Ramón y Cajal y La Paz relacionan niveles altos de una proteína en saliva con mayor probabilidad de sufrir COVID grave



27/07/2022

La Comunidad de Madrid incorpora al Hospital público La Paz la última tecnología en secuenciación masiva



09/08/2022

El ensayo clínico PANCOVID liderado por el Hospital La Paz de Madrid ha sido publicado en la revista Clinical Infectious Diseases



19/08/2022

Un estudio en el que participan los hospitales La Paz y Severo Ochoa concluye que las bronquiolitis causadas por varios virus aumentan el riesgo de asma en niños



02/09/2022

Los hospitales públicos Gregorio Marañón, Príncipe de Asturias y La Paz inician el ensayo para administrar la vacuna de Hipra como cuarta dosis



06/09/2022

La Comunidad de Madrid estrena una nueva UCI Pediátrica en el Hospital público La Paz



16/09/2022

El Hospital La Paz, líder en la gestión de riesgos para la seguridad del paciente



06/10/2022

El Hospital La Paz celebra el décimo aniversario del Foro Sanidad y Derecho para profesionales



11/10/2022

El Hospital La Paz celebra el Día Mundial de la Salud Mental



13/10/2022

El Hospital público La Paz de la Comunidad de Madrid realiza el primer trasplante de intestino del mundo tras donación en asistolia



21/10/2022

El Hospital La Paz referente nacional en el tratamiento de niños con craneosinostosis



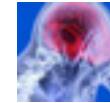
14/11/2022

El Hospital Universitario La Paz estudiará monitorizar a distancia a los pacientes oncológicos



14/11/2022

El Instituto de Investigación Sanitaria del Hospital La Paz, con 444 ensayos clínicos nuevos, mantiene su crecimiento en investigación biomédica



23/11/2022

El Hospital La Paz presenta la primera guía clínica para el tratamiento de la ELA en España



29/11/2022

El Hospital público La Paz de la Comunidad de Madrid realiza el segundo trasplante de intestino del mundo tras donación en asistolia



09/12/2022

El hospital público La Paz de la Comunidad de Madrid, primer centro de España en colocar una consola cardíaca que permite la movilidad hasta el trasplante



13/12/2022

El Hospital Universitario La Paz presenta clBIS, el clúster de plataformas de su Instituto de Investigación



20/12/2022

El Hospital Universitario La Paz obtiene el sello 'Madrid Excelente', certificación de calidad de la Comunidad de Madrid



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2.11.2. SCIENTIFIC NEWSLETTER: IDIPAZ+i NEWS

Throughout 2022, the scientific culture unit has published four newsletters on different issues of interest to researchers.



2.11.4. SOCIAL NETWORKS

On the other hand, news that includes the work of our researchers, data about courses, grants and other news of interest to the public, are published in the main social networks. Our Twitter account, @IdiPAZscience, has the largest number of followers among the institutes of the Community of Madrid.

IdiPAZ has its own profiles:



Twitter: @IdipazScience

Facebook: facebook.com/IdiPAZ

Instagram: @Idipaz

Followers: 3,154

Followers: 482

Followers: 1042

Publications: 1511

Publications: 112

Publications: 89



YouTube: youtube.com/IdiPAZ

LinkedIn: <https://es.linkedin.com/company/fibhulp>

Followers: 14

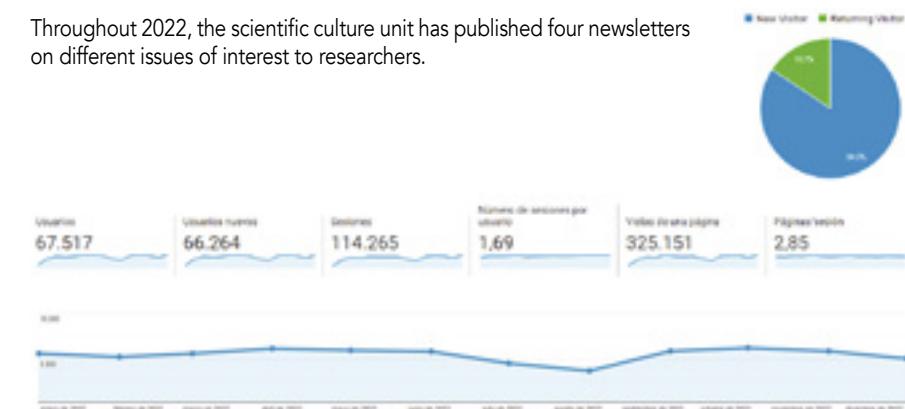
Followers: 1,486

Publications: 25

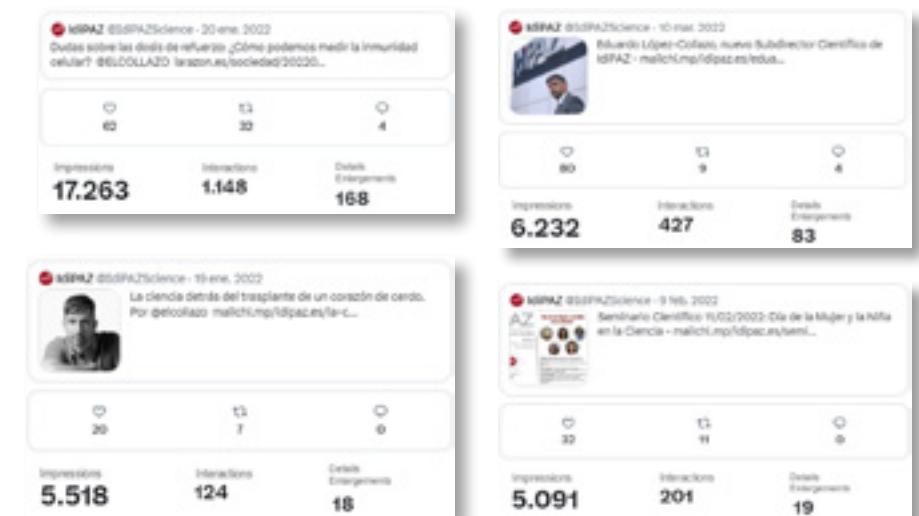
Publications: 24

2.11.3. WEBSITE

Throughout 2022, the scientific culture unit has published four newsletters on different issues of interest to researchers.



2.11.5. TOP 10 OF TWEETS WITH MORE INTERACTIONS



2022



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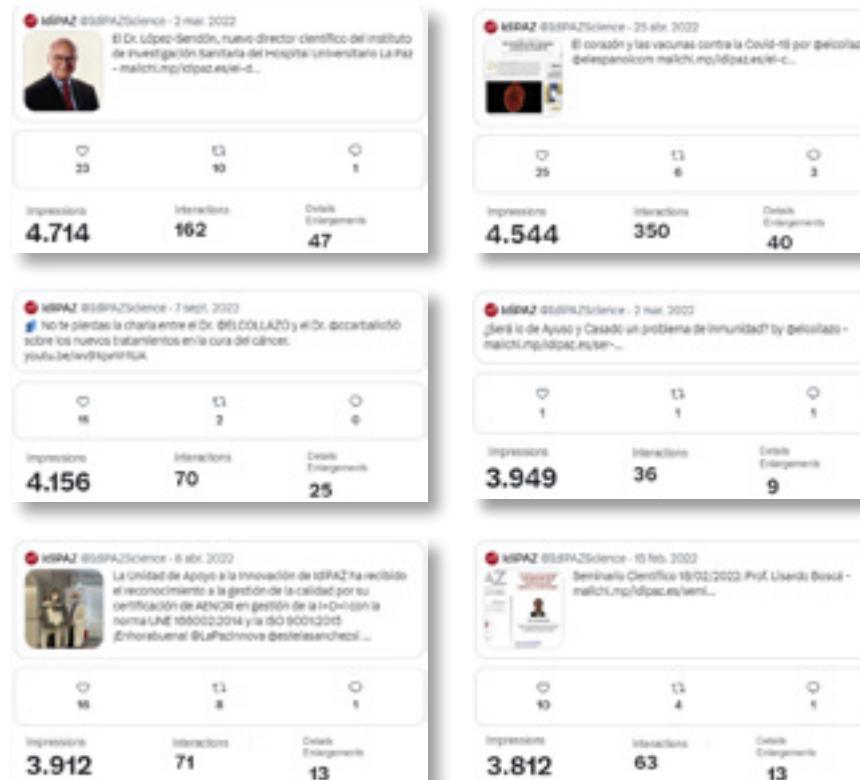
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2.11.6. FORMATIVE PILLS ABOUT SUSTAINABLE DEVELOPMENT GOALS AND RESPONSIBLE RESEARCH AND INNOVATION

We work to promote the Sustainable Development Goals (SDG) good practices through the small training pills. We sent 96 training pills over the 2030 Agenda, SDG and Responsible Research and Innovation:

- 19 Ene. Nº 01/2022: Proveedores de servicios, ODS 8 Y 17
- 12 Feb. Nº 02/2022: Seminario 'Día de la mujer y la niña'
- 14 Feb. Nº 03/2022: Taller divulgativo
- 17 Feb. Nº 04/2022: Movilidad sostenible
- 18 Feb. Nº 05/2022: Día Mundial de las enfermedades raras
- 21 Feb. Nº 06/2022: Jornada Divulgación Científica de Enfermería
- 21 Feb. Nº 07/2022: Propiedad Intelectual
- 02 Mar. Nº 08/2022: Curso online acreditado "Higiene de manos"
- 08 Mar. Nº 09/2022: Día Internacional de la mujer
- 08 Mar. Nº 10/2022: Excelencia en cuidados de la salud
- 10 Mar. Nº 11/2022: Normativa de protección de datos
- 10 Mar. Nº 12/2022: Protocolo de prevención ante el acoso



- 11 Mar. Nº 13/2022: Visibilizando la Endometriosis
- 11 Mar. Nº 14/2022: Webinar por el mes europeo de la diversidad
- 14 Mar. Nº 15/2022: Día mundial de la Endometriosis
- 16 Mar. Nº 16/2022: Recomendaciones frente a la calima
- 18 Mar. Nº 17/2022: Escuela Infantil Isabel Zendal
- 22 Mar. Nº 18/2022: Convocatoria del Equipo START
- 23 Mar. Nº 19/2022: Consumo Responsable De Agua
- 24 Mar. Nº 20/2022: Sex Bias in Preclinical Research
- 25 Mar. Nº 21/2022: Día Mundial del Clima
- 29 Mar. Nº 22/2022: Semana de concienciación sobre el autismo
- 30 Mar. Nº 23/2022: Día Nacional del Trasplante
- 01 Abr. Nº 24/2022: El planeta protagonista del Día de la Salud





2 Executive Summary

2.11 Communication and Public Engagement

- 05 Abr. Nº 25/2022: El papel de las redes sociales en investigación
- 07 Abr. Nº 26/2022: Día Mundial de la Salud
- 07 Abr. Nº 27/2022: Memoria de Sostenibilidad 2021
- 08 Abr. Nº 28/2022: Preparación de propuestas 'Horizonte Europa'
- 08 Abr. Nº 29/2022: Open Science
- 18 Abr. Nº 30/2022: Rutas culturales de la Comunidad de Madrid
- 18 Abr. Nº 31/2022: Día Europeo de los derechos de los pacientes
- 19 Abr. Nº 32/2022: Fase 0 del Nuevo Hospital La Paz
- 20 Abr. Nº 33/2022: Coloquio sobre Investigación e Innovación
- 21 Abr. Nº 34/2022: Día de la Innovación 2022
- 22 Abr. Nº 35/2022: Día de la Tierra
- 25 Abr. Nº 36/2022: Día del ADN



- 26 Abr. Nº 37/2022: Día de la Propiedad Intelectual
- 27 Abr. Nº 38/2022: Día de la Seguridad y la Salud en el Trabajo
- 28 Abr. Nº 39/2022: Jornada "Soledad en tiempos de pandemia"
- 05 May. Nº 40/2022: Día de la higiene de manos
- 06 May. Nº 41/2022: La importancia de una correcta filiación
- 11 May. Nº 42/2022: Curso "Gestión de conflictos"
- 12 May. Nº 43/2022: Día Internacional de la Enfermería
- 12 May. Nº 44/2022: Premio de Innovación #Innovadoras2022
- 12 May. Nº 45/2022: La Salud Mental una prioridad
- 12 May. Nº 46/2022: V Jornada "Soledad en tiempos de pandemia"
- 16 May. Nº 47/2022: Evento por el Mes Europeo de la Diversidad
- 17 May. Nº 48/2022: Canales de denuncia



- 17 May. Nº 49/2022: Día Mundial del Reciclaje
- 17 May. Nº 50/2022: Día contra la homofobia
- 19 May. Nº 51/2022: Día Internacional del Ensayo Clínico
- 20 May. Nº 52/2022: ERC Proposal Reading Days
- 27 May. Nº 53/2022: Día de la Nutrición
- 03 Jun. Nº 54/2022: IdiPAZ contra el acoso; Día sin tabaco
- 06 Jun. Nº 55/2022: Día mundial de los océanos
- 10 Jun. Nº 56/2022: Uso del medicamento
- 16 Jun. Nº 57/2022: Semana de la Donación de Sangre
- 17 Jun. Nº 58/2022: Pianos por la Salud; Madrid con Ucrania
- 22 Jun. Nº 59/2022: Ciencia por la Calle
- 23 Jun. Nº 60/2022: Semana de la Administración Abierta



- 24 Jun. Nº 61/2022: Semana de la Ciencia 2022; Semana de la continencia
- 27 Jun. Nº 62/2022: Día del Orgullo LGTBQIA+; Día de la Afasia
- 01 Jul. Nº 63/2022: Cuidado y Bienestar; Campaña "Tapones solidarios"
- 04 Jul. Nº 64/2022: Día de la seguridad del paciente; Prevención del suicidio
- 08 Jul. Nº 65/2022: Sanidad #PorElClima; Guía de Bienestar Emocional
- 15 Jul. Nº 66/2022: Salud Psicosocial; Acción por el clima
- 15 Jul. Nº 67/2022: Semana de la Ciencia y la Innovación 2022
- 18 Jul. Nº 68/2022: Día Mundial del Cerebro
- 19 Jul. Nº 69/2022: Dona médula; Dona sangre; Ciberseguridad
- 27 Jul. Nº 70/2022: Dona Sangre; Día Mundial de la Hepatitis; Accesibilidad
- 01 Ago. Nº 71/2022: Semana Mundial de la Lactancia Materna
- 19 Ago. Nº 72/2022: Uso de la copia oculta



- 23 Ago. Nº 73/2022: Segunda fase de análisis de riesgos psicosociales
- 05 Sep. Nº 74/2022: Día Mundial de la Seguridad del Paciente
- 09 Sep. Nº 75/2022: Renovación de la Carta de la Diversidad
- 12 Sep. Nº 76/2022: Día de la Prevención del Suicidio
- 16 Sep. Nº 77/2022: Movilidad sostenible
- 19 Sep. Nº 78/2022: Cúdáte (Formación FREMAP)
- 26 Sep. Nº 80/2022: La noche europea de los investigadores
- 29 Sep. Nº 81/2022: Día Mundial del Corazón
- 30 Sep. Nº 82/2022: Noche europea de los investigadores; Mejora de movilidad
- 07 Oct. Nº 83/2022: Asesora De Lactancia Materna; Canales De Comunicación
- 10 Oct. Nº 84/2022: Día Mundial De La Salud Mental



- 14 Oct. Nº 85/2022: Curso "Gestión del tiempo"; IdiPAZ contra el acoso
- 17 Oct. Nº 86/2022: Día de la mujer rural; Claves para ser más feliz en el trabajo
- 21 Oct. Nº 87/2022: Día Mundial contra el Cáncer de Mama
- 24 Oct. Nº 88/2022: Día Mundial contra el Cambio Climático
- 26 Oct. Nº 89/2022: Semana de la Ciencia
- 28 Oct. Nº 90/2022: Canal de denuncia contra el fraude
- 28 Oct. Nº 91/2022: XI Jornada para pacientes
- 16 Nov. Nº 92/2022: Día de la Tolerancia; Taller "El Latido de las mariposas"
- 18 Nov. Nº 93/2022: Movilidad Sostenible
- 18 Nov. Nº 94/2022: Curso "Gestión de Residuos"
- 25 Nov. Nº 95/2022: IdiPAZ Contra La Violencia De Género
- 01 Dic. Nº 96/2022: Día Mundial De La Lucha Contra El Sida





2.12 Responsible Research and Innovation

Responsible Research and Innovation (RRI) is the Science with and for Society framework that encompasses all key actions aimed to anticipate and assess potential implications and societal expectations with regard to research and innovation, with the aim to Foster the design of inclusive and sustainable research and innovation. Based on RRI principles, IdiPAZ is growing to imply societal actors to work together for the research process in order to align both the process and its outcomes with the values, needs and expectations of society.

IdiPAZ has continued and developed several RRI actions:

Ethics and Research Integrity

- Human Resources Strategy for Researchers- HRS4R: comprising the Charter and Code principles, gap analysis, OTM-R and action Plan design. In 2020, the European Commission awarded the 'HR Excellence in Research Award' to the institution. In 2022, work has been done on the implementation of the second phase of the HRS4R strategy which is based on the development of the Action Plan and its revised version after the mid-term evaluation. Throughout 2022, the following HRS4R seminars have been held:
 - 21/06/2022: OTM-R criteria in the framework of the HRS4R Logo
 - 30/09/2022: Mobility and talent attraction- 25/11/2022: Good recruitment practices in the framework of the HRS4R Logo
- Own Ethic Committee: Research Ethics Committee with Medical Products and Animal Welfare Organ
- International Organisation for Standardisation (ISO) 9001 Certification for Committees and Platforms of IdiPAZ.
- Good Practice Recommendations Guidelines

Open Access

- Review and update of our own Open access Guideline of IdiPAZ (15/12/2022).
 - Information notes about our Open Science Policy have been sent through our communication channel.
- Promotion and encouragement of researchers to upload in the institutional Open-Access Repositories their papers and research data:
 - Repisalud of the "Carlos III" Institute of Health,
 - Institutional Repository of the Regional Health System of the Madrid Autonomous Region (AR),
 - Biblos-e Archivo, of the Autonomous University of Madrid.
 Repositories allow researchers to collect, preserve and make available to any interested person the scientific production generated by the professionals as result of their assistance, research and teaching activity, thus guaranteeing their conservation and open access and promoting their visibility and dissemination.
- Creation and promotion of the Scientific Seminars web archive, with online video recording to connect to the scientific community and the society.
- Since 2020, IdiPAZ participates as a member of the European Open Science Cloud (EOSC) Association (<https://eosc.eu>) to:
 - accelerate the creation of open knowledge,
 - increase the re-use of research databases by the larger community,
 - inspire ways for ways to share medical data that ensures respect to privacy of personal information,
 - promote education in Open Science practices,
 - spur innovation and foster new jobs aimed to sustain openness and curation of research.
- Implementation of Act 19/2013, of December 9, 2013, on transparency, access to public information and good governance. FIBHULP is registered in the Transparency Register of the Madrid AR since March 4, 2021 with registration number 202100170.
- **European Union Transparency Register.** FIBHULP is currently listed in the European Union Register as of May 10, 2021 under registration number 86699642652-90.
- The Institute informs all its members of IdiPAZ's commitments to current European policies regarding Open Sciences and RRI through its website.
- The following training and conferences related to Open Science and RRI have been held:
 - 25/04/2022 to 28/04/2022- Responsible Research and Innovation (RRI) In Biomedicine
 - 29/04/2022 - Equal opportunities in today's society course
 - 05/05/2022 - Participation in the Infoday CVN conference organised by FECYT
 - 23/06/2022- RRI in IdiPAZ
 - 27/09/2022 to 04/11/2022 - Participation in the course Formando para Formar given by the Instituto de Salud Carlos III in which participants were trained in Open Science.
 - 28/10/2022 - 11th Inflammatory Bowel Disease Patient Training Day
 - 07/11/2022 to 20/11/2022 - Science and Innovation Week
 - 22/11/2022 - Waste Management and Contribution to the SDGs Course
 - 24/11/2022 - Seminars CVN and ORCID Identifier within the Mentor Programme
 - 28/11/2022 to 02/12/2022 Smart time management course
 - 15/12/2022 - Seminars Gender Perspective and Dimension in Research within the Mentor Programme



2 Executive Summary

2.12 Responsible Research and Innovation

Science Education

- Scientific divulgation activities: At IdiPAZ we have a communication plan focused on planning the Institute's communication actions, both internal and external. In this way, the Commission for Humanization and Social and Scientific Responsibility of IdiPAZ carries out activities and workshops with educational centres, associations and the public, bringing science closer to society in a more humane way.

- Activities for International Day of Women and Girls in Science
- Activities for international women's day
- Activities for Science and Innovation Week
- Activities for European Researchers' Night
- Science on the street

- Scientific Culture and Innovation Unit of IdiPAZ



Public engagement

- Current information about Clinical Trials research studies in different phases for Patients
- The society has the opportunity to collaborate with IdiPAZ via sponsorship and our Patronage Strategy - Pazito: colabora
- IdiPAZ+i News is an information bulletin focus to translated the society that the hospital is not only a place to treat the patients, otherwise the researchers try to improve the health and wellbeing of our population with the research and innovation projects.

Governance

- IdiPAZ is a participating member of the Coalition for Advancing Research Assessment The Coalition will help all kinds of research performing organisations to abandon or reposition uninformative metrics (Journal Impact Factor, h-index, Shanghai rankings etc.) towards a more comprehensive system of scientific quality evaluation, aligned with DORA and HRS4R.
- Participative Governance: European Reference Network on paediatric transplantation (ERN TransplantChild), coordinated by our institution, TransplantChild Patients Committee.
- Research Ethics Committee with Medical Products

• Commission for Humanisation and Social & Scientific Responsibility of IdiPAZ: This commission aims to ensure compliance with the principles of Responsible Research and Innovation (RRI) and Open Science, following the recommendations of the European Commission. It is also committed to promoting the social and scientific responsibility of our researchers, aimed at promoting research and innovation for society. Through this committee, we have launched a process of integration of the Sustainable Development Goals and the 2030 Agenda, receiving certification in June 2022 in sustainable strategy by AENOR. The members of the commission include representatives of patients' associations, representatives of the district council, the hospital and FIBHULP/IdiPAZ.

- Complaint Channels: As part of the IdiPAZ social responsibility management system and attention to our stakeholders, we have enabled the following reporting channels
 - Conduct Code
 - Code of Ethics and Good Scientific Practices
 - Protocol Against Harassment
 - Action Against Fraud, Corruption and Conflict of Interest
 - Claim or Suggestions of Job Offers

- Complaint Channels: At IdiPAZ we have created a channel through which our stakeholders can communicate suggestions and complaints with the aim of improving the performance of the company.

Gender Equality

- Design of the II Equality and Diversity Plan, registered with REGCON (Registro y Depósito de Convenios Colectivos, acuerdos colectivos de trabajo y Planes de Igualdad)-Code 28109182112021
- Creation of the Equality and Diversity Committee
- IdiPAZ's Commission for Equality and Diversity developed the Protocol for the prevention of and action against discriminatory harassment, moral and sexual harassment and harassment based on gender to recognize, prevent, and if necessary, eradicate all those behaviours and organizational factors that reveal violent behaviour in the workplace and promote a healthy work environment and climate, both physically and psychologically.
- Preventing and dealing with situations of internal conflict, violence and harassment in Biomedical Research Foundations

- Human Resources Strategy for Researchers- HRS4R: endorsed the Charter and Code principles, gap analysis, OTM-R and action Plan design.

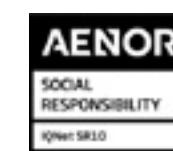
- Participation in the International Day of Women and Girls in Science



Social Responsibility

In 2020, IdiPAZ/FIBHULP obtained the IQNet SR10 international certification, as a mark of confidence to shareholders and other stakeholders that reliable, recognised and value-focused management practices are in place, and will achieve this certification again in 2022.

In addition, a commitment to the sustainable development goals and the 2030 agenda and a corporate social responsibility policy have been developed, which sets out the activities and guidelines that are carried out to fulfil this commitment.





2 Executive Summary

2.12 Responsible Research and Innovation

Goals to Transform Our World

In line with the Social Responsibility Strategy, IdiPAZ started working on the Sustainable Development Goals proposed by the 2030 Agenda for Sustainable Development, adopted by all Member States of the United Nations. This is a shared plan for peace and prosperity for people and planet, now and in the future, and 17 Sustainable Development Goals (SDGs) were proposed. After months of work, in June 2022, IdiPAZ achieved AENOR certification in sustainable strategy.



A materiality study was conducted through a process of sending questionnaires to the institute's stakeholders, identifying and mapping all the institute's lines of research and projects. As a result of the analysis, IdiPAZ prioritised four Sustainable Development Goals that were included in its Strategic Plan for research and innovation as follows:

Strategic ODS:

- 3. Good Health
- 5. Gender Equality
- 8. Decent work and Economic Growth
- 9. Innovation and Infrastructure
- 10. Reduced inequalities
- 12. Responsible consumption and production
- 17. Partnerships for the goals

Relevant ODS:

- 4. Quality education
- 7. Affordable and clean energy
- 13. Climate action
- 16. Peace, justice and strong institutions

In the next years, IdiPAZ will contribute to the implementation of the SDGs through its work on the seven strategic goals and targets. The prioritised SDGs have been aligned and integrated with the objectives and axes of the Strategic Plan for Research and Innovation 2020-2024. In addition, we

have drawn up a Sustainability Report 2021, which covers the entire process of implementing the SDGs in the institute and the actions to be developed in the coming years. The goals we are going to work on in the short and long term are the following:



3.3 By 2030, end the epidemics of AIDS, tuberculosis, malaria and neglected tropical diseases and combat hepatitis, water-borne diseases and other communicable diseases.

3.4 By 2030, reduce by one third premature mortality from non-communicable diseases through prevention and treatment and promote mental health and well-being.

3.5 Strengthen the prevention and treatment of substance abuse, including narcotic drug abuse and harmful use of alcohol.

3.A Strengthen the implementation of the World Health Organisation Framework Convention on Tobacco Control in all countries, as appropriate.

3.B Support the research and development of vaccines and medicines for the communicable and non-communicable diseases that primarily affect developing countries, provide access to affordable essential medicines and vaccines, in accordance with the Doha Declaration on the TRIPS Agreement and Public Health, which affirms the right of developing countries to use to the full the provisions in the Agreement on Trade Related Aspects of Intellectual Property Rights regarding flexibilities to protect public health, and, in particular, provide access to medicines for all.

3.C Substantially increase health financing and the recruitment, development, training and retention of the health workforce in developing countries, especially in least developed countries and small island developing States.



5.1 End all forms of discrimination against all women and girls everywhere.

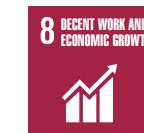
5.2 Eliminate all forms of violence against all women and girls in the public and private spheres, including trafficking, sexual, and other types of exploitation.

5.4 Recognize and value unpaid care and domestic work through the provision of public services, infrastructure and social protection policies and the promotion of shared responsibility within the household and the family as nationally appropriate.

5.5 Ensure women's full and effective participation and equal opportunities for leadership at all levels of decision making in political, economic and public life.

5.B Enhance the use of enabling technology, in particular information and communications technology, to promote the empowerment of women.

5.C Adopt and strengthen sound policies and enforceable legislation for the promotion of gender equality and the empowerment of all women and girls at all levels.



8.3 Promote development-oriented policies that support productive activities, decent job creation, entrepreneurship, creativity and innovation, and encourage the formalisation and growth of micro-, small- and medium-sized enterprises, including through access to financial services.

8.5 By 2030, achieve full and productive employment and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal value.

8.6 By 2020, substantially reduce the proportion of youth not in employment, education or training.



2 Executive Summary

2.12 Responsible Research and Innovation

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9 INNOVATION AND INFRASTRUCTURE

- 9.1** Develop quality, reliable, sustainable and resilient infrastructure, including regional and trans-border infrastructure, to support economic development and human well-being, with a focus on affordable and equitable access for all.
- 9.2** Promote inclusive and sustainable industrialization and, by 2030, significantly increase the contribution of industry to employment and gross domestic product, in accordance with national circumstances, and double that contribution in the least developed countries.
- 9.3** Increase access of small industries and other enterprises, particularly in developing countries, to financial services, including affordable credit, and their integration into value chains and markets.
- 9.5** Enhance scientific research, upgrade the technological capabilities of industrial sectors in all countries, in particular developing countries, including, by 2030, encouraging innovation and substantially increasing the number of research and development workers per 1 million people and public and private research and development spending.



12 RESPONSIBLE CONSUMPTION AND PRODUCTION

- 10.2** By 2030, empower and promote the social, economic and political inclusion of all, irrespective of age, sex, disability, race, ethnicity, origin, religion or economic or other status.

- 10.3** Ensure equal opportunity and reduce inequalities of outcome, including by eliminating discriminatory laws, policies and practices and promoting appropriate legislation, policies and action in this regard.

- 10.4** Adopt policies, especially fiscal, wage and social protection policies, and progressively achieve greater equality.



17 PARTNERSHIPS FOR THE GOALS

- 12.2** By 2030, achieve the sustainable management and efficient use of natural resources

- 12.4** By 2020, achieve the environmentally sound management of chemicals and all wastes throughout their life cycle, in accordance with agreed international frameworks, and significantly reduce their release to air, water and soil in order to minimise their adverse impacts on human health and the environment

- 12.5** By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse

- 12.8** By 2030, ensure that people everywhere have the relevant information and awareness for sustainable development and lifestyles in harmony with nature

- 17.6** Enhance North-South, South-South and triangular regional and international cooperation on and access to science, technology and innovation and enhance knowledge sharing on mutually agreed terms, including through improved coordination among existing mechanisms, in particular at the United Nations level, and through a global technology facilitation mechanism.

- 17.17** Encourage and promote effective public, public-private and civil society partnerships, building on the experience and resourcing strategies of partnerships.

In 2022 we published the first **IdiPAZ Sustainability Report**. In it we can find our sustainability management and the implementation of the Sustainable Development Goals in our institute as well as all the action plans that will be carried out in the coming years. To support this initiative to which we are committed, a working group for sustainable development and the 2030 agenda has been created. Throughout this year, we have prepared a new sustainability report, updating and revising last year's developments.



In relation to our commitment to the SDGs, we have developed a series of campaigns that favour their achievement and support the environmental and social improvement of our surroundings. Some of the campaigns we have carried out or in which we have collaborated have been:



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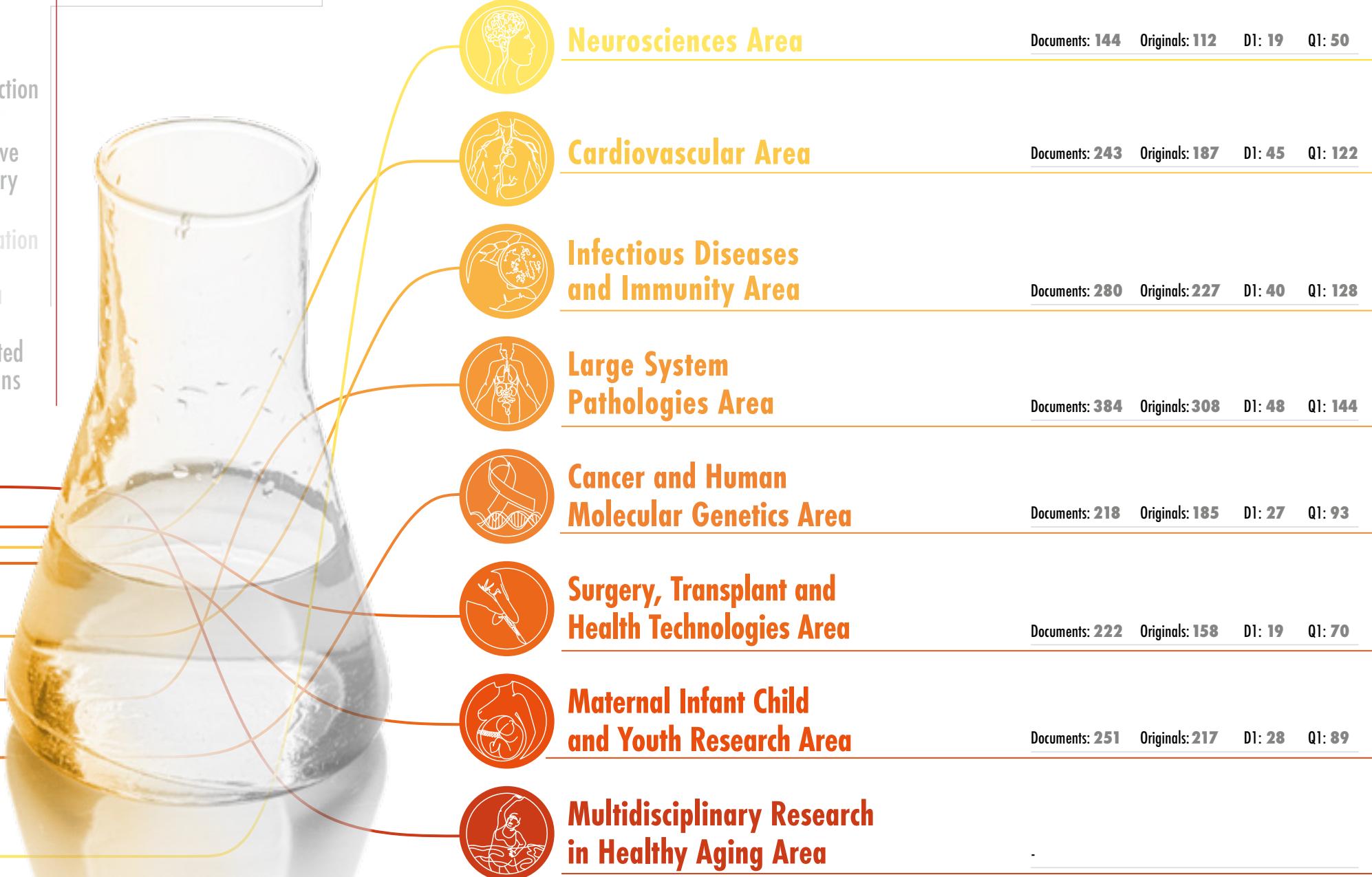
3 Information Groups by Area



-  **3.1 Neurosciences Area**
-  **3.2 Cardiovascular Area**
-  **3.3 Infectious Diseases and Immunity Area**
-  **3.4 Large System Pathologies Area**
-  **3.5 Cancer and Human Molecular Genetics Area**
-  **3.6 Surgery, Transplant and Health Technologies Area**
-  **3.7 Maternal Infant Child and Youth Research Area**
-  **3.8 Multidisciplinary Research in Healthy Aging Area**



3 Information Groups by Area





3 Information Groups by Area

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Jornada de las Áreas Científicas de IdiPAZ: nuevos horizontes y sinergias

23rd June 2022

One of the objectives of the IdiPAZ Institute is that the research groups and areas are in permanent contact and collaborate in their work. To this end, area coordination meetings are usually held in which the directors present the main advances and work carried out by their team. The last one was held on 23 June and was entitled "Nuevos horizontes y sinergias".

**Area Coordinator:****Exuperio Díez Tejedor**

coordinadorneurociencias@idipaz.es

Documents: 144 Originals: 112 D1: 19 Q1: 50

- 3.1.1 Psychiatry and Mental Health Group**
- 3.1.2 Neurology and Cerebrovascular Diseases Group**
- 3.1.3 Neuroprotective Strategies in Neurodegenerative Diseases Group**
- 3.1.4 Involvement of Glycinergic and Glutamatergic Systems in Central Nervous System Pathologies Group**
- 3.1.5 Mechanisms and Biomarkers in Neurodegenerative Diseases Group**
- 3.1.6 Research in Multiple Sclerosis Group**





3 Information Groups by Area



3.1 Neurosciences Area

Strategic Objectives

Neuroscience Area is composed of 5 research groups and has as general objectives the promotion of teaching, research and dissemination of knowledge in the field of neurosciences and neurological diseases, particularly in relation to clinical neurosciences.

Development forecast for the coming years

Cohesion between different disciplines (biomedical research, engineering).

Actions

Performing annual workshops and seminars science.

Encourage and promote research among the healthcare staff who sometimes perceive research as something negative.

Training in research methodology in specialized health personnel and in training.

Innovation and technology transfer.

Innovation promotion program that involves health organizations, research institutions and companies.

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High impact publications

Sánchez-Caro JM, de Ubago IDM, Ruiz ED, Arribas AB, Calviere L, Raposo N, Blancart RG, Fuentes B, Díez-Tejedor E, Rodríguez-Pardo J. Transient focal neurological events in cerebral amyloid angiopathy and the long-term risk of intracerebral hemorrhage and death a systematic review and meta-analysis. *JAMA Neurol.* 2022; 79(1): 38-47. Review. IF: 29; D1

Fernández-Gines R, Encinar JA, Hayes JD, Oliva B, Rodríguez-Franco MI, Rojo Al, **Cuadrado A**. An inhibitor of interaction between the transcription factor NRF2 and the E3 ubiquitin ligase adapter beta-TrCP delivers anti-inflammatory responses in mouse liver. *Redox Biol.* 2022; 55: 102396. Article. IF: 11.4; D1

Manda G, Milanesi E, Genc S, Niculite CM, Neagoe IV, Tastan B, Dragnea EM, **Cuadrado A**. Pros and cons of NRF2 activation as adjunctive therapy in rheumatoid arthritis. *Free Radical Bio Med.* 2022; 190: 179-201. Article. IF: 7.4; Q1

Jiménez-Villegas J, Kirby J, Mata A, Cadenas S, Turner MR, Malaspina A, Shaw PJ, Cuadrado A, **Rojo Al**. Dipeptide repeat pathology in C9orf72-ALS is associated with redox, mitochondrial and NRF2 pathway imbalance. *Antioxidants.* 2022; 11(10): 1897. Article. IF: 7; D1

Lastra D, Escoll M, **Cuadrado A**. Transcription factor NRF2 participates in cell cycle progression at the level of G1/S and mitotic checkpoints. *Antioxidants.* 2022; 11(5): 946. Article. IF: 7; D1





3 Information Groups by Area



3.1 Neurosciences Area

Scientific Events by Neurosciences Area

21/03/2022. **Investigación Traslacional en las Enfermedades Neurológicas**

26/04/2022. **Innovaciones en el tratamiento del daño cerebral y las lesiones medulares**

24/05/2022. **Innovaciones en el conocimiento de las cefaleas primarias**

13/06/2022. **Nuevas perspectivas en el abordaje de los trastornos del movimiento**

28/06/2022. **III Jornadas Virtuales sobre la Afasia**

27/09/2022. **Novedades en Ictus y Afasia**

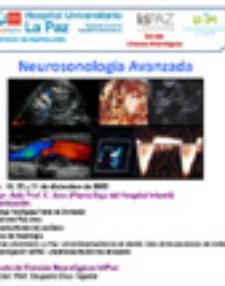
17/10/2022. **Innovaciones en la rehabilitación de las Enfermedades Neurológicas**

02/11/2022. **XI Symposium- Neuroinmunología y Esclerosis Múltiple**

28/11/2022. **II Curso de Modelos Animales para la Investigación en Ictus**

30/11/2022. **Jornadas en Manejo de la Espasticidad en Pacientes con Esclerosis Múltiple**

19/12/2022. **Curso de Neurosonología Avanzada**

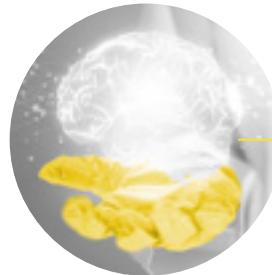




3 Information Groups by Area



3.1 Neurosciences Area



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3.1.1

Psychiatry and Mental Health Group

Publications: 23

Q1: 11

COMPOSITION

Maria Fe Bravo Ortiz. Jefa del Servicio de Psiquiatría. Hospital Universitario La Paz. Profesora Asociada. Facultad de Medicina. Universidad Autónoma de Madrid

Blanca Amador Sastre. Facultativo Especialista de Área en Psicología Clínica. Hospital Universitario La Paz

Jorge Andreo Jover. Investigador Predoctoral. FIBHULP

Carmen Bayón Pérez. Facultativo Especialista de Área en Psiquiatría. Hospital Universitario La Paz. Profesora Asociada. Facultad de Medicina. Universidad Autónoma de Madrid

Katya Barros March. Investigadora Predoctoral. FIBHULP

Susana Cebolla Lorenzo. Facultativo Especialista de Área en Psiquiatría. Hospital Universitario La Paz

Consuelo de Dios Perrino. Jefa de sección de Psiquiatría. Hospital Universitario La Paz. Profesora Asociada. Facultad de Medicina. Universidad Autónoma de Madrid

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María Paz Vidal Villegas. Técnico de Apoyo. Hospital Universitario La Paz

Rosa Villanueva Peña. Facultativo Especialista de Área en Psiquiatría. Hospital Universitario La Paz

STRATEGIC OBJECTIVE

The group is devoted to assess the efficacy of psychotherapeutic techniques as adjunctive to other therapeutic measures in mental disorders and other medical diseases.

Their main areas of investigation are: research in bipolar disorder, severe mental disorder, and other medical disorders such as multiple sclerosis, cancer and chronic pain. We participate in clinical trials on new treatments and specific therapies in order to improve the prognosis of these disorders.

Moreover, the group is involved in the evaluation of new treatments or new indications in mental disorders through the participation in clinical trials.

We are specially focused in the assessment of the efficacy and effectiveness of techniques such as Mindfulness and we evaluate hypothetical mediators of response, such as neurotrophic factors or factors related to inflammatory response.



3 Information Groups by Area



3.1 Neurosciences Area

RESEARCH LINES

- Psychotherapeutic interventions in mental disorders.
- Suicide prevention.
- Psychological and social impact of the COVID-19 pandemic.

- e-Health interventions.
- Mindfulness-based interventions.

RESEARCH ACTIVITY

Publications

- Ángora R, Martínez-Ales G, Arriero MAJ, Navio M, Baca-García E. Evaluation of an intensive-reattempt-prevention programme based on problem-solving therapy in a catchment area of 430,000 people in Madrid, Spain. *Actas Esp Psiquiatr.* 2022; 50(3): 134-43. Article. IF: 1.5; Q4
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- González CR, Vega BR, Zarcer MT, Mediavilla R, Molina NB, Fernández RP, Migueláñez IP, Tarrero AP. Mindfulness based intervention through mobile app for colorectal cancer people awaiting surgery: A randomized clinical trial. *Cir Espan.* 2022; 100(12): 747-54. Article. IF: 1.9; Q3
- Hernández-Calle D, Andreo-Jover J, Curto-Ramos J, Martínez DG, Valor LV, Juárez G, Alcamí M, Ortiz A, Iglesias N, Bravo-Ortiz MF, Vega BR, Martínez-Ales G. Pediatric mental health emergency visits during the COVID-19 pandemic. *Scand J Child Adolesc Psychiatr Psychol.* 2022; 10(1): 53-7. Article. IF: 1.9; Q2
- Hernández-Calle D, Martínez-Ales G, López-Cuadrado T. Suicidal and accidental drug poisoning mortality among older adults and working-age individuals in Spain between 2000 and 2018. *BMC Geriatr.* 2022; 22(1): 114. Article. IF: 4.1; Q1
- Joseph VA, Martínez-Ales G, Olson M, Shaman J, Gould MS, Keyes KM. Temporal trends in suicide methods among adolescents in the US. *JAMA Netw Open.* 2022; 5(10): e2236049. Letter. IF: 13.8; D1
- López-Cuadrado T, Hernández-Calle D, Martínez-Ales G. Trends in suicide mortality in Spain, 2000-2019: Moderation by foreign-born status. *J Affect Disorders.* 2022; 300: 532-9. Article. IF: 6.6; Q1
- Martínez-Alés G, Domingo-Rellosa A, Quintana-Díaz M, Fernández-Capitán C, Hernan MA. Thromboprophylaxis with standard-dose vs. flexible-dose heparin for hospitalized COVID-19 patients: a target trial emulation. *J Clin Epidemiol.* 2022; 151: 96-103. Article. IF: 7.2; D1
- Martínez-Alés G, Fernández-Jiménez E, Mediavilla R, Quintana-Díaz M, Louzao I, Cebolla S, Muñoz-Sanjosé A, Bayón C, Susser ES, Bravo-Ortiz MF. Role of medical comorbidity in the association between psychiatric disorders and mortality among patients with COVID-19. *Soc Psych Psych Epid.* 2022; 57(8): 1727-30. Article. IF: 4.4; Q2
- Martínez-Alés G, Gimbrone C, Rutherford C, Keyes K, López-Cuadrado T. Role of foreign-born status on suicide mortality in Spain between 2000 and 2019: An age-period-cohort analysis. *Int J Public Health.* 2022; 67: 1604538. Article. IF: 4.6; Q1
- Martínez-Alés G, Jiang T, Keyes KM, Gradus JL. The recent rise of suicide mortality in the United States. *Annu Rev Publ Health.* 2022; 43: 99-116. Review. IF: 20.8; D1
- Mascayano F, van der Ven E, Moro MF, Schilling S, Alarcon S, Al Barathie J, Alnasser L, Asaoka H, Ayinde O, Balalian AA, Basagoitia A, Brittain K, Dohrenwend B, Durand-Arias S, Eskin M, Fernández-Jiménez E, Frey MF, Giménez L, Gisle L, Hoek HW, Jalde RE, Lindert J, Maldonado H, Martínez-Ales G, Martínez-Viciiana C, Mediavilla R, McCormack C, Myer L, Narváez J, Nishi D, Ouali U, Puac-Polanco V, Ramirez J, Restrepo-Henao A, Rivera-Segarra E, Rodríguez AM, Saab D, Seblova D, da Silva ATC, Valeri L, Alvarado R, Susser E. The impact of the COVID-19 pandemic on the mental health of healthcare workers: study protocol for the COVID-19 HElath caRe wOrkErS (HEROES) study. *Soc Psych Psych Epid.* 2022; 57(3): 633-45. Article. IF: 4.4; Q2
- Mediavilla R, Fernández-Jiménez E, Martínez-Morata I, Jaramillo F, Andreo-Jover J, Morán-Sánchez I, Mascayano F, Moreno-Kustner B, Miñue S, Ayuso-Mateos JL, Bryant RA, Bravo-Ortiz MF, Martínez-Ales G. Sustained negative mental health outcomes among healthcare workers over the first year of the COVID-19 pandemic: A prospective cohort study. *Int J Public Health.* 2022; 67: 1604553. Article. IF: 4.6; Q1
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- Orgaz P, Rodríguez Vega B, Bayón C, Palao A, Lorenzini N, González Torres MA. Experience of health workers during the first wave of Covid-19 in Spain: a qualitative study with focus groups. *Rev Asoc Esp Especialist Med Trab.* 2022; 31(2): 155-66. Article. Not Indexed
- Ortiz-Calvo E, Martínez-Alés G, Mediavilla R, González-Gómez E, Fernández-Jiménez E, Bravo-Ortiz MF, Moreno-Kustner B. The role of social support and resilience in the mental health impact of the COVID-19 pandemic among healthcare workers in Spain. *J Psychiatr Res.* 2022; 148: 181-7. Article. IF: 4.8; Q2
- Palomar-Ciria N, Cegla-Schvartzman F, Bello HJ, Martínez-Ales G, Migoya-Borja M, Baca-Gracia E. Diagnostic stability of schizophrenia in clinical settings: An observational study of 198,289 patient-years. *Schizophr Res.* 2022; 244: 81-3. Letter. IF: 4.5; Q2
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- Redondo JR, Fontecha PDD, de Miquel CA, Bernabé MA, Fernández BC, Ojeda CC, Cruz AC, Montes-Curto P, Tarrero AP, Calvo ET, Pareja MAV, García NB, Argumanez CM, Farris MNP. Recommendations by the Spanish Society of Rheumatology on the Management of Patients with Fibromyalgia. Part II. *Reumatol Clin.* 2022; 18(5): 260-5. Article. IF: 1.5; Q4
- Rivera-Segarra E, Mascayano F, Alnasser L, van der Ven E, Martínez-Ales G, Durand-Arias S, Moro MF, Karam E, Hernández-Torres R, Alarcon S, Ramos-Pibernus A, Alvarado R, Susser E. Global mental health research and practice: a de-



3 Information Groups by Area

3.1 Neurosciences Area

colonial approach. *Lancet Psychiatry*. 2022; 9(7): 595-600. Article. IF: 64.3; D1

- Sánchez-Rotger P, Martínez-Alés G, Martí-Esquiro J, Bravo-Ortiz MF. Effectiveness of formal feedback in mental health community in spain: a randomized clinical study. *Rev Psicoterapia*. 2022; 33(121): 239-52. Article. IF: 0.3; Q4
- van der Ven E, Jones N, Bareis N, Scodes JM, Dambreville R, Ngo H, Mathai CM, Bello I, Martínez-Alés G, Mascayano F, Lee RJ, Veling W, Anglin DM, Lewis-Fernández R, Susser ES, Compton MT, Dixon LB, Wall MM. An intersectional approach to ethnoracial disparities in pathways to care among individuals with psychosis in coordinated specialty care. *JAMA Psychiatr*. 2022; 79(8): 790-8. Article. IF: 25.8; D1

Research projects

Bravo Ortiz MF. Ambiente y genes en esquizofrenia (AGES-CM 2-CM) (S2017/BMD-

3740). CM. 2018-2022.

Management centre: FIBHULP

Bravo Ortiz MF. Estudio longitudinal de una cohorte representativa: superando la heterogeneidad clínica y biológica en primeros episodios psicóticos (PI20/01113). ISCIII. 2021-2023.

Management centre: FIBHULP

Bravo Ortiz MF. Estudio sobre el impacto de la implantación del programa arsuic en la prevención de la conducta suicida en el área de influencia del Hospital Universitario La Paz. 2015-Ongoing.

Management centre: FIBHULP

Bravo Ortiz MF. Impacto de la pandemia de COVID-19 en la salud mental de trabajadores en dispositivos sanitarios. Estudio

internacional multicéntrico: the COVID-19 Heroes Study. Sociedad Española de Psiquiatría. 2020-Ongoing.

Management centre: FIBHULP

Bravo Ortiz MF. Improving the Preparedness of Health Systems to Reduce Mental Health and Psychosocial Concerns resulting from the COVID-19 Pandemic (RESPOND). UE. 2020-2023.

Management centre: FIBHULP

Bravo Ortiz MF. Intervenciones basadas en mindfulness para mejorar la cognición social en pacientes con un primer episodio psicótico (PI17/00768). ISCIII. 2018-2022.

Management centre: FIBHULP

de Dios Perrino C. Regulación epigenética del sistema oxitocina-vasopresina y prosocialidad en la manía bipolar. FIBHULP. 2015-Ongoing.

Management centre: FIBHULP

Fernández Jiménez E. Identificación de necesidades pre- y post-quirúrgica y evolución neuropsicológica y biopsicosocial en población infantojuvenil sometida a cirugía de trasplante de órgano sólido y pectus excavatum. proyecto psycmajorsurgeries. Fundación Alicia Koplowitz. 2022-Ongoing.

Management centre: FIBHULP

Palao Tarrero A. Prevención e intervención en suicidio (SURVIVE): estudio de cohorte y ensayos clínicos controlados anidados de programas de prevención secundaria para intentos de suicidio (PI19/00941). ISCIII. 2020-2022.

Management centre: FIBHULP

Rodríguez Vega B. Comparación de dos estrategias de intervención para el tratamiento de los trastornos depresivos en pacientes oncológicos. Lundbeck España S. A. 2007-Ongoing.

Management centre: FIBHULP

Rodríguez Vega B. Traducción y validación de los instrumentos reflective functioning questionnaire e inventory of personality organization. Fundación Vasca de Innovación e Investigación Sanitarias. 2018-Ongoing.

Management centre: FIBHULP

Clinical trials

Fernández Jiménez E. Fase de tipificación de la adaptación española del maci-II.

Type: Clinical Trials, phase. 2022.031.

Sponsored by: Pearson Educación S.A.

Signed date: 22/04/2022

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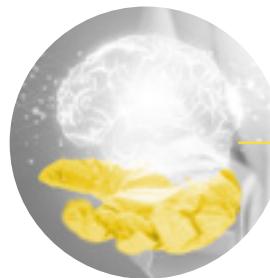
En Calma

Rodríguez Vega B, Mediavilla Torres R, Bravo Ortiz MF, Muñoz San José A, Bayón Pérez C, Lahera Forteza G, Palao Tarrero A. authors; FIBHULP, assignee. Brand name: SocialMind; ESM 3.748.550; 2018 December 17.;



SocialMind





3.1.2

Neurology and Cerebrovascular Diseases Group

Publications: 52

Q1: 18

COMPOSITION

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Ilb "Alberto Sols"

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3 Information Groups by Area



3.1 Neurosciences Area

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Antonio Tallón Barranco. Facultativo Especialista de Área en Neurología. Hospital Universitario La Paz

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STRATEGIC OBJECTIVE

CEREBROVASCULAR

- Development of translational research studies (both animal and clinical studies) in cerebrovascular diseases, with the objectives of increasing the understanding of the pathogenesis of both cerebral infarction (with cortical and subcortical affection) and cerebral hemorrhage. To analyze the influence of hyperglycemia, diabetes and glycemic variability in the evolution of stroke. To identify prognostic biomarkers and therapeutic targets mainly aimed at the promotion of brain protection and repair, with a special interest on the development of cell therapy as well as in trophic factors, extracellular vesicles and remyelinating drugs. To analyze the contribution of comorbidities in the mechanisms that occur after stroke, and the effect of therapies (protective, reparative ...) in animal models of stroke associated with hypertension, hyperglycemia and diabetes.
- Clinical trials of cell therapy in acute cerebral infarction (clinical trial AMASCIS and European Consortium RESTORE-H2020).

- Development of innovative strategies in the diagnosis and treatment of ischemic stroke, through the development of an independent operator-ultrasound device for brain visualization and for enhancement by ultrasound of drug therapies (BDNF, extracellular vesicles) in the ischemic area.
- Evaluation of the benefit of the implementation of prehospital clinical scales able to identify of patients of cerebral artery occlusion susceptible to mechanical thrombectomy in order to shorten treatment delay and improve the prognosis of patients.
- Study of the clinical (neurological and neuropsychological) and anthropological factors influencing functional recovery and reintegration of stroke patients as well as the compliance with the recommendations for secondary stroke prevention.
- To analyze the recovery of post-stroke aphasia through a dubbing tool for television series and the development of a communication app. To evaluate the use of virtual reality in the recovery of motor and cognitive sequelae post-stroke, as well as the computational analysis of movement.



3 Information Groups by Area



3.1 Neurosciences Area

- To evaluate the effectiveness of keeping oral or parenteral anticoagulation in the acute phase of cardioembolic ischemic stroke.
- To discover factors anticipating the development of atrial fibrillation through EKG and echocardiographic abnormalities in cryptogenic stroke.
- Impact of COVID-19 pandemic in stroke care and in stroke outcomes.
- Analysis of Patient Reported Outcome Measures (PROM) and Patient Reported Experience Measures (PREM) in stroke.
- To analyze the differences between general anesthesia and sedation with high flow nasal canula in the endovascular treatment of ischemic stroke.

HEADACHES AND NEUROPATHIC PAIN

- Analysis of the expression of the phenomenon central painful awareness in different primary and secondary headaches.
- Central Sensitization and pain perception in patients with cluster headache.
- Features and outcome of migraine in patients with fibromyalgia.
- Response to OnabotulinumtoxinA in High Frequency Episodic Migraine.
- Refractory migraine database.
- Short Term Prophylaxis of Cluster Headache: A Comparative Study.
- Study of neuropathic and chronic craniofacial pain.
- Photophobia management using greater occipital nerve blocks in migraine patients.
- CGRP-pathway drugs in patients with refractory migraine and medication overuse headache.
- CGRP-pathway drugs in patients with refractory migraine and autoimmune diseases.
- CGRP-pathway drugs in elderly patients with refractory migraine.
- Multicentric collaboration in post-COVID related headache investigation.
- Features and outcome of chronic refractory cluster headache treated with greater occipital nerve stimulation.

NEURODEGENERATIVE DISEASES

Alzheimer's disease.

- Study of the lysosomal pathway involvement in a model of neurodegeneration and cholesterol dysregulation in Alzheimer's disease.
- Study of genetic polymorphism related with PSP in the context of a multicentre Genome Wide Association study (GWAS).

Parkinson's disease.

- Tremor as a negative predictive factor in developing dementia associated with Parkinson's disease.
- Evaluation of the benefits and risks of continuous infusion of intraduodenal levodopa in idiopathic Parkinson's disease.

Hereditary ataxias.

- Assessment of therapeutic response to Frenkel training exercises enhanced by Wii game console in patients with cerebellar ataxia.
- Participation in the Registry of the European Consortium EFACTS (European Friedreich's Ataxia Consortium for Translational Studies) aimed at improving the knowledge of the epigenetic mechanisms related to silencing the expression of frataxin and the pathogenesis of the disease, identification of biomarkers and genes modifying the clinical expression of the disease, development of new therapies as well as cellular and animal models for the study of Friedreich's Ataxia.

NEUROIMMUNOLOGY/NEUROINFLAMMATION

Multiple sclerosis

- Analysis of extracellular vesicles as biomarkers in multiple sclerosis patients.
- Analysis of molecular and neuroimaging biomarkers of brain damage and repair in Multiple Sclerosis.
- Analysis of molecular and neuroimaging biomarkers of brain damage and repair in Multiple Sclerosis.
- Development of parametric test in multiple sclerosis by photometric strategies.

Autoimmune encephalitis and other autoimmune neurological diseases

- Neurological syndromes associated to antiGAD antibodies.
- Paraneoplastic syndromes and other neurological diseases associated to antibodies.





3 Information Groups by Area



3.1 Neurosciences Area

Infectious diseases

- Study of neurological symptoms after COVID19 recovery in patients refer to specific consultation.
- Analysis of brain volumetry in patients with cognitive symptoms after COVID19.
- COVID-19 associated encephalopathy. Risk factors and outcomes.

AUTONOMIC NERVOUS SYSTEM

- Evaluation of the Autonomic Nervous System in movement disorders.
- Evaluation of the Autonomic Nervous System in focal autonomic neuropathies and in Fabry disease.

NEUROMUSCULAR DISEASES

- Observational study of the clinical course of patients with Charcot-Marie-Tooth disease. Identification of prognostic factors.
- Efficacy of evaluation of Eslicarbazepine acetate in neuropathic pain in patients with peripheral neuropathies.
- Develop a hand thermography tool for the diagnosis of fine fiber neuropathy.

Amyotrophic Lateral Sclerosis (ALS)

- Analysis of the different profiles of cognitive impairment in ALS patients. Adaptation and validation of cognitive ALS specific scales for Spanish patients. Study of cognitive potentials for identification of possible specific EEG endophenotypes in ALS patients.
- Study of biomarkers in ALS and other motor neuron diseases. Genetic, metabolomic and proteomic profiling combined with clinical parameters.
- Participation In Project MinE: International program analyzing the genome of 15000 patients and controls by the same genotyping platform.
- Functional study of Autonomic Nervous System in Amyotrophic Lateral Sclerosis. Identification of differential patterns of the disease presentation and their impact on clinical outcome.

SLEEP

- Development and evaluation of intervention protocols in childhood insomnia treatment.

RESEARCH LINES

- Cerebrovascular diseases.
- Headache and neuropathic pain.
- Neurodegenerative diseases: cognitive disorders, movement disorders and spinocerebellar ataxias.
- Neuroimmunology. Multiple sclerosis.

- Analysis of sleep microstructure in newborns with Prader Willi Syndrome.

- Study on the efficacy of child insomnia treatment with oral iron supplements against placebo.

EPILEPSY

- Analysis of factors influencing the recurrence of seizures, tolerance and adherences to drugs, during the first monotherapy in patients with epilepsy.
- Analysis of neuropsychological disorders in the primary generalized epilepsy.
- Obstructive sleep apnea in Epilepsy.
- Impact of perampanel in patients with epileptic encephalopathies. A multicentric study.
- Approach to refractory status epilepticus. Analysis of the different anesthetic agents commonly used in an intensive care unit.
- Epilepsy in the elderly patient: peculiarities and treatment alternatives, with a special focus in refractory cases.

DIGITAL TECHNOLOGIES APPLIED TO NEUROLOGICAL DISEASES

- Objective assessment of motor or other functional deficits (stroke, movement disorders, multiple sclerosis).
- Environmental enrichment to promote early stroke recovery.
- Virtual reality in promoting cognitive and motor recovery.
- New applications of ultrasound for diagnosis and research in neurological diseases.
- Artificial Intelligence applied to diagnosis and clinical management.

NEUROSTIMULATION

- Neurostimulation in brain and spinal cord injuries

BRAIN DEVELOPMENT DISORDERS

- Study and functional classification of the gait of pediatric patients with cerebral palsy.
- Study and functional classification of the gait of patients with familial spastic paraparesis.
- Gait analysis as a tool for the differential diagnosis between child cerebral palsy and PEF in paediatric patients.

- Neuromuscular diseases. Motor neuron diseases Amyotrophic lateral sclerosis.

- Digital Technologies applied to neurological diseases.

- Neurostimulation in brain and spinal cord injuries.

- Developmental disorders and neurological maturation (TRADESMA)



3 Information Groups by Area



3.1 Neurosciences Area

RESEARCH ACTIVITY

1 Introduction

2 Executive Summary

3 Information Groups by Area

4 Associated Clinicians

● Doctoral theses

Gómez de Frutos MC. Aplicación de ultrasonidos en la identificación de las estructuras cerebrales y la monitorización de la hemorragia intracerebral en rata[dissertation]. Madrid: UAM: 2022(22/06/2022).

Directors: Ruiz Ares G,
Gutiérrez Fernández M .

Matesanz García L. Actualización de la fisiopatología de las neuropatías por atrapamiento y nuevas propuestas de intervención[dissertation]. Madrid: URJC: 2022 (22/12/2022).

Director: Fernández Carnero J.

López López J. Efectividad del tratamiento con toxina botulínica tipo A en el manejo de la marcha de puntillas idiopática (MPI). Estudio epidemiológico, clínico y con análisis [dissertation]. Madrid: UAM: 2022(44869).

Directors: Rausell Tamayo E,
Gómez Andrés D.

Cerro de Pablo P. El cerdo (*Sus scrofa domestica*) como modelo de investigación en lesión medular cervical[dissertation]. Madrid: UAM: 2022(07/04/2022).

Directors: Collazos Castro JE,
Arévalo Arévalo MA

● Master theses

Arizaga Echebarria JK. El papel potencial de las vesículas extracelulares en la recuperación tras una hemorragia intracerebral en rata [dissertation]. Madrid: UCM: 2022(12/07/2022).

Director: Gutiérrez Fernández M.

López Martín D. Validation of a tool for computational assessment of upper limb move-

ment in patients with stroke[dissertation]. Madrid: CEU San Pablo: 2022(44754).

Directors: Alonso de Leciñana Cases M,
Gutiérrez Martín A.

● Final Degree Theses

Ruiz Vitte A. Diseño e implementación de un sistema de análisis automático y objetivo de la prueba ledged beam walking test en modelos animales en ictus[dissertation]. Madrid: UPM : 2022(08/07/2022).

Director: Gutiérrez Fernández M.

Botella Cruces L. Análisis de las vesículas extracelulares circulantes como marcador de actividad en pacientes con Esclerosis Múltiple [dissertation]. Madrid: UAH : 2022(04/07/2022).

Director: Otero Ortega L.

Ruiz Vitte A. Diseño e implementación de un sistema de análisis automático y objetivo de la prueba ledged beam walking test en modelos animales en ictus[dissertation]. Madrid: UPM : 2022(08/07/2022).

Director: Gutiérrez Fernández M.

Botella Cruces L. Análisis de las vesículas extracelulares circulantes como marcador de actividad en pacientes con Esclerosis Múltiple [dissertation]. Madrid: UAH: 2022(04/07/2022).

Director: Otero Ortega L.

Serrano Alarcón M. Volumetría Cerebral en pacientes con Deterioro Cognitivo Post-Covid[dissertation]. Madrid: UAM: 2022(15/06/2022).

Directors: Martín Montes A,
Frank García A.

Díaz Bonete L. Manifestaciones neurológicas

de la infección COVID19. Estudio retrospectivo en una consulta monográfica.[dissertation]. Madrid: UAM: 2022(14/06/2022).

Directors: Frank García A,
Rigual Bobillo R.

Albadalejo Muñoz B. Desarrollo y aplicación de un SPOC (Samll private online course) en la enseñanza del sistema nervioso para alumnos de grado de medicina[dissertation]. Madrid: UAM: 2022(14/06/2022).

Directors: Rodríguez Pardo de Donlebún J,
Fuentes Gimeno B.

Ruiz González A. Diseño e implementación de un sistema de análisis de correlación de datos de imagen, clínicos y cinemáticos en pacientes de ictus agudo[dissertation]. Madrid: UPM: 2022(15/07/2022).

Directors: Alonso de Leciñana Cases M,
Gutiérrez Martín A.

Fernández Martín F. Diseño y actualización de un sistema automático y objetivo de medida de variables cinemáticas del movimiento de la mano en pacientes con infarto cerebral[dissertation]. Madrid: UPM: 2022(15/07/2022).

Directors: Alonso de Leciñana Cases M,
Gutiérrez Martín A.

Pascual Hebrero L. Diseño y actualización de un sistema de análisis automático de la cinemática de la mano en pacientes con ictus[dissertation]. Madrid: UPM: 2022(18/07/2020).

Directors: Alonso de Leciñana Cases M,
Gutiérrez Martín A.

Garrido López A. Diseño e implementación de un algoritmo de segmentación automática de imágenes de ecografía transcraneal aplicada al estudio de los trastornos del

movimiento[dissertation]. Madrid: UPM: 2022(18/07/2022).

Directors: Rodríguez Pardo de Donlebún J,
Gutiérrez Martín A.

● Publications

- Adamina M, Ademuyiwa A, Adisa A, Bhangu AA, Bravo AM, Cunha MF, Emile S, Ghosh D, Glasby JC, Harris B, "et al". The impact of surgical delay on resectability of colorectal cancer: An international prospective cohort study. Colorectal Dis. 2022; 24(6): 708-26. Article. IF: 3.4; Q1
- Ballester LL, Fernández-Fournier M, Muñoz IP, Fraga OR, Fernández-Escandón CL, Garrido FJRD, Suárez EMA, Barranco AT. Serum glutamate decarboxylase antibodies and neurological disorders: when to suspect their association? Neurol Sci. 2022; 43(1): 633-41. Article. IF: 3.3; Q2
- Bellenguez C, Kucukali F, Jansen IE, Kleineidam L, Moreno-Grau S, Amin N, Naj AC, Campos-Martín R, Grenier-Boley B, "et al". New insights into the genetic etiology of Alzheimer's disease and related dementias. Nat Genet. 2022; 54(4): 412-36. Article. IF: 30.8; D1
- Beltrán-Alacreu H, Navarro-Fernández G, Godia-Lledo D, Graell-Pasaron L, Ramos-González A, Raya R, Zugasti AMP, Fernández-Carnero J. A Serious game for performing task-oriented cervical exercises among older adult patients with chronic neck pain: Development, suitability, and crossover pilot study. JMIR Serious Games. 2022; 10(1): e31404. Article. IF: 4; Q2
- Castellano IP, Cabrera-Serrano M, Medina RC, Cattinari MG, García SE, Fernández-Ramos JA, Campos OG, Gómez-Andrés D, Calatayud MAG, Martínez AJG, Albert EI, García SK, Madruga-Garrido M, Martínez-Moreno M, Cantillo JM, Suárez AIM, Escribano AM, Munell F, Osorio AN, Pascual-Pascual SI, Povedano M, Casiano IMS, Vázquez-Costa JF. Delphi consensus on recommendations for the treatment of spinal muscular atrophy in Spain (RET-AME consensus). Neurologia. 2022; 37(3): 216-28. Article. IF: 3.9; Q2
- Cuenca-Martínez F, La Touche R, Varangot-Reille C, Sardinoux M, Bahier J, Suso-Martí L, Fernán-



3 Information Groups by Area



3.1 Neurosciences Area

dez-Carnero J. Effects of neural mobilization on pain intensity, disability, and mechanosensitivity: An umbrella review with meta-meta-analysis. *Phys Ther.* 2022; 102(6): pzac040. Review. IF: 3.2; Q1

- Cuenca-Martínez F, Sempere-Rubio N, Varangot-Reille C, Fernández-Carnero J, Suso-Martí L, Alba-Quesada P, La Touche R. Effects of high-intensity interval training (HIIT) on patients with musculoskeletal disorders: a systematic review and meta-analysis with a meta-regression and mapping report. *Diagnostics (Basel).* 2022; 12(10): 2532. Review. IF: 3.6; Q2
- Cuenca-Zaldivar JN, Acevedo AM, Fernández-Carnero J, Sánchez-Romero EA, Villafane JH, Carballal CB. Effects of a multicomponent exercise program on improving frailty in post-covid-19 older adults after intensive care units: a single-group retrospective cohort study. *Biology (Basel).* 2022; 11(7): 1084. Article. IF: 4.2; Q2
- de Celis-Ruiz E, Fuentes B, de Lecinana MA, Gutiérrez-Fernández M, Borobia AM, Gutiérrez-

Zuniga R, Ruiz-Ares G, Otero-Ortega L, Laso-García F, Gomez-de Frutos MC, Díez-Tejedor E. Final results of allogeneic adipose tissue-derived mesenchymal stem cells in acute ischemic stroke (AMASCIS): A phase II, randomized, double-blind, placebo-controlled, single-center, pilot clinical trial. *Cell Transplant.* 2022; 31: 9636897221083860. Article. IF: 3.3; Q2

- del Valle R, Ballesteros A, Calvo C, Sainz T, Menéndez A, Grasa C, Molina PR, Mellado MJ, Sanz-Santaeufemia FJ, Herrero B, Calleja L, Soriano-Arandes A, Melendo S, Rincon-López E, Hernanz A, Epalza C, García-Baeza C, RuPérez-García E, Berzosa A, Ocana A, Villarroyo-Villalba A, Barrios A, Otheo E, Galán JC, Rodríguez MJ, Mesa JM, Domínguez-Rodríguez S, Moraleda C, Tagarro A. Comparison of pneumonia features in children caused by SARS-CoV-2 and other viral respiratory pathogens. *Pediatr Pulm.* 2022; 57(10): 2374-82. Article. IF: 3.1; Q2
- Elizagaray-García I, Carvalho GF, Szikszy TM, Adamczyk WM, Navarro-Fernández G, Álvarez-

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- Elizagaray-García I, Pérez-García L, Parraga-Delgado R, Javier-Valverde F, Luedtke K, Gil-Martínez A. Flexion-rotation test and C0-C2 axial rotation test. Are they equally reliable for novice clinicians? *Musculoskelet Sci Pract.* 2022; 62: 102625. Article. IF: 2.3; Q2
- Esparrago-Pinedo L, Martínez-Fleta P, Ropero N, Vera-Tome P, Reyburn HT, Casasnovas JM, Frade JMR, Vales-Gómez M, Vilches C, Martín-Gayo E, Muñoz-Calleja C, Sánchez-Madrid F, Alfranca A. CD4+T cell immune specificity changes after vaccination in healthy and Covid-19 convalescent subjects. *Front Immunol.* 2022; 12: 755891. Article. IF: 7.3; Q1
- Fernández-Fournier M, Kerguelen A, de Rivera FJR, Lacruz L, Jimeno S, Losantos I, Hernández-Maraver D, Puertas I, Tallón-Barranco A, Viejo A, García AF, Díez-Tejedor E. Therapeutic plasma exchange for myasthenia gravis, Guillain-Barre syndrome, and other immune-mediated neurological diseases, over a 40-year experience. *Expert Rev Neurother.* 2022; 22(10): 897-903. Article. IF: 4.3; Q1
- Fernández-Fournier M, Lacruz L, Nozal P, Chico JL, Barranco AT, Otero-Ortega L, Corral I, Carrasco A. The study of neural antibodies in neurology: A practical summary. *Front Immunol.* 2022; 13: 1043723. Review. IF: 7.3; Q1
- Fuentes B, de la Fuente-Gómez L, Sempere-Iborra C, Delgado-Fernández C, Tarifa-Rodríguez A, de Lecinana MA, de Celis-Ruiz E, Gutiérrez-Zuniga R, López-Tappero J, Alonso MM, Pastor-Yborra S, Rigual R, Ruiz-Ares G, Rodríguez-Pardo J, Virues-Ortega J, Borobia AM, Blanco P, Bueno-Guerra N. DUBbing language-therapy CINEma-based in Aphasia post-Stroke (DULCINEA): study protocol for a randomized crossover pilot trial. *Trials.* 2022; 23(1): 21. Article. IF: 2.5; Q3
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- García-Pastor A, Gil-Núñez A, Ramírez-Moreno JM, González-Nafria N, Tejada J, Moniche F, Portilla-Cuenca JC, Martínez-Sánchez P, Fuentes
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- Garrido-Estepa M, Herruzo R, Flores-Herrera J. Co-infections, comorbidities, and alcohol or other substances abuses in chronic hepatitis C-related hospitalisations in Spain. *Gastroenterol Hepat-Barc.* 2022; 45(9): 677-89. Article. IF: 1.9; Q4
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3 Information Groups by Area



3.1 Neurosciences Area

- Álvarez Troncoso J, Lacruz Ballester L, Noblejas Mozo A, Lorenzo Diéguez M, Robles Marhuenda A, Martínez Marín RG, Ríos Blanco JJ. Posterior reversible encephalopathy (PRES) as a presentation form of classical polyarteritis Nodosa (PAN). *J Clin Rheumatol Immunol.* 2022; 22(2): 73-77. Article. Not Indexed
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- Luengo E, Trigo-Alonso P, Fernández-Mendivil C, Núñez A, Porrero C, García-Magro N, Negredo P, Senar S, Sánchez-Ramos C, Bernal JA, Rabano A, Hoozemans J, Casas AI, López MG, del Campo M, Schmidt HHHW. Implication of type 4 NADPH oxidase (NOX4) in tauopathy. *Redox Biol.* 2022; 49: 102210. Article. IF: 11.4; D1
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- Matesanz-García L, Schmid AB, Cáceres-Pajuelo JE, Cuenca-Martínez F, Arribas-Románo A, González-Zamorano Y, Goicoechea-García C, Fernández-Carnero J. Effect of physiotherapeutic interventions on biomarkers of neuropathic pain: a systematic review of preclinical literature. *J Pain.* 2022; 23(11): 1833-55. Review. IF: 4; Q2
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- Molina-Álvarez M, Arribas-Románo A, Rodríguez-Rivera C, García MM, Fernández-Carnero J, Armijo-Olivio S, García CG. Manual therapy effect in placebo-controlled trials: a systematic review and meta-analysis. *Int J Env Res Pub He.* 2022; 19(21): 14021. Review. IF: 2.468; Q2
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- Pecos-Martín D, Patino-Núñez S, Quintero-Pérez J, Cruz-Riesco G, Quevedo-Socas C, Gallego-Izquierdo T, Beltran-Alacreu H, Fernández-Carnero J. Mechanical hyperalgesia but not forward shoulder posture is associated with shoulder pain in volleyball players: A cross-sectional study. *J Clin Med.* 2022; 11(6): 1472. Article. IF: 3.9; Q2
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3 Information Groups by Area



3.1 Neurosciences Area

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Research projects

Aguilar-Amat Prior MJ. Registro de pacientes en una clínica de primera crisis epileptica. Laboratorios Bial S.A. 2016-Ongoing.

Management centre: FIBHULP

Alonso de Leciñana Cases M, Gutiérrez Fernández M. Exosomas circulantes y mecanismos de reparación en ictus hemorrágico. Estudio traslacional (PI17/01922). ISCIII. 2018-2022.

Management centre: FIBHULP

Alonso de Leciñana Cases M. Utilidad de la telemedicina mediante dispositivos móviles en el código ictus y la detección precoz de signos radiológicos de afectación pulmonar por sars-cov 2 en la red de Ictus de madrid. Ministerio de Asuntos Internos y Comunicaciones de Japón (Código de proyecto 0300490076: Survey and research on the deployment of telemedicine systems using mobile devices in Europe) a través de la empresa Allm Inc., 2021-Ongoing.

Management centre: FIBHULP

Alonso López E. Contrato Rio Hortega (CM20/00047). ISCIII-MICINN. 2021-2023.

Management centre: FIBHULP

Carceller Benito F. Imagen multimodal de la respuesta terapéutica a estrategias multidiana en enfermedades neurológicas (MULTI-TARGET&VIEW-CM) (S2017/BMD-3688). CM. 2018-2022.

Management centre: FIBHULP

Díaz de Terán Velasco FJ. Influencia del estrés como factor precipitante de la crisis en pacientes con epilepsia. UCB Pharma S.A. 2015-Ongoing.

Management centre: FIBHULP

Díaz de Terán Velasco FJ. Sensibilización central y percepción del dolor en pacientes con cefalea en racimos. Allergan S.A. 2019-On-going.

Management centre: FIBHULP

Díez Tejedor E. Actualización y renovación de la actividad en neurología crónica hospitalaria registro de anticoagulación en ictus. Boehringer Ingelheim España S.A. 2007-On-going.

Management centre: FIBHULP

Díez Tejedor E. AMASCIS-02. Allogenic adipose tissue-derived mesenchymal stem cells in ischemic stroke. A phase IIb multicenter double blind placebo controlled clinical trial (PIC18/00016). ISCIII. 2019-2022.

Management centre: FIBHULP

Díez Tejedor E. Aplicación de nano partículas lipídicas biomodulares sectorizadas hacia la zona de preinfarto en la reparación mediada por citicolina en el tratamiento de la isquemia cerebral. modelo en ratas. Ferrer Farma S.A. 2009-Ongoing.

Management centre: FIBHULP

Díez Tejedor E. Informatización de la gestión de pacientes. unidad de neuroinmunología y esclerosis múltiple en el Hospital Universitario La Paz. Sanofi Aventis S.A. 2014-On-going.

Management centre: FIBHULP

Díez Tejedor E. Moléculas moduladores del sistema inmune como biomarcadores de respuesta al tratamiento en Esclerosis Múltiple: estudio traslacional. (PI21/00918). ISCIII. 2022-2023.

Management centre: FIBHULP

Díez Tejedor E. Pacientes con esclerosis múltiple: análisis de la respuesta a tratamientos biológicos. Fundación Biogen Idec. 2013-Ongoing.

Management centre: FIBHULP

Díez Tejedor E. Pacientes con esclerosis múltiple: análisis de la respuesta al natalizumab. Schering España S.A. 2011-Ongoing.

Management centre: FIBHULP

Díez Tejedor E. Registro clínico para el seguimiento de tratamiento anticoagulante en prevención secundaria tras un ictus cardioembólico. Boehringer Ingelheim España S.A. 2011-Ongoing.

Management centre: FIBHULP

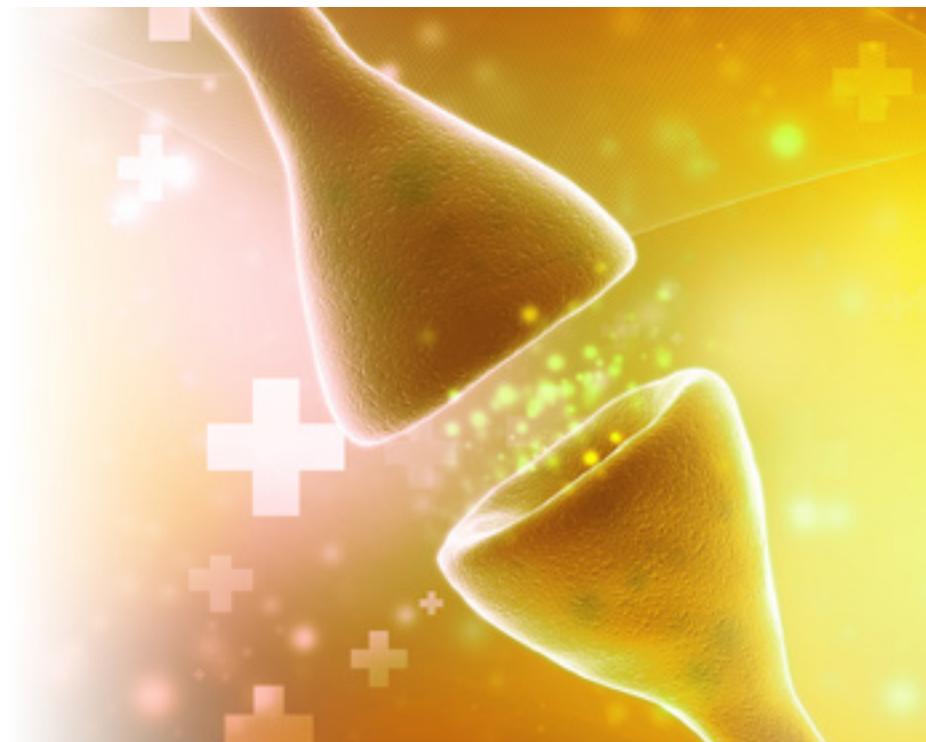
Díez Tejedor E. Se formará en proyectos de inmunología para la unidad de esclerosis múltiple, implantación del modelo eae, desarrolló técnicas para determinar las células reguladoras y análisis de marcadores biológicos en pacientes con em que estén en tratamiento con natalizumab. Biogen Idec Ltd. 2008-Ongoing.

Management centre: FIBHULP

Frank García A. Análisis antropológico de la sobrecarga del cuidador principal de personas con demencia. estrategias de comunicación. Various funders. 2018-Ongoing.

Management centre: FIBHULP

Frank García A. Evaluacion de la satisfaccion





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e impacto de los talleres formativo-informativos sobre ictus realizados por el servicios de neurología y centro de ictus del Hospital Universitario La Paz. Various funders. 2018-Ongoing.

Management centre: FIBHULP

Frank García A. Effect of early and adult-life stress on the brain epigenome: relevance for the occurrence of Alzheimer's disease (AC17/00120). ISCIII. 2018-2022.

Management centre: FIBHULP

Frank García A. Investigación en calidad: mejora continua en la gestión y organización de procesos asistenciales y de investigación del servicio de neurología y del grupo de investigación de neurología y enfermedades cerebrovasculares. Various funders. 2022-Ongoing.

Management centre: FIBHULP

Fuentes Gimeno B. Ensayo clínico piloto dulcinea (dubbing language-therapy cinema-based in aphasia post-stroke. A feasibility cross-over pilot-trial. Fundación la Caixa. 2019-2023.

Management centre: FIBHULP

Fuentes Gimeno B. Epidemia covid19 e ictus agudo. registro multicéntrico ictus. Ferrer Internacional S.A. 2020-Ongoing.

Management centre: FIBHULP

Fuentes Gimeno B. Glucemia y daño cerebral por isquemia reperfusión en pacientes con infarto cerebral agudo tratados con trombectomía mecánica. Estudio GLIAS-TM (PI21/00962). ISCIII. 2022-2023.

Management centre: FIBHULP

Fuentes Gimeno B. Novedades en ictus y afasia. Daichii S.A. Nkyo Pharma Development. 2022-Ongoing.

Management centre: FIBHULP

Fuentes Gimeno B. Variabilidad glucémica:

impacto pronóstico en el infarto cerebral agudo e influencia del tratamiento corrector de la hiperglucemía. Estudio GLIAS-3 (PI18/00991). ISCIII. 2019-2022.

Management centre: FIBHULP

Gandía González ML. Estudio de factores químicos medioambientales mediante cromatografía líquida y espectrometría de masas y su influencia en el perfil epigenético mediante técnicas de análisis masivo en el glioblastoma multiforme, nueva aproximación a la identificación de factores de riesgo prevenibles. FIBHULP. 2022-Ongoing.

Management centre: FIBHULP

Gandía González ML. Estudio multicéntrico del interactoma metabólico y genético en gliomas humanos. Implicaciones Diagnósticas y Pronósticas. (PI17/00361). ISCIII. 2018-2022.

Management centre: FIBHULP

Gil Martínez A. Efectividad de un programa de ejercicios en pacientes con enfermedad de covid-19 ingresados en planta del Hospital Universitario La Paz. Colegio Oficial de Fisioterapeutas de la Comunidad de Madrid. 2020-Ongoing.

Management centre: FIBHULP

Gil Martínez A. Sistema de interacción natural para análisis y rehabilitación de los trastornos de la marcha en la enfermedad de Parkinson (MOBEEZE). Fundación I+D Del Software Libre. 2016-Ongoing.

Management centre: FIBHULP

Gómez de Frutos MC. Contrato predoctoral (FI17/00188). ISCIII. 2018-2022.

Management centre: FIBHULP

Gutiérrez Fernández MD. Exosomes as predictive biomarkers in acute ischemic stroke patients: a translational research approach (CPII20/00002). ISCIII. 2016-2022.

Management centre: FIBHULP

Gutierrez Fernández MD, Alonso de Leciñana

Cases M. Descifrando el papel de las vesículas extracelulares como moduladores de la respuesta inmunológica para promover la recuperación funcional tras la hemorragia cerebral. Estudio traslacional. (PI20/00243). ISCIII. 2021-2023.

Management centre: FIBHULP

Laso García F. Contrato predoctoral (FI18/00026). ISCIII. 2019-2022.

Management centre: FIBHULP

Martínez Moreno M. Puesta en marcha del estudio de título provisional: Estudio en pacientes con atrofia muscular espinal de inicio tardío ml43472. Roche Farma S.A. 2021-On-going.

Management centre: FIBHULP

Moraleda Pérez S. Pacientes con parálisis facial periférica: registro de características clínicas antes y después del tratamiento con toxina botulínica tipo A y reeducación neuromuscular facial. Merz Pharma España S.L. 2014-Ongoing.

Management centre: FIBHULP

Noval Martín S. Estudio multicéntrico de tres años de duración para evaluar la tomografía de coherencia óptica como medida de valoración en pacientes con esclerosis múltiple. Novartis Farmaceutica S.A. 2012-Ongoing.

Management centre: FIBHULP

Otero Ortega L. Contrato Miguel Servet (CP20/00024). ISCIII-MICINN. 2021-2025.

Management centre: FIBHULP

Otero Ortega L. MicroRNAs derivados de vesículas extracelulares sanguíneas como biomarcadores de respuesta al tratamiento en pacientes con esclerosis múltiple. FIBHULP. 2022-Ongoing.

Management centre: FIBHULP

Otero Ortega L. Treatment choice matters in multiple sclerosis: The role of extracellular vesicles in predicting treatment response (CP20/00024). ISCIII. 2021-2024.

Management centre: FIBHULP

Pascual Pascual SI. Estudio de la eficacia de la toxina botulínica en el pie equino espástico de la parálisis cerebral y de los factores que influyen en la misma. Allergan S.A. 2008-Ongoing.

Management centre: FIBHULP

Pascual Pascual SI. Longitudinal data collection from patients with spinal muscular atrophy in spain a nationwide registry-cuidame. Fundacion Sant Joan de Deu. 2020-On-going.

Management centre: FIBHULP

Pascual Pascual SI. Safety evaluation on the use of botulinum toxin type A for the treatment of spasticity in children after 20 years of experience 1996-2015. A retrospective monocenter observational study based on a data base containing over 1000 children. Ipsen Innovation. 2017-Ongoing.

Management centre: FIBHULP

Rigual Bobillo RJ. Continuación del tratamiento anticoagulante en la fase aguda infarto cerebral carioembólico. Estudio COALAC. Daiichi Sankyo España. 2020-Ongoing.

Management centre: FIBHULP

Roda Frade JM. Estudio multicéntrico del interactoma metabólico y genético en gliomas humanos. Implicaciones diagnósticas y pronósticas (PI17/00361). ISCIII. 2018-2022.

Management centre: FIBHULP

Rodríguez de Rivera Garrido FJ. Consorcio europeo de ataxia de Friedreich para la realización de estudios traslacionales. Various funders. 2015-Ongoing.

Management centre: FIBHULP



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Rodríguez de Rivera Garrido FJ. Estudio doble ciego, controlado con placebo, de grupos paralelos, aleatorizado, multicéntrico de la eficacia y seguridad de nicotinamida en pacientes con ataxia de Friedreich (AC16/00082). ISCIII. 2017-2022.

Management centre: FIBHULP

Vivancos Matellano F. Proyecto de desarrollo para la mejora clínico-asistencial de pacientes con enfermedad de Parkinson avanzada tras el confinamiento. Abbvie Spain S.L.U. 2020-Ongoing.

Management centre: FIBHULP

Cibers and Retics

Bullido Gómez-Heras MJ. Centro de Investigación en Red de Enfermedades neurodegenerativas. (CIBERNED). ISCIII. (31/12/2022).

Management centre: FIBHULP

Díez Tejedor E. Vascular and Cerebral Diseases Network. (INVICTUS PLUS). ISCIII. (31/12/2022).

Management centre: FIBHULP

Fuentes Gimeno B. Enfermedades vasculares cerebrales (RICORS). ISCIII; UE. (31/12/2024).

Management centre: FIBHULP

Clinical trials

Hernández Barral M. Estudio de fase 2, multicéntrico, aleatorizado, doble ciego, controlado con placebo para evaluar la eficacia y la seguridad de sar443820 en participantes adultos con esclerosis lateral amiotrófica, seguido de una extensión abierta.

Type: Clinical Trials, phase II. 6076 ACT16970.

Sponsored by: Sanofi Aventis S.A.

Signed date: 18/01/2022

Rodríguez de Rivera Garrido FJ. Estudio de fase 2, multicéntrico, aleatorizado, doble ciego y controlado con placebo para evaluar la eficacia y la seguridad de alxn2050 en participantes adultos con miastenia grave generalizada.

Type: Clinical Trials, phase II. 6051 ALXN2050-MG-201.

Sponsored by: Alexion Pharmaceutical Inc.

Signed date: 11/02/2022

Díaz de Terán Velasco FJ. Estudio de fase II/III, multicéntrico, de preinclusión de 8 semanas de duración, seguido de un estudio prospectivo, de grupos paralelos, doble ciego, aleatorizado, controlado con placebo y de retirada de 12 semanas de duración, con una extensión abierta de 52 semanas, para evaluar la eficacia y la seguridad de 1,5 mg a 3,5 mg diarios de basimiglurant en pacientes con dolor asociado a neuralgia del trigémino con respuesta subóptima a su tratamiento actual contra el dolor.

Type: Clinical Trials, phase II. 5984 NOE-TGN-201.

Sponsored by: Noema Pharma Ag.

Signed date: 28/02/2022

Rodríguez de Rivera Garrido FJ. Eficacia y seguridad del tratamiento combinado con pozelimab y cemdisirán en pacientes con miastenia grave generalizada sintomática.

Type: Clinical Trials, phase III. 6008 R3918-MG-2018.

Sponsored by: Regeneron Pharmaceuticals, Inc.

Signed date: 09/03/2022

Fuentes Gimeno B. Estudio de administración de multistem® para el tratamiento del ictus y la mejora de la recuperación (masters-2).

Type: Clinical Trials, phase III. 5723.

Sponsored by: Abt Holding Company.

Signed date: 17/04/2022

Noval Martín S. A phase 3, multicenter, randomized, evaluator-blinded clinical trial to assess the safety and efficacy of clobetasol propionate ophthalmic nanoemulsion, 0.05% compared to prednisolone acetate, 1% in the treatment of inflammation after cataract surgery in.

Type: Clinical Trials, phase III. 6112.

Sponsored by: Laboratorios Salvat, S.A.

Signed date: 24/10/2022

Pascual Pascual SI. Estudio aleatorizado, doble ciego, controlado con placebo del tev-50717 (deutetabenazina) para el tratamiento de la discinesia en la parálisis cerebral en niños y adolescentes.

Type: Clinical Trials, phase III. Appendix 1 5290.

Sponsored by: Teva Branded Pharmaceutical Products R&D, Inc.

Signed date: 01/02/2022

Pascual Pascual SI. Estudio sin enmascaramiento de seguridad, tolerabilidad y eficacia a largo plazo de tev-50717 (deutetabenazina) para el tratamiento de la discinesia en la parálisis cerebral en niños y adolescentes (reclaim-dcp abierto).

Type: Clinical Trials, phase III. Appendix 1 5411.

Sponsored by: Teva Branded Pharmaceutical Products R&D, Inc.

Signed date: 25/03/2022

Díaz de Terán Velasco FJ. Estudio en fase iv, aleatorizado, doble ciego y controlado con placebo para evaluar la eficacia y la seguridad de rimegepant en la prevención de la migraña episódica con pautas posológicas múltiples.

Type: Clinical Trials, phase IV. 2022.038.

Sponsored by: Biohaven Pharmaceuticals.

Signed date: 05/09/2022

López Arrieta JM. Estudio de fase 3, multi-

céntrico, randomizado, doble ciego, controlado con placebo, para evaluar la seguridad y eficacia de masitinib como tratamiento complementario en pacientes con enfermedad de alzheimer de leve a moderada, tratados con el tratamiento estándar: inhibidores de la colinesterasa, memantina.

Type: Clinical Trials, phase III. 2022.106.

Sponsored by: Abscience.

Signed date: 04/10/2022

Frank García A. Estudio de fase I/II, multicéntrico, aleatorizado, controlado con placebo, doble ciego, de dosis única y dosis múltiples para evaluar la seguridad, la tolerabilidad, la farmacocinética y la farmacodinámica de dnl593 en participantes sanos y participantes con demencia, seguido de una extensión sin enmascaramiento.

Type: Clinical Trials, phase I. 2022.108.

Sponsored by: Denali Therapeutics, Inc.

Signed date: 28/09/2022

Rodríguez Sanz A. Registro en España del uso de los inhibidores de la COMT en el manejo de pacientes con enfermedad de parkinson que presentan fluctuaciones motoras tempranas. Estudio reonpark.

Type: Clinical Trials, phase . 2022.129.

Sponsored by: Laboratorios Bial S.A.

Signed date: 18/07/2022

Paz Solís JF. Inspire: estudio para evaluar el efecto de la estimulación de la médula espinal sobre los resultados clínicos y la patología de la neuropatía diabética periférica dolorosa (ndpd). Inspire: a study to evaluate the effect of spinal cord stimulation (scs) on clinical outcomes and pathology of painful diabetic peripheral neuropathy (pdpn).

Type: Producto Sanitario. 2022.167.

Sponsored by: Boston Scientific International S.A.

Signed date: 18/07/2022



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Pascual Pascual SI. Estudio de fase 4 de nusinersen (biib058) en pacientes con atrofia muscular espinal que recibieron onasemnogene abeparvovec.

Type: Clinical Trials, phase IV. 2022.182.

Sponsored by: Biogen Idec Ltd.

Signed date: 26/04/2022

Pascual Pascual SI. Estudio de extensión a largo plazo de nusinersén (BIIB058) administrado a dosis más altas en participantes con atrofia muscular espinal que han participado previamente en un estudio de investigación con nusinersén.

Type: Clinical Trials, phase III. 2022.277.

Sponsored by: Biogen Idec Ltd.

Signed date: 20/06/2022

Rodríguez de Rivera Garrido FJ. Estudio de fase 3, aleatorizado, doble ciego, controlado con placebo, paralelo y multicéntrico para evaluar la seguridad y eficacia de alxn1720 en adultos con miastenia gravis generalizada.

Type: Clinical Trials, phase III. 2022.302.

Sponsored by: Alexion Pharmaceutical Inc.

Signed date: 29/09/2022

Alonso de Leciñana Cases M. Conceptualización transdiagnóstica del trastorno por déficit de atención e hiperactividad y el trastorno obsesivo-compulsivo desde los criterios de investigación por dominios (trans-impulse).

Type: No EPA. 2022.353.

Sponsored by: Martínez Sánchez, Patricia.

Signed date: 25/07/2022

Pascual Pascual SI. Estudio controlado, aleatorizado y de aumento gradual de la dosis de nusinersén (BIIB058) en participantes con atrofia muscular espinal.

Type: Clinical Trials, phase III. 2022.406.

Sponsored by: Biogen Idec Ltd.

Signed date: 04/08/2022

Pascual Pascual SI. Estudio de extensión del seguimiento internacional, multicéntrico, doble ciego de 9 meses de duración para evaluar la seguridad y tolerabilidad a largo plazo de pxt3003 en pacientes con enfermedad de charcot-marie-tooth de tipo 1a.

Type: Clinical Trials, phase III. 2022.430.

Sponsored by: Pharnext.

Signed date: 25/04/2022

Lara Lara M. Estudio intervencionista, aleatorizado, con enmascaramiento doble, de grupos paralelos, controlado con placebo y de inicio retardado para evaluar la eficacia y seguridad de eptinezumab en pacientes con cefalea en racimos episódica.

Type: Clinical Trials, phase III. 2022.517.

Sponsored by: Lundbeck A/S.

Signed date: 30/11/2022

● Patents and trademarks

Ballesteros García P, López Larrubia P, Domínguez Mateo L, Marco Contelles JL, Cerdá García-Esteller S, inventors; Universidad

Nacional de Educación a Distancia, CSIC, assignees. Set of magnetic resonance imaging and spectroscopy cell acidity extrinsic indicators comprise polyol derivatives based on alditol. P200300936; 2003 April 23.

Valdivieso Amate F, Bullido Gómez-Heras MJ, Martínez García A, inventors; UAM, assignee. Method of identifying compounds that induce or inhibit endoplasmic reticulum stress or oxidative stress. P200702997, PCT/ES2008/000705, EP2221379, US20100304384; 2007 November 13.

Valdivieso Ámate F, Burgos Muñoz JS, Ramírez Moreno C, Sastre Merlin I, inventors; UAM, CSIC, assignees. Method of identifying therapeutic compounds which can be used for the treatment and/or prevention of infections and diseases caused by human herpes viruses. P200400965, PCT/ES2005/000209, EP1769677, US20070218004, AT447321, AU2005235319, CA2562787, JP2007533315; 2004 April 21.

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Máiquez J, Lorrio González S, Negredo Madrid P, inventors; BIOIBÉRICA S.A., UAM, assignees. Sulphated disaccharides for the treatment of neurodegenerative and/or neurovascular diseases. P200902399, PCT/EP2010/070613, US20120309707, CA20102785237; 2010 December 22.

Gil-Martínez A, inventors; FIBHULP, assignees. Specular Face. 4022981/5. 2019 December 10



Gil Martínez A, Gil Castillo J, inventors; Fibhulp, Centro Superior de Estudio Universitarios La Salle, Javier Gil Castillo, assignees. Dispositivo de medición y/o entrenamiento de la fuerza o presión de los músculos de la cavidad oral y su uso para rehabilitación. MU 1201U MU202230128. 2022 July, 26.

Egea Máiquez FJ, Farré Alins V, Palomino Antolín A, Narros Fernández P, Martins Rosa J, Parada Pérez E, Hernández García BJ, Roda Frade JM, Yus Teruel S, Lagares Gómez-Abascal A, Sánchez Carabias C, Gárdia Juan L, inventors; Fundación Hospital La Princesa, Fibhulp, Fundación Hospital 12 de Octubre, UAM, assignees. Method for determining the progression of acute brain damage and pharmaceutical composition for its treatment. P202031194, PCT/ES2021/070856; 2020 November 30.



3 Information Groups by Area



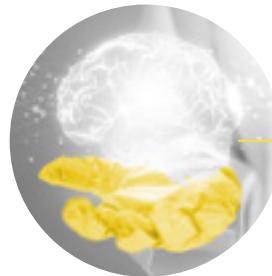
3.1 Neurosciences Area

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3.1.3

Neuroprotective Strategies in Neurodegenerative Diseases Group

Publications: 14

Q1: 14

COMPOSITION

Ana Isabel Rojo Sanchís. Profesora Contratada Doctor. Dpto. Bioquímica. Facultad Medicina. Universidad Autónoma de Madrid

Daniel Carnicero Senabre. Investigadora Predoctoral. Universidad Autónoma de Madrid

Eduardo Cazalla Ibáñez. Investigadora Predoctoral. Universidad Autónoma de Madrid

Antonio Cuadrado Pastor. Catedrático. Dpto. Bioquímica. Facultad Medicina. Universidad Autónoma de Madrid

Maria Isabel Escoll Guerrero. Investigadora Postdoctoral. CIBERNED

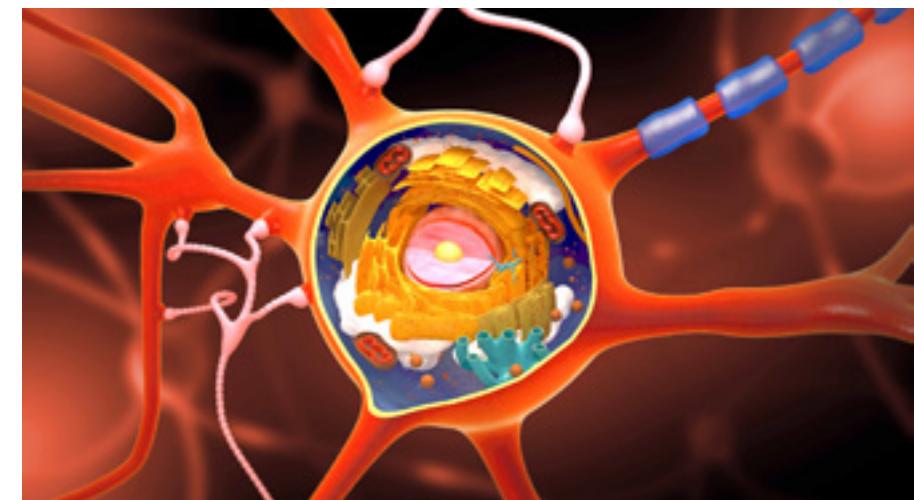
Raquel Fernández Ginés. Investigadora Predoctoral. Universidad Autónoma de Madrid

Ángel Juan García Yagüe. Investigador Postdoctoral. Universidad Autónoma de Madrid

José Jiménez Villegas. Investigador Predoctoral. Universidad Autónoma de Madrid

Ángela Martínez Valverde. Científico titular CSIC. IIb "Alberto Sols"/UAM-CISC

Patricia Rada Llano. Investigadora Postdoctoral. IIb "Alberto Sols"/UAM-CISC



STRATEGIC OBJECTIVE

Oxidative stress is a key element in the aetiopathogenesis of neurodegenerative diseases and their comorbidities. Our laboratory studies the antioxidant protection mechanisms activated by extracellular signals and how this response could be regulated pharmacologically to provide a therapeutic benefit in these diseases.

To meet these two objectives, we are studying signalling pathways that regulate antioxidant metabolism and provide a general protective response. An important finding of this group was

the observation that the PI3K/AKT/GSK-3 survival pathway regulates the transcription factor NRF2, guardian of cellular redox homeostasis, that provides protection against oxidative, inflammatory and proteotoxic stress.

For the past year we have been working on the validation this transcription factor as a new therapeutic target to modify progression of Parkinson's and Alzheimer's disease as well co-morbid retinopathy and type II diabetes.



3 Information Groups by Area



3.1 Neurosciences Area

RESEARCH LINES

- Role of oxidative stress in neuronal death and neuroinflammation in neurodegenerative diseases.
- Validation of NRF2 as a new therapeutic target in neurodegenerative diseases.
- Use of NRF2 transcriptional signature as a biomarker of prognosis, progression and therapeutic efficacy.

- Identification of NRF2 activating compounds by inhibiting their interaction with β-TrCP.
- Relevance of NRF2 transcriptional signature in altered molecular processes in ALS models.
- Molecular basis of the role of Nrf2 in type 2 diabetes and its complications (diabetic retinopathy and nephropathy).

RESEARCH ACTIVITY

● Doctoral theses

Barahona Sanz I. PTPN1 deletion protects oval cells against lipoapoptosis by targeting cellular processes that favour lipid droplet formation and dynamics[dissertation]. Madrid: UAM: 2022(27/01/2022).

Directors: Martínez Valverde AM,
Valdecantos Jiménez de
Andrade MP.



Duarte Flórez P. Nuevos inductores de NRF2 e inhibidores selectivos de MAO-B para el tratamiento de la enfermedad de Parkinson[dissertation]. Madrid: UAM: 2022(19/09/2022).

Directors: León Martínez R,
Cuadrado Pastor A.

Fernández Ginés R. Desarrollo de nuevos moduladores de actividad del factor de transcripción NRF2.[dissertation]. Madrid: UAM: 2022(24/11/2022).

Directors: Cuadrado Pastor A,
Rojo Sanchís AI.

● Master theses

Cazalla Ibáñez E. Role of transcription factor NRF2 in the regulation of the Blood-Brain Barrier component TIE2 receptor[dissertation]. Madrid: UAM: 2022(08/07/2022).

Directors: Cuadrado Pastor A,
García-Yagüe AJ.

● Publications

- Cuadrado A. Brain-Protective Mechanisms of Transcription Factor NRF2: Toward a Common Strategy for Neurodegenerative Diseases. *Annu Rev Pharmacol.* 2022; 62: 255-77. Review. IF: 12.5; D1
- Cucos CA, Milanesi E, Dobre M, Musat IA, Manda G, Cuadrado A. Altered blood and brain expression of inflammation and redox genes in Alzheimer's Disease, common to APP(V717I) x TAU(P301L) mice and patients. *Int J Mol Sci.* 2022; 23(10): 5799. Article. IF: 5.6; Q1
- del Hierro JN, Cantero-Bahillo E, Fernández-Felipe MT, García-Risco MR, Fornari T, Rada P, Doblado L, Ferreira V, Hitos AB, Valverde AM, Monsalve M, Martín D. Effects of a mealworm (*Tenebrio molitor*) extract on metabolic syndrome-related pathologies: In vitro insulin sensitivity, inflammatory response, hypolipidemic activity and oxidative stress. *Insects.* 2022; 13(10): 896. Article. IF: 3; Q1
- Duarte P, Michalska P, Crisman E, Cuadrado A, León R. Novel series of dual NRF2 inducers and selective MAO-B inhibitors for the treatment of Parkinson's disease. *Antioxidants.* 2022; 11(2): 247. Article. IF: 7; D1
- Fernández-Ginés R, Encinar JA, Hayes JD, Oliva B, Rodríguez-Franco MI, Rojo AI, Cuadrado A. An inhibitor of interaction between the transcription factor NRF2 and the E3 ubiquitin ligase adapter beta-TrCP delivers anti-inflammatory responses in mouse liver. *Redox Biol.* 2022; 55: 102396. Article. IF: 11.4; D1
- Ferreira V, Folgueira C, Guillén M, Zubiaur P, Navares M, Sarsenbayeva A, López-Larrubia P, Eriksson JW, Pereira MJ, Abad-Santos F, Sabio G, Rada P, Valverde AM. Modulation of hypothalamic AMPK phosphorylation by olanzapine controls energy balance and body weight. *Metabolism.* 2022; 137: 155335. Article. IF: 9.8; D1
- Jiménez MTB, Frenis K, Hahad O, Steven S, Cohen G, Cuadrado A, Muenzel T, Daiber A. Protective actions of nuclear factor erythroid 2-related factor 2 (NRF2) and downstream pathways against environmental stressors. *Free Radical Bio Med.* 2022; 187: 72-91. Review. IF: 7.4; Q1
- Jiménez-Villegas J, Kirby J, Mata A, Cadena S, Turner MR, Malaspina A, Shaw PJ, Cuadrado A, Rojo AI. Dipeptide repeat pathology in C9orf72-ALS is associated with redox, mitochondrial and NRF2 pathway imbalance. *Antioxidants.* 2022; 11(10): 1897. Article. IF: 7; D1
- Kopacz A, Rojo AI, Patibandla C, Lastra-Martínez D, Piechota-Polanczyk A, Kloska D, Joźkowicz A, Sutherland C, Cuadrado A, Grochot-Przeczek A. Overlooked and valuable facts to know in the NRF2/KEAP1 field. *Free Radical Bio Med.* 2022; 192: 37-49. Review. IF: 7.4; Q1
- Lastra D, Escoll M, Cuadrado A. Transcription factor NRF2 participates in cell cycle progression at the level of G1/S and mitotic checkpoints. *Antioxidants.* 2022; 11(5): 946. Article. IF: 7; D1
- Manda G, Milanesi E, Genc S, Niculite CM, Neagoe IV, Tastan B, Dragnea EM, Cuadrado A. Pros and cons of NRF2 activation as adjunctive therapy in rheumatoid arthritis. *Free Radical Bio Med.* 2022; 190: 179-201. Article. IF: 7.4; Q1
- Srivastava R, Fernández-Ginés R, Encinar JA, Cuadrado A, Wells G. The current status and future prospects for therapeutic targeting of KEAP1-NRF2 and beta-TrCP-NRF2 interactions in cancer chemoresistance. *Free Radical Bio Med.* 2022; 192: 246-60. Review. IF: 7.4; Q1
- Uribe-Carretero E, Martínez-Chacón G, Yakhnne-Diop SMS, Duque-González G, Rodríguez-Arribas M, Alegre-Cortes E, Paredes-Barqueró M, Canales-Cortes S, Pizarro-Estrella E, Cuadrado A, González-Polo RA, Fuentes JM, Niso-Santano M. Loss of KEAP1 causes an accumulation of nondegradative organelles. *Antioxidants.* 2022; 11(7): 1398. Article. IF: 7; D1
- Val-Blasco A, Prieto P, Jaen RI, Gil-Fernández M, Pajares M, Domenech N, Terron V, Tamayo M, Jorge I, Vázquez J, Bueno-Sen A, Vallejo-Cremades MT, Pombo-Otero J, Sánchez-García S, Ruiz-Hurtado G, Gómez AM, Zaragoza C, Crespo-Leiro MG, López-Collazo E, Cuadrado A, Delgado C, Boscá L, Fernández-Velasco M. Specialized proresolving mediators protect against experimental autoimmune myocarditis by modulating Ca²⁺ handling and NRF2 activation. *JACC Basic Transl Sci.* 2022; 7(6): 544-60. Article. IF: 9.7; D1

● Research projects

Cuadrado Pastor A, Seabra M. NRF2 as a novel therapeutic target in age-related macular degeneration (HR22-00569). Fundación La Caixa. 2022-2026.

Management centre: UAM



3 Information Groups by Area



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Cuadrado Pastor A. Activation of NRF2 by 6-MISTC, role in AD (2021/0175). Kiinjirushi Ltd. Co. 2021-2023.

Management centre: Fundación UAM

Cuadrado Pastor A. Desarrollo de fármacos activadores de NRF2 para terapias innovadoras de la enfermedad de Alzheimer - GT2 (2018/00050/001). CM. 2018-2022.

Management centre: UAM

Cuadrado Pastor A. Investigación traslacional sobre la regulación farmacológica NRF2 en enfermedades no transmisibles (10.2J.01.03). MICIN. 2020-2022.

Management centre: UAM

Cuadrado Pastros A, Rojo Sanchís Al. Desarrollo de nuevos fármacos antiinflamatorios basados en la activación del factor de transcripción NRF2 (PDC2021-121421-I00). Agencia Estatal de Investigación. 2021-2023.

Management centre: UAM

Cuadrado Pastros A, Rojo Sanchís Al. El factor de transcripción NRF2 en la patofisiología de la enfermedad de Alzheimer (1004020167). MICIN. 2020-2023.

Management centre: UAM

Martínez Valverde A. Extenting the knowledge of the cellular and molecular mediators in the progression and treatment of non-

alcoholic fatty liver disease linked to obesity (FATLiV). (RTI2018-094052-B-I00). MICIN. 2019-2022.

Management centre: CSIC

Martínez Valverde A. Extracellular vesicles: new insights into their role in liver-pancreas interactome in T2D. European Association for the Study of Diabetes. 2021-2023.

Management centre: CIBER

Martínez Valverde A. Identification of metabolic biomarkers for chronic diseases and treatments/identificación de biomarcadores metabólicos para enfermedades crónicas y sus tratamientos. (EIN2020-112263). MICIN. 2021-2022.

Management centre: CSIC

Martínez Valverde A. Mecanismos moleculares y comunicación intertisular en la resistencia a la insulina (B2017/BMD-3684 MOIR2-CM). CM. 2018-2022.

Management centre: CISC

Martínez Valverde A. New messengers in the interactome of hepatic and extrahepatic cells in non-alcoholic fatty liver disease with diagnostic value. Fundación Ramón Areces. 2019-2022.

Management centre: CSIC

Rojo Sanchís Al. NRF2: Biomarcador y evaluación como diana terapéutica para la es-

clerosis lateral amiotrófica (ref-P024.FTPGB 2018). Fundación Tatiana Pérez de Guzmán el Bueno. 2018-2022.

Management centre: UAM

November 06.

León Martínez R, Egea Maíquez J, Buendía Abaitua I, Parada Pérez E, Navarro González de Mesa E, inventors; Fundación para la Investigación Biomédica del Hospital Universitario de La Princesa, UAM, CSIC, DNS NEUROSCIENCE S.A., assignees. Use of 3-(2-isothiocyanatoethyl)-5-methoxy-1H-indole for the treatment of neurodegenerative diseases. P201300667; 2013 July 17.

León Martínez R, Buendía Abaitua I, Navarro González de Mesa E, Michalska P, Gameiro Ros I, López Vivo A, Egea Maíquez J, García López M, García García A, inventors; Fundación para la Investigación Biomédica del Hospital Universitario de La Princesa, UAM, DNS NEUROSCIENCE S.A., assignees. Compounds derived from 3-alkylamine-1H-indolyl acrylate and its use for the treatment of neurodegenerative diseases. P201400810, PCT/ES2015/000139, CA2964309; 2014 October 15.

Cuadrado Pastor A, Fernández-Ginés R, León Martínez R, Encinar JA, Rodríguez Franco MI, García López MG, Rojo Sanchís Al, inventors. UAM, CSIC, UMH y Fundación de Investigación Biomédica del Hospital Universitario de la Princesa, assignees. Treatment of NRF2-Related diseases. PCT/2022/382025.1.

● Cibers and Retics

Cuadrado Pastor A. Centro de Investigación Biomédica en Enfermedades Neurodegenerativas. (CB06/05/0010). ISCIII. (31/12/2022).

Management centre: UAM

Martínez Valverde A. Centro de Investigación Biomédica en Red de Diabetes y Enfermedades Metabólicas Asociadas. (CB07/08/0033). ISCIII. (31/12/2022).

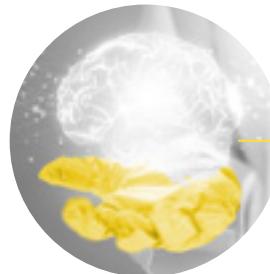
Management centre: CSIC

Cuadrado Pastor A, Rojo Sanchís Al. Bench to bedside transition for pharmacological regulation of NRF2 in noncommunicable diseases (BenBedPhar). (CA20121). EU Cost Actions. (18/10/2025).

Management centre: Victor Babes Research Institute (Romania)

● Patents and trademarks

Cuadrado Pastor A, Innamorato NG, inventors: CSIC, UAM. Use of sulforaphane as supplementary therapy for early-stage neurodegenerative disease. P201231693; 2012



3.1.4

Involvement of Glycinergic and Glutamatergic Systems in Central Nervous System Pathologies Group

Publications: 3
Q1: 2

COMPOSITION

Francisco Zafra Gómez. Catedrático. Facultad de Ciencias. Universidad Autónoma de Madrid

María del Carmen Aragón Rueda. Catedrática. Facultad de Ciencias. Universidad Autónoma de Madrid

Beatriz Fuensanta López Corcuera. Profesora Titular. Facultad de Ciencias. Universidad Autónoma de Madrid

Enrique Núñez Balbuena. Investigador Postdoctoral. Universidad Autónoma de Madrid

Eva María Porlan Alonso. Investigador Postdoctoral. Universidad Autónoma de Madrid



STRATEGIC OBJECTIVE

Role of glutamate and glycine transporters in physiological and pathological aspects of glutamatergic and glycinergic neurotransmission.

Involvement of glutamate transporters in excitotoxicity, ischemia and traumatic brain injury.

Pathologies of glycinergic neurotransmission such as hyperekplexia and pain
Role of the adult neurogenesis in neurorepair.

Role of microRNAs in ischemic tolerance.



3 Information Groups by Area



3.1 Neurosciences Area

RESEARCH LINES

1. Physiological and pathological aspects of glutamate fuxes in brain as potential targets to prevent excitotoxicity, associated with brain disfunctions like ischemia, o traumatic brain injury, with special interest in intracellular traffic and characterization of interactomes of transporters and receptors of glutamatergic synapses.
- 2 Glycinergic neurotransmission. Identification and characterization of new GlyT2 mutations (SLC6A5 gene) associated to human hyperekplexia. Effects of the mutations on transporter structure, function, proteostasis and glycinergic neurotransmission. Role in presynaptic hyperekplexia of different genes related to GlyT2 trafficking, interactoma, posttranslational modifications. Rescue interventions.
- 3 Study of plastic adaptations affecting glycine transporters in physiological and pathological nociception. Regulation of GlyTs by receptors modulating nociceptive signaling (P2XR, P2YR, mAch, nAch, a2 adrenergic, 5-HT). Signaling pathways.
- 4 Neuron-glia crosstalk through microRNAs and exosomes.
- 5 Physiological and pathological aspects of Neuronal reparation by adult neurogenesis:
 - A) Identification of novel regulatory mechanisms of adult neurogenesis by kinases.
 - B) Identification of novel regulatory mechanisms of adult neurogenesis by microRNAs and other non-coding RNAs.
- 6 GABAergic neurotransmission. Identification and characterization of new mutations in SLC6A1 gene (GABA transporter GAT-1) associated to epilepsy. Effects of the mutations on transporter structure, function in GABAergic neurotransmission. Pharmacological treatments with pharmacochaperones.

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RESEARCH ACTIVITY

● Publications

- González-Martínez J, Cwetsch AW, Gilabert-Juan J, Gómez J, Garaulet G, Schneider P, de Carcer G, Mulero F, Caleiras E, Megias D, Porlan E, Malumbres M. Genetic interaction between PLK1 and downstream MCPH proteins in the control of centrosome asymmetry and cell fate during neural progenitor division. *Cell Death Differ.* 2022; 29(8): 1474-85. Article. IF: 12.4; Q1
- Martínez-Lozada Z, Hewett SJ, Zafra F, Ortega A. Editorial: The known, the unknown, and the future of glutamate transporters. *Front Cell Neurosci.* 2022; 16: 1005834. Editorial Material. IF: 5.3; Q1
- Zafra F, Piniella D. Proximity labeling methods for proteomic analysis of membrane proteins. *J Proteomics.* 2022; 264: 104620. Article. IF: 3.3; Q2

● Research projects

Porlan Alonso E. Nuevos reguladores farmacológicos de la neurogénesis adulta y la reprogramación directa (PID2019-104763RB-I00). Ministerio de Economía, Industria y Competitividad. 2020-2023.

Management centre: UAM

López Corcuera B. El transportador neuronal de glicina glyt2 en dolor y en hiperplexia. Implicaciones patológicas en desarrollo (PID2020-119399RB-I00). Ministerio de Economía, Industria y Competitividad. 2021-2024.

Management centre: UAM

López Corcuera B. El transportador neuronal de glicina GlyT2 en hiperplexia: una patología glicinérgica del desarrollo. Fundación Ramón Areces. 2021-2024.

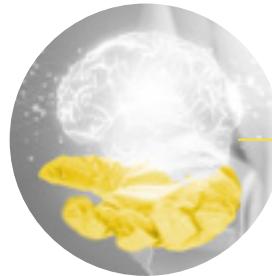
Management centre: Fundación Severo Ochoa



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3.1.5 Mechanisms and Biomarkers in Neurodegenerative Diseases Group

Publications: 2

Q1: 2

COMPOSITION

Isabel Lastres Becker. Profesora Titular. Universidad Autónoma de Madrid

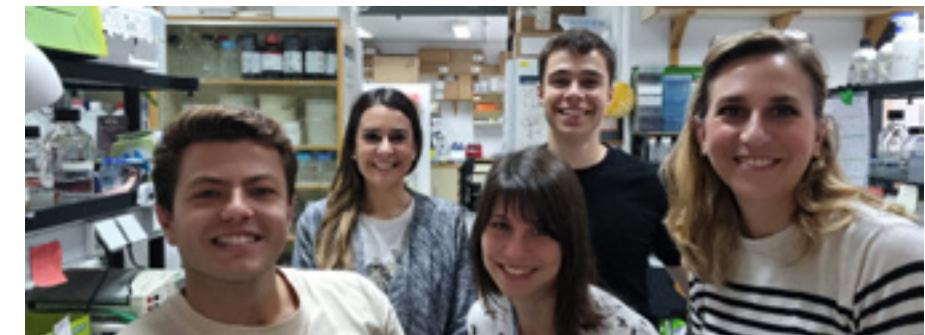
Marina Arribas Blázquez. Investigadora Postdoctoral. Universidad Autónoma de Madrid

Pablo Beceidero Macho. Investigador Predoctoral. Universidad Autónoma de Madrid

Alicia Berrojo Armisen. Investigadora Predoctoral. Universidad Autónoma de Madrid

Mirjam Brackhan. Investigadora Postdoctoral. FIBHULP

Ignacio Silva Llanes. Investigador Predoctoral. Universidad Autónoma de Madrid



STRATEGIC OBJECTIVE

The aging of the population poses a growing burden in society. This is associated with the increase in disability and diseases that have a high impact on health care, on patients and their families. Likewise, aging is associated with the appearance of different neurodegenerative diseases, among which include Alzheimer's disease (AD), Parkinson's disease (PD) and amyotrophic lateral sclerosis (ALS). Therefore, the development of advanced biological markers, new drugs and appropriate technology is the key to establishing a treatment for these diseases, which is currently an important social challenge. In our laboratory we study the molecular basis of neurodegeneration. The research projects we develop have a multidisciplinary approach that combines basic and translational research, using cell culture techniques, murine models and postmortem samples from patients with AD, PD and ALS.

Amyotrophic lateral sclerosis (ALS): Design and development of innovative drugs for the treatment of ALS

Amyotrophic lateral sclerosis (ALS) is a fatal neurodegenerative disease that affects motor neurons in the spinal cord and cerebral cortex. Patients have a loss of muscle strength and coordination that progressively progresses, preventing the performance of daily activities. Until now

there is no treatment that cures ALS, and for this reason in our laboratory we are developing several lines of research that aim to address this challenge by designing and developing new therapies for the treatment of ALS. In collaboration with several laboratories in a project funded by the Community of Madrid (ELA_Madrid S2017/BMD-3813) we have generated and functionally and biochemically characterized cell models (lymphoblasts) based on human samples. In addition, we are developing new compounds that modulate the TDP-43 and NRF2 signaling pathways, respectively, validating them in cellular and mouse models of ALS. In this context, in a project funded by the Ministry of Science, Innovation and Universities (PID2019-105600RB-I00) we are also investigating the modulation of aging and neurodegeneration by small molecule protein kinase inhibitors, in collaboration with Dr. Ana Martínez. On the other hand, one of the main characteristics of ALS is that there are alterations in mRNA metabolism and deregulated axonal transport. For this reason, in a project financed by FUNDELA, we are determining if the TDP-43 aggregates kidnap the RNA-binding proteins, and do not let them carry out their function, in such a way that the mRNAs do not reach the synaptic connections and cannot be translated, causing there to be no connection between the neuron and the muscle, which ultimately leads



3 Information Groups by Area



3.1 Neurosciences Area

to loss of muscle function. So we are looking at RNA granule transport and protein translation in situ in ALS, determining the involvement of STAUFEN and TDP-43 proteins."

Tauopathies: new biomarkers and targets against neurodegeneration

The TAU protein is the main component of the intracellular filamentous deposits that define a series of neurodegenerative diseases called tauopathies. In general, tauopathies are characterized by alterations in synaptic plasticity, cell death, proteinopathy, and neuroinflammation. Despite enormous efforts to find a cure for these diseases, there is still no effective treatment. That is why in my laboratory we face this challenge with two different approaches. In our laboratory we have shown in vitro and in vivo that neurons with accumulation of TAU induce the expression of the cannabinoid receptor CB2, which enhances neurodegeneration. Therefore, in a first approach we focus on the study of the pharmacological modulation of the CB2 receptor and its effects on TAU-induced neurodegeneration, with a project funded by the Fundación

Tatiana Pérez de Guzmán el Bueno (2021-2024). There are currently no specific biomarkers for tauopathies that allow a prognosis/diagnosis of these diseases. "

Implication of alterations at the mitochondrial level and mitophagy in Parkinson's disease

We are interested in elucidating the molecular aspects that underlie Parkinson's Disease (PD). PD is the second most common multisystem neurodegenerative disorder associated with aging. Most cases of PD are sporadic and of unknown aetiology, but mutations in genes such as PARKIN and PINK1 have been associated with familial forms of the disease. Mitochondrial impairment is a well-established pathological hallmark of PD, but whether mitophagy is impaired in this disease remains a subject of intense debate. Therefore, in this research project we are determining the role of mitophagy and the differential alterations in mitochondria between neurons and astrocytes in a-synuclein associated-PD.

RESEARCH LINES

- Research on targeted therapies to modulate neurodegeneration-associated TDP-43 and TAU proteins.
- Analysis of RNA transport and protein translation in situ: implication of STAUFEN 1/2?.

- Modulation of cannabinoid CB2 receptor as a new therapeutic strategy to protect against TAU-induced neurodegeneration.
- Differential function of mitochondria in neuron-astrocyte-dependent a-synuclein protein in Parkinson's disease.

RESEARCH ACTIVITY

● Doctoral theses

Castro Sánchez S. Neuroinflamación y mitofagia en la enfermedad de Parkinson y posibles estrategias terapéuticas para las tauopatías [dissertation]. Madrid: UAM; (19/04/2022).

Director: Lastres Becker I.

● Master theses

Rodríguez López SM. Characterization of the neuroprotective effects of CB2 cannabinoid receptor antagonist's treatment in a TAU-dependent Frontotemporal Dementia mouse models[dissertation]. Madrid: UAM; (2022).

Director: Lastres Becker I.

● Publications

- Lastres-Becker I, de Lago E, Martínez A, Fernández-Ruiz J. New Statement about NRF2 in Amyotrophic Lateral Sclerosis and Frontotemporal Dementia. *Biomolecules*. 2022; 12(9): 1200. Article. IF: 5.5; Q1
- Martín-Cámaras O, Arribas M, Wells G, Morales-Tenorio M, Martín-Requero A, Porras G, Martínez A, Giorgi G, López-Alvarado P, Lastres-Becker I, Ménéndez JC. Multitarget hybrid fasudil derivatives as a new approach to the potential treatment of amyotrophic lateral sclerosis. *J Med Chem*. 2022; 65(3): 1867-82. Article. IF: 7.3; D1

● Research projects

Martínez A, Lastres-Becker I. Diseño y desarrollo de fármacos innovadores para el tratamiento de la esclerosis lateral amiotrófica (B2017/BMD-3813 ELA-Madrid). CM. 2018-2022.

Management centre: CSIC-UAM

Martínez A, Lastres-Becker I. Aging and neurodegeneration targeting by protein kinase small molecules inhibitors (PID2019-105600RB-I00). MICIN. 2020-2023.

Management centre: CSIC

Lastres-Becker I. Modulación del receptor cannabinoid CB2 como nueva estrategia terapéutica para proteger contra la neurodegeneración inducida por TAU (2021/00072/001). Fundación Tatiana Pérez de Guzmán el Bueno. 2021-2024.

Management centre: UAM

Martínez A, Lastres-Becker I. Luchando contra la enfermedad de Parkinson con inhibidores de SGK1 (PDC2022-133774-I00). MICIN. 2020 nov 5

2022-2024.

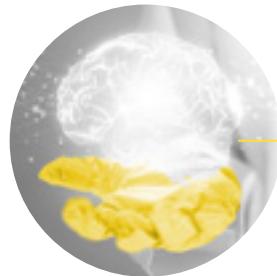
Management centre: CSIC

Martínez A, Lastres-Becker I. TTBK1 inhibitors as new therapeutic approach for FTD and other related disorders (ADDF-AFTD RA-202205-2023343). ADDF. 2022-2024.

Management centre: CSIC-UAM

● Patents and trademarks

López-Rodríguez ML, Viso A, Ortega S, Lastres-Becker I, González S, Fernández-Ruiz JJ, Ramos JA, inventors; Universidad Complutense de Madrid, assignees; Nuevos derivados de ácido araquidónico con afinidad por el transportador de anandamide. P200001920. 2020 nov 5

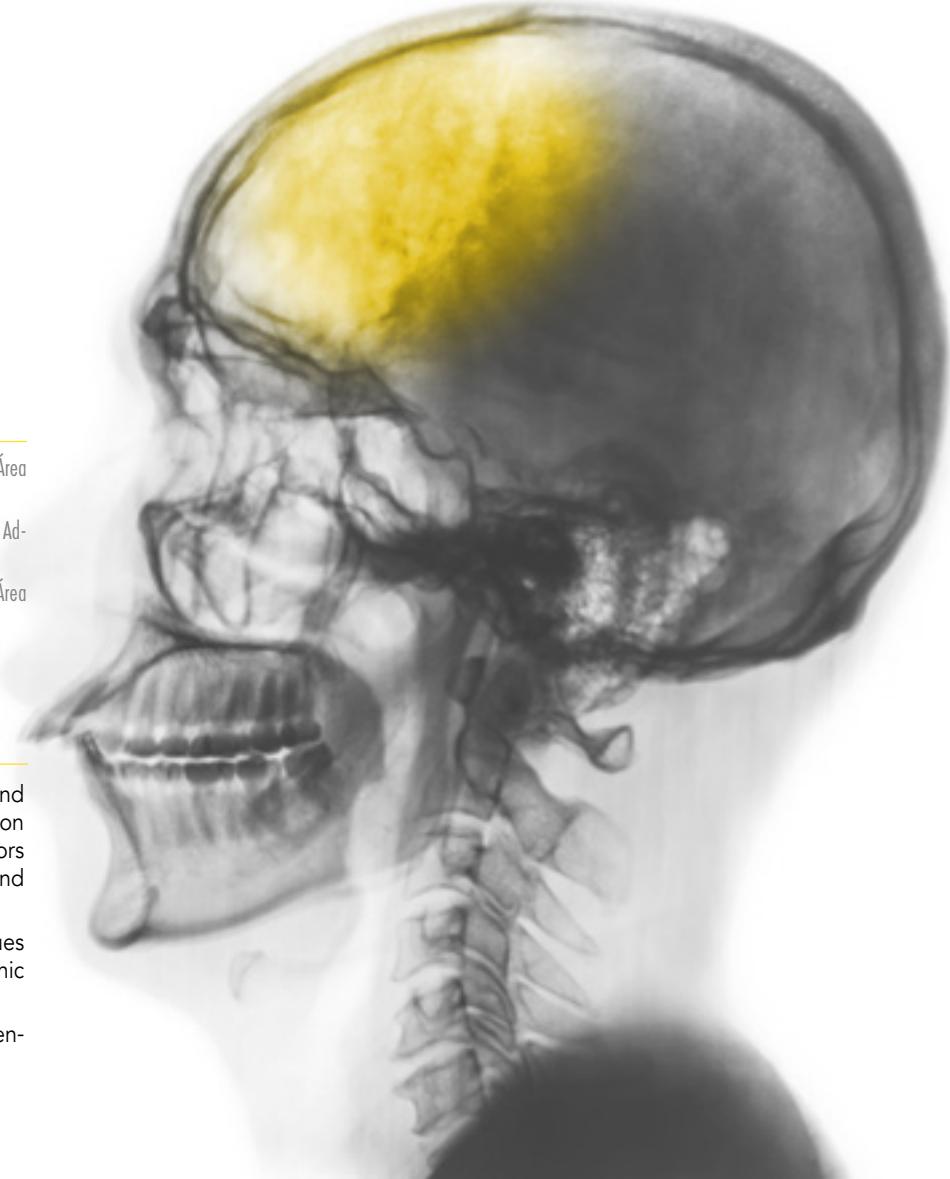


3.1.6

Multiple Sclerosis Research Group

Publications: 8

Q1: 1



COMPOSITION

Yolanda Aladró Benito. Médico Adjunto Neurología. Hospital Universitario de Getafe. Profesor Asociado. Universidad Europea de Madrid

Laura Lillo Triguero. Facultativo Especialista de Área en Neurología. Hospital Universitario de Getafe

Guillermo Martín Ávila. Facultativo Especialista de Área en Neurología. Hospital Universitario de Getafe

Alejandro Méndez Burgos. Facultativo Especialista Adjunto Neurología. Hospital Universitario de Getafe

Belén Pilo de la Fuente. Facultativo Especialista de Área en Neurología. Hospital Universitario de Getafe

STRATEGIC OBJECTIVE

To assess the progression of multiple sclerosis using gait analysis with inertial sensors to find more objective, sensitive and reliable measures to detect and monitor the clinical progression of progressive Multiple Sclerosis. To validate selected measures provided by inertial sensors to monitor gait in a prospective cohort of patients with Multiple Sclerosis in early (primary and secondary) stages.

We are specially focused in the assessment of the efficacy and effectiveness of techniques such as Mindfulness and we evaluate hypothetical mediators of response, such as neurotrophic factors or factors related to inflammatory response.

Moreover, the group is involved in the evaluation of new treatments or new indications in mental disorders through the participation in clinical trials.



3 Information Groups by Area



3.1 Neurosciences Area

RESEARCH LINES

- Gait study with biosensors in multiple sclerosis patients.
- Covid-19 in multiple sclerosis.
- Late-onset multiple sclerosis.
- Use of motion sensors in essential tremor.

RESEARCH ACTIVITY

● Publications

- Coll-Martínez C, Quintana E, Buxo M, Salavedra-Pont J, Gasull-Vicens L, Quirgoa-Varela A, Costa-Frossard L, Villar Luisa M, Fernández-Díaz E, Gracia J, Aladró Y, Méndez-Burgos A, Cerezo M, Ramíz-Torrenta L, Gich J. Oligoclonal IgM bands are a promising biomarker for long-term cognitive outcomes in multiple sclerosis. *Mult Scler Relat Disord.* 2022; 68: 104397. Article. IF: 4; Q2
- Fernández-Velasco JL, Monreal E, Kuhle J, Meca-Lallana V, Meca-Lallana J, Izquierdo G, Oreja-Guevara C, Gascón-Giménez F, de la Maza SS, Walo-Delgado PE, Lapuente-Suanzes P, Maceski A, Rodríguez-Martín E, Roldán E, Villarrubia N, Saiz A, Blanco Y, Díaz-Pérez C, Valero-López G, Díaz-Díaz J, Aladró Y, Brieva L, Iñiguez C, González-Suárez I, de Antonio LAR, García-Domínguez JM, Sabin J, Llufrí S, Masjuan J, Costa-Frossard L, Villar LM. Baseline inflammatory status reveals dichotomic immune mechanisms involved in primary-progressive multiple sclerosis pathology. *Front Immunol.* 2022; 13: 842354. Article. IF: 7.3; Q1
- García-Pastor A, Gil-Núñez A, Ramírez-Moreno JM, González-Nafria N, Tejada J, Moniche F, Portilla-Cuenca JC, Martínez-Sánchez P, Fuentes B, Gamero-García MA, de Leciñana MA, Masjuan J, Verge DC, Aladró Y, Parkhutik V, Lago A, de Arce-Borda AM, Usero-Ruiz M, Delgado-Mederos R, Pampliega A, Ximénez-Carrillo A, Bartolos-Iglesias M, Castro-Reyes E. Endarterectomy, stenting, or medical treatment for symptomatic carotid near-occlusion: Results from CAOS, a multicenter registry study. *Am J Neuroradiol.* 2022; 43(9): 1304-10. Article. IF: 3.5; Q2
- González-Escobar M, Aladró YH, Reyes-Martínez CS, Gallegos-Castillo CA, Arregui-Ojeda SM. Remarks on a sediment-hosted geothermal system in Cerro Prieto, Mexico, with a seismic reflection profile. *Geothermics.* 2022; 103: 102427. Article. IF: 3.9; Q2
- Martín-Ávila G, Vieira-Campos A, Labrador-Marcos S, Zheng XC, Méndez-Burgos A, Thuissard I, Andréu-Vázquez C, Ordieres-Mere J, Aladró Y. Patients' self-assessment of essential tremor severity by a validated scale: A useful tool in telemedicine? *Parkinsonism Relat D.* 2022; 96: 22-8. Article. IF: 4; Q2
- Martínez-Orozco FJ, Fernández-Arquero M, Vicario JL, Lillo-Triguero L, Ameyugo E, Peraita-Adrados R. Long-term outcome of a series of patients with narcolepsy type 1 and comorbidity with immunopathological and autoimmune diseases. *J Clin Med Res.* 2022; 14(8): 309-14. Article. Not Indexed

● Research projects

Aladro Benito Y. Monitoring of gait impairment progression using wearable sensors in patients with progressive multiple sclerosis. Roche. Merck-Serono. 2021-Ongoing.

Management centre: Hospital Universitario de Getafe



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3 Information Groups by Area

4 Associated Clinicians



3.2 Cardiovascular Area

Area Coordinators: José Raúl Moreno Gómez
María Fernández Velasco
coordinadorcardiovascular@idipaz.es

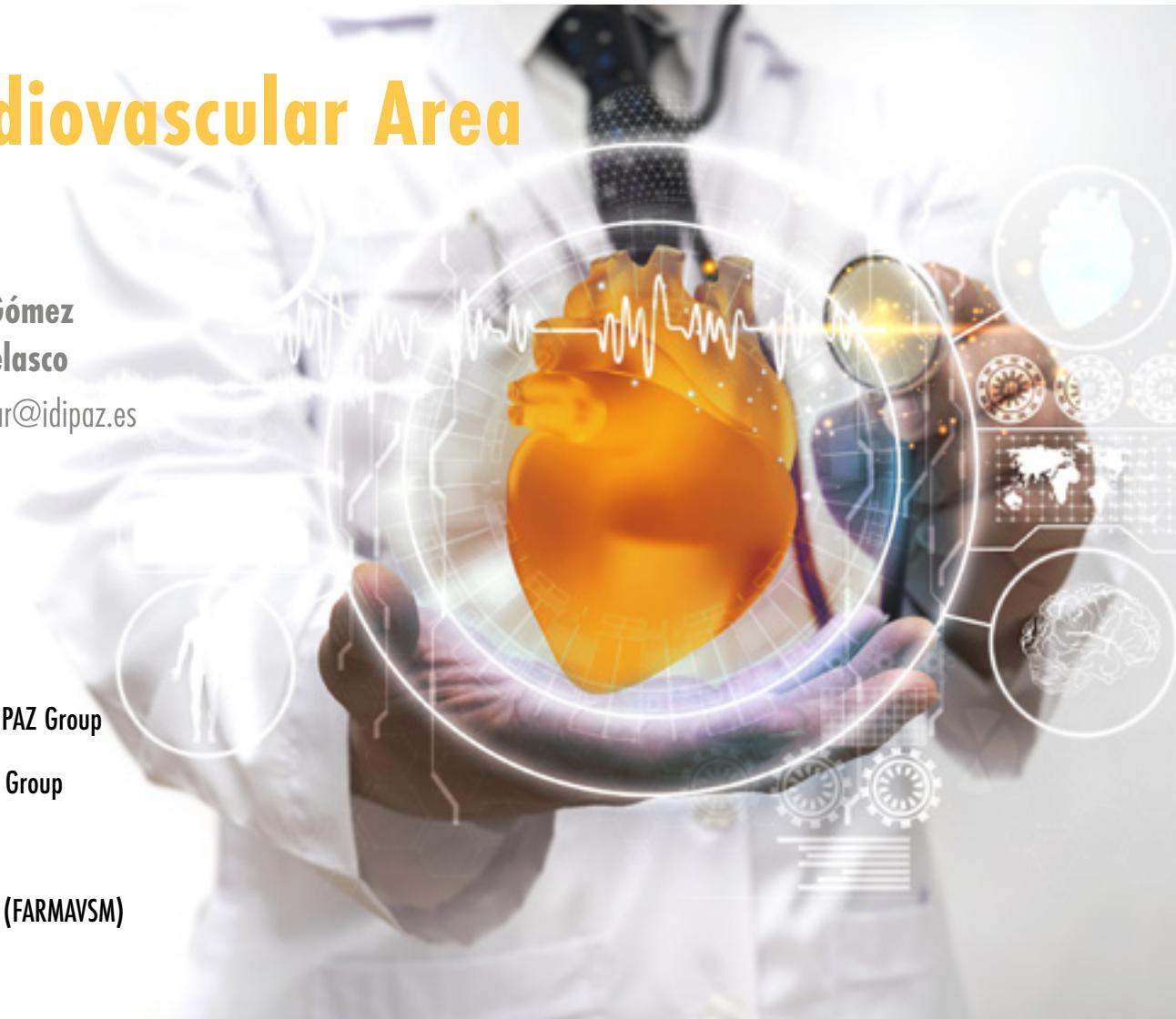
Documents: 243 Originals: 187 D1: 45 Q1: 122

3.2.1 Research on Invasive Clinical Cardiology - ICCI-PAZ Group

3.2.2 Coagulopathies and Alterations of Haemostasis Group

3.2.3 Vascular Physiology and Pharmacology Group

3.2.4 Vascular Pharmacology and Metabolism Group (FARMAVSM)





3 Information Groups by Area



3.2 Cardiovascular Area

Strategic Objectives

Cardiovascular Area is composed of 6 groups that carry out basic, experimental and clinical research in the fields of cardiology and cardiovascular risk factors. The area has an important activity in the performance of international clinical trials of wide impact and applicability. The scientific production of the cardiovascular area is supported by a high impact factor. The groups also have extensive experience in training researchers.

Development forecast for the coming years

To merge the groups by research lines in order to avoid the duplicities that make the group lose strength and competitiveness and to bet on being more competitive and to take better advantage of the resources.

The area should be focused on consolidated and multidisciplinary research lines rather than structured by pathologies. The collaboration with research groups from other organizations should be the norm.

Resources should be focused on priorities established by the researchers themselves, or directly by IdiPAZ after analyzing the scientific production of each group.

Clinical research through the resources it provides (clinical trials) should guide basic research projects in order to offer the ideal field for translational medicine. This type of research also provides a stronger link between international research groups.

Actions

Foster and support translational research lines.

Establish relationships/collaboration/alliances with other IdiPAZ research groups and with groups from other institutions and maintain those already started.

Analyze the scientific production of each group.

Encourage participation in clinical trials of researchers.

High impact publications

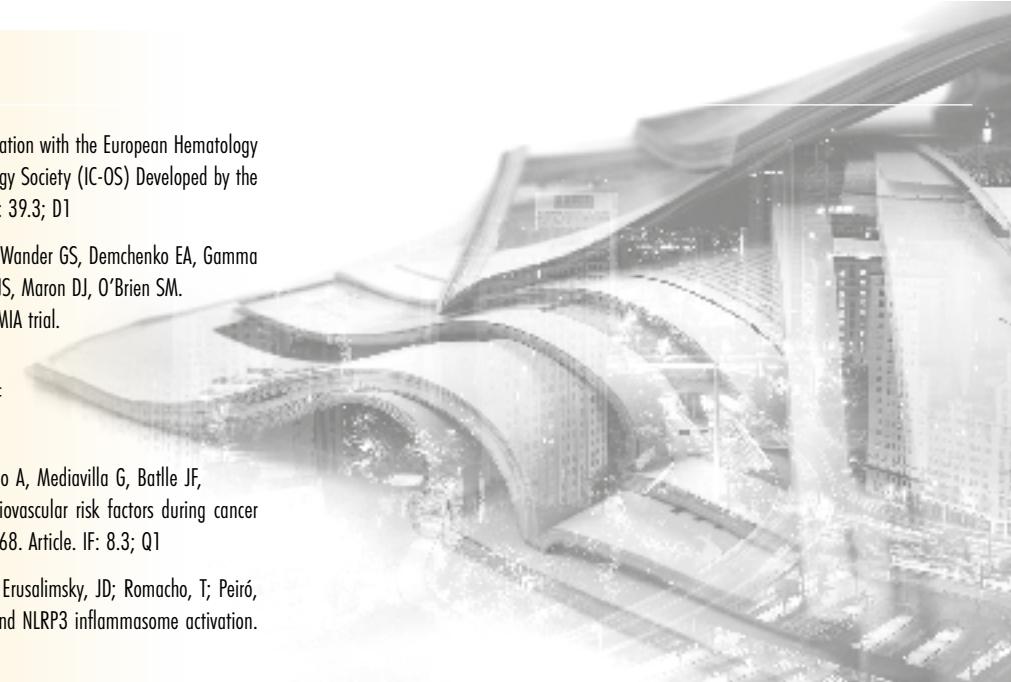
Lyon AR, **López-Fernandez T**, Couch LS, Asteggiano R, et al. 2022 ESC Guidelines on cardio-oncology developed in collaboration with the European Hematology Association (EHA), the European Society for Therapeutic Radiology and Oncology (ESTRO) and the International Cardio-Oncology Society (ICOS) Developed by the task force on cardio-oncology of the European Society of Cardiology (ESC). Eur Heart J. 2022; 43(41): 4229-361. Article. IF: 39.3; D1

López-Sendón JL, Cyr DD, Mark DB, Bangalore S, Huang Z, White HD, Alexander KP, Li JH, Nair RG, Demkow M, Peteiro J, Wander GS, Demchenko EA, Gamma R, Gadkari M, Poh KK, Nageh T, Stone PH, Keltai M, Sidhu M, Newman JD, Boden WE, Reynolds HR, Chaitman BR, Hochman JS, Maron DJ, O'Brien SM. Effects of initial invasive vs. initial conservative treatment strategies on recurrent and total cardiovascular events in the ISCHEMIA trial. Eur Heart J. 2022; 43(2): 148-9. Article. IF: 39.3; D1

Struijk EA, Fung TT, Rodríguez-Artalejo F, Bischoff-Ferrari HA, Hu FB, Willett WC, **López-García E**. Protein intake and risk of frailty among older women in the Nurses' Health Study. J Cachexia Sarcopeni. 2022; 13(3): 1752-61. Article. IF: 8.9; D1

Caro-Codón J, López-Fernández T, Álvarez-Ortega C, Auñón PZ, Rodríguez IR, Prieto PG, Soto AB, Albendea MC, Albaladejo A, Mediavilla G, Batlle JF, Fraga OR, Monzonis AM, González-Costello J, Antolín JMS, Chamorro RC, González-Juanatey JR, **López-Sendón JL**. Cardiovascular risk factors during cancer treatment. Prevalence and prognostic relevance: insights from the CARDIOTOX registry. Eur J Prev Cardiol. 2022; 29(6): 859-68. Article. IF: 8.3; Q1

Valencia, I.; Vallejo, S.; Dongil, P.; Romero, A.; San Hipólito-Luengo, A.; Shamoon, I.; Posada, M.; García-Olmo, D.; Carraro, R.; Erusalimsky, JD.; Romacho, T.; Peiró, C.; **Sánchez-Ferrer, CF**. DPP4 promotes human endothelial cell senescence and dysfunction via the PAR2-COX-2-TP axis and NLRP3 inflammasome activation. Hypertension. 2022; 79(7): 1361-73. Article. IF: 8.3; Q1





3 Information Groups by Area



3.2 Cardiovascular Area

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Scientific Events by Cardiovascular Area

04/02/2022. Webinar: Importancia de los residuos glucosídicos de las plaquetas en pacientes con trombocitopenia inmune

18/02/2022. Webinar: Transition of macrophages to fibroblast-like cells in healing myocardial infarction. J Am Coll Cardiol

04/03/2022. Webinar: Nuevas terapias en Hemofilia

11/03/2022. Webinar: Investigando el papel de ACE2 y la proteína S en el impacto cardiovascular y renal del SARS-CoV2

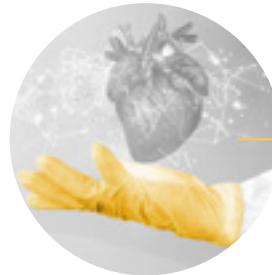
06/05/2022. Webinar: Papel de nuevos mediadores derivados de interferón en el daño cardiovascular asociado a la hipertensión arterial

22/09/2022. IV Jornada sobre Hemofilia: Abordaje Multidisciplinario

21/10/2022. Webinar: Cardiovascular biomarkers. Translational pathway challenges

24/11/2022. Sesión Genética de las enfermedades cardíacas hereditarias





3.2.1

Research on Invasive Clinical Cardiology - ICCI-PAZ Group

Publications: 88
Q1: 42

COMPOSITION

José Raúl Moreno Gómez. Jefe de Sección de Hemodinámica. Hospital Universitario La Paz

María Fernández Velasco. Investigadora Senior (Contrato Miguel Servet - Tipo I). Jefa de Laboratorio. FIBHULP

Isabel Antorrena Miranda. Facultativo Especialista de Área en Cardiología. Hospital Universitario La Paz

Eduardo Armada Romero. Facultativo Especialista de Área en Cardiología. Hospital Universitario La Paz

Andrea Bueno Sen. Investigadora Predoctoral. FIBHULP

Paula Cantolla Blanco. Investigadora Predoctoral. FIBHULP

Juan Caro Codón. Facultativo Especialista de Área en Cardiología. Hospital Universitario La Paz

Almudena Castro Conde. Facultativo Especialista de Área en Cardiología. Hospital Universitario La Paz

Regina Dalmau González-Gallarza. Facultativo Especialista de Área en Cardiología. Hospital Universitario La Paz

Francisco Javier Domínguez Melcón. Facultativo Especialista de Área en Cardiología. Hospital Universitario La Paz

Carlos Escobar Cervantes. Facultativo Especialista de Área en Cardiología. Hospital Universitario La Paz

Jaime Fernández de Bobadilla Osorio. Facultativo Especialista de Área en Cardiología. Hospital Universitario La Paz

Lucía Fernández Gasso. Facultativo Especialista de Área en Cardiología. Hospital Universitario La Paz

Javier Fuertes Benítez. Facultativo Especialista de Área en Cardiología. Hospital Universitario La Paz

Guillermo Galeote García. Facultativo Especialista de Área en Cardiología. Hospital Universitario La Paz

Marta Gil Fernández. Investigadora Predoctoral. Instituto de Investigaciones Biomédicas "Alberto Sols"

Elvira Ana González García. Facultativo Especialista de Área en Cardiología. Hospital Universitario La Paz

Teresa González Gallego. Investigadora Senior (Contrato Ramón y Cajal). IIb "Alberto Sols"

Gabriela Guzmán Martínez. Facultativo Especialista de Área en Cardiología. Hospital Universitario La Paz

Ángel Manuel Iniesta Manjavacas. Facultativo Especialista de Área en Cardiología. Hospital Universitario La Paz

Santiago Jiménez Valero. Facultativo Especialista de Área en Cardiología. Hospital Universitario La Paz

Teresa López Fernández. Facultativo Especialista de Área en Cardiología. Hospital Universitario La Paz

Esteban López de Sá y Areses. Jefe de Sección de Cuidados Intensivos Cardiológicos. Hospital Universitario La Paz

José Luis López-Sendón Hentschel. Director Científico IdiPAZ.

Pablo Merás Colunga. Médico Adjunto Cardiología. Hospital Universitario La Paz

José Luis Merino Llorens. Facultativo Especialista de Área en Cardiología. Director Unidad Investigación en Arritmias/Electrofisiología Robótica. Hospital Universitario La Paz



María del Mar Moreno Yangüela. Jefe de Sección de Imagen Cardiaca. Hospital Universitario La Paz

Rafael Peinado Peinado. Jefe de Sección de Arritmias y Electrofisiología. Hospital Universitario La Paz

Esther Pérez David. Facultativo Especialista de Área en Cardiología. Hospital Universitario La Paz

Inés Ponz de Antonio. Facultativo Especialista de Área en Cardiología. Hospital Universitario La Paz

Elsa Prieto Moriche. Facultativo Especialista de Área en Cardiología. Hospital Universitario La Paz

Elena Refoyo Salacio. Facultativo Especialista de Área en Cardiología. Hospital Universitario La Paz

Juan Ramón Rey Blas. Facultativo Especialista de Área en Cardiología. Hospital Universitario La Paz

Luis Riera del Moral. Facultativo Especialista de Área en Angiología y Cirugía Vascular. Hospital Universitario La Paz. Profesor Asociado Departamento de Cirugía. Universidad Autónoma de Madrid

Adriana Rodríguez Chaverri. Facultativo Especialista de Área en Cardiología. Hospital Universitario La Paz

Inmaculada Roldán Rabadán. Facultativo Especialista de Área en Cardiología. Hospital Universitario La Paz

Sandra Rosillo Rodríguez. Facultativo Especialista de Área en Cardiología. Hospital Universitario La Paz

José Ruiz Cantador. Facultativo Especialista de Área en Cardiología. Hospital Universitario La Paz

Almudena Val Blasco. Investigadora Postdoctoral. FIBHULP
Silvia Cayetana Valbuena López. Médico Interno Residente en Cardiología. Hospital Universitario La Paz



3 Information Groups by Area



3.2 Cardiovascular Area

STRATEGIC OBJECTIVE

The group consists of various healthcare units of the Department of Cardiology at Hospital La Paz: Clinic/Coronary Unit, interventional cardiology, cardiac imaging, electrophysiology, rehabilitation and adult congenital heart disease.

The main research lines focus on providing clinical responses, with local research protocols and direct participation in clinical trials and international multicentre registries. Moreover, clinical translational potential is reinforced through an institutional relationship with the CNIC.

RESEARCH LINES

- Myocardial ischaemia. Acute and chronic. Diagnosis, prognosis and treatment.
- Cardiac arrhythmias. Catheter navigation systems.
- Diagnosis and treatment. Post cardiac arrest hypothermia.
- Heart Failure. Diagnosis and treatment. Cardiotoxicity of antineoplastic agents.

- Cardiac diagnostic imaging.
- Aortic stenosis. Diagnosis and treatment.
- Adult congenital heart diseases.
- Endovascular therapy and new cellular therapies in peripheral vascular disease.

RESEARCH ACTIVITY

● Doctoral theses

Paluso Montero AL. Tratamiento con células madre de la enfermedad aterosclerótica periférica en un modelo murino[dissertation]. Madrid: UAM: 2022(26/01/2022).

Director: Riera del Moral LF

Vera Zambrano A. Pathophysiological modulation of Kv1.5 in the cardiovascular system. Role of SIGMA-1 receptor[dissertation]. Madrid: UAM: 2022(21/03/2022).

Directors: Gonzalez Gallego T,
Cogolludo ÁL

Valenzuela Miranda C. Modulation of KV1.3 and KCa3.1 channels by indole-3-carbinol and its derivatives compounds[dissertation]. Madrid: UAM: 2022(15/12/2022).

Directors: Baena Nuevo M,
González Gallego T.

González Fernández O. Predictors of late right heart failure after ventricular assist device implantation[dissertation]. Madrid: UAM: 2022(19/05/2022).

Directors: López-Sendón Hentschel JL,
Andrew MacGowan G

● Publications

- Arbas-Redondo E, Jurado-Román A, Jiménez-Valero S, Galeote-García G, González-García A, Moreno-Gómez R. Acquired coronary aneurysm after stent implantation at a bifurcation excluded with a Papyrus covered stent subsequently fenestrated. *Cardiovasc Interv Ther.* 2022; 37(1): 215-6. Editorial Material. IF: 3.2; Q2
- Arbas-Redondo E, Rosillo-Rodríguez SO, Merino-Argos C, Marco-Clement I, Rodríguez-Sotelo L, Martínez-Marín LA, Martín-Polo L, Vélez-Salas A, Caro-Codón J, García-Arribas D, Armada-Romero E, López-de-Sa E. Bispectral index and suppression ratio after cardiac arrest: are they useful as bedside tools for rational treatment escalation plans? *Rev Esp Cardiol (Engl Ed).* 2022; 75(12): 992-1000. Article. IF: 5.9; Q1
- Arenal A, Avila P, Jiménez-Candil J, Tercedor L, Calvo D, Arribas F, Fernández-Portales J, Merino JL, Hernández-Madrid A, Fernández-Aviles FJ, Berrezo A. Substrate ablation vs antiarrhythmic drug therapy for symptomatic ventricular tachycardia. *J Am Coll Cardiol.* 2022; 79(15): 1441-53. Article. IF: 24; D1
- Arenal A, Ríos-Munoz GR, Carta-Bergaz A, Ruiz-Hernández PM, Pérez-David E, Crisostomo V, Loughlin G, Sanz-Ruiz R, Fernández-Portales J, Acosta A, Báez-Díaz C, Blanco-Blázquez V, Ledesma-Carbayo MJ, Pareja M, Fernández-Santos ME, Sánchez-Margallo FM, Casado JG, Fernández-Aviles F. Effects of cardiac stem cell on postin-
- farction arrhythmogenic substrate. *Int J Mol Sci.* 2022; 23(24): 16211. Article. IF: 5.6; Q1
- Bager JE, Martín A, Dalmau JC, Simón A, Merino JL, Ritz B, Hartikainen JEK. Vernakalant for cardioversion of recent-onset atrial fibrillation in the emergency department: The SPECTRUM Study. *Cardiology.* 2022; 147(5-6): 566-77. Article. IF: 1.9; Q4
- Banach M, López-Sendón JL, Averna M, Cariou B, Loy M, Manvelian G, Batsu I, Poulouin Y, Gaudet D. Treatment adherence and effect of concurrent statin intensity on the efficacy and safety of alirocumab in a real-life setting: results from ODYSSEY APPRISE. *Arch Med Sci.* 2022; 18(2): 285-92. Article. IF: 3.8; Q2
- Banning AP, Serruys P, de Maria GL, Ryan N, Walsh S, Gonzalo N, van Geuns RJ, Onuma Y, Sabate M, Davies J, Lesiak M, Moreno R, Cruz-González I, Hoole SP, Piek JJ, Appleby C, Fath-Ordoubadi F, Zaman A, Van Mieghem NM, Uren N, Zueco J, Buszman P, Iñiguez A, Goicolea J, Hildick-Smith D, Ochala A, Dudek D, de Vries T, Taggart D, Farooq V, Spitzer E, Tijssen J, Escaned J. Five-year outcomes after state-of-the-art percutaneous coronary revascularization in patients with de novo three-vessel disease: final results of the SYNTAX II study. *Eur Heart J.* 2022; 43(13): 1307-16. Article. IF: 39.3; D1
- Batra G, Renlund H, Kunadian V, James SK, Storey RF, Steg PG, Katus HA, Harrington RA, Gibson CM, Budaj A, Siegbahn A, Wallentin L, (López-Sendón JL). Effects of early myocardial reperfusion and perfusion on myocardial necrosis/dysfunction and inflammation in patients with ST-segment and non-ST-segment elevation acute coronary syndrome: results from the PLATElet inhibition and patients Outcomes (PLATO) trial. *Eur Heart J Acute Cardiovasc Care.* 2022; 11(4): 336-49. Article. IF: 4.1; Q2
- Berger JS, Kornblith LZ, Gong MN, Reynolds HR, Cushman M, Cheng Y, McVerry BJ, Kim KS, Lopes RD, Atassi B, Berry S, Bochicchio G, Antunes MD, Farkouh ME, Greenstein Y, Hade EM, Hudock K, Hyzy R, Khatri P, Kindzelski A, Kirwan BA, Kreuziger LB, Lawler PR, Leifer E, Moreno JLS, López-Sendón J, Luther JF, Maia LN, Quigley J, Sherwin R, Wahid L, Wilson J, Hochman JS, Neal MD. Effect of P2Y12 inhibitors on survival free of organ support among non-critically ill hospitalized patients with covid-19 a randomized clinical trial. *JAMA-J Am Med Assoc.* 2022; 327(3): 227-36. Article. IF: 120.7; D1
- Biscaglia S, Erríquez A, Serenelli M, D'Ascenso F, de Ferrari G, Sole AA, Sanchis J, Giannini F, Gallo F, Scala A, Menozzi A, Pighi M, Moreno R, Iannopollo G, Menozzi M, Guiducci V, Tebaldi M, Campo G. Complete versus culprit-only strategy in older MI patients with multivessel disease. *Catheter Cardio Inte.* 2022; 99(4): 970-8. Article. IF: 2.3; Q3
- Bonaca MP, Morrow DA, Bergmark BA, Berg DD, Lima JAC, Hoffmann U, Kato Y, Lu MT, Kuder J, Murphy SA, Spinar J, Ophuis TO, Kiss RG, López-Sendón J, Averkov O, Wheatcroft SB, Kubica J,

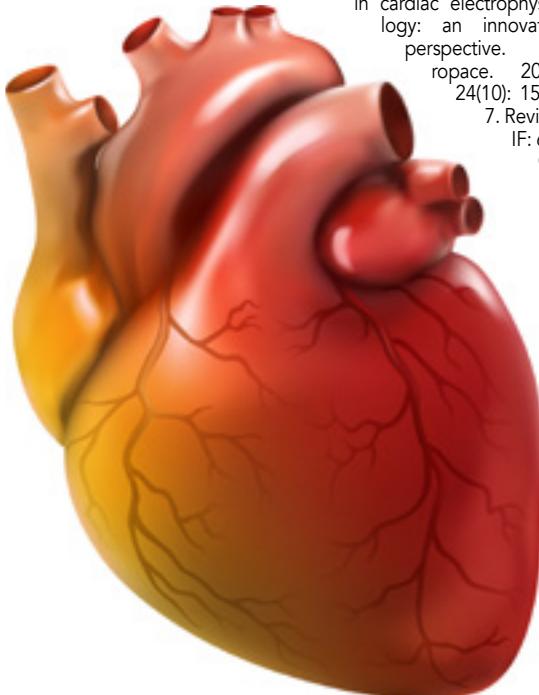


3 Information Groups by Area

3.2 Cardiovascular Area

Nicolau JC, Furtado RHM, Abuhatzira L, Hirshberg B, Omar SA, Vavere AL, Chang YT, George RT, Sabatine MS. Randomized, placebo-controlled phase 2B study to evaluate the safety and efficacy of recombinant human lecithin cholesterol acyltransferase in acute st-segment-elevation myocardial infarction: results of REAL-TIMI 63B. *Circulation*. 2022; 146(12): 907-16. Article. IF: 37.8; D1

- Boriani G, Burri H, Svensberg E, Imberti JF, Merino JL, Leclercq C. Current status of reimbursement practices for remote monitoring of cardiac implantable electrical devices across Europe. *Europace*. 2022; 24(12): 1875-80. Review. IF: 6.1; Q1
- Boriani G, Svensberg E, Guerra F, Linz D, Casado-Arroyo R, Malaczynska-Rajpold K, Duncker D, Bóveda S, Merino JL, Leclercq C. Reimbursement practices for use of digital devices in atrial fibrillation and other arrhythmias: a European Heart Rhythm Association survey. *Europace*. 2022; 24(11): 1834-43. Review. IF: 6.1; Q1
- Boriani G, Vitolo M, Svensberg E, Casado-Arroyo R, Merino JL, Leclercq C. Performance-based risk-sharing arrangements for devices and procedures in cardiac electrophysiology: an innovative perspective. *Europace*. 2022; 24(10): 1541-7. Review. IF: 6.1; Q1
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Buendía-Fuentes F, Gordón-Ramírez B, Dos Subirà L, Meras P, Gallego P, González A, Prieto-Arevilla R, Segura T, Rodríguez-Puras MJ, Montserrat S, Sarnago-Cebada F, Alonso-García A, Oliver JM, Rueda-Soriano J. Long-term outcomes of adults with single ventricle physiology not undergoing Fontan repair: a multicentre experience. *Can J Cardiol*. 2022; 38(7): 1111-20. Article. IF: 6.2; Q1

- Camm AJ, Blomstrom-Lundqvist C, Boriani G, Goette A, Kowey PR, Merino JL, Piccini JP, Saksena S, Reiffel JA. AIM-AF: A Physician Survey in the United States and Europe. *J Am Heart Assoc*. 2022; 11(6): e023838. Article. IF: 5.4; Q2
- Canas E, Rosado E, Alcázar C, Orts MJ, Moreno R, Sánchez E. Challenging zircon coatings by suspension plasma spraying. *J Eur Ceram Soc*. 2022; 42(10): 4369-76. Article. IF: 5.7; D1
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3 Information Groups by Area

3.2 Cardiovascular Area

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Management centre: FIBHULP

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Management centre: FIBHULP

Guzmán Martínez G. Marcadores precoces de disfunción ventricular derecha y alteraciones de la circulación pulmonar en pacientes afectos de hipertensión pulmonar. Siemens Healthcare, S.L. 2018-Ongoning.

Management centre: FIBHULP

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Management centre: FIBHULP

Jiménez Valero S. Estudio en modelo porcino para evaluar la utilidad de la tomografía de coherencia óptica en el análisis de las lesiones endocárdicas producidas por radiofrecuencia. Medlumics S.L. 2015-Ongoning.

Management centre: FIBHULP

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Management centre: FIBHULP

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Management centre: FIBHULP

López-Sendón Hentschel JL. Colchicine cardiovascular outcome trial (COLCOT). Montreal Health Institute. 2017-Ongoning.

Management centre: FIBHULP

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Management centre: FIBHULP

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Management centre: FIBHULP

Merino Llorens JL. El vectorcardiograma como herramienta de caracterización no in-

vasiva de la dinámica de activación y de la presencia y localización de zonas de conducción lenta en los circuitos de flutter auricular atípico izquierdo mediante vectorcardiograma. Arrhythmia Network Technology S.L. 2018-Ongoning.

Management centre: FIBHULP

Merino Llorens JL. High radiofrequency power for faster and safer pulmonary veins ablation trial (Power FAST II) (PI18/01522): ISCH. 2019-2022.

Management centre: FIBHULP

Merino Llorens JL. High radiofrequency power for fast and safe pulmonary veins ablation-a pilot observational study (Power fast I). Varios Financiadores. 2018-Ongoning.

Management centre: FIBHULP

Merino Llorens JL. Hospital Smart development based on AI. UE. 2020-2024.

Management centre: FIBHULP

Merino Llorens JL. Registro retrospectivo de identificación de factores cardiovasculares de mal pronóstico en pacientes covid-19 (CARD-covid) Medtronic Iberica S.A. 2020-Ongoning.

Management centre: FIBHULP

Moreno Gómez JR. Evaluación clínica y seguimiento de los pacientes con cardiopatía estructural sometidos a procedimientos de tratamiento percutáneo. Abbott Laboratories S.A. 2011-Ongoning.

Management centre: FIBHULP

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Management centre: FIBHULP

Peinado Peinado R. Influencia del remode-



3 Information Groups by Area

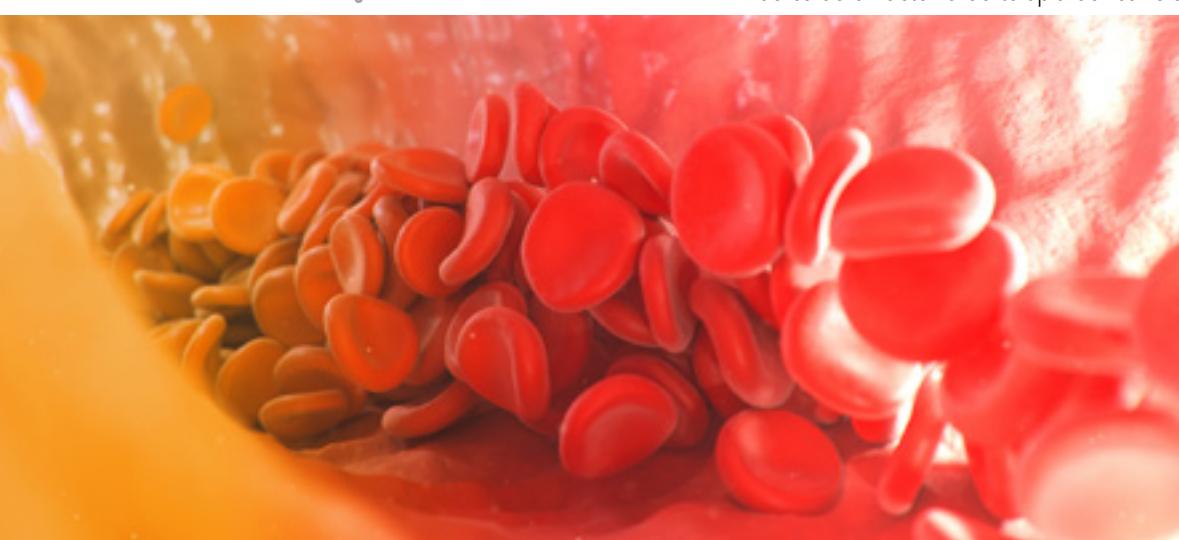
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Management centre: FIBHULP

Peinado Peinado R. Papel de los receptores del sistema inmune innato en el desarrollo y evolución de la fibrilación auricular. Medtronic Iberica S.A. 2021-Ongong.

Management centre: FIBHULP

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Management centre: FIBHULP

Fernández Velasco M. Implicación de los receptores NLR-NOD1 en la cardiomiopatía diabética (CPII16/00047). ISCIII. 2017-2020.

Management centre: FIBHULP

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Management centre: FIBHULP

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Management centre: FIBHULP

Fernández Velasco M. New inflammatory targets for atrial myopathy associated with heart failure (PI20/01482). ISCIII. 2021-2023.

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Management centre: FIBHULP

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Management centre: FIBHULP

Pérez David E. Fibrosis micocárdica en transposición de grandes vasos y ventrículo derecho sítémico: valoración mediante técnicas de imagen y asociación con clase funcional, biomarcadores de insuficiencia cardíaca y evento adversos. 2022-Ongong.

Management centre: FIBHULP

Riera del Moral LF. Tratamiento celular de los aneurismas de aorta abdominal en un modelo murino. Jotec Cardiovascular S.L. 2017-Ongong.

Management centre: FIBHULP

Clinical trials

Armada Romero E. locyte ami-3: estudio de fase 3, multicéntrico, aleatorizado, doble ciego y controlado con placebo de fdy-5301 intravenoso en sujetos con infarto de miocardio con elevación del segmento ST anterior.

Type: Clinical Trials, phase III. 6020 FDY-5301-302.

Sponsored by: Faraday Pharmaceuticals.

Signed date: 14/01/2022

López de Sá Arese E. Estudio en fase IIb, aleatorizado, doble ciego controlado con placebo, de grupos paralelos para evaluar la eficacia y la seguridad de medi6570 en participantes con infarto de miocardio previo, inflamación persistente y niveles elevados de

prohormona n-terminal natriurético cerebral.

Type: Clinical Trials, phase II. ANEXO 3 5637.

Sponsored by: AstraZeneca Ab.

Signed date: 04/02/2022

López de Sá Arese E. Ensayo multicéntrico, aleatorizado, doble ciego y controlado con placebo que evalúa el impacto de incluir en los acontecimientos cardiovasculares adversos mayores (mace) en participantes con enfermedad cardiovascular establecida (ecv) (victorion-2 prevent).

Type: Clinical Trials, phase III. 6048 CKJX839B12302.

Sponsored by: Novartis Farmaceutica, S.A.

Signed date: 08/02/2022

Castro Conde A. Estudio piloto clínico de viabilidad de telecardiología para pacientes con insuficiencia cardíaca en fase crónica.

Type: No EPA. PI-5202.

Sponsored by: Ediagnostic Clinica Virtualespecialidades Medicas, S.L.

Signed date: 06/06/2022

Antorrena Miranda MI. Características clínicas y biodemográficas del paciente hospitalizado anticoagulado por fibrilación auricular no valvular, en servicios de cardiología en España.

Type: EPA-SP. PI-5019.

Sponsored by: Daiichi Sankyo España.

Signed date: 31/03/2022

Iniesta Manjavacas AM. Tratamiento cardiovascular y renal en pacientes con insuficiencia cardíaca con hipertotasemia o con alto riesgo de hipertotasemia (care-hk en el registro de ic) - cardiovascular and renal treatment in heart failure patients with hyperkalaemia or at high r.

Type: EPA-SP. PI-4900.

Sponsored by: Vifor Pharma- Vifor International Inc.

Signed date: 08/02/2022



3 Information Groups by Area



Sponsored by: Iberhospitex, S.A.

Signed date: 11/03/2022

Moreno Gómez JR. Registro de dispositivos médicos vasculares de abbott (abbott vascular medical device registry av-mdr.)

Type: Producto Sanitario. Appendix 1 PI-5013.

Sponsored by: Sjm Coordination Center Bvba.

Signed date: 04/04/2022

Moreno Gómez JR. Un ensayo de fase III, aleatorizado, doble ciego y controlado con placebo de una solución para inhalación de acetato de flecainida para la cardioversión de la fibrilación auricular sintomática de inicio reciente a ritmo sinusal (restore-1).

Type: Clinical Trials, phase III. 6003.

Sponsored by: Incarda Therapeutics, Inc.

Signed date: 17/06/2022

Moreno Gómez JR. Globo con revestimiento de sirolimus frente a stent con liberación de fármaco en vasos coronarios nativos. transform II.

Type: Clinical Trials, phase . 6066.

Sponsored by: Fondazione Ricerca E Innovazione Cardiovascolare Ets.

Signed date: 16/06/2022

Antorrena Miranda MI. Estudio de fase II, multicéntrico, aleatorizado, paralelo, de tres grupos y controlado con placebo para evaluar la eficacia y la seguridad de cdr132l en pacientes con fracción de eyeción ventricular izquierda reducida ($\leq 45\%$) después de un infarto de mio.

Type: Clinical Trials, phase II. 6091.

Sponsored by: Cardior Pharmaceuticals, Gmbh.

Signed date: 28/03/2022

Moreno Gómez JR. Estudio prospectivo multicéntrico para determinar la seguridad y eficacia del catéter extensor de intercambio rápido de una sola luz.

Type: Producto Sanitario. 6119.

coronary artery by-pass grafting (cabg).

Type: Clinical Trials, phase. 2022.313.

Sponsored by:

Signed date: 18/11/2022

Merino Llorens JL. Estudio multicéntrico, aleatorizado, doble ciego, controlado con placebo, de la eficacia y seguridad del espray nasal de etripamilo para la resolución de episodios espontáneos de taquicardia supraventricular paroxística. El estudio rapid (node-301 parte 2).

Type: Clinical Trials, phase III. 2022.516.

Sponsored by: Milestone Pharmaceuticals, Inc.

Signed date: 21/06/2022

Moreno Gómez JR. Estudio en fase IIb, aleatorizado, doble ciego controlado con placebo, de grupos paralelos para evaluar la eficacia y la seguridad de medi6570 en participantes con infarto de miocardio previo, inflamación persistente y niveles elevados de prohormona n-terminal natriurético cerebral.

Type: Clinical Trials, phase II. 2022.673.

Sponsored by: Astrazeneca Ab.

Signed date: 29/11/2022

Pérez David E. Características y valor pronóstico de la fibrosis de sustitución evaluada por rm cardiaca en la transposición de grandes vasos y ventrículo derecho sistémico: estudio retrospectivo.

Type: Clinical Trials, phase . 2022.709.

Sponsored by: Pérez David, Esther.

Signed date: 15/12/2022

Moreno Gómez JR. Estudio para la validación clínica de un nuevo biomarcador para determinar la predisposición a infecciones en pacientes con infarto agudo de miocardio.

Type: No EPA. 2022.736.

Sponsored by: Crazy Science & Business Sl.

Signed date: 20/12/2022

Moreno Gómez JR. Estudio clínico fundamental de fase 3, aleatorizado y controlado con placebo para evaluar la eficacia y la seguridad del estimulador de la gcs vericiguat/mk-1242 en adultos con insuficiencia cardíaca crónica con fracción de eyeción reducida.

Type: Clinical Trials, phase III. 2023.089.

Sponsored by: Merck Sharp and Dohme de España, S.A.

Signed date: 24/11/2022

● Patents and trademarks

Filgueiras Rama D, López de Sá y Areses E, Millet Roig J, Calvo Saiz CJ, inventors; Centro Nacional de Investigaciones Cardiovasculares Carlos III (CNIC), FIBHULP, Universidad Politécnica de Valencia, assignees. Method of predicting or prognosticating neurological performance in patients who have suffered a cardiac arrest and optionally comatose status due to ventricular fibrillation. PCT/EP2015/076893, EP3020333; 2014 November 17.

Riera del Moral LF, inventor; FIBHULP, assignee. Aortic endoprosthesis for the treatment of aneurysm. P201231638, PCT/ES2013/070712; 2012 October 24.

Castro Conde A, author; FIBHULP, assignee. Trademark name: RECAR Programa de Rehabilitación Cardiaca; CM 18457042; 2021 April 20.





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3.2.2

Coagulopathies and Alterations of Haemostasis Group

Publications: 18

Q1: 9



RESEARCH LINES

1- Haemophilia A and B:

- Genetic and molecular studies in patients with haemophilia A and B.
- Risk factors for the development of factor FVIII/FIX inhibitors in patients with haemophilia A and B. Individualised treatment adaptation based on the nature of antigenic epitopes.
- Epidemiological studies of congenital haemophilia A and B, acquired haemophilia A and von Willebrand's disease.

COMPOSITION

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María Teresa Álvarez Román. Jefa de Sección de Coagulopatías. Hospital Universitario La Paz

Nora Viviana Butta Coll. Investigadora Senior (Contrato Miguel Servet - Tipo 2). Jefe de Laboratorio. FIBHULP

Raquel Fernández Morata. Técnico de Laboratorio. FIBHULP

Elena García Arias-Salgado. Investigadora. Hospital Universitario La Paz

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STRATEGIC OBJECTIVE

This group's research activities address various relevant questions in the area of haematology and focus on the characterisation of the genetic and molecular basis of coagulation and haemostatic function. Our group investigates physiological processes such as coagulation, haemostasis, innate immunity, inflammation, cell adhesion and migration, and cell signalling, with special emphasis on their relevance to pathological processes. In addition, we perform epidemiological studies to facilitate patient data analysis and therapeutic treatment.

2-Haemostasis disorders:

- Haemostasis in thrombocytopenic diseases (immune thrombocytopenic purpura and myelodysplastic syndromes).
- Haemostasis in inflammatory diseases.



3 Information Groups by Area



3.2 Cardiovascular Area

RESEARCH ACTIVITY

● Publications

- Barbui T, Carobbio A, Ghirardi A, Iurlo A, de Stefano V, Sobas MA, Rumi E, Elli EM, Lunghi F, Kabat MG, Cuevas B, Guglielmelli P, Bonifacio M, Marchetti M, Álvarez-Larran A, Fox L, Bellini M, Daffini R, Benevolo G, Carreno-Tarragona G, Patriarca A, Al-Ali HK, Andrade-Campos MMM, Palandri F, Harrison C, Foncillas MA, Osorio S, Koschmieder S, Mazo EM, Kiladjian JJ, Calderón EB, Heidel FH, Cervantes KQ, Griesshammer M, García-Gutiérrez V, Sánchez AM, Hernández-Boluda JC, Abadía EL, Carli G, Serrano MS, Kusec R, Cirici BX, Guenova M, Elorza BN, Angona A, Cichocka E, de Nalecz AK, Cattaneo D, Bucelli C, Betti S, Borsani O, Cavalca F, Carbonell S, Curto-García N, Benajiba L, Rambaldi A, Vannucchi AM. Breakthrough infections in MPN-COVID vaccinated patients. *Blood Cancer J.* 2022; 12(11): 154. Letter. IF: 12.8; D1
- Barbui T, Carobbio A, Ghirardi A, Iurlo A, Sobas MA, Elli EM, Rumi E, de Stefano V, Lunghi F, Marchetti M, Daffini R, Kabat MG, Cuevas B, Fox ML, Andrade-Campos MM, Palandri F, Guglielmelli P, Benevolo G, Harrison C, Foncillas MA, Bonifacio M, Álvarez-Larrán A, Kiladjian JJ, Calderón EB, Patriarca A, Cervantes KQ, Griesshammer M, García-Gutiérrez V, Sánchez AM, Mazo EM, Carli G, Hernández-Boluda JC, Osorio S, Carreno-Tarragona G, Serrano MS, Kusec R, Elorza BN, Angona A, Cirici BX, Abadía EL, Koschmieder S, Cattaneo D, Bucelli C, Cichocka E, de Nalecz AK, Cavalca F, Borsani O, Betti S, Bellini M, Curto-García N, Rambaldi A, Vannucchi AM. Determinants of early triage for hospitalization in myeloproliferative neoplasm (MPN) patients with COVID-19. *Am J Hematol.* 2022; 97(12): e470-3. Article. IF: 12.8; D1
- Barbui T, Iurlo A, Masciulli A, Carobbio A, Ghirardi A, Carioli G, Sobas MA, Elli EM, Rumi E, de Stefano V, Lunghi F, Marchetti M, Daffini R, Kabat MG, Cuevas B, Fox ML, Andrade-Campos MM, Palandri F, Guglielmelli P, Benevolo G, Harrison C, Foncillas MA, Bonifacio M, Alvarez-Larran A, Kiladjian JJ, Calderon EB, Patriarca A, Cervantes KQ, Griessammer M, García-Gutiérrez V, Sánchez AM, Mazo EM, Ruggeri M, Hernández-Boluda JC, Osorio S, Carreno-Tarragona G, Serrano MS, Kusec R, Elorza BN, Angona A, Cirici BX, Abadía EL, Koschmieder S, Cattaneo D, Bucelli C, Cichocka E, de Nalecz AMK, Cavalca F, Borsani O, Betti S, Benajiba L, Bellini M, Curto-García N, Rambaldi A, Vannucchi AM. Second versus first wave of COVID-19 in patients with MPN. *Leukemia.* 2022; 36(3): 897-900. Letter. IF: 11.4; D1
- Bravo MI, Pérez A, Raventos A, Grancha S, Jorquerá JL, Butta NV, Álvarez-Román MT, Costa M, Willis T, Jijménez-Yuste V. Plasma-derived FVIII/VWF complex shows higher protection against inhibitors than isolated FVIII after infusion in hemophilic patients: A translational study. *Haemophilia.* 2022; 28(5): 737-44. Article. IF: 3.9; Q2
- Camacho RG, Román MTA, Coll NB, Zagrean D, Pollmar IR, Salces MM, Kabat MG, Jijménez-Yuste V. Acquired haemophilia A: A 15-year single-centre experience of demography, clinical features and outcome. *J Clin Med.* 2022; 11(10): 2721. Article. IF: 3.9; Q2
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● Research projects

Álvarez Román MT. Análisis descriptivo de los resultados del tratamiento en el mundo real con damoctocog alfa pegol en comparación con el tratamiento anterior (DACPRI). Bayer Consumer Care AG. 2021-Ongoing.

Management centre: FIBHULP

Álvarez Román MT. Experiencias reales en la práctica clínica con elocta. Swedish Orphan Biovitrum AB. 2019-Ongoing.

Management centre: FIBHULP

Álvarez Román MT. Hemolition: estudio observacional ambispectivo para evaluar la efectividad y seguridad del tratamiento con emicizumab de pacientes con hemofilia A en condiciones de práctica clínica habitual ML41684. Olga Roche Losada. 2019-On-going.

Management centre: FIBHULP

Álvarez Román MT. Monitorización del efecto hemostático de concentrados de derivados plasmáticos de FVW/FVIII para la enfermedad de von willebrand utilizando un sistema de cámara de flujo de microfluidos. Grifols S.A. 2022-Ongoing.

Management centre: FIBHULP



3 Information Groups by Area

3.2 Cardiovascular Area

Álvarez Román MT. Programa del tratamiento multidisciplinario del paciente con hemofilia. Omnia Pharma S.L. 2017-Ongoing.

Management centre: FIBHULP

Álvarez Román MT. Puesta en marcha y realización del estudio clínico "ML40944 Hemoflife: un estudio observacional de calidad de vida en personas con hemofilia A y cuidadores (no definitivo)" y el estudio: "hemolution: estudio observacional ambispectivo para evaluar la eficacia y seguridad del tratamiento en emicizumab de pacientes con hemofilia A en condiciones práctica clínica habitual (no definitivo)". Roche Farma S.A. 2018-On-going.

Management centre: FIBHULP

Butta Coll NV. Desarrollo de nanosistemas para eliminar la respuesta inmune contra el factor VIII en ratones con hemofilia grave e inhibidores: un estudio de prueba de concepto para el diseño de nuevos protocolos de tolerancia inmune en pacientes con hemofilia. Real Fundación Victoria Eugenia. 2018-Ongoing.

Management centre: FIBHULP

Butta Coll NV. Determinación de los niveles y actividad de TFPI en el plasma de pacientes con alteración hemostática no filiada. Novo Nordisk Pharma S.A. 2020-Ongoing.

Management centre: FIBHULP

Butta Coll NV. Estudio de la hemostasia en la enfermedad de Behcet. Baxter S.L. 2011-On-going.

Management centre: FIBHULP

Butta Coll NV. Evaluación del efecto procoagulante in vitro de concentrados de factor IX en pacientes en profilaxis con emicizumab. CSL Behring S.A. 2021-Ongoing.

Management centre: FIBHULP

Butta Coll NV. Fenotipo clínico y respuesta ancianos con trombocitopenia inmune.

FIBHULP. 2022-Ongoing.

Management centre: FIBHULP

Butta Coll NV. Role of platelet glycosylation on platelet function and immune response in immune thrombocytopenia patients (PI19/00772). ISCIII. 2020-2022.

Management centre: FIBHULP

García Barcenilla S. Puesta en marcha del estudio clínico con código: ML42270: "estudio observacional para evaluar las estrategias de afrontamiento del dolor crónico en pacientes con hemofilia A desde el punto de vista de enfermería (no definitivo)". Roche Farma S.A. 2020-Ongoing.

Management centre: FIBHULP

Jiménez Yuste VM. Aplicación de inteligencia artificial para detectar de hemorragias articulares en pacientes con hemofilia. Novo Nordisk Health Care AG. 2022-Ongoing.

Management centre: FIBHULP

Jiménez Yuste VM. Asesoramiento para la puesta en marcha del estudio de fase 3 sin enmascaramiento y de un solo grupo para evaluar la eficacia y la seguridad de pf-07055480 (terapia génica con el vaa2/6 recombinante/factor VIII humano) en varones adultos con hemofilia A entre moderadamente grave y grave (FVIII: c<1%). Parexel International (IRL) Limited. 2022-Ongoing.

Management centre: FIBHULP

Jiménez Yuste VM. Desarrollo de un nuevo método de laboratorio de alta sensibilidad para la detección cuantitativa de anticuerpos contra el factor VIII. Pfizer S.L.U. 2012-On-going.

Management centre: FIBHULP

Jiménez Yuste VM. Estudio de efecto procoagulante del emicizumab y de su combinación con concentrados de factor para el tratamiento de sangrados en pacientes con

hemofilia A grave. (PI19/00631). ISCIII. 2020-2022.

Management centre: FIBHULP

Jiménez Yuste VM. Estudio del papel de los biomarcadores de daño endotelial, hepatocelular y fibrosis hepática y la elastografía de transición en el diagnóstico del síndrome de obstrucción sinusoidal. JAZZ Pharmaceuticals Iberia S.L. 2015-Ongoing.

Management centre: FIBHULP

Jiménez Yuste VM. Estudio in vitro del efecto procoagulante de factor VII recombinante activado y vatreptacog alfa en sangre de pa-

cientes con hemofilia grave mediante tromboelastografía y test de generación de tromina. Novo Nordisk A/S. 2012-Ongoing.

Management centre: FIBHULP

Jiménez Yuste VM. Estudio in vitro del efecto procoagulante de feibar en pacientes en profilaxis con emicizumab. Takeda Pharmaceutical International AG. 2020-Ongoing.

Management centre: FIBHULP

Jiménez Yuste VM. Field study to evaluate the activity a site specific of b-domain deleted (BDD) pegylated recombinant FVIII protein (BAY 94-9024) in plasma samples measured





3 Information Groups by Area

3.2 Cardiovascular Area

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with both chromogenic and one stage assays used in clinical laboratories. Bayer Hispania S.L. 2015-Ongoing.

Management centre: FIBHULP

Jiménez Yuste VM. I Edición del abordaje multidisciplinar del paciente con IIC. Astrazeneca Farmaceutica Spain S.A. 2022-Ongoing.

Management centre: FIBHULP

Jiménez Yuste VM. Individualización de la profilaxis: estudio de los niveles valles mediante técnicas globales e impacto de la actividad física. World Federation of Hemophilia. 2015-Ongoing.

Management centre: FIBHULP

Jiménez Yuste VM. Iniciativas confihe: profilaxis personalizada: estudios prospectivos de la influencia de los parámetros farmacocinéticos individuales, test globales de la coagulación y actividad deportiva en la eficacia de la profilaxis. Mk Media S.L. 2017-Ongoing.

Management centre: FIBHULP

Jiménez Yuste VM. Monitorización del tratamiento con agentes bypass, en pacientes con hemofilia e inhibidor mediante tres métodos de evaluación global de la hemostasia. Sanofi Aventis S.A. 2007-Ongoing.

Management centre: FIBHULP

Jiménez Yuste VM. Sinovitis post-hemartros. Post-hemarthrosis sinovitis markers on patients with haemophilia on prophylaxis. clinical, biological and ultrasonographic study. Pfizer S.L.U. 2012-Ongoing.

Management centre: FIBHULP

Rivas Pollmar MI. Evaluación de la carga asistencial de enfermería durante el uso de bombas de infusión intravenosa programables para la administración frecuente de bolos de RFVIIA. Novo Nordisk Pharma S.A. 2020-On-going.

Management centre: FIBHULP

Rivas Pollmar MI. Individualización de la profilaxis en pacientes pediátricos con hemofilia a grave mediante estudio farmacocinético y farmacodinámico en tratamiento con productos de vida media estándar y vida media extendida. Swedish Orphan Biovitrum S.L. 2020-Ongoing.

Management centre: FIBHULP

Clinical trials

Álvarez Román MT. A multicentre, randomized, open-label study of romiplostim plus dexamethasone vs dexamethasone in patients with newly diagnosed primary immune thrombocytopenia.

Type: Clinical Trials, phase III. 6118.

Sponsored by: Fundacion Publica Andaluza para la Gestión de la Investigación en Salud de Sevilla.

Signed date: 26/09/2022

Álvarez Román MT. Ambispective non-interventional study to assess the effectiveness of recombinant fusion protein linking coagulation factor ix with recombinant albumin (rix-fp) in hemophilia b in a real-world setting.

Type: EPA-SP. PI-4896 CSL-IDE-2020-01.

Sponsored by: Csl Behring Sa.

Signed date: 26/01/2022

Álvarez Román MT. Estudio de vigilancia de la seguridad a largo plazo posterior a la autorización de fostamatinib en pacientes adultos con trombocitopenia inmunitaria crónica (tpic) que no han respondido a tratamientos anteriores. post-authorization long term safety survei.

Type: EPA-LA. PI-5186.

Sponsored by: Grifols Worldwide Operations, Ltd.

Signed date: 19/05/2022

Álvarez Román MT. Primer ensayo clínico en

el ser humano en fase I, aleatorizado, doble ciego, abierto para el promotor y controlado con placebo para evaluar la seguridad, tolerabilidad y farmacocinética de pf-06755347 tras la administración única intravenosa y subcutánea.

Type: Clinical Trials, phase I. 6102.

Sponsored by: Pfizer, S.L.U.

Signed date: 03/08/2022

Gasior Kabat M. Estudio de fase II abierto para evaluar la seguridad, tolerabilidad, farmacocinética y eficacia de ker-050 en monoterapia o en combinación con ruxolitinib en participantes con mielofibrosis.

Type: Clinical Trials, phase II. 5988

KER050-MF-301.

Sponsored by: Keros Therapeutics Inc.

Signed date: 31/01/2022

Jiménez Yuste VM. Estudio abierto de extensión para evaluar la seguridad a largo plazo, la tolerabilidad y la eficacia de marstacimab en profilaxis en pacientes con hemofilia a grave (actividad del factor de coagulación <1 %) con o sin inhibidores o en pacientes con hemofilia.

Type: Clinical Trials, phase III. 6140.

Sponsored by: Pfizer, S.L.U.

Signed date: 19/04/2022

Jiménez Yuste VM. Estudio abierto en pacientes adolescentes y adultos con hemofilia a o b grave (actividad del factor de coagulación <1 %) con o sin inhibidores para comparar el tratamiento estándar con la profilaxis con pf-06741086.

Type: Clinical Trials, phase III. Appendix 1 5486.

Sponsored by: Pfizer, S.L.U.

Signed date: 19/01/2022

Jiménez Yuste VM. Estudio abierto para investigar la eficacia, la seguridad y la farmacocinética de la profilaxis con concizumab en

niños menores de 12 años con hemofilia a o b con o sin inhibidores.

Type: Clinical Trials, phase IIIa. 6061.

Sponsored by: Novo Nordisk A/S.

Signed date: 28/03/2022

Jiménez Yuste VM. Estudio aleatorizado en fase III que compara teclistamab combinado con daratumumab sc y lenalidomida (tec-dr) frente a daratumumab sc, lenalidomida y dexametasona (drd) en pacientes con mieloma múltiple de diagnóstico reciente que no son elegibles o no desean recibir un trasplante autólogo de células madre como tratamiento inicial.

Type: Clinical Trials, phase III. 2022.267.

Sponsored by: Janssen-Cilag España, S.A.

Signed date: 30/08/2022

Jiménez Yuste VM. Estudio de fase 3, de dos etapas, aleatorizado, multicéntrico, abierto, para comparar cc-92480 (bms-986348), carfilzomib y dexametasona (480kd) frente a carfilzomib y dexametasona (kd) en participantes con mieloma múltiple en recidiva o refractorio (mmrr).

Type: Clinical Trials, phase III. 2022.339.

Sponsored by: Bristol-Myers Squibb International Corporation (Bmsic).

Signed date: 44888

Jiménez Yuste VM. Estudio de fase 3, de un solo brazo, multicéntrico, multinacional, abierto, cruzado unidireccional, para investigar la eficacia y seguridad de la profilaxis con fitusirán en pacientes masculinos de ≥ 12 años de edad con hemofilia a o b grave, con o sin anticuerpos inhibidores del factor VIII o IX.

Type: Clinical Trials, phase III. 2022.389.

Sponsored by: Sanofi-Aventis Recherche & Developpement.

Signed date: 22/11/2022

Jiménez Yuste VM. Estudio de fase III alea-



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torizado, abierto, multicéntrico para evaluar la eficacia y la seguridad de mosunetuzumab combinado con lenalidomida en pacientes con linfoma folicular después de al menos una línea de tratamiento sistémico.

Type: Clinical Trials, phase III. 2022.544.

Sponsored by: Roche Farma, S.A.

Signed date: 23/09/2022

Jiménez Yuste VM. Estudio de fase III, multicéntrico, aleatorizado, doble ciego, controlado con placebo para comparar la eficacia y seguridad de polatuzumab vedotin en combinación con rituximab y chp (r-chp) en comparación con rituximab y chop (r-chop) en pacientes con linfoma difuso de células grandes tipo b no tratado anteriormente.

Type: Clinical Trials, phase III. 2023.040.

Sponsored by: F.Hoffmann-La Roche Ltd.

Signed date: 07/11/2022

Jiménez Yuste VM. Estudio de fase III, abierto, multicéntrico y aleatorizado para evaluar la eficacia y la seguridad de glofitamab combinado con gemcitabina más oxaliplatino en comparación con rituximab combinado con gemcitabina y oxaliplatino en pacientes con linfoma difuso de células b grandes en recaída/resistente.

Type: Clinical Trials, phase III. 2022.543.

Sponsored by: F.Hoffmann-La Roche Ltd.

Signed date: 23/09/2022

Jiménez Yuste VM. Estudio en fase II multicéntrico, estudio abierto de incb050465, un inhibidor pi3kδ, en el tratamiento del linfoma folicular recidivante o resistente (citadel-203).

Type: Clinical Trials, phase II. 2023.106.

Sponsored by: Incyte Corporation.

Signed date: 27/12/2022

Jiménez Yuste VM. Estudio en fase III, multicéntrico, prospectivo, sin enmascaramiento y no controlado para evaluar la eficacia, la seguridad y la farmacocinética de atenativ en pacientes con deficiencia congénita de antitrombina que se someten a cirugía o parto.

Type: Clinical Trials, phase III. 2022.015.

Sponsored by: Octapharma Ag.

Signed date: 05/08/2022

Jiménez Yuste VM. Estudio fase 1, multicéntrico, abierto para determinar la seguridad, farmacocinética y eficacia preliminar de una molécula pequeña, cc-99282, disponible para administración oral en onoterapia y en combinación con rituximab en sujetos con linfoma no hodgkin en recaída o refractario (lnh r/r).

Type: Clinical Trials, phase I. 2023.001.

Sponsored by: Celgene Corporation.

Signed date: 13/10/2022

Jiménez Yuste VM. Estudio fase III abierto, prospectivo, para comparar polatuzumab vedotin más rituximab, ifosfamida, carboplatino yetopósido (pola-r-ice) y rituximab, ifosfamida, carboplatino y etopósido (r-ice) solo como terapia de rescate en pacientes con linfoma difuso de célula b grande (ldcbg) primariamente refractarios o en recaída.

Type: Clinical Trials, phase III. 2022.707.

Sponsored by: Gel-Tamo Grupo Cooperativo Español de Linfoma- Transplante Autonomo de Medula Osea Gel/Tamo.

Signed date: 12/12/2022

Jiménez Yuste VM. Estudio multicéntrico, abierto y de un solo grupo de obinutuzumab en infusión de corta duración (icd) en pacientes con linfoma folicular avanzado no tratado previamente.

Type: Clinical Trials, phase IV. 2022.545.

Sponsored by: Roche Farma, S.A.

Signed date: 23/09/2022

Jiménez Yuste VM. Evaluation of the pharmacokinetic profile, clinical efficacy, and safety of von willebrand factor contained in fanhd1® (double-inactivated human antihemophilic factor) in pediatric subjects with severe von

willebrand disease.

Type: Clinical Trials, phase IV. Appendix 1 5234.

Sponsored by: Grifols Worldwide Operations, Ltd.

Signed date: 24/01/2022

Jiménez Yuste VM. Seguridad, eficacia y exposición de la profilaxis con nnc0365-3769 (mim8) administrado por vía subcutánea a niños con hemofilia a con o sin inhibidores del fviii.

Type: Clinical Trials, phase III. 6085.

Sponsored by: Novo Nordisk A/S.

Signed date: 19/04/2022

● Patents and trademarks

Arias-Salgado, MT Álvarez Román, V Jiménez Yuste, N Butta Coll, García Rivera Francisco Julián, García Rivera Mª Carmen, Carballo García Mª Ángeles, inventors. FIBHULP, García Rivera Mª Carmen, Carballo García Mª Ángeles, assignees. Dispositivo de recogida de muestras biológicas. P202230651. 2022 July 22.

Nora Butta JY. Trademark name: WELCOME von willebrand active e-learning course. CM M4190835; 2022 November 8.



3.2.3 Vascular Physiology and Pharmacology Group

Publications: 18

Q1: 12

COMPOSITION

Mercedes Salas Sánchez. Catedrática. Departamento de Farmacología. Facultad de Medicina. Universidad Autónoma de Madrid

María Jesús Alonso Gordo. Catedrática. Departamento de Ciencias Básicas de la Salud. Facultad de Ciencias de la Salud. Universidad Rey Juan Carlos

Constanza Ballesteros Martínez. Investigadora Predoctoral. Universidad Autónoma de Madrid

María Teresa Barrús Ortiz. Profesora Contratada doctor. Departamento de Ciencias de la Salud. Facultad de Ciencias de la Salud. Universidad Rey Juan Carlos

Javier Blanco Rivero. Profesor Contratado Doctor. Departamento de Fisiología. Facultad de Medicina. Universidad Autónoma de Madrid

Ana María Briones Alonso. Profesora Titular. Departamento Farmacología. Facultad de Medicina. Universidad Autónoma de Madrid

Ana Belén García Redondo. Profesora Ayudante Doctor.

Departamento de Fisiología. Facultad de Medicina. Universidad Autónoma de Madrid

Naoual Boukich El Houari. Investigadora Predoctoral. Universidad Autónoma de Madrid

María González Amor. Investigadora Postdoctoral. Centro Nacional de Investigaciones Cardiovasculares

Raquel González Blázquez. Investigadora Postdoctoral. Universidad Autónoma de Madrid

Zoe González Carnicero. Investigadora Predoctoral. Universidad Autónoma de Madrid

Raquel Hernanz Martín. Profesora Titular. Departamento de Ciencias Básicas de la Salud. Facultad de Ciencias de la Salud. Universidad Rey Juan Carlos

Ángela Martín Cortes. Profesora Contratada Doctor. Departamento de Ciencias de la Salud. Facultad de ciencias de la Salud. Universidad Rey Juan Carlos

Marta Martínez Casales. Investigadora Predoctoral. Universidad Rey Juan Carlos



Abraham Merino López. Ayudante de Investigación. Universidad Autónoma de Madrid

Marta Miguel Castro. Científico Titular. Instituto de Investigación en Ciencias de la Alimentación Consejo Superior de Investigaciones Científicas

Roberto Palacios Ramírez. Investigador Postdoctoral.

Universidad de Valladolid

Raquel Rodrígues Díez. Profesora Ayudante Doctor. Departamento de Fisiología. Facultad de Medicina. Universidad Complutense

Lucía Serrano Díaz del Campo. Investigadora predoc-toral. Universidad Autónoma de Madrid

STRATEGIC OBJECTIVE

Our group is a well-established research group with more than 30 years of experience in the study of the mechanisms involved in the functional, structural and mechanical alterations of the vasculature in various cardiovascular pathologies such as ageing, diabetes and, in particular, hypertension.

The group is located at the Faculty of Medicine (UAM) and maintains research collaborations

with investigators at various universities in Spain and in other countries. Our main objective is to gain further insight into the physiological and molecular mechanisms involved in alterations of resistance and conductance arteries in cardiovascular pathologies. To conduct our research, we generally use various experimental approaches including *in vivo* animal models, *ex vivo* experiments and *in vitro* cellbased studies combined with physiological, pharmacological and



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molecular biology techniques. In addition, we have begun to translate this knowledge into human studies. In terms of the mediators involved, we have a particular interest in proinflammatory prostanooids, reactive oxygen species (and their interaction among each other or with

other mediators such as nitric oxide) and proresolvin lipid mediators. This research is important given the essential role these mediators play in the control of vascular smooth muscle tone and vascular structure.

RESEARCH LINES

- Inflammation and vascular function and remodelling. Changes with hypertension and other cardiovascular pathologies.
- Adipose tissue and vascular alterations in cardiovascular pathologies.
- Neural control of vascular tone.

- Cardiovascular effects of heavy metals.
- Antioxidant and antihypertensive properties of food bioactive compounds.
- Resolution of inflammation as a therapeutic approach for cardiovascular diseases.

RESEARCH ACTIVITY

● Doctoral theses

Elópez Moreno M. Obtención de hidrolizados de quinua con actividad antioxidante y su efecto sobre el estrés oxidativo asociado a la hipertensión arterial[dissertation]. Madrid: UAM; 2022(12/09/2022).

Director: Miguel Castro M.

Martínez Casales M. RF2 y KV1.3 nuevos mediadores de la inflamación y el daño cardiovascular asociado a hipertensión[dissertation]. Madrid: URJC; 2022(22/12/2022).

Directors: Alonso Gordo MJ,
Hernanz Martín R.

Parada Peña S. Hidrólisis de clara de huevo: obtención de un ingrediente a escala semi-industrial y su utilización como sustituto en la elaboración de productos o derivados lácteos. [dissertation]. La Coruña: Universidad de Santiago de Compostela; 2022(27/06/2022).

Director: Miguel Castro M.

● Final Degree Theses

Búrdalo López C. Aplicación de enfermería en la administración de trastuzumab subcutáneo en el tratamiento de cáncer de mama

HER2 positivo[dissertation]. Madrid: URJC; 2022(28/06/2022).

Director: Hernanz Martín R.

Mínguez Navas I. Papel de la hipocretina en la narcolepsia[dissertation]. Madrid: URJC; 022(26/06/2022). Director: Hernanz Martín R.

Director: Hernanz Martín R.

● Publications

- Abreu ED, Moro CR, Kanaan SHH, de Paula RB, Herrera CT, Costa PHD, Pecanha FM, Vassallo DV, Rossini LV, Miguel-Castro M, Wiggers GA. ROS suppression by egg white hydrolysate in DOCA-salt rats-an alternative tool against vascular dysfunction in severe hypertension. *Antioxidants*. 2022; 11(9): 1713. Article. IF: 7; D1
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- del Campo LSD, Rodrigues-Díez R, Salaices M, Briones AM, García-Redondo AB. Specialized pro-resolving lipid mediators: new therapeutic approaches for vascular remodeling. *Int J Mol Sci*. 2022; 23(7): 3592. Review. IF: 5.6; Q1
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- Jijménez-Castilla L, Opazo-Ríos L, Marín-Royo G, Orejudo M, Rodrigues-Díez R, Ballesteros-Martínez C, Soto-Catalán M, Caro-Ordieres T, Artáiz I, Suárez-Cortes T, Zazpe A, Hernández G, Cortes M, Tuñón J, Briones AM, Egido J, Gómez-Guerrero C. The synthetic flavonoid hidrosmim improves endothelial dysfunction and atherosclerotic le-
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- Méndez-Albiñana P, Martínez-González A, Camacho-Rodríguez L, Ferreira-Lazarte A, Villamil M, Rodrigues-Díez R, Balfagón G, García-Redondo AB, Prieto-Nieto MI, Blanco-Rivero J. Supplementation with the symbiotic formulation prodefen(r) increases neuronal nitric oxide synthase and decreases oxidative stress in superior mesenteric artery from spontaneously hypertensive rats. *Antioxidants*. 2022; 11(4): 680. Article. IF: 7; D1
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3 Information Groups by Area

3.2 Cardiovascular Area

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- Rizzetti DA, Corrales P, Uranga-Ocio JA, Medina-Gómez G, Pecanha FM, Vassallo DV, Miguel M, Wiggers GA. Potential benefits of egg white hydrolysate in the prevention of Hg-induced dysfunction in adipose tissue. *Food Funct.* 2022; 13(11): 5996-6007. Article. IF: 6.1; Q1
- Rodrigues-Díez RR, Tejera-Muñoz A, Esteban V, Steffensen LB, Rodrigues-Díez R, Orejudo M, Rayego-Mateos S, Falke LL, Cannata-Ortíz P, Ortiz A, Egido J, Mallat Z, Ana MB, Bajo MA, Goldschmeding R, Ruiz-Ortega M. CCN2 (Cellular Communication Network Factor 2) Deletion alters vascular integrity and function predisposing to aneurysm formation. *Hypertension*. 2022; 79(3): e42-55. Article. IF: 8.3; Q1
- Rodríguez-Muñoz D, Sánchez A, Pérez-Benavente S, Contreras-Jurado C, Montero-Pedraza A, Toledo-Castillo M, Gutiérrez-Hernández M, Rodrigues-Díez R, Folgueira C, Briones AM, Sabio G, Monedero-Cobeta I, Chávez-Coira I, Castejón D, Fernández-Valle E, Regadera J, Bautista JM, Aranda A, Alemany S. Hypothyroidism confers tolerance to cerebral malaria. *SCI Adv.* 2022; 8(14): eabj7110. Article. IF: 13.6; D1
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Research projects

Briones Alonso AM. Deciphering the role of novel inflammatory mediators derived from interferon and the inefficient resolution of inflammation in the cardiovascular damage associated to hypertension (PID2020-116498RB-I00). AEI. 2021-2024.

Management centre: UAM

Briones Alonso AM. General Coordinator: Thomas Unger (University of Maastricht).. Mechanistic Integration of vascular and endocrine pathways for Subtyping Hypertension: an Innovative network approach for Future generation research Training-MINDS-HIFT (Grant agreement 954798). Marie Skłodowska-Curie actions. Innovative Training Networks (ITN)-European Joint Doctorates. 2021-2024.

Management centre: UAM

Briones Alonso AM. Papel del gen 15 estimulado por interferón (ISG15) en el remodelado vascular patológico. Sociedad Española de Arterioesclerosis. 2022-2023.

Management centre: UAM

García-Redondo AB. Interferon stimulated gene 15 (ISG15) as a new mediator of aortic aneurysms (SI1-PJI-2019-321). CAM. 2020-2022.

Management centre: UAM

Miguel Castro M. Hidrólisis de proteínas vegetales de alto valor biológico: obtención de péptidos antioxidantes y nuevas texturas culinarias para la elaboración de productos sin gluten (AGL-2017-89213.). MICINN. 2018-2022.

Management centre: CIAL (CSIC)

Miguel Castro M. Hidrolizado de clara de huevo y salud cardiovascular. Estudio del efecto antihipertensivo y de los mecanismos de acción en ratas DOCA-sal. (COOPA20453). CSIC. 2021-2022.

Management centre: CIAL (CSIC)

Cibers and Retics

Salaices Sánchez M. Networked Biomedical

Research Center for Cardiovascular Diseases (CIBERCV). ISCIII. (31/12/2022). Management centre: UAM

Patents and trademarks

Garcés Rimón M, Miguel Castro M, López-Alonso Fandiño R, López-Miranda González V, Uranga Ocio J, inventors; CSIC, Universidad Rey Juan Carlos, assignees; Use of multifunctional bioactive products derived from the enzymatic hydrolysis of egg white proteins for treating metabolic syndrome. P201331767, PCT/ES2014/070880; 2013 December 04.

González-Muñiz R, Miguel Castro M, Pérez de Vega MJ, Balsera-Paredes B, S Moreno, inventors; CSIC, assignee. Compounds





3 Information Groups by Area



3.2 Cardiovascular Area

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González-Muñiz R, Pérez de Vega MJ, Miguel M, Balsera-Paredes B, Moreno S, inventors; CSIC, assignee. Triazolyl polyphenols with antioxidant activity and uses thereof; P201531450; 2015 November 08.

León Martínez R, Abril Comesaña S, Duarte Flórez P, Crisman Vigil E, Michalska P, Salai-ces Sánchez M, Menéndez Ramos JC, inventors; Fundación para la Investigación Biomédica del Hospital Universitario de la Princesa, UAM, UCM, assignees. Compuestos agonistas nicotínicos y antioxidantes para el tratamiento de enfermedades neurodegenerativas. P201930190. 2019 March 01.

León Martínez R, Abril Comesaña S, Michalska P, Buendía Abaitua I, Salai-ces Sánchez M, Menéndez Ramos JC, García López M, inventors; Fundación para la Investigación Biomédi-

ca del Hospital Universitario de la Princesa, UAM, UCM, assignees. Compuestos derivados de 2-iodo-7-(((2-(5-metoxi-1H-indol-3-il) etil)amino)metil)-1-alquil/aril-6,7,7a,8-tetrahydro-3H-pirrolo[2,1-j]quinolina-3,9(5H)-diona como agentes antioxidantes, inductores de NRF2 y moduladores nicotínicos para el tratamiento de enfermedades neurodegenerativas. P201930190. 2019 March 01.

Miguel Castro M, Garcés Rimón M, López-Alonso Fandiño R, Sandoval Huertas M, inventors; CSIC, Mario Sandoval Huertas, assignees. Healthy food compositions having gel or foam textures and comprising hydrolyzed egg products. P201331886, PCT/ES2014/070902, EP3106042, US9648897, AR098685, JP2015130856, MX2014015135; 2013 December 20.

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and antihypertensive properties of peptides derived from egg white proteins. P200501246 PCT/ES2006/070067; 2005 May 23.

Miguel Castro M, Garcés Rimón M, authors; Miguel Castro M, Garcés Rimón M, assignees. Brand name: leggie. ESM4044711; 2019 November 22. Concesión 8 Junio 2020.



Miguel Castro M, López-Alonso Fandiño R, Recio Sánchez MI, Ramos González MM, Aleixandre de Artiñano A, (Contreras Gómez M), inventors; CSIC, assignee. Bioactive peptides identified in enzymatic hydrolyzates of milk caseins and method of obtaining same. P200501373, PCT/ES2006/070079, EP1905779, EP2495250, US8354502, AU2006256720, BRPI0611729, CA2611416, CN101305017, CN103254278, JP2008545774, KR20080045108, MX2007015528, NO20080103; 2005 June 08.

Pérez Girón JV, Ruiz-Castellanos MJ, de Luis Jiménez O, Pérez Boto V, Sanz González R, Hernández Vélez MC, Mas Gutiérrez JA, Alonso Gordo MJ, Salai-ces Sánchez M, Ros Pérez M, Coloma Jerez A, Asenjo Barahona A, Sanz Montaña JL, Puente Prieto J, Jensen J, inventors; NANOATE, S.L., assignee. Method for producing biosensors. P201031224, PCT/ES2011/070536; 2010 August 05.

Recio Sánchez MI; Quirós del Bosque A, Hernández Ledesma B, Gómez Ruiz JA, Miguel Castro M, Amigo Garrido L, López Expósito I, Ramos González MM, Aleixandre de Artiñano A, (Contreras Gómez M), inventors; CSIC, assignee. Bioactive peptides identified in enzymatic hydrolyzates of milk caseins and method of obtaining same. P200501373, PCT/ES2006/070079, EP1905779, EP2495250, US8354502, AU2006256720, BRPI0611729, CA2611416, CN101305017, CN103254278, JP2008545774, KR20080045108, MX2007015528, NO20080103; 2005 June 08.



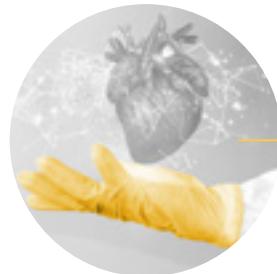
3.2 Cardiovascular Area

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3.2.4 Vascular Pharmacology and Metabolism (FARMAVSM) Group

Publications: 8

Q1: 6



COMPOSITION

Carlos Félix Sánchez Ferrer. Catedrático de Farmacología. Universidad Autónoma de Madrid

Elena Cercas Alonso. Técnico Especialista en Análisis Clínico. Universidad Autónoma de Madrid

Fernando de la Cuesta Marina. Investigador Postdoctoral. Universidad Autónoma de Madrid

Pilar Dongil Sánchez. Ayudante de Investigación. Universidad Autónoma de Madrid

Jorge Francisco Gómez Cerezo. Jefe de Servicio de Medicina Interna. Hospital Universitario Infanta Sofía

Marta Menéndez Ribés. Investigadora Predoctoral. Universidad Autónoma de Madrid

Concepción Peiró Vallejo. Catedrática de Farmacología. Universidad Autónoma de Madrid

Álvaro San Hipólito Luengo. Investigador Predoctoral. Universidad Autónoma de Madrid

Licia Shamoony. Investigadora Predoctoral. Universidad Autónoma de Madrid

Inés Valencia Fernández. Investigador Predoctoral. Universidad Autónoma de Madrid

STRATEGIC OBJECTIVE

Understanding vascular ageing, both in healthy and pathological conditions, like obesity and diabetes mellitus.

RESEARCH LINES

- Mechanisms of human vascular ageing.
- Mechanisms for vascular damage in diabetes mellitus.
- Obesity, adipokines, insulin resistance, and vascular dysfunction.
- Role for the angiotensin-(1-7)/Mas receptor axis on vascular function and inflammation.
- Development of novel extracellular vesicle-based therapies for cardiovascular diseases.



3 Information Groups by Area



3.2 Cardiovascular Area

RESEARCH ACTIVITY

1 Introduction

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● Doctoral theses

Valencia Fernández I. La Adipoquina Dipeptidil Peptidasa 4 (DPP4) como inductor de senescencia y disfunción endotelial asociadas a enfermedades metabólicas[dissertation]. Madrid: UAM: 2022(22/03/2022).

Directors: Sánchez Ferrer CF,
Peiró Vallejo MC.

Espitia Corredor JA. Resolvina E1 previene la senescencia inducida por doxorubicina en células endoteliales y fibroblastos cardiacos[dissertation]. Madrid: UAM: 2022(06/07/2022).

Directors: Díaz Araya GA,
Peiró Vallejo M C.

● Final Degree Theses

González Jiménez A. Aproximación nutricional a la inflamación crónica de bajo grado. Estudio de marcadores inflamatorios en tejido vascular[dissertation]. Madrid: UAM:

2022(26/06/2022).

Directors: Peiró Vallejo MC,
Valencia Fernández I.

● Publications

- Balderas C, Angulo J, Sevilleja-Ortiz A, Peiró C, Vallejo S, Dongil P, de Ancos B, Sánchez-Moreno C. Onion and apple functional ingredients intake improves antioxidant and inflammatory status and vascular injury in obese zucker rats. *Antioxidants*. 2022; 11(10): 1953. Article. IF: 7; D1
- González-Moro A, Valencia I, Shamoony L, Sánchez-Ferrer CF, Peiró C, de la Cuesta F. NLRP3 Inflammasome in vascular disease: A recurrent villain to combat pharmacologically. *Antioxidants*. 2022; 11(2): 269. Review. IF: 7; D1
- Valencia I, Vallejo S, Dongil P, Romero A, San Hipólito-Luengo A, Shamoony L, Posada M, García-Olmo D, Carrasco R, Erusalimsky JD, Romacho T, Peiró C, Sánchez-Ferrer CF. DPP4 promotes human endothelial cell senescence and dysfunction via the PAR2-COX-2-TP axis and NLRP3 inflammasome activation. *Hypertension*. 2022; 79(7): 1361-73. Article. IF: 8.3; Q1
- Espitia-Corredor JA, Shamoony L, Olivares-Silva F, Rimassa-Tare C, Muñoz-Rodríguez C, Espinoza-Pérez C, Sánchez-Ferrer CF, Peiró C, Díaz-Araya G. Resolin E1 attenuates doxorubicin-induced cardiac fibroblast senescence: A key role for IL-1 beta. *Bba-Mol Basis Dis*. 2022; 1868(11): 166525. Article. IF: 6.2; Q1
- Espitia-Corredor JA, Boza P, Espinoza-Pérez C, Lillo JM, Rimassa-Tare C, Machuca V, Osorio-Sandoval JM, Vivar R, Bolívar S, Pardo-Jiménez V, Sánchez-Ferrer CF, Peiró C, Díaz-Araya G. Angiotensin II triggers NLRP3 inflammasome activation by a Ca²⁺ signaling-dependent pathway in rat cardiac fibroblast ang-II by a Ca²⁺-dependent mechanism triggers NLRP3 inflammasome in CF. *Inflammation*. 2022; 45(6): 2498-512. Article. IF: 5.1; Q2
- Shamoony L, Espitia-Corredor JA, Dongil P, Menéndez-Ribes M, Romero A, Valencia I, Díaz-Araya G, Sánchez-Ferrer CF, Peiro C. Resolin E1 attenuates doxorubicin-induced endothelial senescence by modulating NLRP3 inflammasome activation. *Biochem Pharmacol*. 2022; 201: 115078. Article. IF: 5.8; Q1
- Valencia I, Shamoony L, Romero A, Cuesta FD, Sánchez-Ferrer CF, Peiró C. Angiotensin-(1-7), a protective peptide against vascular aging. *Peptides*. 2022; 152: 170775. Article. IF: 3; Q3
- Romero A, Dongil P, Valencia I, Vallejo S, San Hipólito-Luengo A, Díaz-Araya G, Bartha JL, González-Arlanzon MM, Rivilla F, de la Cuesta F, Sánchez-Ferrer CF, Peiro C. Pharmacological blockade of NLRP3 inflammasome/IL-1 beta-positive loop mitigates endothelial cell senescence and dysfunction. *Aging Dis*. 2022; 13(1): 284-97. Article. IF: 7.4; Q1

● Research projects

de la Cuesta Marina F. Developing novel nanotherapies for atherosclerosis by delivering senolytics to the plaque using mesenchymal stem cell-derived extracellular vesicles (2019-T1/IND-13794). CM. 2020-2024.

Management centre: UAM

Peiró Vallejo C, Lorenzo González O. Viral S protein-ACE2 interactions: cell damage, protection and prognosis in the cardiovascular complications of COVID-19 (SPACE2-CV-COVID-CM). CM, EU. 2020-2022.

Management centre: UAM



3.3 Infectious Diseases and Immunity Area

Area Coordinator: Eduardo López-Collazo

coordinadorinfecciosas@idipaz.es

Documents: 280 Originals: 227 D1: 40 Q1: 128

3.3.1 AIDS and Infectious Diseases Group

3.3.2 Molecular Microbiology Group

3.3.3 Immuno-Rheumatology Group

3.3.4 Innate Immune Response Group

3.3.5 Diagnosis and Treatment of Diseases associated with Abnormalities of the Complement System Group

3.3.6 Lymphocyte Pathophysiology in Immunodeficiencies Group

3.3.7 Drug Hypersensitivity and Innate Immune Response Group

3.3.8 Immunomediate Gastrointestinal Diseases and other Digestive Pathologies Group

3.3.9 MicroRNA Regulation of Immune Tolerance, Autoimmunity and Cancer Group





3 Information Groups by Area



3.3 Infectious Diseases and Immunity Area

Strategic Objectives

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Infectious Diseases and Immunity Area is composed of 11 groups focused on the study of diseases related to the immune system such as HIV, autoimmune diseases, cancer, etc., as well as the molecular mechanisms that explain the phenomena associated with these pathologies.

Development forecast for the coming years

To identify priority research topics in our area and if necessary expand some of them.

To generate and develop scientific research projects that allow the production of knowledge in the biomedical area.

To generate a significant number of research products/results, such as publications in nationally and internationally indexed journals, journals that contribute to the social appropriation of knowledge.

To socialize the research results by presenting papers at national and international events.

To establish agreements and strategic alliances with other communities of knowledge that allow academic discussion and project development.

To promote the training of young researchers and undergraduate and graduate students.

To develop a good system of applied research so that everything studied in the laboratory has repercussions on both our patients and our entities.

Actions

Promote the priority research line identified.

Obtain national and international scientific research projects in biomedical area.

Improve the annual number of publications in the first quartile and decile, and total impact factor of the area.

Increase the presence of area researchers in national and international events.

Search for synergies with other groups with similar and complement research lines.

Training in research methodology undergraduate, predoctoral and postdoctoral personal.

Promote the synergies of translational researchers and clinical researchers, and their incorporation into groups.

High impact publications

Rodes B, Cadinanos J, Esteban-Cantos A, Rodríguez-Centeno J, **Arribas JR**. Ageing with HIV: Challenges and biomarkers. *Ebiomedicine*. 2022; 77: 103896. Article. IF: 11.1; D1

Lozano-Rodríguez R, Terrón-Arcos V, Montalbán-Hernández K, Casalvilla-Dueñas JC, Bergón-Gutiérrez M, Pascual-Iglesias A, Quiroga JV, Aguirre LA, de Diego RP, Vela-Olmo C, López-Morejón L, Martín-Quiros A, del Balzo-Castillo A, Peinado-Quesada MA, García-Garrido MA, Gómez-Lage I, Herrero-Benito C, Llorente-Fernández I, Martín-Miguel G, Torrejón M, Cubillos-Zapata C, del Fresno C, Avendaño-Ortiz J, **López-Collazo E**. Prior SARS-CoV-2 infection balances immune responses triggered by four EMA-approved COVID-19 vaccines: An observational study. *Clin Transl Med*. 2022; 12(5): e869. Article. IF: 10.6; Q1

Val-Blasco A, Prieto P, Jaen RI, Gil-Fernández M, Pajares M, Domenech N, Terron V, Tamayo M, Jorge I, Vazquez J, Bueno-Sen A, Vallejo-Cremades MT, Pombo-Otero J, Sánchez-García S, Ruiz-Hurtado G, Gómez AM, Zaragoza C, Crespo-Leiro MG, López-Collazo E, Cuadrado A, Delgado C, Bosca L, **Fernández-Velasco M**. Specialized proresolving mediators protect against experimental autoimmune myocarditis by modulating Ca²⁺ handling and NRF2 activation. *JACC Basic Transl Sci*. 2022; 7(6): 544-60. Article. IF: 9.7; D1

Maldonado-Barreco, A; Grandioso-Vas, D; Rico-Nieto, A; Garcia-Rodriguez, J; **García-Bujalance, S**. The brief case: Proteus mirabilis causing coraliform lithiasis and bacteremia in an elderly catheterized patient. *J Clin Microbiol*. 2022; 60(10): e0241321. Article. IF: 9.4; Q1

Lozano-Rodríguez R, Valentín-Quiroga J, Avendaño-Ortiz J, Martín-Quiros A, Pascual-Iglesias A, Terrón-Arcos V, Montalbán-Hernández K, Casalvilla-Dueñas JC, Bergón-Gutiérrez M, Alcamí J, García-Pérez J, Casajero A, García-Garrido MA, del Balzo-Castillo A, Peinado M, Gómez L, Llorente-Fernández I, Martín-Miguel G, Herrero-Benito C, Benito JM, Rallón N, Vela-Olmo C, López-Morejón L, Cubillos-Zapata C, Aguirre LA, del Fresno C, **López-Collazo E**. Cellular and humoral functional responses after BNT162b2 mRNA vaccination differ longitudinally between naïve and subjects recovered from COVID-19. *Cell Rep*. 2022; 38(2): 110235. Article. IF: 8.8; Q1



3 Information Groups by Area



3.3 Infectious Diseases and Immunity Area

Scientific Events by Infectious Diseases and Immunity Area

02/03/2022. Sesión "Revisión post CROI - Que hay de nuevo en COVID".

09/03/2022. Sesión "Lepra: sí, aún existe"

15/03/2022. Sesión "Diagnóstico molecular de ITS"

23/03/2022. Sesión "Pipolinas, un nuevo grupo de elementos genéticos móviles diversos ampliamente distribuidos en E. coli y otras bacterias patógenas"

30/03/2022. Sesión "Infecciones en paciente con tratamiento con inhibidores de Checkpoint".

20/04/2022. Sesión "Impacto intestinal de la terapia antibiótica supresiva"

27/04/2022. Sesión "Infecciones asociadas a inhibidores de puntos de control inmunitario"

04/05/2022. Sesión "POST ECCMID: ¿Qué hemos aprendido en Lisboa?"

26/05/2022. Sesión "Manejo de pacientes VIH con opciones de tratamiento"

28/05/2022. Managing HIV Patients with limited treatment optinos. European Series

08/06/2022. Sesión: "Actualización de infección por clostridioides difficile"

22/06/2022. Sesión "Diseño de nuevos fármacos mediante simulación computacional"

23/06/2022. Sesión "Puesta a punto en la validación funcional de variantes encontradas en APOB"

29/06/2022. Sesión "Actualización en Infecciones oportunas en VIH"

01/07/2022. Programa HIBIC - Hitos en Investigación Básica y Clínica en VIH&SIDA

28/09/2022. Sesión "Utilidad de la edad epigenética en el estudio del envejecimiento y comorbilidades asociadas a la infección por VIH"

05/10/2022. Sesión "Efecto protector de la vacuna antigripal en pacientes hospitalizados por gripe"

13/10/2022. Sesión "Retos en la implementación de la profilaxis preexposición: Presente y futuro"

19/10/2022. Sesión "Diagnóstico molecular de Monkey Pox"

21/10/2022. VI Jornada PIElenRed: Jornada Multidisciplinar sobre reacciones adversas

26/10/2022. Sesión "Riesgo de propagación internacional de poliovirus"

02/11/2022. Sesión "Diagnóstico molecular infecciones entéricas"

16/11/2022. Sesión "ECRAID: European clinical research alliance on infectious diseases. ¿Qué es? ¿Qué ventajas tiene? ¿Cómo participas?"

17/11/2022. Jornada para pacientes con síndrome de Sjogren

23/11/2022. Sesión "Actualización de infección por Clostridioides difficile. Experiencia con los nuevos tratamientos en nuestro hospital"

30/11/2022. Sesión "Dominancia intestinal por Enterobacterias productoras de carbapenemas"

14/12/2022. Sesión "Actualización en Monkey Pox"

21/12/2022. Sesión "Imagen microbiológica: Lo mejor de mi box"

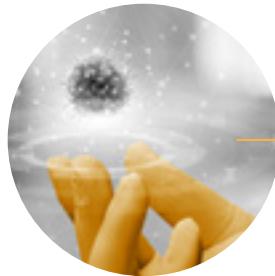




3 Information Groups by Area



3.3 Infectious Diseases and Immunity Area



3.3.1 AIDS and Infectious Diseases Group

Publications: **42**

Q1: **18**

COMPOSITION

José Ramón Arribas López. Jefe de Sección del Servicio de Medicina Interna (Unidad de Infecciosas). Hospital Universitario La Paz. Profesor Titular. Universidad Autónoma de Madrid

Marta Arsuaga Vicente. Médico Adjunto en Medicina Interna. Hospital Carlos III - Hospital Universitario La Paz

José Ignacio Bernardino de la Serna. Facultativo Especialista de Área en Medicina Interna. Unidad VIH. Hospital Universitario La Paz

Carmen Busca Arenzana. Contrato Río Hortega. Hospital Universitario La Paz

Leyre Caballero Naval. Bioestadística. FIBHULP

Julen Cadiñanos Loidi. Contrato Río Hortega. Hospital Universitario La Paz

Fernando de la Calle Prieto. Médico adjunto en Medicina Interna. Unidad de Medicina Tropical. Hospital Carlos III - Hospital Universitario La Paz. Profesor Colaborador. Universidad Autónoma de Madrid

Rosa de Miguel Buckley. Facultativo Especialista Adjunto en Medicina Interna. Hospital Universitarios La Paz

Marta Díaz Menéndez. Médico adjunto en Medicina Interna. Unidad de Medicina Tropical. Hospital Universitario La Paz

Beatriz Díaz Pollán. Facultativo Especialista de Área en Medicina Interna. Unidad de Enfermedades Infecciosas y Microbiología Clínica. Hospital Universitario La Paz

Andrés Esteban Cantos. Investigador Predoctoral. FIBHULP

Marta Gálvez Charro. Enfermera. Unidad de VIH. Hospital Universitario La Paz

Francisco Gayá Moreno. Investigador Predoctoral (Contrato de Estabilización de Técnicos de Apoyo). FIBHULP

Juan Julián González García. Facultativo Especialista de Área en Medicina Interna. Unidad de VIH. Hospital Universitario La Paz

Lucía Gutierrez García. Investigadora Predoctoral. FIBHULP

Pedro Herranz Pinto. Facultativo Especialista de Área en Dermatología. Jefe de Sección. Hospital Universitario La Paz

Víctor Hontañón Antoñana. Investigador predoctoral. FIBHULP

María Jiménez González. Bioestadística. FIBHULP

María Concepción Ladrón de Guevara García. Facultativo Especialista de Área en Microbiología y Parasitología. Hospital Carlos III- Hospital Universitario La Paz

Maria del Mar Lago Núñez. Facultativo Especialista de Área en Medicina Interna. Unidad de Medicina Tropical. Hospital Carlos III - Hospital Universitario La Paz

Cristina Marcelo Calvo. Contrato Rio Hortega. Hospital Universitario La Paz

Luz Martín Carbonero. Facultativo Especialista de Área. Hospital Universitario La Paz

Patricia Martínez Martín. Médico Adjunto en Medicina Interna. Hospital Universitario La Paz

Mario Mayoral Muñoz. Enfermero. Hospital Universitario La Paz

José María Peña Sánchez de Rivera. Jefe de Sección



Beatriz Mena Garay. Técnico de Grado Superior. FIBHULP

Juan José Miguel Castro. Enfermero. Hospital Universitario La Paz

Rocío Montejo Sánchez. Investigadora Postdoctoral. Hospital Universitario La Paz

María Luisa Montes Ramírez. Facultativo Especialista de Área de Medicina Interna. Unidad de VIH. Hospital Universitario La Paz

Marta Mora Rillo. Facultativo Especialista de Área de Medicina Interna. Unidad de Enfermedades Infecciosas y Microbiología Clínica. Hospital Universitario La Paz

Francisco Moreno Ramos. Farmacéutico. Hospital Universitario La Paz

de Plaza Vinculada. Hospital Universitario La Paz. Catedrático. Universidad Autónoma de Madrid

Juan Carlos Ramos Ramos. Facultativo Especialista de Área en Medicina Interna. Hospital Universitario La Paz

Berta Rodés Soldevila. Investigadora Senior (Contrato Miguel Servet- I2). Hospital Universitario La Paz

Javier Rodríguez Centeno. Investigador postdoctoral. Hospital Universitario La Paz

Gabriel Saiz Medrano. Técnico de Grado Superior. FIBHULP

Elena Sendagorta Cudós. Facultativo Especialista de Área de Dermatología. Hospital Universitario La Paz

Lucía Serrano Morago. Investigadora predoctoral. Hospital Universitario La Paz

Eulalia Valencia Ortega. Facultativo Especialista de Área en Medicina Interna. Hospital Universitario La Paz



3 Information Groups by Area



3.3 Infectious Diseases and Immunity Area

STRATEGIC OBJECTIVE

Although great progress has been made, HIV infection remains an incurable disease. Even under the best circumstances, HIV-infected patients who receive current antiretroviral therapy have a survival disadvantage compared with the general non-infected population, which is estimated to be a life expectancy of 15 years less than the general population.

HIV infection is highly prevalent in Spain. Among western European countries, Spain has the second highest prevalence. An important local characteristic of the HIV-infected population in Spain is the high prevalence of hepatitis C coinfection.

This research line covers four main topics of research in HIV infection: antiretroviral treatment, HIV-HCV coinfection, metabolic complications and HIV-resistance to antiretroviral drugs. In addition, we are planning to start another research project on infections other than HIV.

The group has started a new research line regarding the aging and HIV Infection. Tropical diseases are increasing as a consequence of global travel. These diseases continue to be relatively rare however, and therefore, often sub-optimal treated if managed by non-specialists. Furthermore, every year an increasing amount of special travelers (pregnant, comorbidities, immunosuppressed) travel abroad, adding complexity in terms of a timely and effective diagnosis and management. The Tropical and Travel Medicine Unit provide both pre and posttravel assistance in imported infectious diseases. The aim of this Unit is to provide efficient and effective specialist care with proven or suspected tropical disease and a specific preventative travel advice, together with international vaccines recommended for the trip.

RESEARCH LINES

- Antiretroviral therapy & resistance.
- Metabolic complications of antiretroviral therapy.
- Liver disease.
- Neurocognitive impairment.
- Paediatric HIV infection and MTCT.
- Epigenetic and cellular factors related to HIV progression
- Optimisation of antibiotic therapy (ID no HIV)
- Tropical diseases
- Emerging and re-emerging virus
- Molecular and cellular biomarkers of aging

RESEARCH ACTIVITY

● Doctoral theses

Esteban Cantos A. Efecto de la infección VIH y el tratamiento antirretroviral en la metilación del ADN y la longitud telomérica: implicaciones sobre el envejecimiento biológico en las personas que viven con el VIH[dissertation]. Madrid: UAM: 2022(25/05/2022).

Directors: Arribas López JR,
Rodés Soldevila B.

Hontañón Antoñana V. Evolución clínica a largo plazo de los pacientes coinfectados por VIH/VHC con hepatopatía avanzada tras la erradicación del VHC. Estudio Marathon/Gesida 10318[dissertation]. Madrid: UAM: 2022(26/05/2022).

Directors: González García JJ,
Berenguer Berenguer J.

Mangas Moro A. Efecto protector de la vacuna antigripal en pacientes hospitalizados por gripe: análisis observacional de las temporadas 2009 a 2019[dissertation]. Madrid: UAM: 2022(28/04/2022).

Directors: Álvarez-Sala Walther R,
Arribas López JR.

● Publications

• Antela A, Bernardino JI, de Quirós JCLB, Bachiller P, Fuster-Ruiz de Apodaca MJ, Puig J, Rodríguez S, Castrejón I, Álvarez B, Hermenegildo M. Patient-Reported Outcomes (PROs) in HIV infection:

Points to consider and challenges. Infect Dis Ther. 2022; 11(5): 2017-33. Article. IF: 5.4; Q2

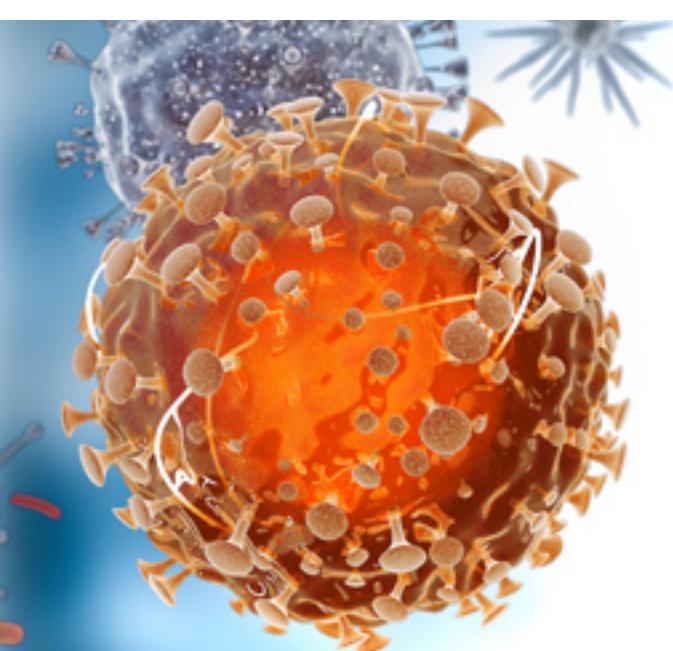
- Bellón T, González-Valle O, Sendagorta E, Lerma V, del Río JM, Martínez C, Servera G, González-Herrada C, Cachafeiro L, Lorente JA, Cabañas R, Herranz P, de Abajo F. IL-15/IL-15R alpha in SJS/TEN: relevant expression of IL15 and IL15RA in affected skin. Biomedicines. 2022; 10(8): 1868. Article. IF: 4.7; Q1
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- Bouza E, Arribas JR, Alejos B, Bernardino JI, Coiras M, Coll P, del Romero J, Fuster MJ, Górgolas M, Gutiérrez A, Gracia D, Hernando V, Martínez-Picado J, Sesmero JMM, Martínez E, Moreno S, Mothe B, Navarro ML, Podzamczer D, Pulido F, Ramos JT, Ruiz-Mateos E, García IS, Palomo E. Past and future of HIV infection. A document based on expert opinion. Rev Esp Quim. 2022; 35(2): 131-56. Review. IF: 1.9; Q4
- Buckley RD, Díaz-Menéndez M, García-Rodríguez



3 Information Groups by Area

3.3 Infectious Diseases and Immunity Area

- J, Arribas JR. Seasonal coronavirus pneumonia after SARS-CoV-2 infection and vaccination: New frenemies? *J Infect Dis.* 2022; 225(4): 741-3. Letter. IF: 6.4; Q1
- Buckley RD, Rial-Crestelo D, Montejano R, Pinto A, Jiménez-González M, Lagarde M, Esteban-Cantos A, Aranguren-Rivas P, Cadinanos J, Bisbal O, Castro JM, Santacreu-Guerrero M, Bermejo-Plaza L, Moreno V, Hernando A, Martín-Carbonero L, Rubio R, Delgado R, Arribas JR, Pulido F. Long-term evaluation of residual viremia in a clinical trial of dolutegravir plus lamivudine as maintenance treatment for participants with and without prior lamivudine resistance. *Open Forum Infect Dis.* 2022; 9(11): ofac610. Article. IF: 4.2; Q2
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 - Busca C, Sánchez-Conde M, Rico M, Rosas M, Va-
 - lencia E, Moreno A, Moreno V, Martín-Carbonero L, Moreno S, Pérez-Valero I, Bernardino JL, Arribas JR, González J, Oliveira A, Castillo P, Abadia M, Guerra L, Méndez C, Montes ML. Assessment of noninvasive markers of steatosis and liver fibrosis in human immunodeficiency virus-monoinfected patients on stable antiretroviral regimens. *Open Forum Infect Dis.* 2022; 9(7): ofac279. Article. IF: 4.2; Q2
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 - Carrasco I, Oliveira A, Lancharro A, Escosa L, Mellado MJ, Busca C, Montes ML, Díez C, Alcolea-Ruiz S, Navarro ML, Sainz T. Fatty liver disease in children living with HIV: a ghostly iceberg. *AIDS.* 2022; 36(10): 1471-2. Letter. IF: 3.8; Q3
 - Carrasco I, Oliveira A, Lancharro A, Escosa L, Mellado MJ, Busca C, Montes ML, Díez C, Alcolea-Ruiz S, Navarro ML, Sainz T. Prevalence of nonalcoholic fatty liver disease using noninvasive techniques among children, adolescents, and youths living with HIV. *AIDS.* 2022; 36(6): 805-14. Article. IF: 3.8; Q3
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 - nanzas C, Montero M, Manzardo C, Cifuentes C, García C, Galindo MJ, Ferrero OL, Sanz J, de la Fuente B, Rodríguez C, Gaspar G, Pérez L, Losa JE, Force L, Veloso S, Martínez-Alfaro E, Jarrín I, de Miguel M, García JG. Epidemiological trends of HIV/HCV coinfection in Spain, 2015-2019. *Hiv Med.* 2022; 23(7): 705-16. Article. IF: 3; Q3
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3 Information Groups by Area



3.3 Infectious Diseases and Immunity Area

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Research projects

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Management centre: FIBHULP

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Management centre: FIBHULP

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Management centre: FIBHULP

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Management centre: FIBHULP

Arsuaga Vicente M. Filling key research gaps with clinical implications in mansonirosis and schistosomiasis. a network approach. IRCCS Sacro Cuore Don Calabria Hospital. 2021-Ongoing.

Management centre: FIBHULP

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Management centre: FIBHULP

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Management centre: FIBHULP

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Management centre: FIBHULP

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Management centre: FIBHULP

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Management centre: FIBHULP

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Management centre: FIBHULP

Gonzalez García JJ. Infecciones agudas/reincidentes y reinfecciones por VHC en hombres que tienen sexo con hombres con y sin VIH (PI20/00507). ISCIII. 2021-2023.

Management centre: FIBHULP

Gonzalez García JJ. Morbilidad y mortalidad a largo plazo tras la erradicación del VHC en pacientes coinfectados por VIH/VHC con fibrosis hepática avanzada/cirrosis (PI17/00903). ISCIII. 2018-2022.

Management centre: FIBHULP

Herranz Pinto P. Dermatitis atopica y patología alérgica en dermatología: actualización y perspectivas futuras para médicos y pacientes: de la investigación a la práctica clínica. Sanofi Aventis S.A. 2020-Ongoing.



3 Information Groups by Area

3.3 Infectious Diseases and Immunity Area

Management centre: FIBHULP

Montejano Sánchez R. Aceleración de la edad epigenética en personas que viven con VIH: Impacto de factores biológicos y de comportamiento (PI21/01349). ISCIII. 2022-2024.

Management centre: FIBHULP

Montejano Sánchez R. Contrato Juan Rodés (JR18/00039). ISCIII. 2019-2022.

Management centre: FIBHULP

Montes Ramírez ML. Estudio de hepatopatías en pacientes infectados por VIH sin hepatitis víricas que reciben tratamiento antirretroviral. Abbvie Spain S. L. U. 2016-Ongoing.

Management centre: FIBHULP

Rodés Soldevila B. Contrato Miguel Servet Categoría A (CES11/021). ISCIII. 2007-2025.

Management centre: FIBHULP

Rodés Soldevila B. Estrategias de tratamiento antirretroviral y su efecto en la edad epigenética en pacientes VIH positivos con supresión virológica (PI18/00569). ISCIII. 2019-2023.

Management centre: FIBHULP

Rodés Soldevila B. Impacto de la regulación epigenética de la proteína p21 y su asociación a la progresión a sida en la infección por VIH. Genoma España. 2011-Ongoing.

Management centre: FIBHULP

Rodés Soldevila B. Perfiles de metilación del ADN y transcripción génica como marcadores del agotamiento de las células T en individuos VIH+ no tratados y crónicos avirémicos (PI21/00177). ISCIII. 2022-2024.

Management centre: FIBHULP

Cibers and Retics

Arribas López JR. Centro de Investigación Biomédica en Red de Enfermedades Infecciosas (CIBERInfect). ISCIII. (31/12/2024). FIBHULP

González García J. Research Network for AIDS (RIS). ISCIII. (31/12/2022). FIBHULP

Díaz Menéndez M. Tropical Disease Cooperative Research Network. (RICET). ISCIII. (31/12/2022). FIBHULP

Clinical trials

Herranz Pinto P. Ensayo fase 2 para evaluar la eficacia y seguridad de los comprimidos de leo 152020 administrados por vía oral en comparación con los comprimidos de placebo durante un período de hasta 16 semanas de tratamiento en adultos con dermatitis atópica de moderada a grave.

Type: Clinical Trials, phase II. Appendix 1 5835.
Sponsored by: Leo Pharma A/S.

Signed date: 10/01/2022

Arribas López JR. Estudio fase III, no ciego, de un único brazo, multicéntrico para valo-

rar la seguridad e inmunogenicidad de una vacunación de booster con el candidato de proteína recombinante rbd fusion heterodímer (phh-1v) contra sars-cov-2, en adultos previamente vacunados contra la covid-19.

Type: Clinical Trials, phase III. 6081
HIPRA-HH-5.

Sponsored by: Hipra Scientific, S.L.U.

Signed date: 27/01/2022

Arribas López JR. Estudio de fase 3, aleatorizado, doble ciego, controlado con placebo, para evaluar la eficacia y la seguridad de ad26.cov2.s para la prevención de covid-19 mediada por sars-cov-2 en adultos mayores de 18 años.

Type: Clinical Trials, phase III. Appendix 4 5734.

Sponsored by: Janssen Cilag International Nv.
Signed date: 22/02/2022

Herranz Pinto P. Estudio de fase IIb multicén-

trico, aleatorizado, doble ciego, controlado con placebo y con grupos paralelos de búsqueda de dosis de un anticuerpo monoclonal subcutáneo (ky1005) anti-ox40L en la dermatitis atópica moderada o grave. título no técnico: estudio para evaluar la respuesta de ky1005 frente a la dermatitis atópica moderada o grave (stream-ad).

Type: Clinical Trials, phase II. 6038
KY1005-CT05_(DRI17366).

Sponsored by: Kymab Ltd.
Signed date: 15/02/2022

Bernardino de la Serna JI. Estudio retrospectivo multicéntrico de la efectividad y seguridad de la combinación dolutegravir + rilpivirina tras el cambio desde pautas con taf.

Type: EPA-SP. PI-5215.
Sponsored by: Fundació de la Lluita Contra El Sida.
Signed date: 05/04/2022





3 Information Groups by Area



3.3 Infectious Diseases and Immunity Area

1 Introduction

2 Executive Summary

3 Information Groups by Area

4 Associated Clinicians

González García JJ. Validez y utilidad percibida por profesionales de la salud y pacientes de una herramienta electrónica para la evaluación del estado de salud de pacientes con vih de forma anticipada a la visita médica.

Type: No EPA. PI-5169.

Sponsored by: Fundacion Seimc-Gesida.

Signed date: 03/05/2022

Arribas López JR. Coinfección por coronavirus y vih-1: morbilidad y factores de riesgo de la covid-19 en personas con vih (coco vih).

Type: No EPA. PI-4977.

Sponsored by: Neat Id Foundation.

Signed date: 04/05/2022

Herranz Pinto P. Apolo: dermatitis atópica - estudio transversal sobre las características de la enfermedad y su impacto en los pacientes.

Type: No EPA. PI-4894.

Sponsored by: Pfizer, S.L.U.

Signed date: 30/03/2022

Herranz Pinto P. Estudio de extensión abierto, multicéntrico, para evaluar la eficacia y seguridad a largo plazo de ctp-543 en pacientes adultos con alopecia areata de moderada a grave.

Type: Clinical Trials, phase III. 5972.

Sponsored by: Concert Pharmaceuticals, Inc.

Signed date: 12/04/2022

Arribas López JR. Efficacy and safety of axl inhibitor bemcentinib for the treatment of moderate covid-19.

Type: Clinical Trials, phase IIb. 6143.

Sponsored by: Oslo University Hospital.

Signed date: 24/10/2022

Bernardino de la Serna JI. Estudio clínico aleatorizado de fase 3 en participantes infectados por el vih-1 que han recibido varios tratamientos con anterioridad para evaluar la actividad antirretroviral del tratamiento enmascarado con islatravir (isl), doravirina (dor) y doravirina/islatravir (dor/isl), cada uno en comparación con un placebo, y la actividad

antirretroviral, la seguridad y la tolerabilidad del tratamiento abierto con dor/isl.

Type: Clinical Trials, phase III. Appendix 4 5532.

Sponsored by: Merck Sharp and Dohme de España, S.A.

Signed date: 21/03/2022

Martín Carbonero L. Estudio clínico de fase 3, aleatorizado, abierto y comparativo con tratamiento activo para evaluar el cambio de tratamiento a doravirina/islatravir una vez al día en pacientes infectados por el vih-1 con supresión virológica durante el tratamiento antirretroviral (tar).

Type: Clinical Trials, phase III. Appendix 3 5471.

Sponsored by: Merck Sharp & Dohme Corp.

Signed date: 09/03/2022

Arribas López JR. Impact of remdesivir in health care resource utilization in spain.

Type: EPA-OD. 2022.114.

Sponsored by: Gilead Sciences Inc.

Signed date: 21/04/2022

González García JJ. Estudio clínico de continuación, de fase 3, sin enmascaramiento, de doravirina/islatravir (dor/isl) una vez al día para el tratamiento de la infección por el vih-1 en participantes que habían recibido previamente dor/isl en un estudio clínico de fase 2 o fase 3 de dor/isl.

Type: Clinical Trials, phase II. Appendix 1 6030.

Sponsored by: Merck Sharp and Dohme de España, S.A.

Signed date: 21/04/2022

González García JJ. Estudio clínico de fase 3, aleatorizado, doble ciego y controlado con producto activo para evaluar el cambio a doravirina/islatravir (dor/isl) una vez al día en participantes con supresión virológica del vih-1 con bictegravir/emtricitabina/tenofovir alafenamide (bic/ftc/taf), cada uno en comparación con un placebo, y la actividad

Type: Clinical Trials, phase III. ANEXO 3 5470.

Sponsored by: Merck Sharp & Dohme Corp.

Signed date: 21/04/2022

Montes Ramírez ML. Prevalencia de la soledad/aislamiento social en personas infectadas por vih mayores de 50 años. Estudio (nadia solo).

Type: No EPA. 2022.131.

Sponsored by: Fundacion Seimc-Gesida.

Signed date: 28/04/2022

Herranz Pinto P. Estudio de extensión a largo plazo para evaluar la seguridad, tolerabilidad y eficacia a largo plazo de amlitelimab administrado por vía subcutánea en participantes adultos con dermatitis atópica de moderada a grave que participaron en el estudio ky1005-ct05 (dr17366).

Type: Clinical Trials, phase II. 2022.137.

Sponsored by: Sanofi-Aventis Recherche & Developpement.

Signed date: 03/08/2022

Herranz Pinto P. Estudio prospectivo, multicéntrico y a largo plazo para evaluar la seguridad y la eficacia de nemolizumab (cd14152) en sujetos con dermatitis atópica de moderada a grave.

Type: Clinical Trials, phase III. Appendix 3 5478.

Sponsored by: Galderma S.A.

Signed date: 04/02/2022

Herranz Pinto P. Estudio de fase III, abierto, multicéntrico, a largo plazo, para investigar la seguridad y la eficacia de pf 06651600 en participantes adultos y adolescentes con alopecia areata.

Type: Clinical Trials, phase III. 2022.162.

Sponsored by: Pfizer, S.L.U.

Signed date: 13/04/2022

Valencia Ortega E. Estudio clínico de fase 3, aleatorizado, doble ciego y comparativo con

tratamiento activo para evaluar la actividad antirretroviral, la seguridad y la tolerabilidad de doravirina/islatravir una vez al día en participantes infectados por el vih-1 sin tratamiento previo.

Type: Clinical Trials, phase III. 2022.192.

Sponsored by: Merck Sharp & Dohme Corp.

Signed date: 26/04/2022

Herranz Pinto P. Estudio en fase III de retirada aleatorizada, doble ciego, controlado con placebo y multicéntrico para investigar la eficacia y la seguridad de pf-04965842 en pacientes de 12 o más años de edad con dermatitis atópica moderada o grave con la opción de un tratamiento de rescate para aquellos pacientes que presenten un empeoramiento de la enfermedad.

Type: Clinical Trials, phase III. 2022.217.

Sponsored by: Pfizer Inc.

Signed date: 24/05/2022

González García JJ. Estudio fase IIb para evaluar una pauta de tratamiento intramuscular de acción prolongada con gsk1265744 y tmc278 en el tratamiento de la supresión virológica, tras una inducción con una pauta oral lde gsk1265744 y abacavir/lamivudina en sujetos adultos infectados por vih-1 que no han recibido tratamiento antirretroviral previo.

Type: Clinical Trials, phase IIb. 2022.227.

Sponsored by: Laboratorios VIIV Healthcare, S.L.

Signed date: 07/06/2022

Rico Nieto A. Ensayo abierto multicéntrico aleatorizado y pragmático de fase III para evaluar la eficacia y seguridad de diferentes duraciones de tratamiento antimicrobiano de infecciones asociadas al material de osteosíntesis tras fractura de hueso largo (duratiom).

Type: Clinical Trials, phase III. 2022.280.

Sponsored by: Fundacion Publica Andaluza

Para La Gestión de La Investigacion en Salud de Sevilla.



3 Information Groups by Area

3.3 Infectious Diseases and Immunity Area

Signed date: 09/11/2022

Ramos Ramos JC. Estudio de eficacia y seguridad del tratamiento, de fase 2, aleatorizado, con doble enmascaramiento, de 3 grupos para investigar nirmatrelvir/ritonavir en participantes inmunodeprimidos no hospitalizados de al menos 12 años con covid-19 sintomática.

Type: Clinical Trials, phase II. 2022.281.

Sponsored by: Pfizer Inc.

Signed date: 19/12/2022

Herranz Pinto P. 24-month prospective observational cohort study evaluating oral systemic therapies in the management of adult patients with atopic dermatitis in real-world practice (ad-real) estudio prospectivo y observacional de cohortes de 24 meses de duración para evaluar los tratamientos sistémicos orales en el tratamiento de pacientes adultos con dermatitis atópica en la vida.

Type: EPA-SP. 2022.322.

Sponsored by: Eli Lilly Co Uk Ltd.

Signed date: 03/10/2022

Herranz Pinto P. Estudio de fase IIb multicéntrico, aleatorizado, doble ciego, controlado con placebo y con grupos paralelos de búsqueda de dosis de un anticuerpo monoclonal subcutáneo (ky1005) anti-ox40l en la dermatitis atópica moderada o grave. título no técnico: estudio para evaluar la respuesta de ky1005 frente a la dermatitis atópica moderada o grave (stream-ad).

Type: Clinical Trials, phase II. 2022.329.

Sponsored by: Kymab Ltd.

Signed date: 30/05/2022

Bernardino de La Serna JI. Estudio de fase 2/3, operativamente sin interrupciones, aleatorizado, abierto, multicéntrico y con control activo para evaluar la seguridad y la eficacia de bictegravir/lenacapavir en comparación con un régimen de referencia estable en personas con vih-1 en supresión virológica que reciben pautas de tratamiento complejas estables. an operationally seamless phase 2/3 randomized, open-label, multicenter, active-controlled study to evaluate the safety and efficacy of bictegravir/lenacapavir versus stable baseline regimen in virologically suppressed people with hiv-1 on stable complex treatment regimens.

Type: Clinical Trials, phase II. 2022.387.

Sponsored by: Gilead Sciences Inc.

Signed date: 04/11/2022

Bernardino de La Serna JI. Clínica y epidemiología del brote de infección por monkeypox en España en el año 2022.

Type: Clinical Trials, phase . 2022.419.

Sponsored by: Fundacion Seimc-Gesida.

Signed date: 27/09/2022

Herranz Pinto P. A randomised, double-blind, placebo-controlled phase 3 clinical trial to assess the efficacy and safety of lebrikizumab in combination with topical corticosteroids in adult and adolescent patients with moderate-to-severe atopic dermatitis that are not adequately controlled with cyclosporine or for whom cyclosporine is not medically advisable.

Type: Clinical Trials, phase III. 2022.427.

Sponsored by: Almirall, Sa.

Signed date: 27/07/2022

Arribas López JR. Un estudio de no inferioridad de fase IIb, doble ciego, aleatorizado, con control activo, multicéntrico, seguido de un estudio de fase III, de un solo brazo y abierto, para evaluar la inmunogenicidad y la seguridad de una vacuna de refuerzo con un candidato de proteína recombinante dimérica de fusión rbd (phh-1v) contra el sars-cov-2, en adultos completamente vacunados contra covid-19.

Type: Clinical Trials, phase II. 2022.444.

Sponsored by: Hipra Scientific, S.L.U.

Signed date: 07/09/2022

González García JJ. Estudio clínico de continuación, de fase 3, sin enmascaramiento, de doravirina/islatravir (dor/isl) una vez al día para el tratamiento de la infección por el vih-1 en participantes que habían recibido previamente dor/isl en un estudio clínico de fase 2 o fase 3 de dor/isl.

Type: Clinical Trials, phase II. 2022.459.

Sponsored by: Merck Sharp and Dohme de España, S.A.

Signed date: 10/08/2022

Arribas López JR. Estudio de fase 3, aleatorizado, doble ciego, controlado con placebo, para evaluar la eficacia y la seguridad de ad26.cov2.s para la prevención de covid-19 mediada por sars-cov-2 en adultos mayores de 18 años.

Type: Clinical Trials, phase III. 2022.522.

Sponsored by: Janssen Cilag International Nv.

Signed date: 30/09/2022

González García JJ. Estudio fase III, aleatorizado, multicéntrico, abierto, de grupos paralelos, para evaluar la eficacia, seguridad y tolerabilidad de una pauta de tratamiento intramuscular de acción prolongada con cabotegravir y rilpivirina en el mantenimiento de la supresión virológica, tras una inducción con un tratamiento de comprimido único con un inhibidor de la integrasa en pacientes adultos infectados por el vih-1 que no han recibido un tratamiento antirretroviral previo.

Type: Clinical Trials, phase III. 2022.532.

Sponsored by: Laboratorios Viiv Healthcare, S.L.

Signed date: 04/08/2022

Montes Ramírez ML. Ensayo doble ciego, aleatorizado, controlado con placebo, fase IIb sobre la eficacia y seguridad de comprimidos de ácido norursodesoxicólico en pacientes con esteatohepatitis no alcohólica (ehna).

Type: Clinical Trials, phase IIb. 2022.550.

Sponsored by: Dr. Falk Pharma, GmbH.

Signed date: 24/10/2022

● Patents and trademarks

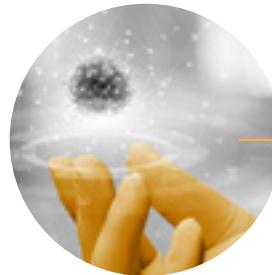
Romero Gómez M, Solá Lamoglia R, González García JJ, inventors; Servicio Andaluz de Salud, Universidad de Sevilla, Fundació Institut Mar D'Investigacions Mèdiques, IBI-BHULP, assignees. Kit for decision making in patients with Hepatitis C genotypes 1 and 4. P201330731; 2013 May 21.



3 Information Groups by Area



3.3 Infectious Diseases and Immunity Area



3.3.2 Molecular Microbiology Group

Publications: 36

Q1: 17

COMPOSITION

Jesús Mingorance Cruz. Investigador Senior (Contrato Ramón y Cajal - I3). FIBHULP

Emilio Cendejas Bueno. Facultativo Especialista de Área en Microbiología. Hospital Universitario La Paz

Elias Dahdouh. Investigador Postdoctoral. Hospital Universitario La Paz

Silvia García Bujalance. Facultativo Especialista de Área en Microbiología. Hospital Universitario La Paz

María Jesús García García. Profesor Titular del Departamento de Medicina Preventiva y Salud Pública y Microbiología. Facultad de Medicina. Universidad Autónoma de Madrid

Julio García Rodríguez. Jefe de Servicio de Microbiología. Hospital Universitario La Paz

Paulino Gómez Puertas. Científico Titular CSIC. CBM "Severo Ochoa". Profesor Honorario. Universidad Autónoma de Madrid

Maria Rosa Gómez-Gil Mira. Facultativo Especialista de Área en Microbiología. Hospital Universitario La Paz

Sonia Jiménez Rodríguez. Técnico de Laboratorio. FIBHULP

Fernando Lázaro Perona. Facultativo Especialista de Área en Microbiología. Hospital Universitario La Paz

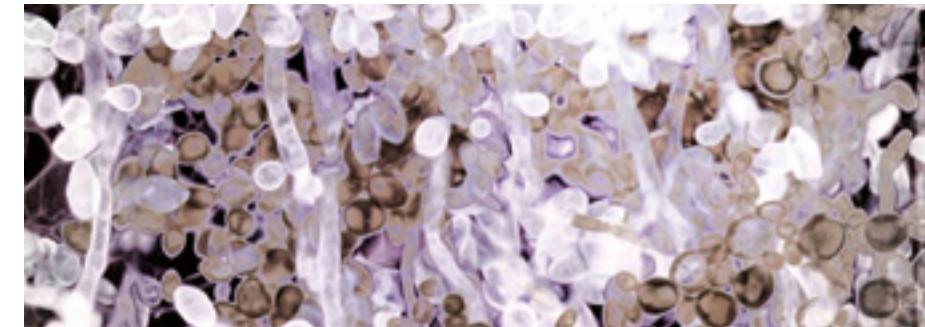
María Belén Loches Yagüe. Médico Adjunto. Unidad de Enfermedades Infecciosas. Hospital Universitario La Paz

Carmen Menéndez Gómez. Profesora Honoraria del Departamento de Medicina Preventiva y Salud Pública y Microbiología. Facultad de Medicina. Universidad Autónoma de Madrid

Dolores Montero Vega. Facultativo Especialista de Área en Microbiología. Hospital Universitario La Paz

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Verónica Pérez Blanco. Facultativo Especialista de Área en Medicina Preventiva. Hospital Universitario La Paz



Rafael Carlos Prados Rosales. Investigadora Postdoctoral. Universidad Autónoma de Madrid

María Inmaculada Quiles Melero. Facultativo Especialista de Área en Microbiología. Hospital Universitario La Paz

Alicia Rico Nieto. Facultativo Especialista de Área en Microbiología. Hospital Universitario La Paz

Guillermo Ruiz Carrasco. Facultativo Especialista de Área en Microbiología. Hospital Universitario La Paz

Carlos Toro Rueda. Facultativo Especialista de Área en Microbiología. Hospital Carlos III-Hospital Universitario La Paz

STRATEGIC OBJECTIVE

The Molecular Microbiology research group is integrated into the Department of Microbiology at Hospital La Paz, and a significant number of its members are physicians in the department devoted to microbiological diagnostic work. This integration determines the group's strategic approach and therefore, the different lines of research revolve around several aspects of clinical microbiology and infectious diseases.

An important line of activity (Clinical Microbiology) is the result of the routine activities provi-

ded by the department, but goes further and deeper into the methodological, epidemiological and pathological challenges encountered in the daily routine.

One research line derived from the former is the development of methods for the molecular characterisation of pathogenic microorganisms, including microbiological diagnosis and epidemiological analysis, and more recently, microbial genomics.

Another line focuses on the study of the evolution of pathogenic microorganisms. As a model



3 Information Groups by Area



3.3 Infectious Diseases and Immunity Area

of opportunistic pathogens, we study Escherichia coli, a microorganism that is well characterised at the genetic level and that is clinically relevant as the primary cause of urinary tract infections and one of the most frequently involved in bacteraemia.

Another important focus, given the scarcity of new antibiotics, is the search for new molecules.

RESEARCH LINES

- Molecular epidemiology and evolution of pathogens
- Molecular methods for diagnostics of infectious diseases
- Microbial genomics

In this line, we use molecular dynamics to search for new metallo-beta-lactamase inhibitors. Several group members belong to the Faculty of Medicine and they have a long research record in the Molecular Biology and Pathogenesis of *Mycobacterium tuberculosis* and other mycobacteria.

- Design of new inhibitors of metallo-beta-lactamases by molecular dynamics
- Clinical Microbiology
- Molecular Biology and Pathog

RESEARCH ACTIVITY

Publications

- Acero LA, Vicente EJT, Cudós ES, Gómez MPR. Varicella monoarthritis in an immunocompetent woman. *Enferm Infec Micr Cl*. 2022; 40(2): 93-4. Letter. IF: 2.5; Q4
- Aguilera-Alonso D, Nieto SK, Montijo MFA, Santaeufemia FJS, Saavedra-Lozano J, Soto B, Caminoa MB, Berzosa A, Tato LP, Cercenado E, Tagarro A, Arana DM, Sanz MA, Gómez MPR, Sánchez FC, Baquero-Artigao F. Staphylococcus aureus community-acquired pneumonia in children after 13-valent pneumococcal vaccination (2008-2018): Epidemiology, clinical characteristics and outcomes. *Pediatr Infect Dis J*. 2022; 41(5): e235-42. Article. IF: 3.6; Q1
- Alebouyeh S, Cárdenas-Pestaña JA, Vázquez L, Prados-Rosales R, del Portillo P, Sanz J, Menéndez MC, García MJ. Iron deprivation enhances transcriptional responses to *in vitro* growth arrest of *Mycobacterium tuberculosis*. *Front Microbiol*. 2022; 13: 956602. Article. IF: 5.2; Q2
- Alebouyeh S, Weinrick B, Achkar JM, García MJ, Prados-Rosales R. Feasibility of novel approaches to detect viable *Mycobacterium tuberculosis* within the spectrum of the tuberculosis disease. *Front Med (Lausanne)*. 2022; 9: 965359. Review. IF: 3.9; Q2
- Betrian S, Ángeles MA, Moreno AG, Cabarrub B, Deslandres M, Ferrón G, Mery E, Floquet A, Guyon F, Pérez-Benavente A, Spagnolo E, Rychlik A, Gladiereff L, Gutiérrez AH, Martínez A. Survival impact of histological response to neoadjuvant chemotherapy according to number of cycles in patients with advanced ovarian cancer. *Int J Gynecol Cancer*. 2022; 32(8): 967-74. Article. IF: 4.8; Q1
- Boria F, Chiva L, Carbonell M, Gutiérrez M, Sanchez L, Alcázar A, Coronado M, Gutiérrez AH, Zapardiel I. F-18-fluorodeoxyglucose positron emission tomography/computed tomography (F-18-FDG PET/CT) predictive score for complete resection in primary cytoreductive surgery. *Int J Gynecol Cancer*. 2022; 32(11): 1427-32. Article. IF: 4.8; Q1
- Bouza E, Arribas JR, Alejos B, Bernardino JL, Coiras M, Coll P, del Romero J, Fuster MJ, Górgolas M, Gutiérrez A, Gracia D, Hernando V, Martínez-Picado J, Sesmero JMM, Martínez E, Moreno S, Mothe B, Navarro ML, Podzamczer D, Pulido F, Ramos JT, Ruiz-Mateos E, García IS, Palomo E. Past and future of HIV infection. A document based on expert opinion. *Rev Esp Quim*. 2022; 35(2): 131-56. Review. IF: 1.9; Q4
- Buckley RD, Díaz-Menéndez M, García-Rodríguez J, Arribas JR. Seasonal coronavirus pneumonia after SARS-CoV-2 infection and vaccination: New frenemies?. *J Infect Dis*. 2022; 225(4): 741-3. Letter. IF: 6.4; Q1
- Cabello-Úbeda A, de Quirós JCLB, Carbonero LM, Sanz J, Vergas J, Mena A, Torralba M, Segurado MH, Pinto A, Tejerina F, Palmier E, Gutiérrez A, Vázquez P, Pulido F, Górgolas M. 48-Week effectiveness and tolerability of dolutegravir (DTG) plus lamivudine (3TC) in antiretroviral-naïve adults living with HIV: A multicenter real-life cohort. *Plos One*. 2022; 17(11): e0277606. Article. IF: 3.7; Q2
- Cendejas-Bueno E, Romero-Gómez MD, Falces-Romero I, Aranda-Díaz A, García-Ballesteros D, Mingorance J, García-Rodríguez J. Evaluation of a lateral flow immunoassay to detect CTX-M extended-spectrum ss-lactamases (ESBL) directly from positive blood cultures for its potential use in Antimicrobial Stewardship programs. *Rev Esp Quim*. 2022; 35(3): 284-7. Article. IF: 1.9; Q4
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3 Information Groups by Area

3.3 Infectious Diseases and Immunity Area

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3 Information Groups by Area

3.3 Infectious Diseases and Immunity Area

Management centre: FIBHULP

Dahdouh E. Ayuda adicional - Contrato Juan de la Cierva (IJC2019-038832-I). Ministerio de Ciencia Innovación. 2021-2023.

Management centre: FIBHULP

García Bujalance S. Evaluación del rendimiento del ensayo aptima HIV-1 quant para la detección y cuantificación del HIV-1 en muestras de plasma. Hologic Deuschland GMBH. 2016-Ongoing.

Management centre: FIBHULP

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Management centre: FUAM

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Management centre: FIBHULP

García Rodríguez J. Validación de un nuevo kit para detección de virus respiratorios por pcr a tiempo real. Genómica S.A.U. 2018-Ongoing.

Management centre: FIBHULP

Mingorance Cruz J. Aplicación de los métodos de tipado genómico y molecular a la elaboración del mapa microbiológico del Hospital Universitario La Paz. Genómica S.A.U. 2012-Ongoing.

Management centre: FIBHULP

Mingorance Cruz J. Aplicaciones de la PCR digital (Quantstudio) en microbiología clínica. Proquinorte S.A. 2022-Ongoing.

Management centre: FIBHULP

Mingorance Cruz J. Contrato I3 Estabilizado (CESI311). CM. 2011-2025.

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Research projects

Cendejas Bueno E. Desarrollo y validación de métodos para la detección y cuantificación de antifúngicos sistémicos en suero mediante MALDI-tof (PI17/01444). ISCIII. 2018-2022.

Management centre: FIBHULP

Dahdouh E. Alianza para la exploración de inhibidores de carbapenemas (AC20/00012). ISCIII. 2021-2022.

ta comparada con el tratamiento antibiótico convencional en pacientes con endocarditis infecciosa por cocos gram positivos: ensayo clínico aleatorizado.

Type: Clinical Trials, phase IV. 6115.

Sponsored by: Olmos Blanco, Carmen.

Signed date: 06/05/2022

Loeches Yagüe MB. Análisis retrospectivo del uso en la práctica real de cefiderocol para el tratamiento de infecciones por gramnegativos como parte del programa de acceso precoz (estudio perseus).

Type: EOM no prospectivo. 2022.358.

Sponsored by: Shionogi B.V.

Signed date: 07/09/2022

Patents and trademarks

Mingorance Cruz J, Castán García P, Franco de Sarabia Rosado PM, inventors; 2B BLAC-KBIO S.L., assignee. Composition, method and kit for detecting fungi and yeasts by means of sequencing. PCT/ES2010/000248; 2010 June 02.

Mingorance Cruz J, Castán García P, Franco de Sarabia Rosado PM, inventors; BIOTOOLS BIOTECHNOLOGICAL & MEDICAL LABORATORIES S.A., assignee. Composition, method and kit for detecting bacteria by means of sequencing. PCT/ES2009/000507, EP2492352, US2013157265, CA2775273, MX2012004627; 2009 October 22.

Vicente Muñoz M, Mingorance Cruz J, Rueña González MS, inventors; CSIC, assignee. Method for determining state of growth and viability of bacterial FTsZ population, whether natural or cultivated, is based on determining existence of FTsZ rings in actively growing individual cells. P200200370; 2002 February 15.



3 Information Groups by Area

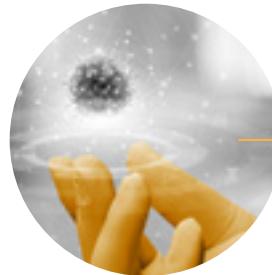
3.3 Infectious Diseases and Immunity Area

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3.3.3 Immuno-Rheumatology Group

Publications: 36

Q1: 10

COMPOSITION

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Alejandro Balsa Criado. Jefe de Sección de Reumatología. Hospital Universitario La Paz. Profesor Asociado. Facultad de Medicina. Universidad Autónoma de Madrid

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Eugenio de Miguel Mendieta. Facultativo Especialista de Área en Reumatología. Hospital Universitario La Paz

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Postdoctoral. Hospital Universitario La Paz

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STRATEGIC OBJECTIVE

Our objective is to investigate the pathogenesis and evolution of rheumatic diseases, specifically focusing on imaging, genetics, metabolic pathways and immunopathogenesis.

RESEARCH LINES

- Immunopathogenesis, genetic, evolution, prognosis and biomarkers of inflammatory and autoimmune arthritis.
- Imaging of inflammatory and autoimmune arthritis.
- Immunopathogenesis and genetics of osteoporosis.
- Immunogenicity of biological therapies with monoclonal antibodies.
- Immunopathogenesis, evolution, prognosis and biomarkers of ocular inflammatory pathology.
- Classification and Clinical outcomes of patients with inflammatory and autoimmune arthritis.



3 Information Groups by Area



3.3 Infectious Diseases and Immunity Area

RESEARCH ACTIVITY

● Publications

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- Arriola-Villalobos P, Moll-Udina A, Carrasco-López-Brea M, Sacristán C, Capella MJ, Peiteado D, Garrote-Llorden A, Fort MA, Márquez MJ, Guijarrero JJG, Demetrio-Pablo R, Sevilla JLS, Carreno E, González-López J, Miguel-Escuder L, Cuadros C, Díaz-Valle D, Adan A, del Castillo JMB, Fonollosa A, Cordero M, Costa LM, Blanco-Alonso R. Vogt-koyanagi-harada disease in Spain. *Eur J Ophthalmol*. 2022; 32(3): 1547-54. Article. IF: 1.7; Q1
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- Celli D, Lenderking WR, Chongpinitchai P, Bushmakov AG, Dina O, Wang L, Cappelleri JC, Navarro-Compán V. Functional assessment of chronic illness therapy-fatigue is a reliable and valid measure in patients with active ankylosing spondylitis. *J Patient Rep Outcomes*. 2022; 6(1): 100. Article. IF: 2.7; Q2
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- Cordero OJ, Vieitez I, Altabas I, Nuño-Nuno L, Villalba A, Novella-Navarro M, Peiteado D, Miranda-Caruso ME, Balsa A, Varela-Calvino R, Gómez-Touriño I, Pego-Reigosa JM. Study of plasma anti-CD26 autoantibody levels in a cohort of treatment-naïve early arthritis patients. *Arch Immunol Ther Ex*. 2022; 70(1): 12. Article. IF: 3.2; Q3
- Fernández-Fernández E, Monjo I, Peiteado D, Balsa A, de Miguel E. Validity of the EULAR recommendations on the use of ultrasound in the diagnosis of giant cell arteritis. *RMD Open*. 2022; 8(1): e002120. Article. IF: 6.2; Q1
- Garrido-Cumbre M, Collantes-Estevez E, Navarro-Compán V, Zarco-Montejo P, Sastre C, Correa-Fernández J, Sanz-Gómez S, Plazuelo-Ramos P, Gratacos J. Understanding the disease burden of unemployed patients with axial spondyloarthritis: results from the spanish atlas 2017. *J Rheumatol*. 2022; 49(4): 373-9. Article. IF: 3.9; Q2
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- Garrido-Cumbre M, Marzo-Ortega H, Christen L, Correa-Fernández V, Sanz-Gómez S, Navarro-Compán V. Exploring the role of rheumatic and musculoskeletal disease patient organisations during the COVID-19 pandemic: results from the REUMAVID study (phase 1). *Clin Exp Rheumatol*. 2022; 40(5): 1062-3. Letter. IF: 3.7; Q3
- Gil-Guillén VF, Balsa A, Bernardez B, Llorca CVY, Márquez-Contreras E, de la Haba-Rodríguez J, Castellano JM, Gómez-Martínez J. Medication non-adherence in rheumatology, oncology and cardiology: a review of the literature of risk factors and potential interventions. *Int J Environ Res Public Health*. 2022; 19(19): 12036. Review. IF: 2.468; Q2
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- Hernández-Breijo B, Parodis I, Novella-Navarro M, Martínez-Feito A, Navarro-Compán V, Díaz-Almirón M, Pascual-Salcedo D, Balsa A, Plasencia-Rodríguez C. Low serum BAFF concentration is associated with response to TNF inhibitors in seropositive patients with rheumatoid arthritis. *J Clin Med*. 2022; 11(17): 5207. Article. IF: 3.9; Q2
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- Marzo-Ortega H, Navarro-Compán V, Akar S, Kiltz U, Clark Z, Nikiphorou E. The impact of gender and sex on diagnosis, treatment outcomes and health-related quality of life in patients with axial spondyloarthritis. *Clin Rheumatol*. 2022; 41(11): 3573-81. Article. IF: 3.4; Q3



3 Information Groups by Area

3.3 Infectious Diseases and Immunity Area

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- Novella-Navarro M, Balsa A. Difficult-to-treat rheumatoid arthritis in older adults: Implications of ageing for managing patients. *Drug Aging.* 2022; 39(11): 841-9. Article. IF: 2.8; Q3
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- Salaet MA, López-Medina C, Moreno M, Navarro-Compán V, Fontova JC, Llop M, Dougados M, Gratacos J. Association between HLA-B27 and peripheral spondyloarthritis phenotype: results from the ASAS perSpA study. *Rmd Open.* 2022; 8(2): e002696. Article. IF: 6.2; Q1
- Tornero C, Navarro-Compán V, Buño A, Heath KE, Díaz-Almiron M, Balsa A, Tenorio JA, Quer J, Aguado P. Biochemical algorithm to identify individuals with ALPL variants among subjects with persistent hypophosphatasemia. *Orphanet J Rare Dis.* 2022; 17(1): 98. Article. IF: 3.7; Q2

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• Salaet MA, López-Medina C, Moreno M, Navarro-Compán V, Fontova JC, Llop M, Dougados M, Gratacos J. Association between HLA-B27 and peripheral spondyloarthritis phenotype: results from the ASAS perSpA study. *Rmd Open.* 2022; 8(2): e002696. Article. IF: 6.2; Q1

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● Research projects

Aguado Acín P. Caracterización e historia natural de la hipofosfatasa en pacientes adultos con confirmación genética frente a pacientes con fosfatasa alcalina baja y test genético negativo. Hipofosfatasa del adulto. Alexion Pharmaceutical Inc. 2017-On-going.

Management centre: FIBHULP



3 Information Groups by Area



3.3 Infectious Diseases and Immunity Area

1 Introduction

2 Executive Summary

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4 Associated Clinicians

Balsa Criado A. Actualización y renovación de la actividad investigadora en el servicio de Reumatología del Hospital Universitario La Paz. Roche Farma S.A. 2016-Ongoing.

Management centre: FIBHULP

Balsa Criado A. Desarrollo de biochips para monitorización de infliximab y la presencia de anticuerpos frente a infliximab en sangre. IMG Pharma Biotech. 2017-Ongoing.

Management centre: FIBHULP

Balsa Criado A. Hacia la telemonitorización en enfermedades inflamatorias inmunomediatas: implementación de un modelo asistencial mixto (MAM) en una Unidad de Terapias Complejas (PI22/00777). ISCI. 2022-Ongoing.

Management centre: FIBHULP

Balsa Criado A. Mejora de herramientas y procedimientos para facilitar la consulta virtual en pacientes con enfermedad inflamatoria. Abbvie Spain S.L.U. 2021-Ongoing.

Management centre: FIBHULP

Balsa Criado A. Puerta digital a la unidad de terapias complejas de reumatología. Abbvie Spain S.L.U. 2022-Ongoing.

Management centre: FIBHULP

de Miguel Mendieta E. Análisis de imágenes ecográficas para el diagnóstico de arteritis de células gigantes mediante técnicas de deep learning. Roche Farma S.A. 2021-Ongoing.

Management centre: FIBHULP

de Miguel Mendieta E. Factores de riesgo de progresión radiográfica en columna de pacientes con espondilitis anquilosante. Influencia de los tratamientos actuales (PI17/01840). ISCI. 2018-2022.

Management centre: FIBHULP

Martínez Feito A. Relevancia de la presencia y título de autoanticuerpos (factor reumatoi-

de y antípéptido citrulinado cíclico) en los niveles de fármacos anti-TNF en pacientes con artritis reumatoide. UCB Pharma Sa. 2021-Ongoing.

Management centre: FIBHULP

Miranda Carús ME. Células T helper folículares (Tfh), T folículares reguladoras (Tfr) y T helper periféricas (Tph) en Artritis Reumatoide preclínica, temprana y establecida: herramientas para la medicina personalizada (PI20/00141). ISCI. 2021-2023.

Management centre: FIBHULP

Miranda Carús ME. Efecto del metotrexato en la frecuencia y función de las células T helper folículares; implicaciones patogénicas y pronósticas. Laboratorios Gebro Pharma S.A. 2020-Ongoing.

Management centre: FIBHULP

Miranda Carús ME. Frecuencia y función de las células T helper folículares circulantes y plasmablastos en pacientes con artritis reumatoide, y su relación con los niveles de autoanticuerpos: modificaciones asociadas con el bloqueo de la coestimulación por Abatacept. Bristol Myers Squibb S.A.U. 2016-Ongoing.

Management centre: FIBHULP

Navarro Compañón MV. Resonancia magnética de sacroilíacas y desarrollo de un cuestionario para identificar espondiloartritis axial precoz en pacientes con dolor lumbar crónico remitidos a otros especialistas distintos al reumatólogo. Novartis Farmacéutica S.A. 2021-Ongoing.

Management centre: FIBHULP

Navarro Compañón MV. Towards a definition of early axial and peripheral spondyloarthritis. Assessment In Spondyloarthritis International Society. 2021-2023.

Management centre: FIBHULP

Pascual-Salcedo Pascual MD, Herranz Pinto

P. Identificación precoz de buenos respondedores primarios a las terapias biológicas en la psoriasis moderada a grave. Laboratorios Leo Pharma S.A. 2014-Ongoing.

Management centre: FIBHULP

Cibers and Retics

Miranda Carús ME. Investigational Network in Inflammation and Rheumatic Diseases (RIER). ISCI. (31/12/2022). FIBHULP

Clinical trials

Balsa Criado A. Estudio abierto y multicéntrico para pacientes que hayan completado un estudio previo con secukinumab patrocinado por novartis y que, a criterio del investigador, se estén beneficiando del tratamiento continuado con secukinumab.

Type: Clinical Trials, phase III. Appendix 1 5710.

Sponsored by: Novartis Farmacéutica, S.A.
Signed date: 13/01/2022

Plasencia Rodríguez C. Registro español de acontecimientos adversos de terapias biológicas y biosimilares en enfermedades reumáticas.

Type: EPA-AS. PI-5147 FER-ADA-2015-01.

Sponsored by: Fundación Española de Reumatología.

Signed date: 23/02/2022

Peiteado López MD. Estudio de la evolución y factores asociados a la calidad de vida relacionada con la visión y con la salud en sujetos con uveítis no infecciosa: un análisis longitudinal.

Type: No EPA. PI-4622 PI20/01221.

Sponsored by: Fundación Para la Investigación Biomédica del Hospital Clínico San Carlos.

Signed date: 14/03/2022

Balsa Criado A. Estudio en fase II/III aleatorizado, con enmascaramiento doble, comparativo con placebo y con grupos paralelos para evaluar la eficacia, la seguridad, la tolerabilidad, la farmacodinámica, la farmacocinética y la inmunogenicidad del efgartigimod ph20 sc en participantes adultos con miopatía inflamatoria idiopática activa.

Type: Clinical Trials, phase II. 2022.011.

Sponsored by: Argenx Bv (Argenx Bvba).

Signed date: 05/10/2022

Balsa Criado A. Estudio de fase III, aleatorizado, doble ciego, controlado con placebo para demostrar la eficacia y la seguridad de tildrakizumab en sujetos con artritis psoriásica activa II que no habían recibido tratamiento previo con anti-tnf (inspire 2).

Type: Clinical Trials, phase III. 5767.

Sponsored by: Sun Pharmaceutical Industries, Ltd.

Signed date: 22/03/2022

Balsa Criado A. Ensayo aleatorizado, doble ciego, controlado con placebo, de dosis repetidas y multicéntrico, para evaluar la eficacia, seguridad, tolerabilidad y farmacocinética de hzn-825 en pacientes con esclerosis sistémica cutánea difusa.

Type: Clinical Trials, phase IIb. 5886.

Sponsored by: Horizon Therapeutics Ireland Dac.

Signed date: 12/05/2022

Balsa Criado A. Estudio prospectivo aleatorizado, multicéntrico, para comparar la eficacia a 52 semanas (1 año) de teriparatida biosimilar y alendronato en la prevención de nuevas fracturas vertebrales morfométricas y/o agravamiento de fracturas vertebrales previas en mu.

Type: Clinical Trials, phase IV. 5914.



3 Information Groups by Area

3.3 Infectious Diseases and Immunity Area

Sponsored by: Gedeon Richter Iberica

S.A.U.

Signed date: 20/07/2022

Balsa Criado A. Ensayo clínico aleatorizado, multicéntrico, doble ciego para evaluar la eficacia y seguridad de montelukast en pacientes con artrosis erosiva/inflamatoria de manos.

Type: Clinical Trials, phase III. 5993.

Sponsored by: Farmalider Sa.

Signed date: 30/05/2022

Balsa Criado A. Estudio fase 3, aleatorizado, doble ciego y controlado con placebo para evaluar la eficacia y la seguridad del deucravacitinib en pacientes con artritis psoriásica activa naïve a medicamentos biológicos antirreumáticos modificadores de la enfermedad".

Type: Clinical Trials, phase III. 2022.454.

Sponsored by: Bristol-Myers Squibb International Corporation (Bmsic).

Signed date: 09/09/2022

Balsa Criado A. Estudio de fase 4, multicéntrico, abierto, de un solo grupo para evaluar el efecto de apremilast (cc-10004) sobre los resultados de la rm en pacientes con artritis psoriásica.

Type: Clinical Trials, phase IV. 2022.483.

Sponsored by: Celgene International li -Sarl. Signed date: 29/08/2022

Balsa Criado A. programa de fase 3 aleatorizado, controlado con placebo y doble ciego para evaluar la eficacia y la seguridad de upadacitinib en pacientes adultos con espondiloartritis axial.

Type: Clinical Trials, phase III. 2022.528.

Sponsored by: Abbvie Deutschland Gmbh & Co. Kg.

Signed date: 27/09/2022

Balsa Criado A. Estudio multicéntrico, aleatorizado, doble ciego, controlado con placebo y de 5 años de duración que evalúa la eficacia, seguridad y tolerabilidad de distintas pautas posológicas de Ina043 por vía intraarticular frente a placebo en pacientes con osteoartritis de rodilla sintomática (onwards).

Type: Clinical Trials, phase II. 2022.563.

Sponsored by: Novartis Farmaceutica, S.A.

Signed date: 20/09/2022

Bonilla Hernán MG. Registro multicéntrico de vasculitis asociadas a anca (granulo-

matosis con poliangeítis, granulomatosis eosinofílica con poliangeítis y poliangeítis microscópica).

Type: EOM no prospectivo. 2022.590.

Sponsored by: Fundacion Española de Reumatología.

Signed date: 11/11/2022

Aguado Acín P. Registro observacional, longitudinal, prospectivo, a largo plazo de pacientes con hipofosfatemia.

Type: No EPA. 2022.631.

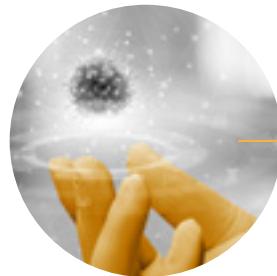
Sponsored by: Alexion Pharmaceutical Inc.

Signed date: 17/02/2022

Fernández Luna JL, Martínez Taboada VM, López Hoyos M, Torices del Val S, Muñoz Cacho P, Varela Egocheaga I, Juliá Cano A, Marsal Barril S, Balsa Criado A, inventors; FIBHULP, Fundación Instituto de Investigación Marqués de Valdecilla, Servicio Cántabro de Salud, Universidad de Cantabria, Fundació Hospital Universitari Vall D'Hebron - Institut de Recerca (VHIR), assignees. Method for predicting the clinical response to anti-inflammatory agent therapies. P201600636, PCT/ES2017/000089; 2016 July 26.

Plasencia C. Trademark name: MAM Modelo Asistencial Mixto; CM 18637540; 2022 January 13.





3.3.4

Innate Immune Response Group

Publications: 34

Q1: 29

COMPOSITION

Eduardo López-Collazo. Investigador Senior (Contrato Miguel Servet - I2). Jefe de Laboratorio. FIBHULP

Susana Alemany de la Peña. Investigadora Senior. Jefe de Laboratorio. IIb "Alberto Sols"

Gloria Cristina Bonel Pérez. Ayudante de investigación. FIBHULP

Lisardo Bosca Gomar. Investigador Senior. Jefe de Laboratorio. IIb "Alberto Sols"

José Carlos Casalvilla Dueñas. Técnico de Apoyo. FIBHULP

Antonio Castrillo Viguera. Investigador Senior. Jefe de Laboratorio. IIb "Alberto Sols"

Luna Ridan Cordeiro Minute. Investigadora Sara Borrer. FIBHULP

Laura Córdoba García. Responsable HUB - Organoides. FIBHULP

Jesús Espada Regalado. Investigador Senior. Instituto Ramón y Cajal de Investigación Sanitaria

Carlos del Fresno Sánchez. Contrato Miguel Servet - Tipo I. FIBHULP

Santiago Gómez Ruiz. Profesor Titular. Universidad Rey

Juan Carlos

Maria Susana Guerra García. Investigadora Senior. Universidad Autónoma de Madrid

Kilian Jesús Gutiérrez Viñas. Responsable de laboratorio de Citometría de Flujo. FIBHULP

Roberto Lozano Rodríguez. Investigador Predoctoral. FIBHULP

Cristina de Manuel Gómez. Facultativo Especialista de Área en Pediatría. Hospital Universitario La Paz

Charbel Antonio Maroun Eid. Facultativo Especialista de Área en Urgencias. Hospital del Norte

Paloma Martín Sanz. Investigadora Senior. Jefe de Laboratorio . IIb "Alberto Sols"

Pablo Mata Martínez. Investigador Predoctoral. FIBHULP

Karla Marina Montalbán Hernández. Investigadora Predoctoral. FIBHULP

Alejandro Pascual Iglesias. Bioinformático. FIBHULP

Rebeca Pérez de Diego. Investigadora Senior (Contrato Ramón y Cajal). FIBHULP

Sanjiv Prashar. Profesor Titular. Universidad Rey Juan Carlos

Elisa Pulido Lucas. Técnico de laboratorio. Hospital Universitario La Paz



Carolina Rubio Marín. Bioinformática. FIBHULP

Verónica Terrón Arcos. Técnico de Laboratorio. FIBHULP

Jaime Valentín Quiroga. Investigador Predoctoral. FIBHULP

STRATEGIC OBJECTIVE

This group focuses on the study of the reprogramming of the immune response in the context of inflammatory diseases (e.g., sepsis, cystic fibrosis, lung and colon cancer) using the description of the various molecular mechanisms that underlie the reprogramming of monocytes/macrophages during refractory states.



3 Information Groups by Area



3.3 Infectious Diseases and Immunity Area

RESEARCH LINES

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4 Associated Clinicians

RESEARCH ACTIVITY

● Doctoral theses

Albert Sola M. Role of the interferon-stimulated gene 15 (ISG15) as a regulator of macrophage metabolism after Vaccinia virus infection [dissertation]. Madrid: UAM; 2022 (07/10/2022).

Director: Guerra García MS.

Fernández García BV. NOD1 as a key modulator of immunometabolic processes, thyroid hormones, extramedullary hematopoiesis, atherogenesis, NETs and iron homeostasis [dissertation]. Madrid: UAM; 2022 (19/12/2022).

Directors: Bosca Gomar L,
González Ramos S.

Íñigo Jaén R. Therapeutic role of lipoxins in cardiovascular disease: Mechanisms of lipoxin-mediated cardioprotection in myocarditis and dilated cardiomyopathy [dissertation]. Madrid: UAM; 2022 (22/04/2022).

Directors: Bosca Gomar L,
Prieto P.

Montalbán Hernández KM. Colon cancer: an immunological approach[dissertation]. Madrid: UAM; 2022 (30/09/2022).

Directors: López Collazo E.


Povo Retana A. Functional and immunometabolic effects of trabectedin and lurbinect-

tedin antitumoral molecules in human macrophages [dissertation]. Madrid: UAM; 2022 (18/11/2022).

Directors: Bosca Gomar L,
Mojena Sánchez M.

Rodríguez Muñoz D. Efectos de las hormonas tiroideas en la tolerancia a la malaria cerebral [dissertation]. Madrid: UAM; 2022 (21/10/2022).

Directors: Alemany de la Peña S,
Aranda Iriarte A.

● Publications

- Alfaro E, Díaz-García E, García-Tovar S, Zamarón E, Mangas A, Galera R, López-Collazo E, García-Rio F, Cubillos-Zapata C. Upregulated proteasome subunits in covid-19 patients: a link with hypoxemia, lymphopenia and inflammation. *Biomolecules*. 2022; 12(3): 442. Article. IF: 5,5; Q1
- Alfaro E, Díaz-García E, García-Tovar S, Zamarón E, Mangas A, Galera R, Nanwani-Nanwani K, Pérez-de-Diego R, López-Collazo E, García-Rio F, Cubillos-Zapata C. Impaired Kallikrein-Kinin system in COVID-19 patients' severity. *Front Immunol*. 2022; 13: 909342. Article. IF: 7,3; Q1
- Alvarez MS, Núñez E, Fuertes-Agudo M, Cucarella C, Fernández-Velasco M, Bosca L, Vázquez J, Rossignol R, Martín-Sanz P, Casado M. Quantitative proteomics analysis reveals that cyclooxygenase-2 modulates mitochondrial respiratory chain complex iv in cardiomyocytes. *Int J Mol Sci*. 2022; 23(21): 13476. Article. IF: 5,6; Q1
- Amich I, Anguita E, Escribano-Serrat S, Alvarez C, Rodríguez-Muñoz D, García V, Bello R, Peña-Pedrosa JA, Martínez-Micaelo N, Amigo N, Ortiz P, Torrejón MJ, Bosca L, Martín-Sánchez J, Aranda A, Alemany S. Free triiodothyronine levels and age influences the metabolic profile and COVID-19 severity parameters in euthyroid and levothyroxine-treated patients. *Front Endocrinol (Lausanne)*. 2022; 13: 1025032. Article. IF: 5,2; Q1
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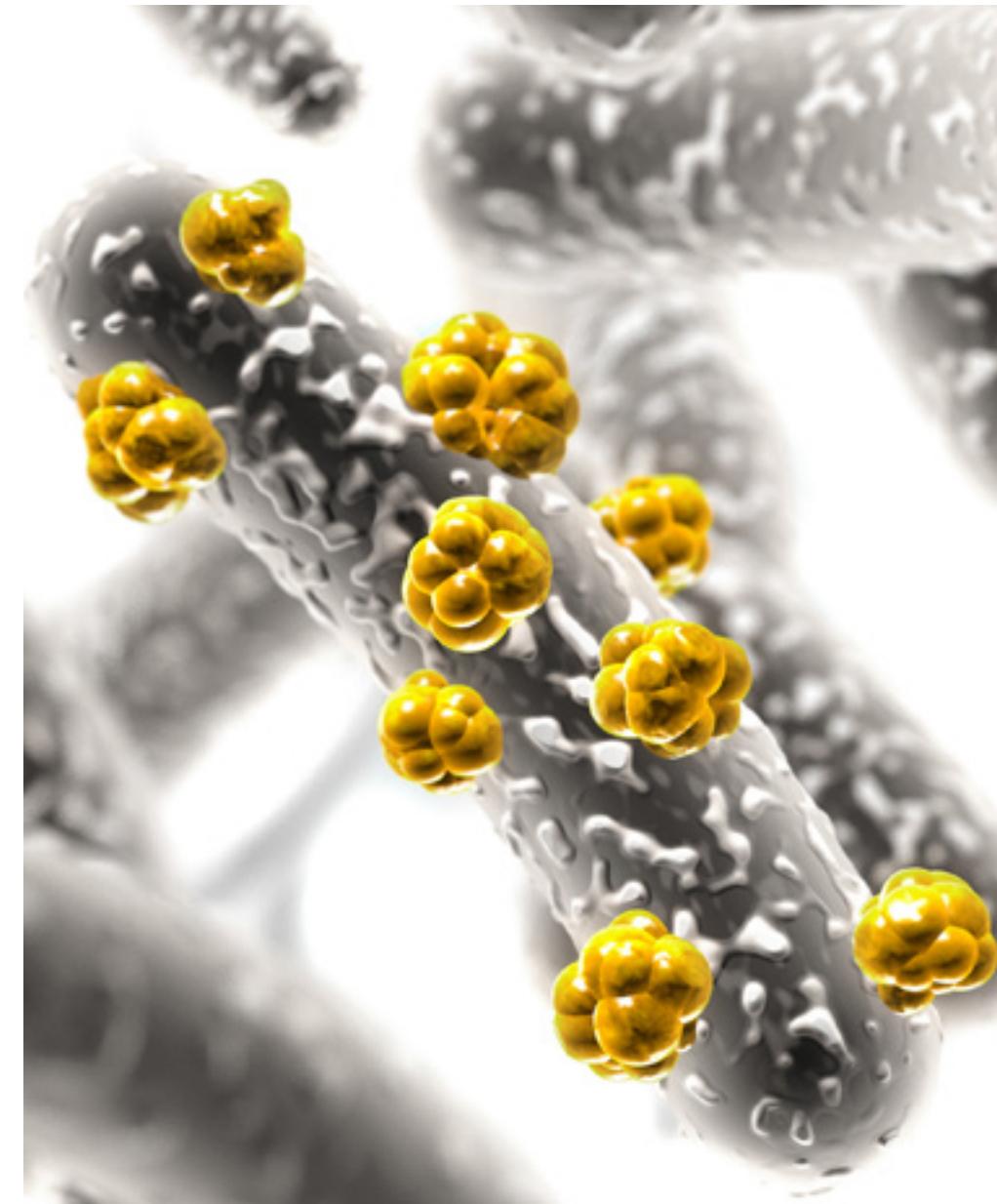


3 Information Groups by Area

3.3 Infectious Diseases and Immunity Area

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3.3 Infectious Diseases and Immunity Area

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● Research projects

López Collazo E. Contrato Miguel Servet Categoría A (CES08/002). CM. 2009-2025.

Management centre: FIBHULP

López Collazo E. Los immune-checkpoints en la sepsis: un abordaje para el diagnóstico y la terapia (PI18/00148). ISCIII. 2019-2021.

Management centre: FIBHULP

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Management centre: FIBHULP

Pérez de Diego R. Medicina de precisión en inmunodeficiencias primarias: desde la identificación y caracterización de nuevas etiologías genéticas hasta la edición génica (PI17/00543). ISCIII. 2018-2022.

Management centre: FIBHULP

López Collazo E. Caracterización de la inmunidad innata en niños nacidos de madres portadoras de VIH. Fundación Familia Alonso. 2019-Ongoing.

Management centre: FIBHULP

López Collazo E. Contribución de las células hibridas tumorales a la metástasis del cáncer de pulmón: estudio exhaustivo en modelos animales y pacientes con metástasis avanzada. FIBHULP. 2018-Ongoing.

Management centre: FIBHULP

López Collazo E. Detection of pro-metastatic hybrids in primary tumour, peripheral blood and metastasis from patients with cancer: a strategy for its deactivation. Siemens Gamesa Renewable Energy S. A. 2020-Ongoing.

Management centre: FIBHULP

López Collazo E. Estudio del sistema inmune infiltrado en el cáncer de pulmón y búsqueda de marcadores pronósticos en células circulantes de pacientes que sufren esta enfermedad. Immunostep S.L. 2014-Ongoing.

Management centre: FIBHULP

Management centre: FIBHULP

López Collazo E. Fallo en trasplante renal infantil: un abordaje inmunológico para los efectos secundarios y el rechazo. Fundación Familia Alonso. 2020-Ongoing.

Management centre: FIBHULP

López Collazo E. Inmune checkpoint en pacientes con COVID-19: una propuesta para la estratificación y la terapia dirigida al huésped. Jesús Encinar Rodríguez. 2020-Ongoing.

Management centre: FIBHULP

López Collazo E. La metástasis tumoral infantil: una propuesta para eliminarla. Fundación Familia Alonso. 2018-Ongoing.

Management centre: FIBHULP

López Collazo E. Transplantation (SOT & HSCT) in children transchild. Comunidad de Madrid. 2016-Ongoing.

Management centre: FIBHULP

López Collazo E. El desarrollo de biomodelos partiendo de animales genéticamente transformados, biopsias, piezas de cirugía, células madres y vesículas extracelulares contribuirá al estudio e implantación de nuevas terapias y de una medicina personalizada. FIBHULP. 2020-Ongoing.

Management centre: FIBHULP

López Collazo E. Análisis de muestras del proyecto ensayo clínico para la realización de la investigación clínica sobre una nueva técnica diagnóstica basada en PCR a tiempo real, para determinar la predisposición a infecciones en pacientes con infarto de miocardio, necesario para su aprobación regulatoria. Crazy Science & Business Sl. 2021-Ongoing.

Management centre: FIBHULP

del Fresno Sánchez C. Prueba en concepto para nuevas inmunoterapias contra el cáncer dirigidas a la memoria inmunitaria innata.



3 Information Groups by Area



3.3 Infectious Diseases and Immunity Area

Fundación Científica de la Asociación Española Contra el Cáncer. 2022-Ongoing.

Management centre: FIBHULP

del Fresno Sánchez C. Cancer immunotherapy through mucosae based on innate immune memory. FIBHULP. 2022-Ongoing.

Management centre: FIBHULP

del Fresno Sánchez C. Identifying the effector mechanisms of the antineoplastic ca10-based vaccine and its potential clinical application/niveles de ca10 como parámetro pronóstico y de evolución en cáncer colorrectal y su correlación con el sistema inmunitario circulante. Inmunotek. 2021-Ongoing.

Management centre: FIBHULP

López Collazo E. Estudio de la interacción entre células troncales de cáncer colorrectal y el sistema inmune innato. Study of the interaction between colorectal cancer stem cells and the innate immune system. FIBHULP. 2022-Ongoing.

Management centre: FIBHULP

López Collazo E. El estudio de los agentes

patógenos que provocan las enfermedades infecciosas, así como la interacción del sistema inmunológico con ellos establecerá marcadores de tempranos de evolución y potenciales dianas farmacéuticas, así como repercutirá en la modernización y agilización de la toma de decisiones terapéuticas. FIBHULP. 2020-Ongoing.

Management centre: FIBHULP

López Collazo E. La metástasis del cáncer de ovario en la niñez y la adolescencia: un abordaje inmunológico para su erradicación. Fundación Familia Alonso. 2020-Ongoing.

Management centre: FIBHULP

Pérez de Diego R. Identificación de nuevos errores innatos de la inmunidad hacia el diagnóstico de precisión y prevención de enfermedades inmunológicas. FIBHULP. 2022-Ongoing.

Management centre: FIBHULP

Pérez de Diego R. Medicina de precisión en inmunodeficiencias primarias: desentrañando nuevas etiologías genéticas mediante aproximaciones ómicas. Opesa Centro de

Formación. 2022-Ongoing.

Management centre: FIBHULP

del Fresno Sánchez C. Development of a new treatment against colorectal cancer based on the combination of trained immunity and immune checkpoint inhibitors (CP20/00106). ISCIII. 2021-2023.

Management centre: FIBHULP

López Collazo E. Sepsis: un estudio longitudinal exhaustivo de la respuesta inmune para la estratificación de los pacientes y una medicina personalizada (PI21/00869). ISCIII. 2022-2024.

Management centre: FIBHULP

del Fresno Sánchez C. Biopsia Poli-Funcional Inmunitaria líquida (PoliFIL): una nueva plataforma para predecir y mejorar respuestas a inmunoterapia del cáncer usando moduladores inmunes innatos (PI21/01178). ISCIII. 2022-2024.

Management centre: FIBHULP

López Collazo E. UCIPredict. UE. 2022-2026.

Management centre: CIEMAT

Cibers and Retics

López Collazo EM. Plataforma de caracterización celular de alta dimensionalidad. (Cell-DA). ISCIII. (31/12/2024). FIBHULP.

Patents and trademarks

Llamas Matías MA, López-Collazo E, inventors; FIBHULP, Llamas Matías MA, Empireo S.L., assignees. Method for determine the risk of developing an infectious disease. P201330768, PCT/ES2014/070434, EP3006570; 2013 May 27.

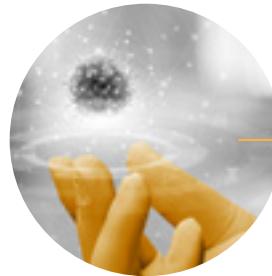
Vela Cuenca M, González Navarro P, Valentín Quiroga J, Escudero López A, Pérez Martínez A, Fernández Casanova L, inventors; FIBHULP, CNIO, assignees. Anti-CXCR4 antibody combined with activated and expanded natural killer cells for cancer immunotherapy. 62/642,313 US Provisional Application; 2018 March 13.



3 Information Groups by Area



3.3 Infectious Diseases and Immunity Area



3.3.5

Diagnosis and Treatment of Diseases Associated with Abnormalities of the Complement System Group

Publications: 8
Q1: 6

COMPOSITION

Margarita López Trascasa. Investigadora "Ad honorem". Profesora de la Facultad de Medicina. IdiPAZ. Universidad Autónoma de Madrid

Pilar Sánchez Corral Gómez. Investigadora Senior (Contrato Miguel Servet - I2). Jefe de Laboratorio. Hospital Universitario La Paz

Fernando Corvillo Rodríguez. Investigador postdoctoral. FIBHULP

Alberto López Lera. Investigador Postdoctoral. CIBERER

Laura Espinosa Román. Jefa de Servicio Nefrología Pediátrica. Hospital Universitario La Paz

Laura González Sánchez. Investigadora postdoctoral. FIBHULP

Marta Melgosa Hijosa. Facultativo Especialista de Área en Nefrología Infantil. Hospital Universitario La Paz

Pilar Nozal Aranda. Facultativo Especialista de Área en Inmunología. Investigadora Postdoctoral. Hospital Universitario La Paz



STRATEGIC OBJECTIVE

This is a national reference group for the study of primary or acquired defects in the complement system.

The main aim is to gain an understanding of the molecular mechanisms underlying in complement deficiency or dysregulation in several human diseases, the majority of which are classified as rare diseases.

In this context, the group implements and applies various methodological strategies (immunological, biochemical, proteomic and genetic) to detect clinically relevant deficiencies or functional defects in complement components. By following a clearly translational approach,

the group also develops new diagnostic tests which are implemented in the clinical practice, especially for treatment adjustment and patient follow-up.

The research lines could be classified as:

screening and characterization of genetic or acquired complement defects that cause renal pathology (I), functional and molecular diagnosis of deficiencies affecting individual components of the complement system (II), diagnosis and molecular studies in Hereditary Angioedema and screening for disease modifying genes (III), study of pathogenic mechanisms in acquired lipodystrophies (IV).



3 Information Groups by Area



3.3 Infectious Diseases and Immunity Area

RESEARCH LINES

- Screening and characterization of genetic and acquired Complement defects in renal disease.
- Biochemical and molecular diagnosis of isolated Complement deficiencies.
- Characterization of autoantibodies in acquired generalized lipodystrophy.

- Screening and molecular characterization of disease modifying genes in Hereditary Angioedema.
- Genetic and immunological mechanisms associated with Complement dysregulation in partial lipodystrophy.

RESEARCH ACTIVITY

● Doctoral theses

Gómez Delgado I. Contribución del FH y las proteínas FHRs del Complemento en la predisposición y evolución del Síndrome Hemolítico-Urémico Atípico y la Nefropatía por IgA [dissertation]. Madrid: Universidad Autónoma de Madrid; 2022 (14/07/2022).

Director: Sánchez-Corral Gómez P.
European Mention 

● Publications

- Caravaca-Fontán F, Díaz-Encarnación M, Cabello V, Ariceta G, Quintana LF, Marco H, Barros X, Ramos N, Rodríguez-Mendiola N, Cruz S, Fernández-Juárez G, Rodríguez A, de José AP, Rabasco C, Rodado R, Fernández L, Gómez VP, Ávila A, Bravo L, Espinosa N, Allende N, de la Nieta MDS, Rodríguez E, Olea T, Melgosa M, Huerta A, Miquel R, Mon C, Fraga G, de Lorenzo A, Draibe J, Cano-Megías M, González F, Shabaka A, López-Rubio ME, Fenollosa MA, Martín-Penagos L, Da Silva I, Titos JA, de Córdoba SR, de Jorge EG, Praga M. Development and validation of a nomogram to predict kidney survival at baseline in patients with C3 glomerulopathy. *Clin Kidney J.* 2022; 15(9): 1737-46. Article. IF: 4.6; Q1
- Delgado IG, Sánchez-Corral P. Contribution of functional and quantitative genetic variants of Complement Factor H and Factor H-Related (FHR) proteins on renal pathology. *Nefrología.* 2022; 42(3): 280-9. Review. IF: 2.6; Q3
- Drouet C, López-Lera A, Ghannam A, López-Trascasa M, Cichon S, Ponard D, Parsopoulos F, Grombokirova H, Freiberger T, Rijavec M, Veronez CL, Pesquero JB, Germenis AE. SERPING1 variants and C1-INH biological function: A close relationship with C1-INH-HAE. *Front Allergy.* 2022; 3: 835503. Review. Not Indexed
- Espinosa LG, Santovenia AZ, Blanco JN, Alvariño MG, Feito JB, Hijosa MM. Spontaneous remission in a child with an NPHS1-based congenital nephrotic syndrome. *Clin Kidney J.* 2022; 15(10): 1969-70. Letter. IF: 4.6; Q1
- Fernández-Fournier M, Lacruz L, Nozal P, Chico JL, Barranco AT, Otero-Ortega L, Corral I, Carrasco A. The study of neural antibodies in neurology: A practical summary. *Front Immunol.* 2022; 13: 1043723. Review. IF: 7.3; Q1
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cellular immune responses to Pfizer-BioNTech BNT162b2 SARS-CoV-2 vaccine in adolescents with liver transplantation: Single center experience. *Front Immunol.* 2022; 13: 1049188. Article. IF: 7.3; Q1

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Management centre: FIBHULP

Sánchez-Corral Gómez P. Caracterización funcional de la deglicosilación y proteólisis del FH del Complemento y relevancia en la patología del Síndrome Hemolítico-Urémico Atípico. Fundación SENEFRO. 2022-On-going.

Management centre: FIBHULP

● Research projects

Nozal Aranda P, Corvillo Rodríguez F. Deteción y caracterización de autoanticuerpos en pacientes con lipodistrofia generalizada adquirida (síndrome de Lawrence). Asociación de Familiares y Afectados de Lipodistrofia (AELIP). 2019-2022.

Management centre: CIBERER

Sánchez-Corral Gómez P. Contrato Miguel Servet Categoría A (CES07/030). CM. 2008-2025.

Management centre: FIBHULP

Sánchez-Corral Gómez P. El sistema del complemento en salud y enfermedad (Complemento II-CM) (S2017/BMD-3673). CM. 2018-2021.

Management centre: FIBHULP

Sánchez-Corral Gómez P. Perfiles cuantitativos de las proteínas FH/FHRs del complemento como biomarcadores de predisposición y pronóstico en el síndrome hemolítico-urémico primario y secundario (PI19/00970). ISCIII. 2020-2022.

Management centre: FIBHULP

López Trascasa M. Estudio de las bases mo-



López Trascasa M, authors; FIBHULP, assignee. Brand name: COMPLEMENTest; CM 009.658.791; 2011, January 14.

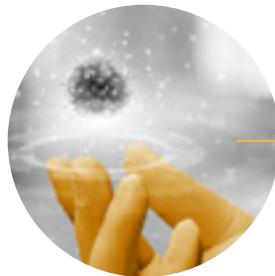


3 Information Groups by Area



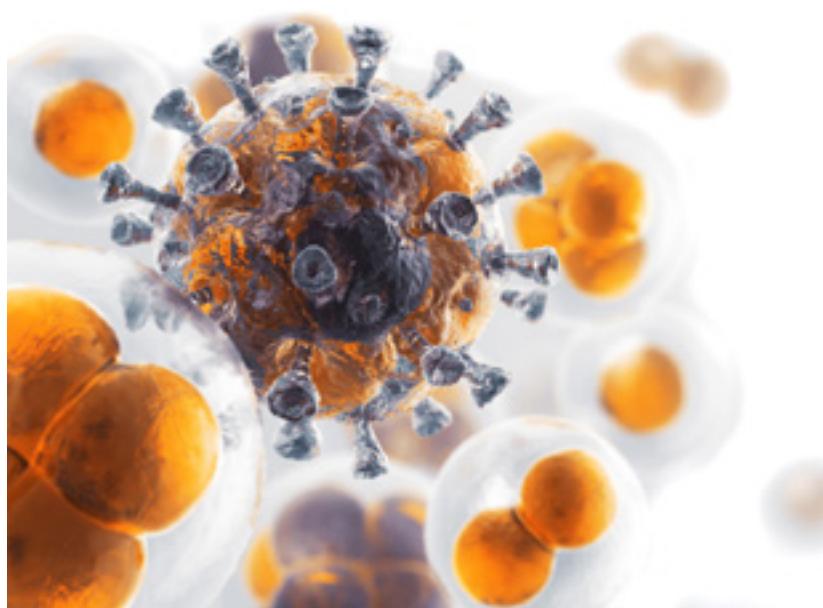
3.3 Infectious Diseases and Immunity Area

3.3.6 Lymphocyte Pathophysiology in Immunodeficiencies Group



Publications: 12

Q1: 8



STRATEGIC OBJECTIVE

Our group attempts to unravel the molecular bases of primary immunodeficiencies (PIDs), a large group of rare conditions (more than 400 types described so far) that virtually affect any cell type of the immune system and increase the risk of infections, autoimmunity and cancer in patients. We take a multidisciplinary clinical, anatomic, genetic, epigenetic and functional approach. By correlating clinical and experimental data, we aim to achieve a better understanding of these rare diseases and lay the grounds for, repurposed or new, more effective treatments.

COMPOSITION

Eduardo López Granados. Coordinador de Inmunología. Hospital Universitario La Paz

María Bravo García-Morato. Facultativo Especialista de Área en Inmunología. Hospital Universitario La Paz

Carmen Cámará Hijón. Facultativo Especialista de Área en Inmunología. Hospital Universitario La Paz

Ricardo Cuesta Martín de la Cámara. Biólogo Interno Residente en la especialidad de Inmunología. Hospital Universitario La Paz

Andrea González Torbay. Médico Interno Residente en Inmunología. Hospital Universitario La Paz

Carla Cecilia Gianelli. Facultativo Especialista de Área en Inmunología. Hospital Universitario La Paz

Diego Plaza López de Sabado. Facultativo Especialista de Área en Hemato-Oncología Pediátrica. Hospital Universitario La Paz

Keren Reche Yebra. Técnico de Laboratorio. FIBHULP

Ángel Julián Robles Marhuenda. Facultativo Especialista de Área en Medicina Interna. Hospital Universitario La Paz

Rebeca Rodríguez Pena. Facultativo Especialista de Área en Inmunología. Hospital Universitario La Paz

María Carmen Salcedo Moreno. Técnico de Laboratorio. Hospital Universitario La Paz

Elena Sánchez Zapardiel. Facultativo Especialista de Área en Inmunología. Hospital Universitario La Paz

Ana Sastre Urguelles. Facultativo Especialista de Área en Hemato-Oncología Pediátrica. Hospital Universitario La Paz

Juan Manuel Torres Canizales. Médico Inmunólogo. Hospital Universitario La Paz

Yolanda Soto Serrano. Investigadora Predoctoral. Hospital Universitario La Paz

Taking advantage of the knowledge and resources developed to dissect the immune system in PIDs, we are developing new schemes for immune monitoring of transplanted patients, to better estimate immunosupresion and tolerance, and early detection of severe complications as infections and rejection.

Finally, we explore novel approaches for monitoring, and fine tuning of immunotherapies.



3 Information Groups by Area



3.3 Infectious Diseases and Immunity Area

RESEARCH LINES

- To define the anatomical, cellular, molecular and (epi)genetic bases of immunological dysfunction in patients diagnosed with primary immunodeficiency in our clinic.
- The maturation and functional specialization of human B lymphocytes, and its pathophysiology in primary and secondary antibody immunodeficiencies.
- The analysis of the immunological reconstitution after haemopoietic stem cell trans-

plantation, and the discovery and clinical validation of immunological biomarkers for immunosuppression and tolerance in solid organ transplantation.

- The development and clinical implementation of patient-tailored monitoring schemes of immunotherapies in wide clinical use.

RESEARCH ACTIVITY

● Publications

- Rodríguez-Ubreva J, Arutyunyan A, Bonder MJ, Del Pino-Molina L, Clark SJ, de la Calle-Fabregat C, García-Alonso L, Handfield LF, Ciudad L, Andrés-León E, Krueger F, Català-Moll F, Rodríguez-Cortez VC, Polanski K, Mamanova L, van Dongen S, Kiselev VY, Martínez-Saavedra MT, Heyn H, Martín J, Warnatz K, López-Granados E, Rodríguez-Gallego C, Stegle O, Kelsey G, Ventor-Tormo R, Ballestar E. Single-cell Atlas of common variable immunodeficiency shows germinal center-associated epigenetic dysregulation in B-cell responses. *Nat Commun.* 2022; 13(1): 1779. Article. IF: 16.6; D1
- García-Morato MB, Padilla-Merlano B, Pérez EM, Shephard JV, Marhuenda AR, Simarro FS, López-Granados E, Peña RR. Hypomorphic variant in TRNT1 induces a milder autoinflammatory disease with congenital cataracts and impaired sexual development. *Rheumatology.* 2022; 61(5): e114-16. Letter. IF: 5.5; Q1
- Sánchez-Zapardiel E, Alos M, Nozal P, González-Muñoz M, Frauca-Remacha E, Gavilán LB, Quiles MJ, Hierro L, López-Granados E. Humoral and cellular immune responses to Pfizer-BioNTech BNT162b2 SARS-CoV-2 vaccine in adolescents with liver transplantation: Single center experience. *Front Immunol.* 2022; 13: 1049188. Article. IF: 7.3; Q1
- Cabanero-Navalón MD, García-Bustos V, Núñez-Beltrán M, Fernández PC, Mateu L, Solanich X, Carrillo-Linares JL, Robles-Marhuenda A, Puchades-Gimeno F, Ballesta AP, López-Osle N, Torralba-Cabeza MA, Masdeu AMB, Gil JD, Gayá NT, Castellanos GP, Sánchez-Martínez R, Barragán-Casas JM, González-García A, de la Peña JLP, López-Wolf D, Rufete AM, Mora AC, Giner MJF,

Moral PM. Current clinical spectrum of common variable immunodeficiency in Spain: The multicentric nationwide GTEM-SEMI-CVID registry. *Front Immunol.* 2022; 13: 1033666. Article. IF: 7.3; Q1

- Martínez-Romera I, Galán-Gómez V, González-Martínez B, García PG, Pacheco SS, Sánchez DC, del Castillo YM, Sánchez DB, Sisinni L, Guerrero AG, Damaso SC, Zapardiel ES, Caracuel BR, Pérez AB, Pérez-Martínez A. CD19+lineage chimerism, an early biomarker after anti-CD19 CAR-T cell therapy in patients previously receiving a hematopoietic stem cell transplantation. *Front Immunol.* 2022; 13: 960412. Article. IF: 7.3; Q1
- González-Pérez M, Montes-Casado M, Conde P, Cervera I, Baranda J, Berges-Buxeda MJ, Pérez-Olmeda M, Sánchez-Tarjuelo R, Utiero-Rico A, Lozano-Ojalvo D, Torre D, Schwarz M, Guccione E, Cámera C, López-Carratala MR, González-Parra E, Pórtoles P, Ortiz A, Pórtoles J, Ochando J. Development of potent cellular and humoral immune responses in long-term hemodialysis patients after 1273-mRNA SARS-CoV-2 vaccination. *Front Immunol.* 2022; 13: 845882. Article. IF: 7.3; Q1

- Dávalos V, García-Prieto CA, Ferrer G, Aguilera-Albesa S, Valencia-Ramos J, Rodríguez-Palmero A, Ruiz M, Planas-Serra L, Jordán I, Alegria I, Flores-Pérez P, Cantarín V, Fumado V, Viadero MT, Rodrigo C, Méndez-Hernández M, López-Granados E, Colobran R, Riviere JG, Soler-Palacín P, Pujo A, Esteller M. Epigenetic profiling linked to multisystem inflammatory syndrome in children (MIS-C): A multicenter, retrospective study. *Eclinicalmedicine.* 2022; 50: 101515. Article. IF: 15.1; D1
- Udaondo C, Cámera C, Berenguel LM, Rueda RA, Gómez CM, Longo CM, Díaz-Delgado B, Falces-Romero I, Almirón MD, Ochando J, Mendez-

Care. 2022; 11(3): 259-64. Article. IF: 0.7; Q4

- Ramos-Ruperto L, Martínez-Sánchez N, Barthaser JL, Robles-Marhuenda A. Susac syndrome and pregnancy: a relationship to clarify. About two cases and review of the literature. *J Matern-Fetal Neo M.* 2022; 35(1): 181-6. Review. IF: 1.8; Q4

● Research projects

del Pino Molina L. Herramientas de edición génica: caracterización de variantes genéticas y potencial terapeútico en errores congénitos de la respuesta inmunológica (PI22/0157). ISCIII. 2023-2025.

Management centre: CIBER

López Granados E. Actualización y renovación de la actividad en el servicio de inmunología del Hospital Universitario La Paz. Octapharma S.A. 2012-Ongoing.

Management centre: FIBHULP

López Granados E. Desarrollo de ensayos de validación funcional como complemento del diagnóstico molecular de errores congénitos de la respuesta inmunológica. Fundación Mutua Madrileña. 2022-Ongoing.

Management centre: FIBHULP

López Granados E. Estudio exploratorio sistemático de la competencia en la respuesta linfocitaria al SARS-COV-2, en diversas situaciones del huésped y según severidad



3 Information Groups by Area



3.3 Infectious Diseases and Immunity Area

de la COVID-19 (InmunoCOVID). Cytognos. 2021-Ongoing.

Management centre: FIBHULP

López Granados E. European Rare Disease Coordination and support action (ERICA). UE. 2020-2024.

Management centre: FIBHULP

López Granados E. Síndrome inflamatorio multisistémico asociado a covid-19 en niños (MIS-C): bases genéticas, epigenéticas e inmunopatogenéticas. Fundació Marató TV3. 2021-Ongoing.

Management centre: FIBHULP

López Granados E. Un esfuerzo integral para intentar descifrar las bases (EPI) genéticas, fenotípicas y funcionales de la desregulación del linfocito B en deficiencias de anticuerpos, para un mejor pronóstico y tratamiento de los pacientes. (PI20/01371). ISCIII. 2021-2023.

Management centre: FIBHULP

Sánchez Zapardiel E. Validación de nuevas técnicas de estimación de la inmunosupresión y detección del rechazo en trasplante hepático pediátrico (PI19/01311). ISCIII. 2020-2022.

Management centre: FIBHULP

● Cibers and Retics

López Granados E. Centro de Investigación Biomédica en Red de Enfermedades Raras. (CIBERER). ISCIII. (31/12/2023). FIBHULP

● Clinical trials

López Granados E. Estudio multicéntrico nacional de inmunodeficiencia secundaria sobre la producción de anticuerpos frente a la vacuna de salmonella typhi (simpathy-2).

Type: EPA-SP. PI-4941 SIMPATHY-2.

Sponsored by: Sanchez Ramon, Silvia.

Signed date: 02/02/2022

Cámará Hijón C. Validación del kit de rt-pcr de hyris srl para determinación de inmunidad celular mediante medición del mrna de cxcl10 tras estimulación con un coctel de peptidos de sars-cov2 (spike, np y peptidos mutados en variante omicron) en sangre completa.

Type: No EPA. PI-5198.

Sponsored by: Hyris Srl.

Signed date: 30/03/2022

Robles Marhuenda AJ. Un estudio de 52 semanas, aleatorizado, doble ciego, con doble simulación, de grupos paralelos, multicén-

trico, de no inferioridad para investigar la eficacia y seguridad de depemokimab en comparación con mepolizumab en adultos con granulomatosis eosinofíl.

Type: Clinical Trials, phase III. 6097.

Sponsored by: Glaxosmithkline Research and Development Limited ,.

Signed date: 26/04/2022

Robles Marhuenda AJ. Un estudio aleatorizado, doble ciego y controlado con placebo para investigar la eficacia y seguridad de depemokimab en adultos con síndrome hiperesinofílico (hes, por sus siglas en inglés).

Type: Clinical Trials, phase III. 2022.030.

Sponsored by: Glaxosmithkline Research and Development Limited.

Signed date: 18/07/2022

Robles Marhuenda AJ. Estudio multicéntrico de tres períodos con un diseño de retirada aleatorizada, doble ciego y controlado con placebo en el periodo 2 para evaluar la eficacia clínica, la seguridad y la tolerabilidad de mas825 en pacientes con mutación con ganancia de función en nlrc4.

Type: Clinical Trials, phase II. 2022.037.

Sponsored by: Novartis Farmaceutica, S.A.

Signed date: 28/09/2022

Robles Marhuenda AJ. Estudio de fase II, multicéntrico, aleatorizado, doble ciego, controlado con placebo y de grupos paralelos para evaluar la eficacia y la seguridad de nipocalimab en participantes con miopatías inflamatorias idiopáticas activas.

Type: Clinical Trials, phase II. 2022.388.

Sponsored by: Janssen Cilag International Nv.

Signed date: 02/12/2022

● Patents and trademarks

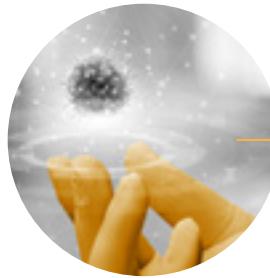
Van Dongen JJM, Orfao de Matos Correia E Vale JA, Van Der Burg M, Pérez Andrés M, Van Zelm MC, Kalina T, Vlkova M, López Granados E, Blanco Álvarez E, Kienzler AK, inventors; Erasmus University Medical Center Rotterdam, assignee. Reagents, methods, and kits for diagnosing primary immunodeficiencies. PCT/NL2015/050762, US62/072,498; 2014 Oct 30.





3 Information Groups by Area

3.3 Infectious Diseases and Immunity Area



3.3.7

Drug Hypersensitivity and Innate Immune Response Group

Publications: 16

Q1: 6

COMPOSITION

Teresa Bellón Heredia. Investigadora Senior (Contrato Miguel Servet -I2). Jefe de laboratorio. FIBHULP

María del Rosario Cabañas Moreno. Facultativo Especialista de Área en Alergología. Hospital Universitario La Paz

Celia Martínez Prieto. Técnico de Grado Superior. Hospital Universitario La Paz

Aranzazú Isabel Rodríguez Sanz. Investigadora Postdoctoral. Hospital Universitario La Paz

Beatriz Sanz Minguela. Técnico de Grado Superior. FIBHULP

Gaston Roustan Gullón. Facultativo Especialista de Área en Dermatología. Hospital Universitario Puerta de Hierro. Profesor Asociado. Facultad de Medicina. Universidad Autónoma de Madrid



STRATEGIC OBJECTIVE

Cutaneous adverse drug reactions are unpredictable and represent a plethora of skin diseases with various degrees of severity. The spectrum ranges from mild to potentially fatal multisystem maladies. Those of most concern are usually referred to as severe cutaneous adverse reactions (SCARs), and include acute generalized exanthematous pustulosis (AGEP), drug reaction with eosinophilia and systemic symptoms (DRESS), also known as drug induced hypersensitivity syndrome or hypersensitivity síndrome (DIHS/HSS), Stevens-Johnson's syndrome (SJS), and toxic epidermal necrolysis (TEN). Among them, SJS and TEN are the most severe clinical entities and are nowadays considered as variants of the same disease characterized by keratinocyte necrosis and epidermal detachment with the formation of subepidermal bullae. From the immunopathogenic point of view, SCARs are T-cell mediated type IV hypersensitivity reactions. However, T cells can orchestrate different types of immune responses and this functional heterogeneity has led to a further sub-classification into type IVa-IVd hypersensitivity that considers the distinct cytokine production pattern by T cell subpopulations, and emphasizes the participation of different effector cells causing inflammation and tissue damage. Current knowledge supports the active participation of cytotoxic lymphocytes in different clinical entities.

Our project aims to a better understanding of the immune mechanisms underlying the etiopathogenesis of these diseases. The study is performed in the framework of the consortium PIELenRed (Plataforma interdisciplinar para el estudio de reacciones cutáneas graves en red) integrated by researchers belonging to different hospitals in Madrid.

Reactivation of latent herpesvirus has been described during the development of some of the previously mentioned clinical entities. In order to improve our understanding of the behaviour of the immune system during viral replication, collaboration has been established with the Kidney Transplant Unit (Nephrology Service, HULP). Kidney transplant recipients are being followed immediately before and after transplant in order to identify patients with active CMV replication.

General objectives for the next 5 years

The main objectives are:

- I) Biobanking of samples of severe cutaneous adverse reactions to medications (DRESS, AGEP and SJS/TEN) associated to the registry PIELenRed, and integrated in the international registry RegiSCAR.



3 Information Groups by Area



3.3 Infectious Diseases and Immunity Area

- II) To investigate in vitro test for drug causality assessment.
- III) To explore the involvement of the innate immune response (in particular natural cytotoxic activity) during the development of SCARs.
- IV) Identification of biomarkers of susceptibility.
- V) To find biomarkers for disease and response to treatments.
- VI) To explore the potential of microRNAs in SJS/TEN as biomarkers of disease and of response to treatments, as well as their relationship with pathogenic mechanisms.
- VII) To analyze the evolution of the cytotoxic response in patients with CMV replication.
- VIII) Compare the innate immune response in patients with CMV replication after kidney transplant and in patients with SCARs.

RESEARCH LINES

- Biobanking of biological samples from patients with severe cutaneous adverse reactions to medications (DRESS, AGEP and SJS/TEN).
- Development and evaluation of in vitro tests for drug causality assessment.
- Involvement of NK receptors in the etiopathogenesis of Stevens-Johnson syndrome / Toxic epidermal necrolysis (SJS/TEN).

- Identification of biomarkers of susceptibility.
- Differential analysis of the cytokine pattern involved in different SCARs (AGEP, DRESS and SJS/TEN).
- Analysis of miRNAs as biomarkers of disease and response to treatments.
- Identification of biomarkers of response to immunomodulatory treatments.

RESEARCH ACTIVITY

● Publications

- Bautista-Villanueva S, Galleani C, Barranco R, Bellón T, Blanco M, García-Moguel I. Acute localized exanthematosus pustulosis due to alendronate. *J Invest Allergol Clin.* 2022; 32(1): 69-70. Editorial Material. IF: 0.604; D1
- Bellón T, González-Valle O, Sendagorta E, Lerma V, del Río JM, Martínez C, Servera G, González-Herrada C, Cachafeiro L, Lorente JA, Cabañas R, Herranz P, de Abajo F. IL-15/IL-15R alpha in SJS/TEN: Relevant expression of IL15 and IL15RA in affected skin. *Biomedicines.* 2022; 10(8): 1868. Article. IF: 4.7; Q1
- Bellón T, Lerma V, Guijarro J, Ramírez E, Martínez C, Escudero C, Fiandor AM, Barranco R, de Barrio M, de Abajo F, Cabañas R. LTT and HLA testing as diagnostic tools in Spanish vancomycin-induced DRESS cases: A case-control study. *Front Pharmacol.* 2022; 13: 959321. Article. IF: 5.6; Q1
- Berenguer-Ruiz S, Rivera R, Herranz P, de la Cueva P, Hospital M, Ruiz-Genao D, Roustan G, Dauden E, Llamas-Velasco M. Ustekinumab to guselkumab transitions: A series of 54 patients emulating the navigate trial in real life. *Dermatol Ther.* 2022; 35(10): e15757. Article. IF: 3.6; Q1
- Carrillo JMC, Torres EB, Calzada YG, Martínez YNJ, Gullón GR, Bayona JIY, Castro SG, Ferrario MG, Laserna FJR. Quantifying physician preferences for systemic atopic dermatitis treatments using a discrete-choice experiment. *Dermatol Ther (Heidelb).* 2022; 12(5): 1197-210. Article. IF: 3.4; Q2
- Castaño-Fernández JL, Rodríguez-Cuadrado FJ, Sánchez-Gutiérrez I, Najera-Botello L, Fernández IS, Gullón GR, Rosell-Díaz AM. Dermpath & Clinic: Telangiectasia macularis eruptiva perstans. *Eur J Dermatol.* 2022; 32(4): 556-8. Article. IF: 2.5; Q2
- Elosua-González M, Rosell-Díaz A, Alfageme-Roldán F, Siguenza-Sanz M, Roustan-Gullón G. Clinical remission of disseminated molluscum contagiosum infection in a patient with atopic dermatitis treated with dupilumab. *An Bras Dermatol.* 2022; 97(3): 358-61. Article. IF: 1.7; Q3
- Fernández IS, Gil MH, Botello LN, Gullón GR. Not all is infantile hemangioma: An erythematous plaque in an adult. *Actas Dermosifiliogr.* 2022; 113(7): 717-8. Editorial Material. IF: 3.2; Q2
- Fernández-Quiroga C, Alfageme-Roldán F, Roustan-Gullón G. Digital clubbing: Ultrasound findings. *Actas Dermosifiliogr.* 2022; 113(5): t522-3. Letter. IF: 3.2; Q2
- Laverde-Saad A, Jfri A, García R, Salguero I, Martínez C, Cembrero H, Roustan G, Alfageme F. Discriminative deep learning based benignity/malignancy diagnosis of dermatologic ultrasound skin lesions with pretrained artificial intelligence architecture. *Skin Res Technol.* 2022; 28(1): 35-9. Article. IF: 2.2; Q3
- Luna-Bastante L, Negrete EL, Naranjo LA, Roustan G, Alfageme F. Sonography of a case series of talar callosities. *J Ultrasound.* 2022; 25(4): 983-7. Article. IF: 2; Q3
- Páez-Vega A, Gutiérrez-Gutiérrez B, Aguera ML, Facundo C, Redondo-Pachón D, Suner M, López-Oliva MO, Yuste JR, Montejano M, Galeano-Álvarez C, Ruiz-San Millán JC, Los-Arcos I, Hernández D, Fernández-Ruiz M, Muñoz P, Valle-Arroyo J, Cano A, Rodríguez-Benot A, Crespo M, Rodelo-Haad C, Lobo-Acosta MA, Garrido-Gracia JC, Vidal E, Guirado L, Cantísán S, Torre-Cisneros J. Immunoguided discontinuation of prophylaxis for cytomegalovirus disease in kidney transplant recipients treated with antithymocyte globulin: A randomized clinical trial. *Clin Infect Dis.* 2022; 74(5): 757-65. Article. IF: 11.8; D1
- Pérez AMG, Botello LN, Massa DS, Gullón GR, Roldán FA. Sonography of subcutaneous nodules following immunization with histopathological correlation: a three-case series. *J Ultrasound.* 2022; 25(2): 355-60. Article. IF: 2; Q3
- Rodríguez-Sanz A, Sánchez-Villanueva R, Domínguez-Ortega J, Álvarez L, Fiandor A, Nozal P, Sanz P, Pizarro-Sánchez MS, Andrés E, Cabezas A, Pérez-Alba A, Bajo MA, Selgas R, Bellón T. Characterization of hypersensitivity reactions to polysulfone hemodialysis membranes. *Ann Allerg Asthma Im.* 2022; 128(6): 713-20. Article. IF: 5.9; Q2
- Rosell-Díaz AM, Castaño-Fernández JL, Silvestre-Egea G, Suárez-Massa D, Gullón GR, Elosua-González M. Dermpath & Clinic: Osteoma cutis. *Eur J Dermatol.* 2022; 32(6): 815-6. Editorial Material. IF: 2.5; Q2
- Vilchez-Sánchez F, Bustos Leis J M, Sendagorta E, Ramírez E, Fiandor A, Bellón T, de Soto Álvarez T, Sánchez Ocando H, Heredia Revuelto R, Cabañas R. Allopurinol-induced DRESS and neosensitization to thalidomide: complex management and diagnosis in a patient with multiple myeloma. *J Invest Allergol Clin.* 2022; 32(5): 406-7-. Article. IF: 7.2; D1

● Research projects

Bellón Heredia T. Contrato Miguel Servet Categoría B (CES06/016). ISCIII. 2007-2025.

Management centre: FIBHULP



3 Information Groups by Area

3.3 Infectious Diseases and Immunity Area

● Patents and trademarks

Selgas Gutiérrez R, Bellón Heredia T, Rodríguez Sanz Al, Álvarez Builla J, Vaquero López JJ, Sánchez Alonso P, Alajarín Fernández R, R, inventors; FIBHULP, Universidad de Alcalá, assignees. Use of compounds derived from salts of pyridazine[3,2-b]benzimidazolium as anti-inflammatory agents. P201430411, PCT/ES2014/070603; 2013 July 25.

Bellón Heredia T. Impacto de los inhibidores de calcineurina sobre linfocitos efectores citotóxicos en síndrome de Stevens-Johnson/ necrolisis epidémica tóxica de análisis de IL-15 como biomarcador (PI18/00718). ISCIII. 2019-2023.

Management centre: FIBHULP

Bellón Heredia T. Creación de un centro de referencia para el estudio de los mecanismos implicados en las reacciones de hipersensibilidad a las membranas de hemodiálisis basadas en polysulfona (PI-3009). Nipro Europe NV. 2017-Ongoing.

Management centre: FIBHULP

de las Vecillas Sánchez L. Estudio de la inmunomodulación celular inducida en las desensibilizaciones a quimioterápicos tras reacciones inmediatas y tardías. Sociedad Española de Alergología e Inmunología Clínica (SEAIC). 2022-2024.

Management centre: Fundación SEAIC

Bellón Heredia T. ELISpot como método diagnóstico para identificación del fármaco causal en pacientes con reacciones graves de hipersensibilidad cutánea a medicamentos: comparación con TTL" (Beca Luis Álvarez). FIBHULP. 2022-2023.

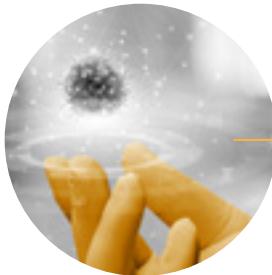
Management centre: FIBHULPi





3 Information Groups by Area

3.3 Infectious Diseases and Immunity Area



3.3.8

Immunomediate Gastrointestinal Diseases and other Digestive Pathologies Group

Publications: 12

Q1: 4

COMPOSITION

Maria Dolores Martín Arranz. Jefa de Sección de Aparato Digestivo. Profesora Asociada. Hospital Universitario La Paz. Unidad Autónoma de Madrid

Laura García Ramírez. Investigadora Predoctoral. FIBHULP
Eduardo Martín Arranz. Facultativo Especialista de Área en Aparato Digestivo. Hospital Universitario La Paz

Jesús Noci Belda. Enfermero. Hospital Universitario La Paz

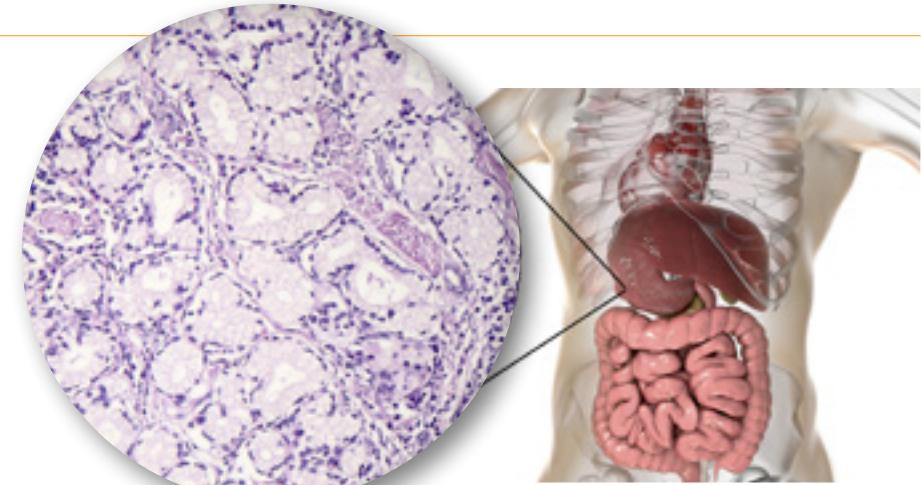
Joaquín Poza Cerdón. Facultativo Especialista de Área en Aparato Digestivo. Hospital Universitario La Paz

José Luis Rueda García. Facultativo Especialista de Área en Aparato Digestivo. Hospital Universitario La Paz

Maria Sánchez Azofra. Facultativo Especialista de Área en Aparato Digestivo. Hospital Universitario La Paz

Cristina Julia Suárez Ferrer. Facultativo Especialista de Área en Aparato Digestivo. Hospital Universitario La Paz

Tamara Verges Martínez-Meco. Investigadora Predoctoral. FIBHULP



STRATEGIC OBJECTIVE

Our work focuses on diseases of the Digestive System with special dedication to Inflammatory Bowel Disease (IBD) and other immune-mediated diseases.

The group is formed by gastroenterologists, biologists, pharmacists and nurses; all of them are part of a multidisciplinary working group.

In addition to promoting our own research projects in our area, we participate in numerous clinical trials of molecules in development. Our objectives are to optimize existing treatments, promote measures to improve the quality of life and translational research in search of precision medicine, incorporating new technologies to the management of our patients.

RESEARCH LINES

- Correlation of drug levels with therapeutic response.
- Intestinal ultrasound.
- Dysplasia detection techniques in IBD.
- Hypercoagulability studies in IBD.
- Immunological basis of inflammatory bowel disease: changes in cellular and inflammatory mediator expression with different therapies.



3 Information Groups by Area



3.3 Infectious Diseases and Immunity Area

RESEARCH ACTIVITY

● Publications

- Casado-Llombart S, Velasco-de Andrés M, Catala C, Leyton-Pereira A, Gutiérrez-Cozar R, Suárez B, Armiger N, Carreras E, Esteller M, Ricart E, Ordas I, Gisbert JP, Chaparro M, Esteve M, Márquez L, Busquets D, Iglesias E, García-Planella E, Martín-Arranz MD, Lohmann J, Ayata CK, Niess JH, Engel P, Panes J, Salas A, Domenech E, Lozano F. Experimental and genetic evidence for the impact of CD5 and CD6 expression and variation in inflammatory bowel disease. *Front Immunol.* 2022; 13: 966184. Article. IF: 7.3; Q1
- Chaparro M, Bastón-Rey I, Salgado EF, García JG, Ramos L, Palomares MTDL, Arguelles-Arias F, Flores El, Cabello M, Iturria SR, Ortiz AN, Charro M, Ginard D, Sadornil CD, Ochoa OM, Busquets D, Iyo E, Casbas AG, de la Piscina PR, Bosca-Watts MM, Arroyo M, García MJ, Hinojosa E, Gordillo J, Montiel PM, Jiménez BV, Ivorra CQ, Moron JMV, Huguet JM, González-Lama Y, Santos AIM, Amo VM, Arranz MDM, Bermejo F, Cadilla JM, de Celis CR, Salazar PF, San Román AL, Jiménez N, García-López S, Figueroa A, Jiménez I, Cerezo FJM, Taxonera C, Varela P, de Francisco R, Monfort D, Arriero GM, Hernández-Camba A, Alonso FJG, Van Domselaar M, Pajares-Villarroya R, Nunez A, Moranta FR, Marín-Jiménez I, Alonso VR, Rodríguez MDM, Camo-Monterde P, Tercero IG, Navarro-Llavat M, García LA, Cruz DH, Kloss S, Passey A, Novella C, Vispo E, Barreiro-de Acosta M, Gisbert JP. Using interpretable machine learning to identify baseline predictive factors of remission and drug durability in Crohn's disease patients on ustekinumab. *J Clin Med.* 2022; 11(15): 4518. Article. IF: 3.9; Q2
- Riестra S, Taxonera C, Zabana Y, Carpio D, Chaparro M, Barrio J, Rivero M, López-Sanromán A, Esteve M, de Francisco R, Bastida G, García-López S, Manosa M, Martín-Arranz MD, Pérez-Calle JL, Guardiola J, Muñoz F, Arranz L, Cabriada JL, García-Sepulcre MF, Navarro M, Montoro-Huguet MA, Ricart E, Bermejo F, Calvet X, Piqueras M, García-Planella E, Márquez L, Minguez M, Van Domselaar M, Bujanda L, Aldeguer X, Sicilia B, Iglesias E, Alcaín G, Pérez-Martínez I, Rolle V, Castaño-García A, Gisbert JP, Domenech E. Performance of screening strategies for latent tuberculosis infection in patients with inflammatory bowel disease: Results from the ENEIDA registry of GETECCU. *J Clin Med.* 2022; 11(13): 3915. Article. IF: 3.9; Q2
- Ferrer CS, Ramírez MAR, Azofra MS, García JLR, Cordón JP, Arranz EM, Belda JN, Ramírez LG, Martín-Arranz MD. Nutritional habits in patients with inflammatory bowel disease: perception of patients and health professionals. *Gastroenterol Hepat-Barc.* 2022; 45: 2-3. Letter. IF: 1.9; Q4
- Loras C, Andújar X, Gornals JB, Sanchiz V, Brullet E, Sicilia B, Martín-Arranz MD, Naranjo A, Barrio J, Dueñas C, Foruny JR, Busquets D, Monfort D, Pineda JR, González-Huix F, Pérez-Roldan F, Pons V, González B, Moreno JR, Sainz E, Guardiola J, Bosca-Watts MM, Fernández-Baneres F, Mayor V, Esteve M. Self-expandable metal stents versus endoscopic balloon dilation for the treatment of strictures in Crohn's disease (ProtDilat study): an open-label, multicentre, randomised trial. *Lancet Gastroenterol Hepatol.* 2022; 7(4): 332-41. Article. IF: 35.7; D1
- Guijarro LG, Cano-Martínez D, Toledo-Lobo MV, Ruiz-Llorente L, Chaparro M, Guerra I, Iborra M, Cabriada JL, Bujanda L, Taxonera C, García-Sánchez V, Marín-Jiménez I, Barreiro-de Acosta M, Vera I, Martín-Arranz MD, Mesonero F, Sempere L, Gomollón F, Hinojosa J, Zoullas S, Monserrat J, Menor-Salván C, Álvarez-Mon M, Gisbert JP, Ortega MA, Hernández-Breijo B. Evaluation of AlF-1 (Allograft Inflammatory Factor-1) as a biomarker of Crohn's disease severity. *Biomedicines.* 2022; 10(3): 727. Article. IF: 4.7; Q1
- Marín-Jiménez I, Barreiro-de Acosta M, Esteve M, Castro-Laria L, García-López S, Ceballos D, Echarri A, Martín-Arranz MD, Busquets D, Llao J, Navarro-Llavat M, Huguet JM, Arguelles-Arias F, Vicente R, Boudet JM, Díaz G, Sánchez-Migallón AM, Casellas F. Rapidity of clinical response to adalimumab and improvement of quality of life in luminal Crohn's disease: RAPIDA study. *Gastroenterol Hepat-Barc.* 2022; 45(3): 165-76. Article. IF: 1.9; Q4
- Chaparro M, Bastón-Rey I, Hernández-Salgado E, García JG, Ramos L, Palomares MTDL, Arguelles-Arias F, Flores El, Cabello M, Iturria SR, Ortiz AN, Charro M, Ginard D, Sadornil CD, Ochoa OM, Busquets D, Iyo E, Casbas AG, de la Piscina PR, Bosca-Watts MM, Arroyo M, García MJ, Hinojosa E, Gordillo J, Montiel PM, Jiménez BV, Jiménez Y, Santos AIM, Amo VM, Martín-Arranz MD, Bermejo F, Cadilla JM, de Clix CR, Salazar PF, San Román AL, Jiménez N, López SG, Figueroa A, Jiménez I, Cerezo FJM, Taxonera C, Varela P, de Francisco R,
- Monfort D, Arriero GM, Camba AH, García-Alonso FJ, Van Domselaar M, Villarroya RP, Nez A, Moranta FR, Marn-Jiménez I, Alonso VR, Rodríguez MDM, Camo-Monterde P, Tercero IG, Llavat MN, García LA, Cruz DH, Sulleiro S, Novella C, Vispo E, Barreiro-de Acosta M, Gisbert JP. Long-term real-world effectiveness and safety of ustekinumab in Crohn's disease patients: The SUSTAIN Study. *Inflamm Bowel Dis.* 2022; 28(11): 1725-36. Article. IF: 4.9; Q2
- Schreiber S, Irving PM, Sharara AI, Martín-Arranz MD, Hebuterne X, Penchev P, Danese S, Anthopoulos P, Akhundova-Unadkat G, Baert F. Review: randomised controlled trials in inflammatory bowel disease-common challenges and potential solutions. *Aliment Pharm Ther.* 2022; 55(6): 658-69. Review. IF: 7.6; D1
- Gutiérrez A, Zapater P, Ricart E, González-Vivo M, Gordillo J, Olivares D, Vera I, Manosa M, Gisbert JP, Aguas M, Sánchez-Rodríguez E, Bosca-Watts M, Laredo V, Camps B, Marín-Jiménez I, Zabana Y, Martín-Arranz MD, Muñoz R, Navarro M, Sierra E, Madero L, Vela M, Pérez-Calle JL, Sainz E, Calvet X, Arias L, Morales V, Bermejo F, Fernández-Salazar L, Van Domselaar M, de Castro L, Rodríguez C, Muñoz-Villafranca C, Lorente R, Rivero M, Iglesias E, Herreros B, Busquets D, Riera J, Martínez-Montiel MP, Roldon M, Roncero O, Hinojosa E, Sierra M, Barrio J, de Francisco R, Huguet J, Merino O, Carpio D, Ginard D, Muñoz F, Marta P, Almela P, Arguelles-Arias F, Alcaín G, Luis B, Mancenido N, Lucendo AJ, Varela P, Rodríguez-Lago I, Ramos L, Laura S, Sese E, Acosta MBD, Domenech E, Frances R. Immigrant IBD patients in Spain are younger, have more extraintestinal manifestations and use more biologics than native patients. *Front Med (Lausanne).* 2022; 9: 823900. Article. IF: 3.9; Q2
- Zabana Y, Marín-Jiménez I, Rodríguez-Lago I, Vera I, Martín-Arranz MD, Guerra I, Gisbert JP, Mesonero F, Benítez O, Taxonera C, Ponferrada-Díaz A, Piqueras M, Lucendo AJ, Caballol B, Manosa M, Martínez-Montiel P, Bosca-Watts M, Gordillo J, Bujanda L, Mancenido N, Martínez-Pérez T, López A, Rodríguez-Gutiérrez C, García-López S, Vega P, Rivero M, Melcarne L, Calvo M, Iborra M, de Acosta MB, Sicilia B, Barrio J, Pérez JL, Busquets D, Pérez-Martínez I, Navarro-Llavat M, Hernández V, Argüelles-Arias F, Esteso FR, Meijide S, Ramos L, Gomollón F, Muñoz F, Suris G, de Zarate JO, Huguet JM, Llao J, García-Sepulcre MF, Sierra M, Dura M, Estrecha S, Coronel AF, Hinojosa E, Oliván L, Iglesias E, Gutiérrez A, Varela P, Rull N, Gilabert P, Hernández-Camba A, Brotons A, Ginard D, Sese E, Carpio D, Aceituno M, Cabriada JL, González-Lama Y, Jiménez L, Chaparro M, Román ALS, Alba C, Plaza-Santos R, Mena R, Tamarit-Sebastian S, Ricart E, Calafat M, Olivares S, Navarro P, Bertoletti F, Alonso-Galan H, Pajares R, Olcina P, Manzano P, Domenech E, Esteve M. Nationwide COVID-19-EII study: Incidence, environmental risk factors and long-term follow-up of patients with inflammatory bowel disease and COVID-19 of the ENEIDA Registry. *J Clin Med.* 2022; 11(2): 421. Article. IF: 3.9; Q2
- Zabana Y, Marín-Jiménez I, Rodríguez-Lago I, Vera I, Martín-Arranz MD, Guerra I, Gisbert JP, Mesonero F, Benítez O, Taxonera C, Ponferrada-Díaz A, Piqueras M, Lucendo AJ, Caballol B, Manosa M, Martínez-Montiel P, Bosca-Watts M, Gordillo J, Bujanda L, Mancenido N, Martínez-Pérez T, López A, Rodríguez-Gutiérrez C, García-López S, Vega P, Rivero M, Melcarne L, Calvo M, Iborra M, de Acosta MB, Sicilia B, Barrio J, Pérez JL, Busquets D, Pérez-Martínez I, Navarro-Llavat M, Hernández V, Argüelles-Arias F, Esteso FR, Meijide S, Ramos L, Gomollón F, Muñoz F, Suris G, de Zarate JO, Huguet JM, Llao J, García-Sepulcre MF, Sierra M, Dura M, Estrecha S, Coronel AF, Hinojosa E, Oliván L, Iglesias E, Gutiérrez A, Varela P, Rull N, Gilabert P, Hernández-Camba A, Brotons A, Ginard D, Sese E, Carpio D, Aceituno M, Cabriada JL, González-Lama Y, Jiménez L, Chaparro M, Román ALS, Alba C, Plaza-Santos R, Mena R, Tamarit-Sebastian S, Ricart E, Calafat M, Olivares S, Navarro P, Bertoletti F, Alonso-Galan H, Pajares R, Olcina P, Manzano P, Domenech E, Esteve M. Risk factors for COVID-19 in inflammatory bowel disease: A national, ENEIDA-based case-control study (COVID-19-EII). *J Clin Med.* 2022; 11(24): 7540. Article. IF: 3.9; Q2

● Research projects

Martín Arranz MD. Efecto terapéutico de la administración colonoscópica de células madre mesenquimales derivadas de tejido adiposo humano de diferentes donantes (HASC)



3 Information Groups by Area

3.3 Infectious Diseases and Immunity Area

1 Introduction

2 Executive Summary

3 Information Groups by Area

4 Associated Clinicians

en un modelo de colitis de rata por enema de TNBS. Abbvie Spain S.L.U. 2010-On-going.

Management centre: FIBHULP

Martín Arranz MD. Protocolo de abordaje temprano de pacientes con enfermedad inflamatoria intestinal (EII). Abbvie Spain S.L.U. 2021-On-going.

Management centre: FIBHULP

Martín Arranz MD. Dynamics of A4B7+ dendritic cells in inflammatory bowel disease. personalised medicine with biological therapies. Dinamica de las células dendríticas A4B7+ en la enfermedad inflamatoria intestinal. Avances hacia una medicina personalizada. FIBHULP. 2022-On-going.

Management centre: FIBHULP

Martín Arranz MD. Programa de actualización en el conocimiento de la enfermedad inflamatoria intestinal. Abbvie Spain S.L.U.. 2020-On-going.

Management centre: FIBHULP

● Clinical trials

Martín Arranz MD. Estudio de fase 2 de búsqueda de dosis, aleatorizado, doble ciego, controlado con placebo y multicéntrico para evaluar la seguridad y la eficacia del tratamiento de inducción con efavaleucina alfa en sujetos con colitis ulcerosa activa de moderada a grave.

Type: Clinical Trials, phase II. 6060
20170104.

Sponsored by: Amgen, S.A.
Signed date: 16/02/2022

Martín Arranz MD. Estudio de fase II, aleatorizado y doble ciego para evaluar la eficacia y seguridad de ose 127 frente a placebo en pacientes con colitis ulcerosa activa de moderada a intensa que no han respondido a

tratamientos anteriores o que no los han tolerado.

Type: Clinical Trials, phase II. 5992.

Sponsored by: Ose Immunotherapeutics.

Signed date: 21/03/2022

Martín Arranz MD. Estudio de extensión a largo plazo, fase 3, abierto, multicéntrico, para evaluar la eficacia y la seguridad de mirikizumab a largo plazo en pacientes con enfermedad de crohn.

Type: Clinical Trials, phase III. 6120.

Sponsored by: Lilly, S.A.

Signed date: 10/03/2022

Martín Arranz MD. Protocolo multicéntrico en FASE II/III aleatorizado, con doble enmascaramiento, de grupos paralelos y controlado con placebo y con principio activo para evaluar la eficacia y la seguridad de guselkumab en participantes con enfermedad de crohn de moderada.

Type: Clinical Trials, phase II. 6124.

Sponsored by: Janssen Inc.
Signed date: 29/03/2022

Martín Arranz MD. Estudio aleatorizado, doble ciego, controlado con placebo, de búsqueda de dosis para evaluar la eficacia y seguridad de sar443122 en pacientes adultos con colitis ulcerosa de moderada a severa.

Type: Clinical Trials, phase II. 2022.080.
Sponsored by: Sanofi-Aventis Recherche & Developpement.
Signed date: 27/07/2022

Martín Arranz MD. Estudio de fase 2b, aleatorizado, en doble ciego, controlado con principio activo y con placebo, de grupos paralelos y multicéntrico, para evaluar la eficacia y la seguridad de la combinación de guselkumab y golimumab como tratamiento de inducción y de mantenimiento en participantes con colitis ulcerosa activa de grado moderado o severo.





3 Information Groups by Area



3.3 Infectious Diseases and Immunity Area

Type: Clinical Trials, phase IIb. 2022.189.

Sponsored by: Janssen Research & Development, Llc.

Signed date: 27/10/2022

Martín Arranz MD. Estudio fase 2b/3 aleatorizado, doble-ciego, controlado con placebo, grupo paralelo, multicéntrico, para evaluar la eficacia y seguridad de gusekumab en pacientes con colitis ulcerosa activa de moderada a severa.

Type: Clinical Trials, phase II. 2022.197.

Sponsored by: Janssen Cilag International Nv.

Signed date: 26/05/2022

Martín Arranz MD. Estudio de inducción nº 1 - fase 3, multicéntrico, aleatorizado, con enmascaramiento, doble y comparativo con placebo, en el que se evalúa ozanimod por vía oral como tratamiento de inducción para la enfermedad de crohn activa de moderada a grave.

Type: Clinical Trials, phase III. 2022.225.

Sponsored by: Celgene International li -Sarl.

Signed date: 02/06/2022

Martín Arranz MD. Estudio de fase 2b, aleatorizado, en doble ciego, controlado con principio activo y con placebo, de grupos paralelos y multicéntrico, para evaluar la eficacia y la seguridad de la combinación de gusekumab y golimumab como tratamiento de inducción y de mantenimiento en participantes con enfermedad de crohn actica de grado moderado o severo.

Type: Clinical Trials, phase IIb. 2022.262.

Sponsored by: Janssen Inc.

Signed date: 05/10/2022

Rueda García JL. Impacto en la calidad de vida en base a la intervención terapéutica realizada en pacientes con colitis ulcerosa según el grado de curación mucosa.

Type: No EPA. 2022.307.

Sponsored by: Geteccu (Grupo Español de Trabajo en Enfermedad de Crohn Y Colitis Ulcerosa).

Signed date: 17/10/2022

Martín Arranz MD. Estudio aleatorizado, doble ciego, controlado con placebo, de 52 semanas de duración para evaluar la eficacia

y la seguridad de etrasimod en sujetos con colitis ulcerosa moderadamente activa.

Type: Clinical Trials, phase II. 2022.381.

Sponsored by: Arena Pharmaceuticals Inc.

Signed date: 20/07/2022

Martín Arranz MD. Estudio de fase 3, multicéntrico, aleatorizado, con enmascaramiento doble y comparativo con placebo, en el que se evalúa ozanimod por vía oral como tratamiento de mantenimiento para la enfermedad de crohn activa de moderada a grave.

Type: Clinical Trials, phase III. 2022.409.

Sponsored by: Celgene International li -Sarl.

Signed date: 12/07/2022

Martín Arranz MD. Estudio de ampliación de fase 3, multicéntrico, sin enmascaramiento en el que se evalúa ozanimod por vía oral para la enfermedad de crohn activa de moderada a grave.

Type: Clinical Trials, phase III. 2022.410.

Sponsored by: Celgene International li -Sarl.

Signed date: 13/07/2022

Martín Arranz MD. Evolución clínica tras la

suspensión del tratamiento anti-tnf en pacientes con enfermedad inflamatoria intestinal en remisión: estudio exit largo plazo.

Type: EOM no prospectivo. 2022.589.

Sponsored by: Fundacion Hospital Universitario La Princesa.

Signed date: 29/11/2022

Martín Arranz MD. Estudio de prolongación de fase 3, multicéntrico, sin enmascaramiento, para evaluar la eficacia y la seguridad a largo plazo de mirikizumab en pacientes con colitis ulcerosa activa de moderada a grave.

Type: Clinical Trials, phase III. 2022.653.

Sponsored by: Lilly, S.A.

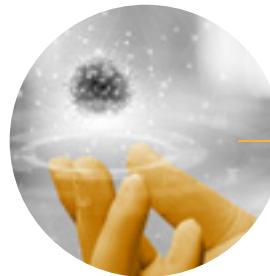
Signed date: 07/11/2022

Martín Arranz MD. Estudio aleatorizado, doble ciego, controlado con placebo para evaluar la seguridad y pacientes con enfermedad de crohn (ec) activa moderada a grave.

Type: Clinical Trials, phase II. 2023.035.

Sponsored by: Abbvie Deutschland Gmbh & Co. Kg.

Signed date: 16/12/2022



COMPOSITION

Alicia González Martín. Investigadora Ramón y Cajal. Universidad Autónoma de Madrid

Rocío Bartolomé Cabrero. Investigadora Predoctoral. Universidad Autónoma de Madrid

María del Pilar González Molina. Investigadora Predoctoral. Universidad Autónoma de Madrid

Laura Gámez Reche. Investigador Predoctoral. Universidad Autónoma de Madrid

Laura Mañas Cordero. Técnico de Investigación. Universidad Autónoma de Madrid

Eleftheria Papaioannou. Investigadora Juan de la Cierva. Universidad Autónoma de Madrid

Ana María Prieto Muñoz. Técnico de Investigación. Universidad Autónoma de Madrid

Javier Sanz Gallardo. Investigador Predoctoral. Universidad Autónoma de Madrid

STRATEGIC OBJECTIVE

Our laboratory is interested in understanding the cellular and molecular mechanisms of immune tolerance, autoimmunity and cancer. Specifically, we focus on studying how microRNAs (miRNAs) and their target genes regulate immune tolerance, autoimmune diseases and antitumor immunity. In addition, we are actively developing innovative genome engineering strategies for therapeutic purposes.

MicroRNAs have recently emerged as important factors in the post-transcriptional control of protein concentrations in metazoan organisms. For the past few years, we studied the functions of miRNAs in the mammalian immune system. We identified the first miRNA that regulates B cell tolerance and established its causative role in the development of lethal autoimmunity (Gonzalez-Martin et al, *Nature Immunology*, 2016 Apr; 17: 433-40). We also discovered critical roles for other microRNAs in different immune tolerance mechanisms and autoimmune diseases (Gonzalez-Martin and Lai et al, *Nature Communications*, 2016 Aug 2; 7:12207, Ichiyama et al, *Immunity*, 2016 Jun 21; 44:1284-98 and Liu et al, *Journal of Experimental Medicine*, Aug

22; 213:1901-19). In addition, we developed the first B cell receptor reprogramming strategy using the latest genome editing technologies (*Elife*, 2019 Jan 17; 8). Previously, work on tumor immunology established an important role for the chemokine receptor CCR5 in T cell antitumor responses (Gonzalez-Martin et al, *Cancer Research*, 2011 Aug 15; 71:5455-66). Overall, our studies have established miRNAs as critical regulators of immune tolerance and autoimmunity, and revealed new mechanisms controlling antitumor immunity.

Current research in the laboratory continues to identify and study the roles of miRNAs and their target genes in immune tolerance, autoimmunity and tumor immunology by combining genetic, genomic, biochemical, and functional screen approaches to understand the functions and molecular mechanisms of miRNA control at molecular, cellular, and system levels. The mechanisms identified might provide valuable biomarkers or therapeutic targets for the treatment of autoimmune diseases and for cancer immunotherapy.

RESEARCH LINES

- Correlation of drug levels with therapeutic response.
- Intestinal ultrasound.
- Dysplasia detection techniques in IBD.
- Hypercoagulability studies in IBD.
- Immunological basis of inflammatory bowel disease: changes in cellular and inflammatory mediator expression with different therapies.

*Group recently created, December 2022



Area Coordinators: Francisco García Río

coordinadorsistemas@idipaz.es

Documents: 384 Originals: 308 D1: 48 Q1: 144

- 3.4.1 Internal Medicine and Systemic Diseases Group
- 3.4.2 Organic Dysfunction and Failure in the Aggression Group
- 3.4.3 Respiratory Diseases Group
- 3.4.4 Regulation of Gene Expression and by Hypoxia Group
- 3.4.5 Nephrology Group
- 3.4.6 Aging and Fragility in the Elderly Group
- 3.4.7 Diagnosis and Treatment of Allergic Diseases Group
- 3.4.8 Patient Blood Management Group
- 3.4.9 Health Care Nurses Research Group
- 3.4.10 Emergency and Critical Pathology Group
- 3.4.11 Hospital Pharmacy Group



- 3.4.12 Translational Hepatology Group
- 3.4.13 Fragility and Healthy Aging Group
- 3.4.14 Frailty, Multimorbidity Patterns and Mortality in the Elderly Population Residing in the Community Group



3 Information Groups by Area



3.4 Large System Pathologies Area

Strategic Objectives

1 Introduction

2 Executive Summary

3 Information Groups by Area

4 Associated Clinicians

Includes 16 research groups that focus their interest on the study of pathogenic mechanisms and therapeutic options in some of the most prevalent diseases in our environment: respiratory, allergological, renal, digestive, gynaecological, and ophthalmological and paediatric, both in stable phase and at different levels of severity. In addition, we maintain interest in their involvement in the different phases of development, analyzing both the neonatal phase and old age.

Development forecast for the coming years

Redefinition of the area with a more transversal character. Although this proposal requires a greater elaboration and consensus of all the groups in the area, the reformulation of the area is proposed as a new one focused, for example, on inflammation and hypoxia.

Incorporation of related groups from other areas (immunorheumatology, hepatology, among others) and consolidation of some emerging groups.

To ensure that 50% of the publications are in the first quartile of each thematic area.

To promote intramural collaborations between groups.

Actions

Conduct seminars and coordination meetings among groups of different areas.

Promote work and synergies with other research groups of the institute with a deeper trajectory.

Improve the annual number of publications in the first quartile.

Promote work and synergies with other research groups of the institute with a deeper trajectory.

High impact publications

Díaz-García E, García-Tovar S, Alfaro E, Jaureguízar A, Casitas R, Sánchez-Sánchez B, Zamarrón E, Fernández-Lahera J, López-Collazo E, Cubillos-Zapata C, **García-Rio F**. Inflammasome activation: A keystone of proinflammatory response in obstructive sleep apnea. *Am J Resp Crit Care*. 2022; 205(11): 1337-48. Article. IF: 24.7; D11

García-Rio F, Alcázar-Navarrete B, Castillo-Villegas D, Cillóniz C, García-Ortega A, Leiro-Fernández V, Lojo-Rodríguez I, Padilla-Galo A, Quezada-Loaiza CA, Rodríguez-Portal JA, Sánchez-de-la-Torre M, Sibila O, Martínez-García MA. Biological biomarkers in respiratory diseases. *Arch Bronconeumol*. 2022; 58(4): 323-33. Article. IF: 8; Q1

Alonso-Fernández A, Moncadas MC, de Larrinaga AAR, Barón AS, Marçet MC, Rodríguez PR, Gómez AVG, Carrero MPG, Martínez CP, Marín JPC, de la Peña M, Barceló A, Morell-García D, Pierola J, Zarza JAP, Cantolla JD, Trigo JMM, Soriano JB, **García-Rio F**. Impact of obstructive sleep apnea on gestational diabetes mellitus. *Arch Bronconeumol*. 2022; 58(3): 219-27. Article. IF: 8; Q1

García-Llana H, Panizo N, Gandía L, Ortí M, Giménez-Civera E, Forquet C, D'Marco I, Puchades MJ, Sargsyan M, Sanchis I, Ribera C, Marco MI, Ferrá CM, Pérez-Baylach CM, Bonilla B, Francés FM, Pérez-Bernat E, Sancho A, Górriz JL. COVID-19 Vaccination improved psychological distress (anxiety and depression scores) in chronic kidney disease patients: A prospective study. *Vaccines (Basel)*. 2022; 10(2): 299. Article. IF: 7.8; Q1

Díaz-García E, García-Tovar S, Alfaro E, Zamarrón E, Mangas A, Galera R, Ruiz-Hernández JJ, Sole-Violán J, Rodríguez-Gallego C, Van-Den-Rym A, Pérez-de-Diego R, Nanwani-Nanwani K, López-Collazo E, **García-Rio F**, **Cubillos-Zapata C**. Role of CD39 in COVID-19 severity: dysregulation of purinergic signaling and thromboinflammation. *Front Immunol*. 2022; 13: 847894. Article. IF: 7.3; Q1



3 Information Groups by Area



3.4 Large System Pathologies Area

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Scientific Events by Large System Pathologies Area

25/03/2022. 2º Jornada Geriatría de enlace: Atención Primaria con Residencias y Centros socio-sanitarios

27/05/2022. X Jornada de Divulgación Científica del Personal de Enfermería: "Fortaleciendo los Cuidados"

20/09/2022. Curso avanzado para instructores en simulación clínica

04/10/2022. 11º Taller de simulación de administración menos invasiva de surfactante

14/11/2022. Curso Avanzado de Simulación en Ecografía "E.Pi.Ca: Ecografía a Pie de Cama"

25/11/2022. 8º Curso teórico-práctico con simulación en ECMO NEONATAL

25/11/2022. 3º Jornada de Geriatría Transversal

28/11/2022. Curso de soporte vital avanzado





3 Information Groups by Area



3.4 Large System Pathologies Area



3.4.1 Internal Medicine and Systemic Diseases Group

Publications: 24

Q1: 8

COMPOSITION

Francisco Arnalich Fernández. Investigador "Ad Honorem". FIBHULP. Catedrático. Facultad de Medicina UAM. IdiPAZ. Universidad Autónoma de Madrid

José Luis Cedillo Mireles. Investigador Predoctoral (contrato FPU). Universidad Autónoma de Madrid

María del Carmen Fernández Capitán. Jefa de Servicio de Medicina Interna. Hospital Universitario La Paz. Profesora asociada ciencias de la Salud. Facultad Medicina UAM.

Carmen Montiel López. Catedrática de Farmacología y Terapéutica. Facultad de Medicina. Universidad Autónoma de Madrid

María Angustias Quesada Simón. Facultativo Especialista de Área en Medicina Interna. Hospital Universitario La Paz. Profesora asociada ciencias de la Salud. Facultad Medicina UAM. Universidad Autónoma de Madrid

Juan José Ríos Blanco. Director Médico Hospital universitario La Paz. Profesor asociado ciencias de la Salud. Facultad Medicina UAM. director Médico. Hospital Universitario La Paz



STRATEGIC OBJECTIVE

In the setting of the systemic response frequently found in patients attended in Internal Medicine wards, our group has studied some regulatory mechanisms of the innate immune response in patients with sepsis and other inflammatory states such as acute coronary syndromes (ACS), cystic fibrosis and cancer.

The first line of our research is the link between the parasympathetic and innate immune systems, that is the molecular mechanisms by which acetylcholine can influence the immune system via the "cholinergic anti-inflammatory pathway".

This pathway is mediated by the vagus nerve which releases acetylcholine to interact with the $\alpha 7$ subunit of the nicotinic acetylcholine receptor ($\alpha 7\text{nAChR}$).

We firstly reported that the neuronal $\alpha 7$ nicotinic receptor subunit gene (CHRNA7) is partially duplicated in the human genome forming a hybrid gene (CHRFAM7A) with the novel FAM7A gene, and provided experimental data showing that dup $\alpha 7$ could modulate $\alpha 7$ receptor-mediated synaptic transmission and cholinergic anti-inflammatory response (J Biol Chem 2011). The Toll-like receptor (TLR) plays an important role in the induction of the hyperinflammatory

response and tissue injury in sepsis. We found that the $\alpha 7$ gene expression level in septic patients' peripheral blood mononuclear cells (PBMC) is a clinically relevant marker to assess the magnitude of the patient's inflammatory state, disease severity, and clinical outcome (J Infect Dis 2015).

Another exciting line of our research is the involvement of the $\alpha 7$ -nicotinic receptor and its endogenous modulator dup $\alpha 7$ in human smoking-related tumors, and particularly their involvement in tobacco carcinogen-induced tumor development and chemotherapy resistance. This topic has attracted a grant from the Ministerio de Economía y Competitividad from 2014-2017. Besides, professor Jaime Renart who works in our team group, is doing new research on the molecular mechanisms of podoplanin, a type I transmembrane mucin widely known as a marker for lymphatic endothelial cells that has a critical role during development of the heart, lungs and lymphatic endothelial system. The expression of podoplanin is significantly enhanced during tissue remodelling processes and in several types of human cancer, including squamous cell carcinomas.



RESEARCH LINES

- Molecular mechanisms involved in the innate immune response.
- Link between the parasympathetic and innate immune systems.

Collaborative research line:

- Adaptative immune response in human immunodeficiency virus (HIV) infection.
- Multicentric group: RIETE group (Registro Español de Enfermedad Trombo-Embólica).
- Mechanisms and clinical features of systemic autoimmune diseases.

- Molecular mechanisms of podoplanin during tissue modelling processes and in several types of human cancer.

Lines of study framed in basic research projects:

- Study of the pathophysiological role of nicotinic $\alpha 7$ and $\delta\mu\alpha 7$ receptors expressed in human macrophages, neurons and lung carcinoma cells.
- Identification of signalling pathways connecting nicotinic $\alpha 7$ receptors and negative regulators of TLR-mediated inflammation in human macrophages.

RESEARCH ACTIVITY

● Doctoral theses

Extremera Mazuela M. Mecanismos moleculares de resistencia a cisplatino activados por consumo de tabaco en cáncer de pulmón.[dissertation]. Madrid: UAM; 2022(02/12/2022).

Directors: Montiel López C,
Arnalich Fernández F.

● Final Degree Theses

López Caballero L. Covid-19 en pacientes con enfermedades autoinmunes sistémicas y tratamiento inmunosupresor: características e influencia de la vacunación. Madrid: UAM; 2022.

Directors: Ríos Blanco JJ,
Álvarez Troncoso J

● Publications

• Alcántara MSN, Rivas LM, Espartero MEG, Rubio-Rivas M, García BA, Martínez FM, García CA, Martínez MLT, Fernández FA, Murgui RM, Castro SM, Muñoz MER, Fernández-Garcés M, Hernández MCC, García GMG, Piqueras NV, Abadía-Otero J, Villar LL, Monteiro CS, Pérez MDP, Pérez-Martin S, Collado-Aliaga J, Anton-Santos JM, Lumbrales-Bermejo C. Influence of smoking history on the evolution of hospitalized COVID-19 positive patients: results from the SEMI-COVID-19 regis-

try. Med Clin-Barcelona. 2022; 159(5): 214-23. Article. IF: 3.9; Q2

• Álvarez H, Rava M, Martínez C, Portilla J, Peraire J, Rivero A, Cervero M, Marino A, Poveda E, Llibre JM. Predictors of low-level HIV viraemia and virological failure in the era of integrase inhibitors: A Spanish nationwide cohort. HIV Med. 2022; 23(8): 825-36. Article. IF: 3; Q3

• Álvarez-Troncoso J, Ramos-Ruperto L, Fernández-Cidón P, Trigo-Esteban E, Tung-Chen Y, Busca-Arenzana C, Quintana-Díaz M, Buño-Soto A, Arnalich-Fernández F, Fernández-Capitán C. Screening protocol and prevalence of venous thromboembolic disease in hospitalized patients with COVID-19. J Ultras Med. 2022; 41(7): 1689-98. Article. IF: 2.3; Q2

• Amorós JG, García JAG, Escartí JAM, Iglesias AS, García MCM, Manzano L, Simón MAQ, Ramos MFD, Cerrada JC, Franco AG, Montero-Pérez-Barquero M. Influence of the degree of anaemia on the prognosis of older adults with heart failure (SPAN-HF study). Med Clin-Barcelona. 2022; 158(4): 167-72. Article. IF: 3.9; Q2

• Arandia NI, Espinosa G, del Castillo AG, Tolosa-Vilella C, Colunga-Argüelles D, de Heredia CGDP, Lledo GM, Comet LS, Ortego-Centeno N, Hito JAV, Rubio-Rivas M, Freire M, Ríos-Blanco JJ, Rodríguez-Carballera M, Trapiella-Martínez L, Fonollosa-Pla V, Simeon-Aznar CP. Anti-polymyositis/Scl antibodies in systemic sclerosis clinical associations in a multicentric Spanish cohort and review of the literature. JCR-J Clin Rheumatol. 2022; 28(1): E180-8. Review. IF: 3.4; Q3

• Bikdeli B, Caraballo C, Trujillo-Santos J, Galanau JP, di Micco P, Rosa V, Cusido GV, Schellong S,

Mellado M, Morales MD, Gavín-Sebastián O, Mazzola L, Krumholz HM, Monreal M, (Fernández Capitán MC). Clinical presentation and short- and long-term outcomes in patients with isolated distal deep vein thrombosis vs proximal deep vein thrombosis in the RIETE Registry. JAMA Cardiol. 2022; 7(8): 857-865. Article. IF: 24; D1

• Di Micco P, Salazar VR, Capitán CF, Dentali F, Cuervo CG, Torres JL, Porras JA, Fidalgo A, Grandone E, Meseguer ML, Monreal M. Rivaroxaban monotherapy in patients with pulmonary embolism: off-label vs. labeled therapy. Life (Basel). 2022; 12(8): 1128. Article. IF: 3.2; Q2

• Fanciulli C, Berenguer J, Busca C, Vivancos MJ, Téllez MJ, Domínguez L, Domingo P, Navarro J, Santos J, Iribarren JA, Morano L, Artero A, Moreno J, Rivero-Román A, Santos I, Giner L, Arminanzas C, Montero M, Manzano C, Cifuentes C, García C, Galindo MJ, Ferrero OL, Sanz J, de la Fuente B, Rodríguez C, Gaspar G, Pérez L, Losa JE, Force L, Veloso S, Martínez-Alfaro E, Jarrín I, de Miguel M, García JG, (Arnalich Fernández F). Epidemiological trends of HIV/HCV coinfection in Spain, 2015-2019. HIV Med. 2022; 23(7): 705-16. Article. IF: 3; Q3

• Formiga F, Rubio-Rivas M, Mora-Luján JM, Escudero SC, Martínez RFM, Méndez-Bailón M, Durán-del Campo P, Pérez AR, García-Sánchez FJ, Alcalá-Pedrajas JN, Hernández SA, Millán AH, Díez AL, Sanchez RG, Boixeda R, Vicente J, Cortés B, Pérez CM, Espartero MEG, Castro JL, Suárez SR, Varona JF, Gómez-Huelgas R, Ramos-Rincón JM, (Arnalich Fernández F). Does admission acetylsalicylic acid uptake in hospitalized COVID-19 patients have a protective role? Data from the Spanish SEMI-CO-

VID-19 Registry. Intern Emerg Med. 2022; 17(3): 761-75. Article. IF: 4.6; Q2

• Giner-Galván V, Pomares-Gómez FJ, Quesada JA, Rubio-Rivas M, Tejada-Montes J, Baltasar-Corral J, Taboada-Martínez ML, Sanchez-Mesa B, Arnalich-Fernández F, del Corral-Beamonte E, López-Sampalo A, Pesqueira-Fontan PM, Fernández-Garcés M, Gómez-Huelgas R, Ramos-Rincón JM. C-Reactive protein and serum albumin ratio: a feasible prognostic marker in hospitalized patients with COVID-19. Biomedicines. 2022; 10(6): 1393. Article. IF: 4.7; Q1

• Guisado-Espartero ME, Salamanca-Bautista P, Aramburu-Bodas O, Manzano L, Simón MAQ, Ormaechea G, García SC, García MG, Rodrigo JMC, Montero-Pérez-Barquero M. Causes of death in hospitalized patients in internal medicine departments with heart failure according to ejection fraction. RICA registry. Med Clin-Barcelona. 2022; 158(1): 13-9. Article. IF: 3.9; Q2

• Jaureguízar A, Jiménez D, Bikdeli B, Ruiz-Artacho P, Muriel A, Tapson V, López-Reyes R, Valero B, Kenet G, Monreal M. Heart rate and mortality in patients with acute symptomatic pulmonary embolism. Chest. 2022; 161(2): 524-34. Article. IF: 9.6; Q1

• Lobo JL, Alonso S, Arenas J, Doménech P, Escrivano P, Fernández-Capitán C, Jara-Palomares L, Jiménez S, Lazaro M, Lecumberri R, Monreal M, Ruiz-Artacho P, Jiménez D. Multidisciplinary consensus for the management of pulmonary thromboembolism. Arch Bronconeumol. 2022; 58(3): 246-54. Article. IF: 8; Q1

• Loureiro-Amigo J, Suárez-Carantona C, Oriol I, Sánchez-Díaz C, Coloma-Conde A, Manzano-



3 Information Groups by Area



3.4 Large System Pathologies Area

- Espinosa L, Rubio-Rivas M, Otero-Perpina B, Jenaro MMFM, Coduras-Erdozain A, García-Kleppig JL, Vargas-Parra D, Pesqueira-Fontán PM, Fiteni-Mera I, García-García GM, Jiménez-Torres J, Rodríguez-Cortés P, Costo-Muriel C, Arnalich-Fernández F, Artero A, Carrasco-Sánchez FJ, Escobar-Sevilla J, Alcalá-Pedrajas JN, Gómez-Huelgas R, Ramos-Rincón JM. Prone position in COVID-19 patients with severe acute respiratory distress syndrome receiving conventional oxygen therapy: a retrospective study. *Arch Bronconeumol.* 2022; 58(3): 277-80. Letter. IF: 8; Q1
- Martínez-Alés G, Domingo-Relloso A, Quintana-Díaz M, Fernández-Capitán C, Hernan MA. Thromboprophylaxis with standard-dose vs. flexible-dose heparin for hospitalized COVID-19 patients: a target trial emulation. *J Clin Epidemiol.* 2022; 151: 96-103. Article. IF: 7.2; D1
 - Martínez-Urbistondo D, de la Garza RG, Villares-Fernández P, Font C, Schellong S, López-Núñez JJ, Gil-Díaz A, Diaz-Pedroche MD, Hirmerova J, Montreal M. Liver status and outcomes in patients
- without previous known liver disease receiving anticoagulant therapy for venous thromboembolism. *Intern Emerg Med.* 2022; 17(3): 725-34. Article. IF: 4.6; Q2
- Mehdipoor G, Jiménez D, Bertoletti L, del Toro J, Fernández-Capitán C, Bura-Riviere A, Amado C, Valero B, Blanco-Molina A, Otero R, Imbalzano E, Khorasani R, Prince MR, Bikdeli B, Montreal M. Imaging modalities for confirming pulmonary embolism during pregnancy: results from a multicenter international study. *Eur Radiol.* 2022; 32(2): 1238-46. Article. IF: 5.9; Q1
 - Olleros CL, García CA, Estrada ADB, Muñoz A, Jogersen PEW, Cruz AF, Galván VG, Vargas JA, Ripoll JMS, Rubio-Rivas M, Godoy RM, Rodrigo LM, Aizpuru EF, Fernández FA, Artero A, Amigo JL, García GMG, Gudinoid LC, Torres JJ, Casas-Rojo JM, Núñez-Cortes JM. Use of glucocorticoids megadoses in SARS-CoV-2 infection in a spanish registry: SEMI-COVID-19. *Plos One.* 2022; 17(1): e0261711. Article. IF: 3.7; Q2
 - Ramos-Rincón JM, Cobos-Palacios L, López-

Sampalo A, Ricci M, Rubio-Rivas M, Martos-Pérez F, Lalueza-Blanco A, Moragón-Ledesma S, Fonseca-Aizpuru EM, García-García GM, Beato-Pérez JL, Josa-Laorden C, Arnalich-Fernández F, Molinos-Castro S, Torres-Pena JD, Artero A, Vargas-Núñez JA, Méndez-Bailón M, Loureiro-Amigo J, Hernández-Garrido MS, Peris-García J, López-Reboiro ML, Barón-Franco B, Casas-Rojo JM, Gómez-Huelgas R. Ethnicity and clinical outcomes in patients hospitalized for covid-19 in spain: results from the multicenter SEMI-COVID-19 Registry. *J Clin Med.* 2022; 11(7): 1949. Article. IF: 3.9; Q2

• Rubio-Rivas M, Mora-Lujan JM, Formiga F, Arévalo-Canas C, Ramos JML, García MV, Aizpuru EMF, Díez-Manglano J, Fernández FA, Cabrera JLR, García GMG, Fontán PMP, Núñez JAV, Castro SJF, Amigo JL, Pérez MDP, Pedrajas JNA, Encinas-Sánchez D, Pérez CM, Ena J, Gutiérrez AG, Giner MJE, Varona JF, Núñez-Cortes JM, Casas-Rojo JM. Who ordinal scale and inflammation risk categories in COVID-19. Comparative study of the severity scales. *J Gen Intern Med.* 2022; 37(8): 1980-7. Article. IF: 5.7; Q1

• Ruiz-Alguero M, Alejos B, Yubero CG, Jaume MR, Iribarren JA, Asensi V, Pasquau F, Galera CE, Pascual-Carrasco M, Muñoz A, Jarrín I, Suárez-García I, (Arnalich Fernández F). Use of generic antiretroviral drugs and single-tablet regimen desimplification for the treatment of hiv infection in spain. *AIDS Res Hum Retrov.* 2022; 38(6): 433-40. Article. IF: 1.5; Q4

• Tello BG, Ibáñez ER, Mateo PF, Comet LS, Robles EM, Blanco JJR, Alfonso BM, Garriga GE, Todolí-Parra J, Ortego-Centeno N, Rubio JLC, Dapena MF, Ballve AM, Selva-O'Callaghan A, del Castillo AG, Simeón-Aznar CP, Pla VF. The challenge of comprehensive nailfold videocapillaroscopy practice: a further contribution. *Clin Exp Rheumatol.* 2022; 40(10): 1926-32. Article. IF: 3.7; Q3

• Trujillo-Santos J, Farge-Bancel D, Pedrajas JM, Gómez-Cuervo C, Ballaz A, Braester A, Mahe I, Villalobos A, Porras JA, Monreal M, (Fernández Capitán MC). Enoxaparin versus dalteparin or tinzaparin in patients with cancer and venous thromboembolism: The RIETECAT study. *Res Pract Thromb Haemost.* 2022; 6(4): e12736. Article. IF: 4.6; Q2

• Trullas JC, Aguiló O, Miro O, Díez-Manglano

J, Carrera-Izquierdo M, Quesada-Simón MA, Alvarez-Rocha P, Llorens P, Gonzalez-Franco A, Montero-Pérez-Barqueró M. Prevalence and impact on prognosis of right-bundle branch block in patients with acute heart failure: Findings from the RICA registry. *Rev Clin Esp.* 2022; 225(5): 272-80. Article. IF: 2.9; Q2

● Research projects

Ríos Blanco JJ. Estudio de hipertensión pulmonar en la cohorte de pacientes con infección VIH del Hospital La Paz. Glaxosmithkline S.A. 2010-Ongoing.

Management centre: FIBHULP

● Arnalich Fernández F. Estudio de disfunción ventricular precoz en pacientes con esclerodermia. Glaxosmithkline S.A. 2011-On-going.

Management centre: FIBHULP

Arnalich Fernández F, Montiel López C. Resistencia a quimioterapia y a terapia dirigida a EGFR inducida por consumo de tabaco a través de receptores nicotínicos en cáncer de pulmón no microcítico: estudio in vitro, in vivo y en pacientes (SAF2017-82689-R). Ministerio de Economía y Competitividad. 2018-2022.

Management centre: Fundacion UAM

● Clinical trials

Quesada Simón MA. Valoración del manejo y adecuación del tratamiento antitrombótico de los pacientes con fibrilación auricular no valvular que ingresan en los servicios de medicina interna de españa.

Type: EPA-OD. PI-5022.

Sponsored by: Daiichi Sankyo España.

Signed date: 24/03/2022

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3.4.2

Organic Dysfunction and Failure
in the Aggression Group

Publications: 21

Q1: 8

COMPOSITION

José Manuel Añón Elizalde. Jefe de Servicio en Medicina Intensiva. Hospital Universitario La Paz

Alejandro Agrifoglio Rotaecho. Facultativo Especialista de Área en Medicina Intensiva. Hospital Universitario La Paz

María José Asensio Martín. Jefa de Sección en Medicina Intensiva. Hospital Universitario La Paz

Lucía Cachafeiro Fuciños. Facultativo Especialista de Área en Medicina Intensiva. Hospital Universitario La Paz

Belén Civantos Martín. Facultativo Especialista de Área en Medicina Intensiva. Hospital Universitario La Paz

Maria Belén Estebáñez Montiel. Facultativo Especialista de Área en Medicina Intensiva. Coordinador de Trasplante. Hospital Universitario La Paz

Juan Carlos Figueira Iglesias. Jefe de Sección en Medicina Intensiva. Hospital Universitario La Paz

Eva Mercedes Flores Cabeza. Facultativo Especialista de Área en Medicina Intensiva. Hospital Universitario La Paz

Mónica Hernández Bernal. Médico Adjunto Especialista en Unidad de Cuidados Intensivos. Hospital Universitario La Paz

Jesús Javier Manzanares Gómez. Facultativo Especialista de Área en Medicina Intensiva. Hospital Universitario La Paz

Eva Perales Ferrera. Facultativo Especialista de Área en Medicina Intensiva. Hospital Universitario La Paz

Montserrat Aránzazu Rodríguez Aguirregabiria. Facultativo Especialista de Área en Medicina en Intensiva. Hospital Universitario La Paz

Santos Manuel Sánchez Sánchez. Jefe de Sección de Medicina Intensiva. Hospital Universitario La Paz

Santiago Yus Teruel. Facultativo Especialista de Área en Medicina Intensiva. Hospital Universitario La Paz



STRATEGIC OBJECTIVE

The global objective of the investigation team on DYSFUNCTION AND ORGAN FAILURE IN AGGRESSION is the optimization of the patient management in the really critical ill patients who can develop Organ Dysfunction or Organ Failure. Multiorgan Dysfuntion & Multiorgan Failure Syndrome (MOF-MOD Syndrome) are correlated with bad prognostic and high mortality rates.

D-FMO Syndrome is correlated both with the disease severity and the therapeutic efforts. The therapeutic management of the patient must be early and directed to specific objectives. Otherwise, the support measures must be directed to the specific situations (like sepsis, trau-

ma ...) and to the Organs or Systems in Dysfunction or Failure (coagulation, haemodynamic, respiratory or renal ..) Finally, the detection or D-FMO Syndrome employing not only single markers (clinic) but early and organ specific biomarkers (basic or advanced biochemical markers, molecular markers ...) can bring a higher efficacy and better results.

Finally, the detection or D-FMO Syndrome employing not only single markers (clinic) but early and organ specific biomarkers (basic or advanced biochemical markers, molecular markers ...) can bring a higher efficacy and better results.



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3.4 Large System Pathologies Area

RESEARCH LINES

- Biomarkers.
- Resuscitation income.
- Therapeutic support.

RESEARCH ACTIVITY

● Doctoral theses

Flores Cabeza EM. Utilidad del la MR-PRO-ADRENOMEDULINA en la resucitación y la detección precoz de sepsis en el paciente quemado crítico[dissertation]. Madrid: UAM: 2022(24/05/2022).

Directors: Sánchez Sánchez SM,
García de Lorenzo Mateos A.

Sáez de la Fuente I. Utilización de marcadores de metabolismo anaeróbico como factores pronósticos en el postoperatorio inmediato del trasplante hepático[dissertation]. Madrid: UAM: 2022(22/03/2022).

Directors: Montejo González JC,
García de Lorenzo Mateos A.

● Publications

- Balandín B, Ballesteros D, Pintado V, Soriano-Cuesta C, Cid-Tovar I, Sancho-González M, Pérez-Pedrero MJ, Chicot M, Asensio-Martín MJ, Silva JA, de Luna RR, Martín-Dal Gesso C, Rodríguez-Serrano DA, Martínez-Sagasti F, Royuela A. Multi-centre study of ceftazidime/avibactam for Gram-negative bacteria infections in critically ill patients. *Int J Antimicrob Ag.* 2022; 59(3): 106536. Article. IF: 10.8; D1
- Bellón T, Gonzalez-Valle O, Sendagorta E, Lerma V, Del Rio JM, Martínez C, Servera G, Gonzalez-Herrada C, Cachafeiro L, Lorente JA, Cabanas R, Herranz P, de Abajo F. IL-15/IL-15R alpha in SJS/TEN: relevant expression of IL15 and IL15RA in affected skin. *Biomedicines.* 2022; 10(8): 1868. Article. IF: 4.7; Q1
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3.4 Large System Pathologies Area

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Research projects

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Management centre: FIBHULP

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Clinical trials

Rodríguez Aguirregabiria M. Estudio epidemiológico prospectivo sobre la asistencia del paciente crítico en las unidades de cuidados intensivos españolas. cmbd-uci semicyuc.

Type: No EPA. PI-5170.

Sponsored by: Sociedad Española de Medicina Intensiva, Crítica Y Unidades Coronarias (Semicyuc).

Signed date: 04/03/2022

Rodríguez Aguirregabiria M. Estudio retrospectivo, descriptivo y multicéntrico con revisión de gráficos sobre cefiderocol en el tratamiento de pacientes con infecciones por *Acinetobacter spp.* resistentes a los carbapenémicos.

Type: EPA-OD. PI-5086.

Sponsored by: Shionogi B.V.

Signed date: 30/03/2022

Cachafeiro Fuciños L. Estudio exploratorio para evaluar la eficacia y seguridad de la administración en la nutrición de 1,5 g de proteína/kg/día frente a 1,0 g de proteína/kg/día en la fase catabólica del paciente crítico bajo ventilación mecánica.

Type: Clinical Trials, phase IV. 5908.

Sponsored by: Sociedad Española de Medicina Intensiva, Crítica Y Unidades Coronarias (Semicyuc).

Signed date: 28/02/2022

Asensio Martín MJ. Estudio no intervencional, retrospectivo y multicéntrico de la seguridad renal de amfotericina b liposomal en pacientes en estado crítico con aspergilosis pulmonar invasiva.

Type: EPA-SP. 2022.288.

Sponsored by: Sociedad Española de

Medicina Intensiva, Crítica Y Unidades Coronarias (Semicyuc).

Signed date: 13/07/2022

Cachafeiro Fuciños L. A randomized, placebo-controlled, double-blind, multi-center, phase III study investigating the efficacy and safety of trimodulin (BT588) as add-on therapy to standard care in adult subjects with severe community-acquired pneumonia (sCAP)

Type: Clinical trials, phase IV

Sponsored by: Sponsored By: Sociedad Española de Medicina Intensiva, Crítica Y Unidades Coronarias (Semicyuc)

Signed date: 28/02/2022

Patents and trademarks

Herrero Ambrosio A, Ramírez García E, Ojea Feo JJ, Pérez Rodríguez J, Asensio Martín MJ, González Sánchez ML, Moro Agud M, Llorente Romeo M, López Nieto M, Gómez Rioja R, authors; FIBHULP, assignee. Trademark name: SINOIRES; CM 13.080.056; 2014 July 14.





3 Information Groups by Area



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3.4.3 Respiratory Diseases Group

Publications: 39

Q1: 25

COMPOSITION

Francisco José García Río. Jefe de Sección de Neumología. Hospital Universitario La Paz. Catedrático de Universidad. Facultad de Medicina. Universidad Autónoma de Madrid

Sergio Alcolea Batres. Facultativo Especialista de Área en Neumología. Hospital Universitario La Paz

Enrique Alfaro García. Investigador Predoctoral. FIBHULP

Rodolfo Álvarez-Sala Walther. Jefe de Servicio de Neumología. Hospital Universitario La Paz. Catedrático. Facultad de Medicina. Universidad Autónoma de Madrid

Juan José Cabanillas Martín. Facultativo Especialista de Área en Neumología. Hospital Universitario La Paz

Carlos Javier Carpio Segura. Facultativo Especialista de Área en Neumología. Hospital Universitario La Paz

Raquel Casitas Mateo. Facultativo Especialista de Área en Neumología. Hospital Universitario La Paz

Carolina Cubillos Zapata. Investigadora Postdoctoral. Contrato Miguel Servet tipo I. FIBHULP

Elena Díaz García. Investigador Posdoctoral. CIBERER

Raúl Galera Martínez. Facultativo Especialista de Área en Neumología. Hospital Universitario La Paz

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María Antonia Gómez Mendieta. Facultativo Especialista de Área en Neumología. Hospital Universitario La Paz

Ana Jaureguizar Oriol. Facultativo Especialista de Área en Neumología. Hospital Universitario La Paz

Cristina López Fernández. Técnico de Laboratorio. FIBHULP

Elisabet Martínez Cerón. Facultativo Especialista de Área en Neumología. Hospital Universitario La Paz

Concepción Prados Sánchez. Jefe de Sección de Neumología. Hospital Universitario La Paz



David Romero Ribate. Facultativo Especialista de Área en Neumología. Hospital Universitario La Paz

Carlos Villasante Fernández-Montes. Jefe de Sección de Neumología. Hospital Universitario La Paz

Ester Zamarrón de Lucas. Facultativo Especialista de Área en Neumología. Hospital Universitario La Paz

STRATEGIC OBJECTIVE

Our group studies the molecular mechanisms of cardiovascular morbidity associated with sleep breathing disorders, in particular, the sleep apnoeahypopnea syndrome(SAHS).

We also provide evidence for making clinical decisions on patients with these disorders. We conduct studies to evaluate the mechanisms involved in the development of arterial hypertension, arrhythmias, heart failure, ischaemic heart disease, pulmonary hypertension, pulmonary embolism, and carbohydrate metabolism disorders. In terms of the pathogenesis of airflow limitations, several of our projects have focused on small airway function, bronchial hyperresponsiveness and exercise adaptation in a number of obstructive diseases, particularly COPD,

asthma and cystic fibrosis. We also evaluate the objective measurement of daily physical activity in these patients and contribute to the best definition of its determinants and its clinical and prognostic usefulness. We collaborate with other research groups to study the contribution of the innate immune system to the evolution of these diseases and the relationship between the response to hypoxia and the clinical expression of COPD and SAHS.

Finally, in the field of the systematisation of lung function testing, we create reference values for various population groups and define the methodological aspects of the measurement of exhaled breath condensate and nitric oxide.



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RESEARCH LINES

- Morbidity of sleep-disordered breathing.
- Pathogenesis of airflow limitation.

- Systematization of lung function testing.

RESEARCH ACTIVITY

● Doctoral theses

Díaz García E. Alteraciones en el sistema inmune y su relación con el desarrollo de comorbilidades en pacientes con Apnea obstructiva del sueño[dissertation]. Madrid: UAM; 2022(22/09/2022).

Directors: Cubillos Zapata C,
García Ro F

García Sánchez A. Efecto de la CPAP nasal sobre la progresión de la enfermedad vascular retiniana en pacientes con apnea obstructiva del sueño y retinopatía diabética no proliferativa[dissertation]. Madrid: UAM; 2022(26/04/2022).

Director: García Ro F.

Mangas Moro A. Efecto protector de la vacuna antigripal en pacientes hospitalizados por gripe: análisis observacional de las temporadas 2009 a 2019[dissertation]. Madrid: UAM; 2022(28/04/2022).

Directors: Álvarez-Sala Walther R
Arribas López JR

Valbuena Garrido MT. Inmunoterapia epicutánea, un nuevo tratamiento para los pacientes pediátricos con alergia persistente a la avellana [dissertation]. Madrid: UAM; 2022(15/09/2022).

Director: Álvarez-Sala Walther R.

● Publications

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completing a pulmonary rehabilitation programme in patients with chronic obstructive pulmonary disease. *Work*. 2022; 73(3): 991-1000. Article. IF: 2.3; Q3

- Ahmed WUR, Bhatia S, McLean KA, Khaw R, Baker D, Kamarajah SK, Bell S, Nepogodiev D, Harrison EM, Glasbey JC, Borakati A, Burke J, "Et al" Validation of the OAKS prognostic model for acute kidney injury after gastrointestinal surgery. *BJS Open*. 2022; 6(1): zrab150. Article. IF: 3.1; Q1

- Alfaro E, Díaz-García E, García-Tovar S, Zamarrón E, Mangas A, Galera R, López-Collazo E, García-Río F, Cubillos-Zapata C. Upregulated proteasome subunits in covid-19 patients: a link with hypoxemia, lymphopenia and inflammation. *Bioolecules*. 2022; 12(3): 442. Article. IF: 5.5; Q1
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- Blanco-Fernández G, Fondevila-Campo C, Sanjuánbenito A, Fabregat-Prous J, Secanella-Medayo L, Rotellar-Sastre F, Pardo-Sánchez F, Prieto-Calvo M, Marín-Ortega H, Sánchez-Cabús S, Díez-Valladares L, Alonso-Casado O, González-Serrano C, Rodríguez-Sanjuán JC, García-Plaza G, Jaén-Torrijimeno I, Suárez-Muñoz MA, Becerra-Massare A, Senra-del Río P, Pando E, López-Andújar R, Muñoz-Forner E, Rodríguez-López M, Pereira F, Serrablo-Requejo A, Turrión VS, Garrido MJ, Burdio F, Martín-Pérez E, Estevan-Esteve R, López-Guerra D, Castell-Gómez J, Salinas-Gómez

J, López-Baena JA, López-Ben S, Solar-García L, Pérez-Alonso AJ, Martínez-Insfrán LA, Blas JL, Cornejo M, Gutiérrez-Calvo A, Domingo-del Pozo C, Ochando-Cerdán F, Muñoz-Bellvis L, Rebollar-Sáenz J, Sánchez B, Jover JM, Gómez-Bravo MA, Ramíz JM, Rojas-Holguin A. Pancreatic metastases from renal cell carcinoma. Postoperative outcome after surgical treatment in a Spanish multicenter study (PANMEKID). *EJSO-Eur J Surg Onc*. 2022; 48(1): 133-41. Article. IF: 3.8; Q1

- Carpio C, Lerin M, Torres I, Fernández-Velilla M, Río FG, Álvarez-Sala R, Prados C. Factors predicting 6-min walking test indexes in adults with cystic fibrosis. *SCI Sport*. 2022; 37(5-6): 438-45. Article. IF: 1.1; Q4

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Pérez-de-Diego R, Nanwani-Nanwani K, López-Collazo E, García-Río F, Cubillos-Zapata C. Role of CD39 in COVID-19 severity: dysregulation of purinergic signaling and thromboinflammation. *Front Immunol*. 2022; 13: 847894. Article. IF: 7.3; Q1

- Espin IM, Loza SM, Plasín CL, Saco MDN, Sánchez AA, la Calle MDV. Characteristics of upper limb osteoarticular infections at the emergency department of a tertiary university hospital in Spain. *Pediatr Emerg Care*. 2022; 38(1): E251-3. Article. IF: 1.4; Q3

- Fernández-Bello I, Manzano EM, Río FG, Sanz RJ, Cubillos-Zapata C, Casitas R, Sánchez B, Jaureguizar A, Acuña P, Alonso-Fernández A, Román MTA, Yuste VJ, Butta NV. Procoagulant state of sleep apnea depends on systemic inflammation and endothelial damage. *Arch Bronconeumol*. 2022; 58(2): 117-24. Article. IF: 8; Q1

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- García-Río F, Alcázar-Navarrete B, Castillo-Villegas D, Cillóniz C, García-Ortega A, Leiro-Fernández V, Lojo-Rodríguez I, Padilla-Galo A, Quezada-Loaiza CA, Rodríguez-Portal JA, Sánchez-de-la-Torre M, Sibila O, Martínez-García MA. Biological biomarkers in respiratory diseases. *Arch Bronconeumol*. 2022; 58(4): 323-33. Article. IF: 8; Q1

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- Hernández LC, Moreno RMG, Peláez A, Bonilla



3 Information Groups by Area

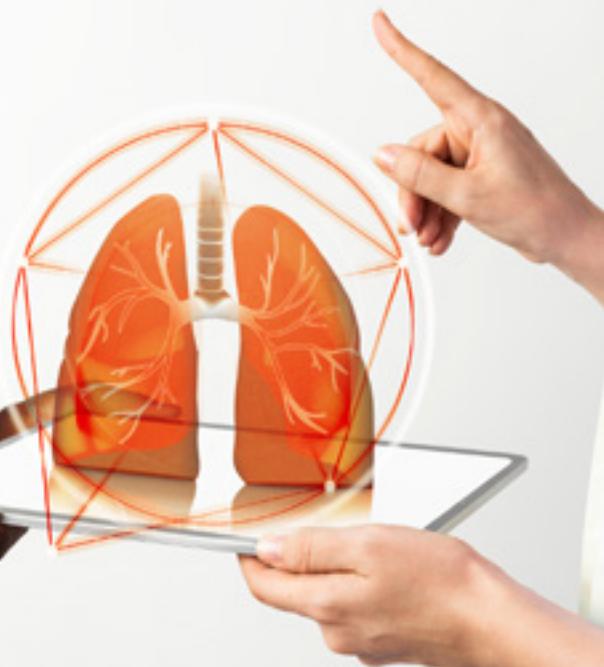
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3 Information Groups by Area



3.4 Large System Pathologies Area

R, García-Clemente M, Maiz L, Sibila O, Golpe R, Menéndez R, Rodríguez-López J, Prados C, Martínez-García MA, Rodríguez JL, de la Rosa D, Durán X, García-Ojalvo J, Barreiro E. Systemic inflammatory biomarkers define specific clusters in patients with bronchiectasis: A large-cohort study. *Biomedicines*. 2022; 10(2): 225. Article. IF: 4.7; Q1

Research projects

Cubillos Zapata C. El papel del inflammasoma en el progreso de las comorbilidades en pacientes con apnea obstructiva del sueño (CP18/00028). ISCIII. 2019-2022.

Management centre: FIBHULP

Cubillos Zapata C. Identificación del riesgo de cáncer en pacientes con apnea obstructiva del sueño con la detección de inmuno-checkpoints (PI19/01363). ISCIII. 2020-2022.

Management centre: FIBHULP

García Río F. Relación entre la actividad física cotidiana de pacientes con EPOC y la actividad de su sistema inmune innato y adaptativo. Identificación de biomarcadores pronósticos (PI19/01612). ISCIII. 2020-2022.

Management centre: FIBHULP

García Río F. Evaluación de las vías patogénicas de la asociación apnea del sueño y cáncer para una medicina de precisión (PI22/01262). ISCIII. 2022-2025.

Management centre: FIBHULP

Galera Martínez F. Evaluación del perfil de hipermetilación de microRNAs para la estimación del riesgo de cáncer de (PI22/01764). ISCIII. 2022-2025.

Management centre: FIBHULP

Cubillos Zapata C. pulmón en pacientes con EPOC (PI22/01257). ISCIII. 2022-2025.

Management centre: FIBHULP

García Río F. Identificación de Mecanismos, Biomarcadores e Intervenciones en co-

morbilidad en Enfermedades Respiratorias Hipoxémicas mediante abordajes preclínicos, clínicos y computacionales. (P2022/BMD7224). CM. 2022-2025.

Management centre: UAM

García Río F. Contrato de intensificación (INT20/00020). ISCIII-MICINN. 2021-2022.

Management centre: FIBHULP

Cubillos Zapata C. Investigo Técnico. CM. 2022-2024.

Management centre: FIBHULP

García Río F. Viral S protein-ACE2 interactions: cell damage, protection and prognosis in the cardiovascular complications of COVID-19 (SPACE2-CV-COVID-CM). CM. 2022-2022.

Management centre: UAM

García Río F. Análisis de la actividad del sistema inmune innato en pacientes con síndrome de apneas-hipopneas del sueño grave. Roche Farma S. A. 2014-Ongoing.

Management centre: FIBHULP

García Río F. Contribución de las alteraciones de la percepción de la disnea al diagnóstico de asma ficticio en obesos. Astrazeneca Farmacéutica Spain S. A. 2009-Ongoing.

Management centre: FIBHULP

Gómez Carrera L. Auditoría clínica sobre manejo de fibrosis pulmonar idiopática en el área sanitaria del Hospital La Paz. Boehringer Ingelheim España S. A. 2016-Ongoing.

Management centre: FIBHULP

Álvarez-Sala Walther R. Actualización y renovación de la actividad investigadora en el servicio de neumología del Hospital Universitario La Paz. Chiesi España S.A. 2015-Ongoing.

Management centre: FIBHULP

García Río F. Análisis de la actividad física cotidiana en pacientes con síndrome de

apneas-hipopneas del sueño. Alfa Product t Sud Europa S.L. 2007-Ongoing.

Management centre: FIBHULP

Cubillos Zapata C. Implicaciones pulmonares, inmunológicas, moleculares y caracterización de secuelas a medio y largo plazo en pacientes con síndrome post-COVID-19 que han sufrido síndrome respiratorio agudo severo. IdiPAZ. 2022-2022.

Management centre: FIBHULP

Casitas Mateo R. Efecto a largo plazo de la promoción de la actividad física sobre las características clínicas y riesgo metabólico-vascular en pacientes con apnea obstructiva del sueño leve-moderada (Estudio PASOS). NEUMOMADRID. 2022-2023.

Management centre: NEUMOMADRID

García Río F. Evaluación de la repercusión funcional y morfológica a medio-largo plazo del síndrome de estrés respiratorio agudo grave secundario a COVID-19. NEUMOMADRID. 2021-2023.

Management centre: NEUMOMADRID

Cibers and Retics

García Río F. CIBER de Enfermedades Respiratorias (CIBERes). ISCIII. (31/12/2025). FIBHULP

Clinical trials

Alcolea Batres S. Estudio de extensión abierto para evaluar la seguridad, tolerabilidad y eficacia del uso a largo plazo de treprostinil palmitilo en polvo para inhalación en pacientes con hipertensión pulmonar asociada con enfermedad pulmonar intersticial.

Type: Clinical Trials, phase II. 2022.582.

Sponsored by: Insmed Incorporated.

Signed date: 12/12/2022

Alcolea Batres S. Estudio de fase 2, aleatorizado, doble ciego, multicéntrico y controlado con placebo para evaluar la seguridad y tolerabilidad de treprostinil palmitilo en polvo para inhalación en pacientes con hipertensión pulmonar asociada a enfermedad pulmonar intersticial.

Type: Clinical Trials, phase II. 6126.

Sponsored by: Insmed Incorporated.

Signed date: 08/06/2022

Alcolea Batres S. Estudio de fase 2b, aleatorizado, doble ciego, multicéntrico y controlado con placebo para evaluar la eficacia, la seguridad y la farmacocinética de treprostinil palmitilo en polvo para inhalación en pacientes con hipertensión arterial pulmonar.

Type: Clinical Trials, phase IIb. 6125.

Sponsored by: Insmed Incorporated.

Signed date: 09/06/2022

Alcolea Batres S. Estudio de fase IIb/III, aleatorizado, doble ciego, controlado con placebo, de búsqueda de dosis de 24 semanas y confirmatorio para evaluar la seguridad y eficacia de av-101 en pacientes con hipertensión arterial pulmonar (hap).

Type: Clinical Trials, phase IIb. 5998.

Sponsored by: Aerovate Therapeutics, Inc.

Signed date: 17/06/2022

Alcolea Batres S. Estudio de fase III, aleatorizado, doble ciego y controlado con placebo para evaluar sotatercept añadido al tratamiento de base de la hipertensión arterial pulmonar (hap) en pacientes con hap de riesgo intermedio y alto recién diagnosticada.

Type: Clinical Trials, phase III. 5951

A011-13.

Sponsored by: Acceleron Pharma, Inc.

Signed date: 13/01/2022

Alcolea Batres S. Estudio de seguimiento, abierto, a largo plazo, para evaluar los efectos



3 Information Groups by Area



3.4 Large System Pathologies Area

tos de sotatercept añadido a la terapia de base de la hipertensión arterial pulmonar (hap) para el tratamiento de la hap.

Type: Clinical Trials, phase III. 6025 A011-12.

Sponsored by: Acceleron Pharma, Inc.
Signed date: 03/02/2022

Alcolea Batres S. Estudio en fase III, prospectivo, multicéntrico, doble ciego, con doble simulación, aleatorizado, controlado con fármaco activo, de grupos paralelos, de grupos secuenciales, adaptativo y basado en acontecimientos para comparar la eficacia, la seguridad y la tolerabilidad de macitentán 75 mg frente a macitentán 10 mg en pacientes con hipertensión arterial pulmonar, seguido de un periodo de tratamiento abierto con macitentán 75 mg.

Type: Clinical Trials, phase III. 2022.428.
Sponsored by: Janssen-Cilag España, S.A..
Signed date: 05/08/2022

Álvarez-Sala Walther R. Estudio fundamental de 52 semanas de duración, aleatorizado, doble ciego, controlado con placebo en grupos paralelos para evaluar la eficacia, seguridad y tolerabilidad de dupilumab en pacientes con enfermedad pulmonar obstructiva crónica (epoc) de moderada grave con inflamacion tipo2.

Type: Clinical Trials, phase III. 2022.205.

Sponsored by: Sanofi-Aventis Recherche & Developpement.

Signed date: 05/05/2022

Carpio Segura CJ. Estudio de fase 3, aleatorizado, doble ciego y controlado con placebo para evaluar la eficacia, la seguridad y la tolerabilidad de brensocatib administrado una vez al día durante 52 semanas en sujetos con bronquiectasias sin fibrosis quística: estudio aspen.

Type: Clinical Trials, phase III. 2022.734.

Sponsored by: Insmed Incorporated.
Signed date: 12/12/2022

García Río F. Estudio observacional transversal sobre la caracterización del flujo inspiratorio subóptimo en pacientes con epoc grave: estudio panacea.

Type: EPA-LA. 2022.138.
Sponsored by: Chiesi España Sa.
Signed date: 12/05/2022

Patents and trademarks

Díaz García E, Laxman Nanwani K, Quintana Díaz M, García Río F, Cubillos-Zapata C, inventors; FIHULP, CIBER, assignees. Biomarcadores para el pronóstico de pacientes que han sufrido una hemorragia subaracnoidea aneurismática (SAH). P202130180; 2021 March 3.





3.4.4

Regulation of Gene Expression and by Hypoxia Group

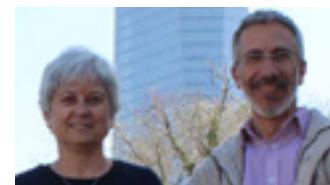
Publications: 4

Q1: 2

COMPOSITION

Luis del Peso Ovalle. Profesor Titular. Departamento de Bioquímica. Facultad de Medicina. Universidad Autónoma de Madrid

Benilde Jiménez Cuenca. Profesor Titular. Departamento de Bioquímica Facultad de Medicina. Universidad Autónoma de Madrid



STRATEGIC OBJECTIVE

Oxygen homeostasis, central to physiology, is altered in high-incidence pathologies such as cardiovascular disease and cancer. Therefore, the elucidation of cellular and molecular adaptive responses to hypoxia is an important topic of biomedical research. Hypoxia-inducible transcription factors (HIFs) play a key role in this response by controlling the expression of most of the genes involved in adaptation to hypoxia. The aim of our group is to contribute to the understanding of the transcriptional response to hypoxia and the cellular and molecular mechanisms underlying adaptive responses such as the induction of angiogenesis. Our long-term goal is to exploit this knowledge to improve the clinical management of pathologies in which the development of tissue hypoxia is a common feature.

RESEARCH LINES

- Characterisation of molecular mechanisms responsible for the transcriptional response to hypoxia
- Identification of polymorphisms affecting HIF binding sites and characterisation of their functional effect
- Cellular and molecular mechanism of angiogenesis regulation by hypoxia
- Hypoxia regulation of metabolism and role of HIF in metabolic diseases

RESEARCH ACTIVITY

● Publications

- Arconada-Luque E, Jiménez-Suárez J, Pascual-Serra R, Nam-Cha SH, Moline T, Cimas FJ, Fligueiro G, Ortega-Muelas M, Roche O, Fernández-Aroca DM, Velasco RM, García-Flores N, Garnes-García C, Sánchez-Fdez A, Matilla-Almazan S, Lobo VJSA, Hernández-Losa J, Belandía B, Pandiella A, Esparís-Ogando A, Cajal SRY, del Peso L, Sánchez-Prieto R, Ruiz-Hidalgo MJ. ERK5 is a major determinant of chemical sarcomagenesis: implications in human pathology. *Cancers (Basel)*. 2022; 14(14): 3509. Article. IF: 5.2; Q2
- Maeso-Alonso L, Alonso-Olivares H, Martínez-García N, López-Ferreras L, Viloch-Fernández J, Puente-Santamaría L, Colas-Algora N, Fernández-Corona A, Lorenzo-Marcos ME, Jiménez B, Holmgren L, Wilhelm M, Millán J, del Peso L, Claesson-Welsh L, Marqués MM, Marín MC. p73 is required for vessel integrity controlling endothelial junctional dynamics through Angiomotin. *Cell Mol Life Sci.* 2022; 79(10): 535. Article. IF: 8; Q1.
- Puente-Santamaría L, Sánchez-González L, Pescador N, Martínez-Costa O, Ramos-Ruiz R, del Peso L. Formal meta-analysis of hypoxic gene expression profiles reveals a universal gene signature. *Biomedicines.* 2022; 10(9): 2229. Article. IF: 4.7; Q1
- Puente-Santamaría L, Sánchez-González L, Ramos-Ruiz R, del Peso L. Hypoxia classifier for transcriptome datasets. *BMC Bioinformatics.* 2022; 23(1): 204. Article. IF: 3; Q2

● Research projects

del Peso Ovalle L. Implementación de procedimientos para análisis de datos derivados de técnicas de secuenciación de alto rendimiento (IND2019/BMD-17134). CM. 2021-2023.

Management centre: UAM

del Peso Ovalle L. Contribución de BHLHE40 a la respuesta transcripcional a la hipoxia y su implicación en patologías metabólicas y respiratorias (PID2020-118821RB-I00). MICIN. 2021-2024.

Management centre: UAM



3 Information Groups by Area



3.4 Large System Pathologies Area

1 Introduction

2 Executive Summary

3 Information Groups by Area

4 Associated Clinicians



3.4.5 Nephrology Group

Publications: 23

Q1: 12

COMPOSITION*

Maria Gemma Fernández Juárez. Jefa de Servicio en Nefrología. Hospital Universitario La Paz

Maria Auxiliadora Bajo Rubio. Jefe de Sección de Nefrología. Hospital Universitario La Paz. Profesora Asociada. Facultad de Medicina. Universidad Autónoma de Madrid *

Maria José Castro Notario. Enfermera. Hospital Universitario La Paz

Olga Costero Fernández. Facultativo Especialista de Área en Nefrología. Hospital Universitario La Paz

Gloria del Peso Gilsanz. Facultativo Especialista de Área en Nefrología. Hospital Universitario La Paz

Maria Elena González García. Facultativo Especialista de Área en Nefrología. Hospital Universitario La Paz

Carlos Jiménez Martín. Jefe de Sección de Nefrología. Hospital Universitario La Paz

Maria Ovidia López Oliva. Facultativo Especialista de Área en Nefrología. Hospital Universitario La Paz

Almudena Pérez Torres. Dietista-Nutricionista. Hospital Universitario Santa Cristina

Begoña Rivas Becerra. Facultativo Especialista de Área en Nefrología. Hospital Universitario La Paz

Rafael Jesús Sánchez Villanueva. Facultativo Especialista de Área en Nefrología. Hospital Universitario La Paz



STRATEGIC OBJECTIVE

The strategic objective of this care-research group is to enable, by developing a deep understanding of the various components that make up nephrology (kidney diseases in initial stages, progression of kidney disease, particular and general complications of dialysis and kidney transplantation), access by affected patients to the best diagnostic and therapeutic interventions available at any time. Each of the areas must ensure a minimum level of research and development activity representing the innovation in these areas.

The lines of research are at times cross-sectional to the four components indicated for overall nephrology.

RESEARCH LINES

The lines of research are occasionally cross-sectional to the four components indicated for nephrology as a whole.

A) Incipient nephropathies and kidney disease progression:

- Glomerular and tubular nephropathies. New diagnostic markers and interventions.

- Organisational Research (computerisation, organisation of generational change in the department and network).
- Autosomal Dominant Polycystic Kidney Disease. Family Studies and treatment approaches with Tolvaptan.

* In 2022, this group was led by Dr. María Auxiliadora Bajo



3 Information Groups by Area



3.4 Large System Pathologies Area

- Association of cardiovascular disease with the progress of nephropathies (NEFRONA multicenter study, REDinREN).
- Incorporation of a psychologist into the department of nephrology: criteria and process. Issues on monitoring therapeutic adherence, in particular among transplanted patients.

B) Complications of dialysis

- Establishment of normal peritoneal functional in humans. Implications for patient survival and long-term treatment. New dialysis fluids. Aquaporin 1 (AQP1) and its genetic polymorphisms: relationship with peritoneal transport of water. Multicentre European study.
- The alternatively activated macrophage in peritoneal effluent (AAM): its relationship with defence and peritoneal fibrosis. CCL18 as a chemokine of AAM and a mediator of peritoneal fibrosis.
- Peritoneal biopsy for the complete evaluation of the peritoneal membrane. A corre-

pondence study with cell and components findings in peritoneal effluent during kidney transplantation is ongoing (Multicenter).

- Cardiovascular risk in patients with advanced kidney disease and on dialysis. Endocrine aspects. The abdominal adipocyte and adipocytokines. FABP antagonists as blockers of the adipocyte-macrophage response. Nonthyroidal diseases, influence on CKD patients. FGF 21 role in uremic insulin resistance.
- Mouse model for peritoneal dialysis: exploration of the effects of dialysis fluids, pharmacological interventions and genetic manipulation (KO, transgenic).
- Allergic reactions to hemodialysis membranes: mechanisms and alternatives.

C) Complications of kidney transplantation:

- Toxicity due to immunosuppressants. Ultrasound contrast in the analysis of renal microvasculature in kidney transplantation and complications.
- The involvement of CMV in the renal graft response: anticipated diagnosis.

RESEARCH ACTIVITY

● Doctoral theses

Díaz Mancebo R. La transición endotelio mesenquimal, mecanismo clave en el desarrollo de la vasculopatía hialinizante peritoneal [dissertation]. Madrid: UAM; 2022(07/10/2022).

Directors: Bajo Rubio MA;
del Peso Gilsanz MG.

● Publications

- Bajo MA, Moreno FR, Arenas MD, Such RJD, Higuera MJM, Delgado M, Molina P, Fernández NG, Malo AM, Peiro-Jordán R, Cannata-Andia J, de Franciscorl ALM. Safety and effectiveness of sucroferric oxyhydroxide in Spanish dialysis patients: A sub-analysis of the VÉRIFIE study. *Nefrología*. 2022; 42(5): 594-606. Article. IF: 2.6; Q3
- Campillo CR, de Pedro MPS, Barceló SA, Rubio MAB, Soto AB, Rioja RG. Differences in glomerular filtration rate estimated with the new eGFRcr CKD EPI age and sex 2021 vs. the eGFRcr CKD EPI 2009 formula. *Adv Lab Med*. 2022; 3(3): 313-4. Letter. IF: 1; Q4
- Caravaca-Fontan F, Díaz-Encarnación M, Cabello V, Ariceta G, Quintana LF, Marco H, Barros X, Ramos N, Rodríguez-Mendiola N, Cruz S, Fernández N, Rodríguez-Mendiola N, Cruz S, Fernández-Juárez G, Rodríguez E, Olea T, Melgosa M, Huerta A, Miquel R, Mon C, Fraga G, de Lorenzo A, Draibe J, Cano-Megías M, Gonzalez F, Shabaka A, López-Rubio ME, Fenollosa MA, Martín-Penagos L, Da Silva I, Titos JA, de Córdoba SR, de Jorge EG, Praga M. Longitudinal change in proteinuria and kidney outcomes in C3 glomerulopathy. *Nephrol Dial Transpl*. 2022; 37(7): 1270-80. Article. IF: 6.1; Q1
- Caravaca-Fontán F, Rivero M, Cavero T, Díaz-Encarnación M, Cabello V, Ariceta G, Quintana LF, Marco H, Barros X, Ramos N, Rodríguez-Mendiola N, Cruz S, Fernández-Juárez G, Rodríguez A, de José AP, Rabasco C, Rodado R, Fernández L, Pérez-Gómez V, Ávila A, Bravo L, Espinosa N, Allende N, de la Nieta MDS, Rodríguez E, Olea T, Melgosa M, Huerta A, Miquel R, Mon C, Fraga G, de Lorenzo A, Draibe J, González F, Shabaka A, López-Rubio ME, Fenollosa MA, Martín-Penagos L, Da Silva I, Titos JA, de Córdoba SR, de Jorge EG, Praga M. Development and validation of a nomogram to predict kidney survival at baseline in patients with C3 glomerulopathy. *Clin Kidney J*. 2022; 15(9): 1737-46. Article. IF: 4.6; Q1
- Carriazo S, Aparicio-Madre MI, Tornero-Molina F, Fernández-Lucas M, Paraiso-Cuevas V, González-Parra E, Del Río-Gallegos F, Marqués-Vidas

M, Alcazar-Arroyo R, Martíns-Muñoz J, Sanchez-Villanueva R, Gil-Casares B, Gutiérrez-Martínez E, Martínez-Rubio MP, Ortiz A. Impact of different COVID-19 waves on kidney replacement therapy epidemiology and mortality: REMER 2020. *Nephrol Dial Transpl*. 2022; 37(11): 2253-63. Article. IF: 6.1; Q1

• de Vries JC, van Gelder MK, Cappelli G, Rubio MAB, Verhaar MC, Gerritsen KGF. Evidence on continuous flow peritoneal dialysis: A review. *Semin Dialysis*. 2022; 35(6): 481-97. Review. IF: 1.6; Q4

• García-Llana H, Panizo N, Gandía L, Ortí M, Giménez-Civera E, Forquet C, D'Marco L, Puchades MJ, Sargsyan M, Sanchis I, Ribera C, Marco MI, Ferrà CM, Pérez-Baylach CM, Bonilla B, Frances FM, Pérez-Bernat E, Sancho A, Gorri JL. COVID-19 vaccination improved psychological distress (anxiety and depression scores) in chronic kidney disease patients: a prospective study. *Vaccines (Basel)*. 2022; 10(2): 299. Article. IF: 7.8; Q1

• Gonzalez-García MC, Pérez Montero P, Peña Burgos EM, Vega Cabrera C, Hernández Cabrero T, Rivas Becerra B, Yébenes L, Hardisson D. SARS-CoV-2 infection associated with monoclonal gammopathy. A case report based on the study of minimally invasive ultrasound-guided autopsy. *Rev Esp Patol*. 2022; 55(1): 41-45-. Article. Not Indexed

• Jimenez-Heffernan JA, Rodríguez-García AM, Cima L, Gordillo CH, López-Ferrer P, Vicandi

B. A comprehensive review of the tigroid background cytological concept: what, when, where and why? *Pathologica*. 2022; 114(2): 121-7. Review. IF: 3.5; Q3

• Kopytina V, Pascual-Antón L, Toggweiler N, Arriero-Pais EM, Strahl L, Albar-Vizcaino P, Sucunza D, Vaquero JJ, Steppan S, Piecha D, López-Cabrera M, González-Mateo GT. Stevioside glycosides as an alternative osmotic agent for peritoneal dialysis fluid. *Front Pharmacol*. 2022; 13: 868374. Article. IF: 5.6; Q1

• Leon Machado LM, López OM, Hernández Perdomo YH, Pérez T, González García E, Selgas Gutierrez R, Jiménez Martín C. Subcutaneous tofacitinib in chronic active humoral kidney graft rejection. *Nefrología*. 2022; 42(4): 498-500-. Letter. IF: 2.6; Q3

• Páez-Vega A, Gutiérrez-Gutiérrez B, Aguera ML, Facundo C, Redondo-Pachón D, Suner M, López-Olivá MO, Yuste JR, Montejo M, Galeano-Alvarez C, Ruiz-San Millán JC, Los-Arcos I, Hernández D, Fernández-Ruiz M, Muñoz P, Valle-Arroyo J, Cano A, Rodriguez-Benot A, Crespo M, Rodelo-Haad C, Lobo-Acosta MA, Garrido-Gracia JC, Vidal E, Guirado L, Cantisan S, Torre-Cisneros J. Immuno-guided discontinuation of prophylaxis for cytomegalovirus disease in kidney transplant recipients treated with antithymocyte globulin: A randomized clinical trial. *Clin Infect Dis*. 2022; 74(5): 757-65. Article. IF: 11.8; D1



3 Information Groups by Area



3.4 Large System Pathologies Area

- Quiroga B, Soler MJ, Ortiz A, Bernat A, Díaz ABM, Mantecón CJJ, Pérez VOG, González CC, Cervienka M, Mazuecos A, Cazorla JM, Di Riso MC, Martínez S, Díaz MO, Valverde RL, Marqués MGS, Novillo CL, Parra EG, Gracia-Iguacel C, de Tomás MTR, Cervera MCA, Giorgi M, Ramos PM, Carmona NM, Toapanta N, Cigarran S, San Millán JCR, Estupinan RS, Crespo M, Linaza BV, Martín MJ, Jiménez LRO, Soriano S, Ferri DG, Sanchez MSP, Yugueros A, Leyva A, Rojas J, Gansevoort RT, de Sequera P (Bajo Rubio A, del Peso Gilsanz G, Ossorio González M, Sánchez Villanueva R, Lopez Oliva MO). Loss of humoral response 3 months after SARS-CoV-2 vaccination in the CKD spectrum: the multicentric SENCOVAC study. *Nephrol Dial Transpl.* 2022; 37(5): 994-9. Article. IF: 6.1; Q1
- Quiroga B, Soler MJ, Ortiz A, Gansevoort RT, Leyva A, Rojas J, de Sequera P, (Bajo Rubio A, del Peso Gilsanz G, Ossorio González M, Sánchez Villanueva R, Lopez Oliva MO). Long-term dynamic humoral response to SARS-CoV-2 mRNA vacci-
- nines in patients on peritoneal dialysis. *Vaccines (Basel)*. 2022; 10(10): 1738. Article. IF: 7.8; Q1
- Quiroga B, Soler MJ, Ortiz A, Mantecón CJJ, Pérez NN, Martín MS, Sato Y, Franco AJM, Zambrano DFP, Valverde RL, Díaz MO, González CC, López JMC, Pereira M, Parra EG, Horrillo AS, González CS, Toapanta N, Guldris SC, Hernández RS, Sánchez SP, Rincón MM, García-Fernández N, Castro NB, Mateo RC, Morales MAQ, Escamilla-Cabrera B, Godoy IB, Casanova BGC, Leyva A, Rojas J, Gansevoort RT, de Sequera P, (Bajo Rubio A, del Peso Gilsanz G, Ossorio González M, Sánchez Villanueva R, Lopez Oliva MO). Humoral response to third dose of sars-cov-2 vaccines in the CKD Spectrum. *Clin J Am Soc Nephro.* 2022; 17(6): 872-6. Letter. IF: 9.8; D1
- Quiroga B, Soler MJ, Ortiz A, Vaquera SM, Mantecón CJJ, Useche G, Márquez MGS, Carnerero M, Rodríguez MTJ, Ramos PM, San Millán JCR, Toapanta N, Gracia-Iguacel C, Cervera MCA, Lara NB, Leyva A, Rojas J, Gansevoort RT, de Sequera P, (Bajo Rubio A, del Peso Gilsanz G, Ossorio González M, Sánchez Villanueva R, Lopez Oliva MO). Safety and immediate humoral response of COVID-19 vaccines in chronic kidney disease patients: the SENCOVAC study. *Nephrol Dial Transpl.* 2022; 37(10): 1868-78. Article. IF: 6.1; Q1
- Roblero MFS, Rubio MAB, González-Moya M, Valera JC, Alba AP, Gumpert JV, Cigarran S, Vidau P, Marcos SG, Luquin PA, Piera EC, Marino AG, Espigares MJ, Molina MD, Molina P. Experience in Spain with the first patients in home hemodialysis treated with low-flow dialysate monitors. *Nefrologia.* 2022; 42(4): 460-70. Article. IF: 2.6; Q3
- Rodrígues-Díez RR, Tejera-Muñoz A, Esteban V, Steffensen LB, Rodrígues-Díez R, Orejudo M, Raya-ego-Mateos S, Falke LL, Cannata-Ortiz P, Ortiz A, Egido J, Mallat Z, Ana MB, Bajo MA, Goldschmeding R, Ruiz-Ortega M. CCN2 (Cellular Communication Network Factor 2) Deletion alters vascular integrity and function predisposing to aneurysm formation. *Hypertension.* 2022; 79(3): E42-55. Article. IF: 8.3; Q1
- Rodríguez-Sanz A, Sánchez-Villanueva R, Domínguez-Ortega J, Álvarez L, Fiandor A, Nozal P, Sanz P, Pizarro-Sánchez MS, Andrés E, Cabezas A, Pérez-Alba A, Bajo MA, Selgas R, Bellón T. Characterization of hypersensitivity reactions to polysulfone hemodialysis membranes. *Ann Allerg Asthma Im.* 2022; 128(6): 713-20. Article. IF: 5.9; Q2
- Roger M, Gallego RH, Jimenez VM, Pérez JCR, Furlano M, Atxer LS, Zurro DG, Casabona CMR,

Carmona NM, Arroyo D, del Valle KMP, de Arriba G, Mazuecos A, Cazorla JM, Pereira M, Parra EG, Márquez MGS, Novillo CL, Ruiz CT, Cervera MCA, Ramos PM, Horrillo AS, Martín IJ, Toapanta N, Guldris SC, López MF, San Cecilio R, Linaza BV, Pesquera IM, Estupinan RS, Zamora R, Soriano S, de Bustillo EM, Sánchez MSP, Puerto AIM, Yugueros A, Pacios LM, Leyva A, Rojas J, Gansevoort RT, de Sequera P, (Bajo Rubio A, del Peso Gilsanz G, Ossorio González M, Sánchez Villanueva R, Lopez Oliva MO). Humoral response to third dose of sars-cov-2 vaccines in the CKD Spectrum. *Clin J Am Soc Nephro.* 2022; 17(6): 872-6. Letter. IF: 9.8; D1

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Roblero MFS, Rubio MAB, González-Moya M, Valera JC, Alba AP, Gumpert JV, Cigarran S, Vidau P, Marcos SG, Luquin PA, Piera EC, Marino AG, Espigares MJ, Molina MD, Molina P. Experience in Spain with the first patients in home hemodialysis treated with low-flow dialysate monitors. *Nefrologia.* 2022; 42(4): 460-70. Article. IF: 2.6; Q3

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Rodríguez-Sanz A, Sánchez-Villanueva R, Domínguez-Ortega J, Álvarez L, Fiandor A, Nozal P, Sanz P, Pizarro-Sánchez MS, Andrés E, Cabezas A, Pérez-Alba A, Bajo MA, Selgas R, Bellón T. Characterization of hypersensitivity reactions to polysulfone hemodialysis membranes. *Ann Allerg Asthma Im.* 2022; 128(6): 713-20. Article. IF: 5.9; Q2

Roger M, Gallego RH, Jimenez VM, Pérez JCR, Furlano M, Atxer LS, Zurro DG, Casabona CMR,

Gómez CG, Bermúdez PP, "Et al". CKD: The burden of disease invisible to research funders. *Nefrologia.* 2022; 42(1): 65-84. Article. IF: 2.6; Q3

- Santos-Alonso C, González-García E, Ruiz-Carrascos G, Loches-Yagüe B. Bacteremia due to *C. jejuni* in kidney transplant patients. Is immediate post-transplant immunosuppression a risk factor? *Enferm Infec Micr Cl.* 2022; 40(5): 275-6. Letter. IF: 2.5; Q4

- Santos-Alonso C, Martín MM, Villanueva RS, García LA, Gallardo MAV, Rubio MAB, Gilsanz GD, González MO, Gutiérrez RS. Pruritus in dialysis patients. Review and new perspectives. *Nefrologia.* 2022; 42(1): 15-21. Review. IF: 2.6; Q3

Research projects

Bajo Rubio MA. Abordaje nutricional en pacientes con enfermedad renal. Fresenius Kabi España S.A.U. 2021-Ongoing.

Management centre: FIBHULP

Bajo Rubio MA. Biopsia líquida en diálisis peritoneal: correlación biopsia /efluente peritoneal (PI18/00882). ISCIII. 2019-2023.

Management centre: FIBHULP

Bajo Rubio MA. Clinical validation of a continuous flow peritoneal dialysis system, with dialysate regeneration (CORDIAL). UE. 2020-2024.

Management centre: FIBHULP

Bajo Rubio MA. Las células mesoteliales del efluente crecidas ex vivo reflejan las alteraciones peritoneales encontradas en la biopsia peritoneal. Oportunidades adicionales para biomarcadores en el efluente. Fundación SENEFRO. 2016-Ongoing.

Management centre: FIBHULP

Fernández Juárez GM. Aproximación diagnóstica y terapéutica de las microangiopatías trombóticas. Alexion Pharma Spain S.L. 2022-Ongoing.

Management centre: FIBHULP

Jiménez Martín C. Desarrollo y aplicación de





3 Information Groups by Area



3.4 Large System Pathologies Area

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un programa grupal de atención psicológica basada en las preferencias y valores con el objetivo de mejora de resultados en salud en el paciente con trasplante renal. Astellas Pharma, S.A. 2018-Ongoing.

Management centre: FIBHULP

Jiménez Martín C. Evaluación de la microcirculación cortical del trasplante renal a largo plazo medida por ecografía con contraste y su correlación histopatológica por biopsia renal. Sociedad Madrileña de Trasplantes. 2019-Ongoing.

Management centre: FIBHULP

Sánchez Villanueva R. Creación de un centro de referencia para el estudio de los mecanismos implicados en las reacciones de hipersensibilidad a las membranas de hemodialisis basadas en polysulfona. Nipro Europe NV. 2017-Ongoing.

Management centre: FIBHULP

Cibers and Retics

Bajo Rubio MA. Red de Investigación Renal (REDinREN)(RD16/0009/0008). ISCIII. (31/12/2022). FIBHULP

Bajo Rubio MA. Inflamación e inmunopatología de órganos y sistemas (RD21/0005/0018). ISCIII. (31/12/2024). FIBHULP

Fernández Juárez GM. Inflamación e inmunopatología de órganos y sistemas (RD21/0005/0030). ISCIII. (31/12/2024). FIBHULP

Clinical trials

González García ME. Prevalencia de fragilidad en pacientes con enfermedad renal crónica en lista de espera de trasplante renal en España: un estudio multicéntrico.

Type: No EPA. PI-5117 FRAILIST.

Sponsored by: Sociedad Española de Trasplantes.

Signed date: 09/03/2022

Jiménez Martín C. Estudio observacional longitudinal para determinar la asociación entre la respuesta farmacodinámica del paciente al tratamiento inmunosupresor medida in vitro con nmunobiograma y la presencia de signos de rechazo inmunológico en biopsias del injerto en pacientes con trasplante renal. Estudio biotraim.

Type: EPA-OD. HULP code: PI-4955 PI-4955 BH-IMBG-TR-202.

Sponsored by: Biohope Scientific Solutions For Human Health S.L.

Signed date: 10/01/2022

Sánchez Villanueva RJ. Estudio multicéntrico, doble ciego, aleatorizado y controlado con placebo para evaluar la eficacia y la seguridad de nemolizumab en sujetos con enfermedad renal crónica con prurito moderado o intenso asociado.

Type: Clinical Trials, phase II. 2022.034.

Sponsored by: Galderma S.A.

Signed date: 07/06/2022

Patents and trademarks

Selgas Gutiérrez R, Bellón Heredia T, Rodríguez Sanz Al, Álvarez Builla J, Vaquero López JJ, Sánchez Alonso P, Alajarín Fernández R, inventors; FIBHULP, Universidad de Alcalá, assignees. Use of compounds derived from salts of pyridazine[1',6':1,2]pyrido[3,4-b]indolinium as anti-inflammatory agents. P201331143, PCT/ES2014/070603; 2013 July 25.

Selgas Gutiérrez R, Bellón Heredia T, Rodríguez Sanz Al, Álvarez Builla J, Vaquero López JJ, Sánchez Alonso P, Alajarín Fernández R, inventors; FIBHULP, Universidad de Alcalá, assignees. Use of compounds derived from salts of piridazine[3,2-b]benzimidazolium as anti-inflammatory agents. P201430411, PCT/ES2014/070603; 2013 July 25.

Aguilera Peralta Al, López-Cabrera M, Selgas Gutiérrez R, Steppan S, Passlickdeetjen J, inventors; Fresenius Medical Care Deutschland GmbH, assignee. Pharmaceutical compositions containing steviosides. PCT/EP2015/074955, EP3212199, US2017304335, CN107073022; 2014 October 31.

López-Cabrera M, Aguilera Peralta Al, Selgas Gutiérrez R, Passlickdeetjen J, Buechel J, Steppan S, inventors; Fresenius Medical Care AG & Co. KGaA, assignee. Method and kit for diagnosing epithelial to mesenchymal transition of the peritoneum (EMT-Chip). WO2017042253, DE102015115158; 2015 September 09.



3 Information Groups by Area



3.4 Large System Pathologies Area

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3.4.6 Aging and Fragility in the Elderly Group

Publications: 6

Q1: 1

COMPOSITION*

Juan Ignacio González Montalvo. Jefe de Servicio de Geriatría. Hospital Universitario La Paz. Profesor Asociado. Universidad Autónoma de Madrid

Juan Carlos Abáñez Herranz. Subdirector Médico. Responsable de la Unidad de Formación e Investigación. Atención Primaria

María Teresa Alarcón Alarcón. Jefe de Sección de Geriatría. Hospital Universitario La Paz

Patricia Ysabel Condorhuamán Alvarado. Facultativo Especialista de Área en Geriatría. Hospital Universitario La Paz

Macarena Díaz de Bustamante de Ussía. Médico Interno Residente. Hospital Universitario La Paz

Araceli Garrido Barral. Facultativo Especialista de Área en Medicina Familiar y Comunitaria. Atención Primaria

Javier Gómez Pavón. Jefe de Servicio de Geriatría y de Cuidados Paliativos. Hospital Central Cruz Roja San José y Santa Adela

Rosa Julián Viñals. Facultativo Especialista de Área en Medicina Familiar y Comunitaria. Centro de Salud "Raúl de Castroviejo" Atención Primaria

Pilar Gotor Pérez. Enfermera. Unidad de Valoración Geriátrica y Ortogeriatría. Hospital Universitario La Paz

Rocío Menéndez Colino. Facultativo Especialista de Área en Geriatría. Hospital de Cantoblanco - Hospital Universitario La Paz

Débora Moral Cuesta. Médico Interno Residente en Geriatría. Hospital Universitario La Paz

Ángel Otero Puime. Profesor Emérito de Medicina Preventiva y Salud Pública. Universidad Autónoma de Madrid

Rocío Queipo Matas. Investigadora Predoctoral. Universidad Autónoma de Madrid

Raquel Ramírez Martín. Médico Interno Residente. Hospital Universitario La Paz

Peggy Paola Ríos Germán. Médico Interno Residente en Geriatría. Hospital Universitario La Paz

Ana María Rosas Hernández. Investigadora Predoctoral. Universidad Autónoma de Madrid

María del Pilar Sáez López. Facultativo Especialista de Área en Geriatría. Complejo Asistencial de Ávila

Mercedes Sánchez Martínez. Profesor Asociado. Universidad Autónoma de Madrid



STRATEGIC OBJECTIVE

To promote and improve the quality of research in the field of Primary Health Care and Geriatrics in the area of influence of IdiPAZ.

Progress in the epidemiological study of frailty in the elderly.

To consolidate clinical studies related to hip fracture and acute and chronic diseases in the elderly.

* Dr. Gómez Campelo belonged to this group until the end of 2022



3 Information Groups by Area



3.4 Large System Pathologies Area

RESEARCH LINES

- Coordination of the National Registry of Hip Fractures: a multicenter observational study including patients from 75 Spanish hospitals with an acute fragility hip fracture. The registry collects data from the acute hospital phase and a one-month follow-up from about 80 Spanish hospitals.
- Study of the influence of frailty in the implantation of transcatheter aortic valve. Multicenter project that includes data from five Spanish hospitals

- Cross-specialty Geriatrics: Co-management of old patients diagnosed of cancer in collaboration with the General Surgery, Medical and Radioterapeutic Oncology, Urology and Vascular Surgery Departments of the La Paz Hospital.
- Observational study of the evolution of old patients affected by a traumatic intracranial hemorrhage, in collaboration with the Neurosurgery Department of the La Paz Hospital.

RESEARCH ACTIVITY

Publications

- Condorhuamán-Alvarado PY, Pareja-Sierra T, Muñoz-Pascual A, Saez-López P, Díez-Sebastián J, Ojeda-Thies C, Gutiérrez-Misí A, Alarcón-Alarcón T, Cassinello-Ogea MC, Pérez-Castrillón JL, Gómez-Campelo P, Navarro-Castellanos L, Otero-Puime A, González-Montalvo JI. Improving hip fracture care

in Spain: evolution of quality indicators in the Spanish National Hip Fracture Registry. *Arch Osteoporos*. 2022; 17(1): 54. Article. IF: 3; Q2

- Merello de Miguel A, Argentina F, Barcon Marqués M, Sendagorta Cudós E, Menéndez Colino R. Drug-induced lupus diagnosed by teledermatology with nursing home: a case report. *Rev Esp Geriatr Gerontol*. 2022; 57(5): 284-5. Article. Not Indexed
- Moral-Cuesta D, Gutiérrez-Misí A, Cedeno-Veloz BA, Matovelle-Ochoa P, Epelde IM, Alarcón TA, Díez-Sebastián J, Galbete A, Maestre IM, Velilla NM, González-Montalvo JI. Profile and 3-month evolution of geriatric patients after a hip fracture followed-up at a Fracture Liaison Service (FLS). *Rev Esp Geriatr Gerontol*. 2022; 57(4): 205-11. Article. Not Indexed
- Ramírez-Martín R, Pérez-Rodríguez P, Menéndez-Colino R, Maestre IM, Martínez JAG, Martín JLM, Alarcón TA, Sebastián JD, González-Montalvo JI. Prehabilitation and perioperative geriatric care in patients aged over 80 years with colorectal cancer: Results of a cross-specialty geriatrics program. *J Geriatr Oncol*. 2022; 13(6): 813-20. Article. IF: 3; Q3
- Ríos E, Linares-Espínós E, Ramírez R, Menéndez R, González-Montalvo JI, Martínez-Piñeiro L. Usefulness of the G8 questionnaire in predicting frailty in elderly patients with metastatic or castration-resistant prostate cancer. *Arch Esp Urol*. 2022;

75(3): 235-47. Article. IF: 0.5; Q4

- San Román J, Candel FJ, Sanz JC, López P, Menéndez-Colino R, Barreiro P, Carretero MD, Pérez-Abeledo M, Vinuela-Prieto JM, Ramos B, Canora J, Barba R, Zapatero-Gaviria A, Martínez-Peromingo FJ. Humoral and cellular response after mRNA vaccination in nursing homes: Influence of age and of history of COVID-19. *Vaccines (Basel)*. 2022; 10(3): 383. Article. IF: 7.8; Q1

una fractura liaison service en pacientes con fractura de cadera tratados en un Servicios de Ortopediatría. Amgen S. A. 2019-Ongoing.

Management centre: FIBHULP

González Montalvo JI. Proyecto del registro nacional de fracturas de cadera por fragilidad en el anciano. Amgen S. A. 2017-Ongoing.

Management centre: FIBHULP

González Montalvo JI. Registro nacional de fracturas de cadera estudio RNFC. Fundación Mutua Madrileña. 2018-Ongoing.

Management centre: FIBHULP

Research projects

Menéndez Colino R. Impacto de una intervención multidisciplinaria en el pronóstico de pacientes frágiles con estenosis aórtica severa sintomática: ensayo randomizado. (PI19/01010). ISCIII. 2020-2022.

Management centre: FIBHULP

González Montalvo JI. Geriatría transversal: detección y manejo de la fragilidad en pacientes adultos mayores con patología quirúrgica. Varios. 2019-Ongoing.

Management centre: FIBHULP

González Montalvo JI. Prevención secundaria de fracturas por fragilidad: descripción del tipo de pacientes y del funcionamiento de

Clinical trials

Menéndez Colino R. Impacto de una intervención multidisciplinaria en el pronóstico de pacientes frágiles con estenosis aórtica severa sintomática: ensayo randomizado.

Type: EPA-OD. 5795 SASPAIN.

Sponsored by: Fundacion Para La Investigacion Biomedica Hospital Universitario La Paz.

Signed date: 09/02/2022





3 Information Groups by Area



3.4 Large System Pathologies Area



3.4.7

Diagnosis and Treatment of Allergic Diseases Group

Publications: **37**
Q1: **20**

COMPOSITION

Santiago Eugenio Quirce Gancedo. Jefe de Servicio de Alergología. Hospital Universitario La Paz

María Pilar Encarnación Barranco Sanz. Facultativo Especialista de Área en Alergología. Hospital Universitario La Paz

María Teresa Caballero Molina. Facultativo Especialista de Área en Alergología. Hospital Universitario La Paz

María Luisa Caballero Soto. Facultativo Especialista de Área en Farmacia hospitalaria . Hospital Universitario La Paz

Francisco Javier Contreras Porta. Facultativo Especialista de Área en Alergología. Hospital Universitario La Paz

Leticia de las Vecillas Sánchez. Facultativo Especialista en Alergología. Hospital Universitario La Paz

Francisco Javier Domínguez Ortega. Facultativo Especialista de Área en Alergología. Hospital Universitario La Paz

Ana María del Carmen Fiandor Román. Jefe de Sección de Alergología. Hospital Universitario La Paz

Carmen Gómez Traseira. Facultativo Especialista de Área en Alergología. Hospital Universitario La Paz

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María Magdalena Lluch Bernal. Facultativo Especialista de Área en Alergología. Hospital Universitario La Paz

María Pedrosa Delgado. Facultativo Especialista de Área en Alergología. Hospital Universitario La Paz

Elsa Phillips Angles. Facultativo Especialista de Área en Alergología Pediátrica. Hospital Universitario La Paz

Mónica Rodríguez Álvarez. Facultativo Especialista de Área en Alergología. Hospital Universitario La Paz

María Rosa Rodríguez Pérez. Investigadora Senior (Contrato Miguel Servet- Tipo 2). FIBHULP



Margarita Tomás Pérez. Facultativo Especialista de Área en Alergología. Hospital Universitario La Paz

Ana María Umpiérrez Rodríguez. Facultativo Especialista de Área en Alergología. Hospital Universitario La Paz

STRATEGIC OBJECTIVE

These group members are specialists in various areas of allergic diseases, which enable them to perform clinical studies and basic research on the main allergic diseases (food allergies, asthma and rhinitis, urticaria/ angioedema and drug allergies). The group's strategic research objectives include:

- The development of new techniques to improve the diagnosis of food allergies by determining the molecular sensitisation profile.
- The study of hyperresponsiveness and airway inflammation in asthma, as well as the role of allergen exposure and comorbidities in this disease.

- The study of the pathogenesis and treatment of eosinophilic diseases of the airways (eosinophilic bronchitis) and the gastrointestinal tract (eosinophilic oesophagitis).
- The characterisation of various types of angioedema caused by Bradykinin (hereditary and acquired) and improvements in their diagnosis and treatment.
- Research on the epidemiology and pathomechanisms of severe adverse reactions caused by immune hypersensitivity reactions to drugs.



3 Information Groups by Area



3.4 Large System Pathologies Area

RESEARCH LINES

- Food allergy (milk, egg, fruit, cereals): molecular diagnosis (by allergenic components) and treatment with oral desensitisation.
- Epidemiology, physiopathology, diagnosis and treatment of angioedema and urticaria.
- Studies on bronchial hyperresponsiveness to direct and indirect agents and airway inflammation.
- Eosinophilic diseases of the respiratory tract (eosinophilic bronchitis) and digestive system (eosinophilic esophagitis).
- Persistent and difficult to control asthma: study on the influence of common and occupational allergens, comorbidities and new therapies.

- Aspirin-exacerbated respiratory disease (AERD): inflammatory markers and desensitisation protocol.
- Adverse immunologic reactions to drugs: study on the cellular and molecular mechanisms involved.
- Molecular basis of allergy: characterization of allergens and modulating factors of allergenicity. Novel allergy biomarkers: microRNAs and mRNAs. Seeking the differences of specific IgE between allergic patients and asymptomatic individuals.
- Study of hypersensitivity reactions due to excipients present in the formulation of drugs, vaccines and cosmetics.

RESEARCH ACTIVITY

● Publications

- Baeza ML, González-Quevedo T, Caballero T, Guijarro J, Leonart R, Varela S, Castro M, Díaz C, Escudero E, García MG, Laffond E, Muñoz-Bellido FJ, Núñez R, Prior N, Sala-Cunill A, Pedro BSD, Prieto-García A. Angioedema due to acquired deficiency of c1-inhibitor: a cohort study in spain and a comparison with other series. *J Allergy Clin Immunol Pract.* 2022; 10(4): 1020-8. Article. IF: 9.4; Q1
- Baptista-Serna L, Rodrigo-Muñoz JM, Mínguez P, Valverde-Monge M, Arismendi E, Barranco P, Barroso B, Bobolea I, Canas JA, Cardaba B, Cruz MJ, Curto E, Domínguez-Ortega J, García-Latorre R, González-Barcala FJ, Martínez-Rivera C, Mullol J, Muñoz X, Olaguibel JM, Picado C, Plaza V, Quirce S, Rial MJ, Sastre B, Soto L, Valero A, del Pozo V, Sastre J. Anxiety and body mass index affect asthma control: data from a prospective Spanish cohort. *J Allergy Clin Immunol Pract.* 2022; 10(3): 863-6. Letter. IF: 9.4; Q1
- Bellón T, Lerma V, Guijarro J, Ramírez E, Martínez C, Escudero C, Fiandor AM, Barranco R, de Barrio M, de Abajo F, Cabañas R. LTT and HLA testing as diagnostic tools in Spanish vancomycin-induced DRESS cases: A case-control study. *Front Pharmacol.* 2022; 13: 959321. Article. IF: 5.6; Q1
- Bergmann C, Poli A, Agache I, Bianchini R, Bax HJ, Castells M, Crescioli S, Dombrowicz D, Ferastraoaru D, Fiebiger E, Gould HJ, Hartmann K, Izquierdo E, Jordakieva G, Josephs DH, Jutel M, Levi-Schaffer F, de las Vecillas L, Lotze MT, Osborn G, Pascal M, Redegeld F, Rosenstreich D, Roth-Walter F, Schmidt-Weber C, Shamji M, Steveling EH, Turner MC, Untersmayr E, Jensen-Jarolim E, Karagiannis SN. AllergoOncology: Danger signals in allergology and oncology: A European Academy of Allergy and Clinical Immunology (EAACI) Position Paper. *Allergy.* 2022; 77(9): 2594-617. Article. IF: 12.4; D1
- Betancor D, Olaguibel JM, Rodrigo-Muñoz JM, Arismendi E, Barranco P, Barroso B, Bobolea I, Cardaba B, Cruz MJ, Curto E, del Pozo V, González-Barcala FJ, Martínez-Rivera C, Mullol J, Muñoz X, Picado C, Plaza V, Quirce S, Rial MJ, Soto L, Valero A, Valverde-Monge M, Sastre J. How reliably can algorithms identify eosinophilic asthma phenotypes using non-invasive biomarkers? *Clin Transl Allergy.* 2022; 12(8): e12182. Article. IF: 4.4; Q2
- Dávila I, Campo P, Cimbolek S, Sanchez CA, Quirce S, Moreira A, Ramírez A, Campos GS. Cluster subanalysis of patients with severe asthma who responded to omalizumab. *J Invest Allergol Clin.* 2022; 32(3): 213-5. Editorial Material. IF: 7.2; D1
- de Llano LP, Naval E, Mejía N, Domínguez-Ortega J. Inhaled indacaterol/glycopyrronium/mometasone furoate fixed-dose combination in moderate-to-severe asthma. *Expert Rev Respir Med.* 2022; 16(1): 1-15. Article. IF: 3.9; Q2
- Domínguez-Ortega J, Plaza V, Li VW, Fonseca E, Cea-Calvo L, Martín A, Sánchez-Jareño M, Brady JE, Schelfhout J. Prevalence of chronic cough and patient characteristics in adults in Spain: A population-based cross-sectional survey. *Chron Resp Dis.* 2022; 19: 14799731221098700. Article. IF: 4.1; Q2
- Domínguez-Ortega J, Sánchez-García S, Moreno CM. COVID-19 and severe asthma: reflections and future solutions. *J Asthma Allergy.* 2022; 15: 525-7. Letter. IF: 3.2; Q3
- García-Moguel I, Rosado A, Gómez-Cerdeño A, Gandolfo-Cano M, Echarren TR, Moro MDM, Martos MDR, Pineda-Pineda R, Valverde-Monge M, Arroba CMA, Domínguez-Ortega J. Reliability, satisfaction and effectiveness of benralizumab home self-administration in patients with severe eosinophilic asthma in real-world practice: the auto-benra study. *J Asthma Allergy.* 2022; 15: 623-32. Article. IF: 3.2; Q3
- Gauvreau GM, Davis BE, Scadding G, Boulet LP, Bjermer L, Chaker A, Cockcroft DW, Dahmen B, Fokkens W, Hellings P, Lazarinis N, O'Byrne PM, Tuftvesson E, Quirce S, Van Maaren M, de Jongh FH, Diamant Z. Allergen provocation tests in respiratory research: building on 50 years of experience. *Eur Respir J.* 2022; 60(2): 2102782. Review. IF: 24.3; D1
- Gil-Martínez M, Rodrigo-Muñoz JM, Sastre B, Canas JA, García-Latorre R, Redondo N, de la Fuente L, Minguez P, Mahillo-Fernández I, Sastre J, Quirce S, Caballero ML, Olaguibel JM, del Pozo V. Serum microRNAs catalog asthma patients by phenotype. *J Invest Allergol Clin.* 2022; 32(6): 471-8. Article. IF: 7.2; D1
- Herrera-Luis E, Ortega VE, Ampleford EJ, Sio YY, Granell R, de Roos E, Terzikhan N, Vergara EE, Hernández-Pacheco N, Pérez-García J, Martín-González E, Lorenzo-Díaz F, Hashimoto S, Brinkman P, Jorgensen AL, Yan Q, Forno E, Vijerberg SJ, Lethem R, Espuela-Ortiz A, Gorenjak M, Eng C, González-Pérez R, Hernández-Pérez JM, Poza-Guedes P, Sardon O, Corcuera P, Hawkins GA, Marsico A, Bahmer T, Rabe KF, Hansen G, Kopp MV, Ríos R, Cruz MJ, González-Barcala FJ, Olaguibel JM, Plaza V, Quirce S, Canino G, Cloutier M, del Pozo V, Rodríguez-Santana JR, Korta-Murua J, Villar J, Potocnik U, Figueiredo C, Kabesch M, Mukhopadhyay S, Pirmohamed M, Hawcutt DB, Melen E, Palmer CN, Turner S, Maitland-van der Zee AH, von Mutius E, Celedon JC, Bruselle G, Chew FT, Bleeker E, Meyers D, Burchard EG, Pino-Yanes M. Multi-ancestry genome-wide association study of asthma exacerbations. *Pediat Allerg Immunol.* 2022; 33(6): e13802. Article. IF: 4.4; D1
- Laorden D, Romero D, Domínguez-Ortega J. Benralizumab in eosinophilic granulomatosis with polyangiitis. *Med Clin-Barcelona.* 2022; 158(9): 441-2. Letter. IF: 3.9; Q2
- Luque J, Méndez I, Gómez B, Morte B, de Heredia ML, Herreras E, Corrochano V, Bueren J, Gallano P, Artuch R, Fillat C, Pérez-Jurado LA, Montoliu L, Carracedo A, Millán JM, Webb SM, Palau F, Lapunzina P. CIBERER: Spanish national network for research on rare diseases: A highly productive collaborative initiative. *Clin Genet.* 2022; 101(5-6): 481-93. Review. IF: 3.5; Q2
- Maurer M, Aberer W, Caballero T, Bouillet L, Grumach AS, Botha J, Andresen I, Longhurst HJ. The Icatibant Outcome Survey: 10 years of experience



3 Information Groups by Area



3.4 Large System Pathologies Area

with icatibant for patients with hereditary angioedema. *Clin Exp Allergy*. 2022; 52(9): 1048-58. Review. IF: 6.1; Q1

- Maurer M, Magerl M, Betschel S, Aberer W, Ansotegui IJ, Aycoren-Pursun E, Banerji A, Bara NA, Boccon-Gibod I, Bork K, Bouillet L, Boysen HB, Brodzki N, Busse PJ, Bygum A, Caballero T, Cancian M, Castaldo AJ, Cohn DM, Csuka D, Farkas H, Gompels M, Gower R, Grumach AS, Guidos-Fogelbach G, Hide M, Kang HR, Kaplan AP, Katelaris CH, Kiani-Alikhan S, Lei WT, Lockey RF, Longhurst H, Lumry W, MacGinnitie A, Malbran A, Martínez Saguer I, Matta Campos JJ, Nast A, Nguyen D, Nieto-Martínez SA, Pawankar R, Peter J, Porebski G, Prior N, Reshef A, Riedl M, Ritchie B, Sheikh FR, Smith WR, Spaeth PJ, Stobiecki M, Toubi E, Varga LA, Weller K, Zanichelli A, Zhi YX, Zuraw B, Craig T. The international WAO/EAACI guideline for the management of hereditary angioedema - The 2021 revision and update. *World Allergy Organ J*. 2022; 15(3): 100627. Article. IF: 5.1; Q2

• Maurer M, Magerl M, Betschel S, Aberer W, Ansotegui IJ, Aycoren-Pursun E, Banerji A, Bara

Noemi-A, Boccon-Gibod I, Bork K, Bouillet L, Boysen Henrik B, Brodzki N, Busse PJ, Bygum A, Caballero T, Cancian M, Castaldo AJ, Cohn DM, Csuka D, Farkas H, Gompels M, Gower R, Grumach AS, Guidos-Fogelbach G, Hide M, Kang HR, Kaplan AP, Katelaris CH, Kiani-Alikhan S, Lei WT, Lockey RF, Longhurst H, Lumry W, MacGinnitie A, Malbran A, Martínez Saguer I, Matta Campos JJ, Nast A, Nguyen D, Nieto-Martínez SA, Pawankar R, Peter J, Porebski G, Prior N, Reshef A, Riedl M, Ritchie B, Sheikh Farrukh R, Smith WB, Spaeth PJ, Stobiecki M, Toubi E, Varga Lilian A, Weller K, Zanichelli A, Zhi Y, Zuraw B, Craig T. The international WAO/EAACI guideline for the management of hereditary angioedema - The 2021 revision and update. *Allergy*. 2022; 77(7): 1961-90. Article. IF: 12.4; D1

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- Mir-Ihara P, Narváez-Fernández E, Domínguez-Ortega J, Entrala A, Barranco P, Luna-Porta JA, Romero D, Villamañán E, Losantos-García I, Quirce S. Safety of biological therapy in elderly patients with severe asthma. *J Asthma*. 2022; 59(11): 2218-22. Article. IF: 1.9; Q4
- Mullol J, Maldonado M, Castillo JA, Miguel-Blanco C, Dávila I, Domínguez-Ortega J, Blanco-Aparicio M. Management of united airway disease focused on patients with asthma and chronic rhinosinusitis with nasal polyps: a systematic review. *J Allergy Clin Immunol Pract*. 2022; 10(9): 2438-47. Review. IF: 9.4; Q1
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- Sánchez-García S, Ruiz-Hornillos J, Bernaola M, Habernau-Mena A, Lasa EM, Contreras J, Candon-Morillo R, Anton-Rodríguez C, Escudero C. Effect of the SARS-CoV-2 pandemic on the control and severity of pediatric asthma. *Allergol Immunopathol*. 2022; 50(1): 99-103. Article. IF: 1.8; Q4
- Vilchez-Sánchez F, Bustos Leis J M, Sendagorta E, Ramírez E, Fiador A, Bellón T, de Soto Alvarez T, Sánchez Ocando H, Heredia Revuelto R, Cabanillas R. Allopurinol-Induced DRESS and neosensitization to thalidomide: complex management and diagnosis in a patient with multiple myeloma. *J Invest Allergol Clin*. 2022; 32(5): 406-7. Article. IF: 7.2; D1
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4 Associated Clinicians





3 Information Groups by Area

3.4 Large System Pathologies Area

Management centre: FIBHULP

- hypersensitivity reactions to chemotherapy: a Literature Review. Clin Rev Allerg Immu. 2022; 62(3): 534-47. Review. IF: 9.1; Q1
- Pose K, Morales-Cabeza C, de las Vecillas L, Muñoz MG, Feito-Rodríguez M, Fiador A. Varenicline-induced erosive stomatitis: First case report. Contact Dermatitis. 2022; 86(4): 317-8. Editorial Material. IF: 5.5; D1
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- Laorden D, Zamarrón E, Domínguez-Ortega J, Romero D, Quirce S, Álvarez-Sala R. Successful long-term treatment combining omalizumab and anti-IL-5 biologics in allergic bronchopulmonary aspergillosis. Arch Bronconeumol. 2022; 58(8): 624-6. Letter. IF: 8; Q1

Management centre: FIBHULP

Domínguez Ortega FJ. Asesoramiento para el diseño del estudio clínico. Ensayo clínico prospectivo multicéntrico aleatorizado de doble simulación controlado con placebo de búsqueda de la dosis más eficaz para el tratamiento de rinitis/riñoconjuntivitis por alergia frente al polen gramíneas. Inmunotek. 2015-Ongoing.

Management centre: FIBHULP

Domínguez Ortega FJ. Estudio de coste-efectividad de mepolizumab en pacientes con asma grave no controlada en condiciones de vida-real. Glaxosmithkline S. A. 2021-Ongoing.

Management centre: FIBHULP

Quirce Gancedo SE. Integra: utilidad de los ratios en el diagnóstico alergológico: de la investigación a la práctica clínica. Thermo Fisher Diagnostics S.L.U. 2022-Ongoing.

Management centre: FIBHULP

Quirce Gancedo SE. PI-619 relación entre asma y obesidad en la población española mayor o igual a 18 años. Novartis Farmaceutica S.A. 2009-Ongoing.

Management centre: FIBHULP

Quirce Gancedo SE. Sesiones en investigación del diagnóstico molecular como herramienta de identificación de perfiles de respuesta en pacientes con enfermedad respiratoria alérgica y alergia a alimentos. Thermo Fisher Diagnostics S.L.U. 2017-Ongoing.

Management centre: FIBHULP

Research projects

Caballero Molina MT. Desarrollar las tareas necesarias para poner en marcha el proyecto angiocare 2021. Ediciones Mayo S.A. 2022-Ongoing.

Management centre: FIBHULP

Caballero Molina MT. Development and trans-cultural validation of an international specific questionnaire (IHAE-QOL) for assessment of health related quality of life in adult patients with hereditary angioedema due to c1 inhibitor deficiency (HAE) and quality of life study (DTV-IHAE-QOL). Hereditary Angio-Edema In. 2009-Ongoing.

Management centre: FIBHULP

Caballero Molina MT. Estudio de las características clínicas y fisiopatológicas del angioedema sin habones (PI19/01434). ISCIII. 2020-2022.

Management centre: FIBHULP

Caballero Molina MT. Impacto humanístico y económico del angioedema hereditario en España. Estudio Impactaeah. Shire International GMBH. 2021-Ongoing.

Management centre: FIBHULP

Rodríguez Pérez MR. Evaluación de la capacidad alergénica de productos alimentarios mediante test de activación de basófilos y sensibilización cutánea con alimentos. Anugas Aguinaga S. A. U. 2018-Ongoing.

Management centre: FIBHULP

Tomás Pérez M. Efectividad de la inmunoterapia sublingual de ITP (slit melocoton) en pacientes con alergia a melocotón y otros vegetales por sensibilización a ITP en condiciones de práctica clínica habitual. ALK-Abello S.A. 2020-Ongoing.

Management centre: FIBHULP

Cibers and Retics

Caballero Molina MT. Centro de Investigación en Red de Enfermedades Respiratorias. (CIBERER). ISCIII. (31/12/2023). FIBHULP

Clinical trials

Caballero Molina MT. Estudio de fase 1/2, abierto y de aumento escalonado de la dosis para determinar la seguridad, la tolerabilidad y la eficacia de bmn 331, un gen de transferencia de serping1 humano mediada por el vector del virus adenoasociado (aav), en pacientes con angi.

Type: Clinical Trials, phase I. 5976.

Sponsored by: Biomarin Pharmaceutical, Inc.

Signed date: 21/11/2022

Caballero Molina MT. Estudio de fase III, doble ciego, controlado con placebo que evalúa la eficacia y seguridad de isis 721744 en pacientes con angioedema hereditario (aeh).

Type: Clinical Trials, phase III. 6082.

Sponsored by: Ionis Pharmaceuticals Inc.

Signed date: 24/03/2022

Caballero Molina MT. Estudio en fase III, multicéntrico, aleatorizado, controlado con pla-

cebo, doble ciego para evaluar la eficacia y la seguridad de lanadelumab para la preventión contra las crisis agudas de angioedema no histamínergico con inhibidor de c1 (c1-inh) normal y angioedema adquirido (aea) debido a déficit de c1-inh.

Type: Clinical Trials, phase III. ANEXO 2 5550.

Sponsored by: Takeda Development Center Americas.

Signed date: 25/02/2022

Caballero Molina MT. Estudio sin enmascaramiento a largo plazo para evaluar la seguridad y la eficacia de donidalorsén como tratamiento profiláctico del angioedema hereditario (aeah).

Type: Clinical Trials, phase III. 2022.186.

Sponsored by: Ionis Pharmaceuticals Inc.

Signed date: 09/06/2022

Domínguez Ortega FJ. Estudio observacional retrospectivo en pacientes con asma eosinofílica grave y pólipos nasales tratados con fasenra®.

Type: EPA-OD. PI-5143 D3250R00099.

Sponsored by: Astrazeneca Ab.

Signed date: 10/02/2022

Lluch Bernal MM. Ensayo clínico fase III multicéntrico, doble ciego, aleatorizado y controlado con placebo, en grupos paralelos, que evalúa la eficacia clínica y seguridad de la inmunoterapia con el alérgeno mayor purificado cup a 1, en pacientes con rinoconjuntivitis alé.

Type: Clinical Trials, phase III. 6113.

Sponsored by: Diater Laboratorio de Diagnóstico Y Aplicaciones Terapéuticas S.A. Diater, S.A.

Signed date: 01/06/2022

Pedrosa Delgado M. Estudio en fase III para evaluar la seguridad y farmacocinética de la profilaxis con berotralstat en niños de 2 a <12 años con angioedema hereditario.



3 Information Groups by Area



3.4 Large System Pathologies Area

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4 Associated Clinicians

Type: Clinical Trials, phase III. 2022.071.
Sponsored by: Biocryst Pharmaceuticals Inc.
Signed date: 28/07/2022

Tomás Pérez M. Ensayo clínico de eficacia y seguridad, prospectivo, multicéntrico, aleatorizado, doble ciego controlado con placebo, con immunoterapia subcutánea en pacientes con rinitis/riñoconjuntivitis con o sin asma de leve a moderada sensibilizados a gramíneas y olivo”.

Type: Clinical Trials, phase II. ANEXO 1
5883.

Sponsored by: Inmunotek.
Signed date: 12/04/2022

Tomás Pérez M. Ensayo clínico de eficacia y seguridad, prospectivo, multicéntrico, aleatorizado, doble ciego controlado con placebo, con immunoterapia subcutánea en pacientes con rinitis/riñoconjuntivitis con o sin asma de leve a moderada sensibilizados a gramíneas y cupresaceas.

Type: Clinical Trials, phase II. 2022.176.
Sponsored by: Inmunotek.
Signed date: 19/05/2022

Tomás Pérez M. Estudio de extensión de fase 3 en régimen abierto, multicéntrico e internacional para evaluar la seguridad a largo plazo de cc-93538 en sujetos adultos y adolescentes con esofagitis eosinofílica.

Type: Clinical Trials, phase III. 2022.010.
Sponsored by: Celgene International li -Sarl.
Signed date: 15/07/2022

● Patents and trademarks

Valenta R, Constantin C, Quirce Gancedo, SE, inventors; Phadia AB, assignee. Novel wheat allergens. PCT/SE2008/051377, EP2225266, US2010305049, AU2008330230, CA2707190, CN101932597, JP2011505134, RU2010126590; 2007 November 30.

Caballero Molina MT, Prior Gómez N, Remor Bitencourt EA, authors, FIBHULP, assignee. Brand name: HAE-QoL HEREDITARY ANGIOEDEMA QUALITY OF LIFE. CM 13.083.068; 2014 July 15.



Sánchez Herreros R, Martínez Fernández J, Castro Morera A, Gasset Vega M, Rodríguez Pérez RM, Pedrosa Delgado M, Quirce Gancedo S, inventors; FIBHULP, CSIC, assignees. Food allergen extracts and methods of producing and using the same. EP16382413.9 (Publication Number pending); 2016 September 06.

del Pozo Abejón V, Sastre Domínguez J, Rodríguez-Muñoz JM, Sastre Turrión B, Quirce Gancedo S, Cañas Mañas JA, inventors; FIISFJD, Centro de Investigación Biomédica en Red (CIBER), FIBHULP, Fundación Conchita Rábago de Jiménez Díaz, assignees. In vitro method for identifying severity levels in bronchial asthma patients. P201730739; 2017 May 29.





3 Information Groups by Area



3.4 Large System Pathologies Area

1 Introduction

2 Executive Summary

3 Information Groups by Area

4 Associated Clinicians



3.4.8 Patient Blood Management Group

Publications: 28

Q1: 2

COMPOSITION

Manuel Quintana Díaz. Facultativo Especialista de Área en Medicina Intensiva. Hospital Universitario La Paz. Profesor Asociado Facultad de Medicina. Universidad Autónoma de Madrid

María José Alcaide Martín. Facultativo Especialista de Área en Análisis Clínicos. Tutora de residentes de Análisis Clínicos. Hospital Universitario La Paz

Eva María Andrés Esteban. Epidemióloga. Hospital Universitario La Paz

Sara Fabra Cadenas. Facultativo Especialista de Área en Medicina Familiar y Comunitaria. Hospital Universitario La Paz

Pilar Fernández Calle. Facultativo Especialista de Área en Análisis Clínicos. Coordinadora de Calidad de Análisis Clínicos. Hospital Universitario La Paz

José Antonio García Erce. Facultativo Especialista de Área en Hematología. Hospital San Jorge de Huesca

Raúl Juárez Vela. Profesor Titular de Universidad. Universidad de La Rioja

Milagros Martí de Gracia. Jefe de Sección de Radiología de Urgencias. Hospital Universitario La Paz

Ana María Martínez Virto. Facultativo Especialista de Área en Medicina Familiar y Comunitaria. Coordinadora Adjunta de Urgencias. Hospital Universitario La Paz

Paloma Oliver Sáez. Facultativo Especialista de Área en Análisis Clínicos. Tutora de residentes de Análisis Clínicos. Hospital Universitario La Paz

María Inmaculada Pinilla Fernández. Facultativo Especialista de Área en Radiodiagnóstico. Hospital Universitario La Paz

María Angélica Rivera Núñez. Facultativo Especialista de Área en Medicina Interna. Hospital Universitario La Paz

Marcelino Sánchez Casado. Facultativo Especialista de Área en Medicina Intensiva. Hospital Virgen de la Salud



STRATEGIC OBJECTIVE

Stratifying risk in the critically ill patient.

- Stratify pulmonary thromboembolism risk
- Try to diagnose the potentially ill politraumatized patient at the emergency room Enhance the use of blood products
- Critically ill patient coagulopathy

• Early diagnose of anemia at the emergency room

• Intravenous iron usage

Anticoagulation Reserval.

Patient Blood Mangement Implementation.



3 Information Groups by Area



3.4 Large System Pathologies Area

RESEARCH LINES

- Critical Bleeding
- Anticoagulation reversal
- Frailty
- COVID19

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3 Information Groups by Area

4 Associated Clinicians

RESEARCH ACTIVITY

● Doctoral theses

Larrága García B. Automated trauma management evaluation for knowledge acquisition through simulation[dissertation]. Madrid: UPM: 2022(01/07/2022).

Directors: Quintana Díaz M,
Gutierrez Martín A

Peláez Pérez JM. Hipnoanalgesia en cirugía pediátrica dermatológica.[dissertation]. Madrid: UAM: 2022(12/07/2022).

Directors: Quintana Díaz M,
Sánchez Casado M

Espinosa González MC. Influencia de la malnutrición al ingreso y el riesgo de desnutrición en la Unidad de Cuidados Intensivos [dissertation]. Ciudad Real: UCLM: 2022(44587).

Directors: Quintana Díaz M,
Sánchez Casado M

● Publications

- Barea-Mendoza JA, Chico-Fernández M, Quintana-Díaz M, Servia-Goixart L, Fernández-Cuervo A, Bringas-Bollada M, Ballesteros-Sanz MA, García-Saez I, Pérez-Barcena J, Llompart-Pou JA. Traumatic brain injury and acute kidney injury-outcomes and associated risk factors. *J Clin Med.* 2022; 11(23): 7216. Article. IF: 3.9; Q2
- Blanco JR, Cobos-Ceballos MJ, Navarro F, Sanjoaquin I, Arminanzas C, Bernal E, Buzón-Martín L, Viribay M, Pérez-Martínez L, Espejo-Pérez S, Valencia B, Guzmán-Aguilar J, Ruiz-Cubillán JJ,

Alcalde C, Gutiérrez-Herrero FG, Olalla J, Andrés-Esteban EM, Jurado-Gámez B, Ugedo J. Elevated levels of serum CDCP1 in individuals recovering from severe COVID-19 disease. *Aging-US.* 2022; 14(4): 1597-610. Article. IF: 5.2; Q2

- Calderón-Moreno J, Juárez-Vela R, Delgado-Rodríguez MJ, Quintana-Díaz M, Magallón-Botaya R, Oliván-Blázquez B, Cobos-Rincón A, Santolalla-Arnedo I, Ramírez-Torres CA, Gea-Caballero V, Andrés-Esteban EM. Approximation to the consumption of healthcare resources and the economic cost of sars-cov-2 patient management: a retrospective study. *Front Public Health.* 2022; 10: 843751. Article. IF: 5.2; Q1

- Caro MC, Hidalgo MJC, García-Erce JA, Ubeda JLB, Boatella MGT, Díaz EG, Encinar MR, Bayón IM, Pico JN, Berral JEA, Solano AM, Merino SJ, Cerezales M, Cuervo J. Applying reflective multicriteria decision analysis to understand the value of therapeutic alternatives in the management of gestational and peripartum anaemia in Spain. *BMC Pregnancy Childb.* 2022; 22(1): 157. Article. IF: 3.1; Q2

- Egea-Guerrero JJ, García-Sáez I, Quintana-Díaz M. Trigger transfusion in severe traumatic brain injury. *Med Intensiva.* 2022; 46(3): 157-60. Article. IF: 3; Q3

- Egea-Guerrero JJ, Quintana-Díaz M. Role of prothrombin complex concentrate in the severe trauma patient. *Front Med (Lausanne).* 2022; 9: 988919. Article. IF: 3.9; Q2

- Enguita-Germán M, Librero J, Leache L, Gutiérrez-Valencia M, Tamayo I, Jerico C, Gorricho J, García-Erce JA. Role of the ABO blood group in COVID-19 infection and complications: A population-based study. *Transfus Apher Sci.* 2022; 61(3): 103357. Review. IF: 1.9; Q4
- García-Erce JA, Jerico C, Abad-Motos A, García

JR, Caamano MLA, Morera JMD, Lapena CS, Arroyo JL, Fuertes FF, Marcos SZ, Rodríguez GC, Morales MJL, Cabrera JLB, Chica E, Recasens V, Zabalegui A, Balen E, Urechaga E, Abad-Gurumeta A, Díaz MQ. PBM: Now more than ever necessary. *Rev Esp Anestesiol Reanim.* 2022; 69(6): 351-4. Article. IF: 1.3; Q3

- García-Martínez F J, Duat-Rodríguez A, Andrés Esteban E, Torrelo A, Noguera Morel L, Hernández-Martín A. Cutaneous manifestations not considered diagnostic criteria for neurofibromatosis type 1. a case-control study. *Actas Dermosifiliogr.* 2022; 113(10): 923-9. Article. IF: 3.2; Q2

- Jerico C, Zalba-Marcos S, Quintana-Díaz M, López-Villar O, Santolalla-Arnedo I, Abad-Motos A, Laso-Morales MJ, Sancho E, Subira M, Bassas E, de Vinaspre-Hernández RR, Juárez-Vela R, García-Erce JA. Relationship between ABO blood group distribution and COVID-19 infection in patients admitted to the ICU: A multicenter observational spanish study. *J Clin Med.* 2022; 11(11): 3042. Article. IF: 3.9; Q2

- Juárez-Vela R, Andrés-Esteban EM, Gea-Caballero V, Sánchez-González JL, Marcos-Neira P, Serrano-Lázaro A, Tirado-Anglés G, Ruiz-Rodríguez JC, Durante A, Santolalla-Arnedo I, García-Erce JA, Quintana-Díaz M. Related factors of anemia in critically ill patients: a prospective multicenter study. *J Clin Med.* 2022; 11(4): 1031. Article. IF: 3.9; Q2

- Juárez-Vela R, Andrés-Esteban EM, Santolalla-Arnedo I, de Vinaspre-Hernández RR, Benito-Puncel C, Serrano-Lázaro A, Marcos-Neira P, López-Fernández A, Tejada-Garrido CI, Sánchez-González JL, Quintana-Díaz M, García-Erce JA. Epidemiology andassociated factors in transfusion management in intensive care unit. *J Clin Med.* 2022; 11(12): 3532. Article. IF: 3.9; Q2

- Juárez-Vela R, García-Erce JA, Gea-Caballero V, de Vinaspre-Hernández RR, Santos-Sánchez JA, Sánchez-González JL, Andrés-Esteban EM, Czapla M, Tejada CI, Nanwani-Nanwani KL, Serrano-Lázaro A, Quintana-Díaz M. A Cohort study in intensive care units: health decisions related to blood transfusion during the covid-19 pandemic. *J Clin Med.* 2022; 11(15): 4396. Article. IF: 3.9; Q2

- Larraga-García B, Quintana-Díaz M, Gutierrez A. Simulation-based education in trauma management: a scoping review. *Int J Environ Res Public Health.* 2022; 19(20): 13546. Review. IF: 2.468; Q2

- Larraga-García B, Quintana-Díaz M, Gutierrez A. The need for trauma management training and evaluation on a prehospital setting. *Int J Environmental Res Public Health.* 2022; 19(20): 13188. Article. IF: 2.468; Q2

- Laso-Morales MJ, Vives R, Bisbe E, García-Erce JA, Muñoz M, Martínez-López F, Carol-Boeris F, Pontes-García C. Single-dose intravenous ferric carboxymaltose infusion versus multiple fractionated doses of intravenous iron sucrose in the treatment of post-operative anaemia in colorectal cancer patients: a randomised controlled trial. *Blood Transfusion-Italy.* 2022; 20(4): 310-8. Article. IF: 3.7; Q2

- Leache L, Gutiérrez-Valencia M, Enguita-Germán M, Librero J, Gorricho J, Jerico C, García-Erce JA. COVID-19 infection and complications according to ABO blood group in the elderly: A population-based subcohort and meta-analysis. *Vox Sang.* 2022; 117(10): 1230-4. Article. IF: 2.7; Q3

- Martínez-Alés G, Domingo-Relloso A, Quintana-Díaz M, Fernández-Capitán C, Hernan MA. Thromboprophylaxis with standard-dose vs. flexible-dose heparin for hospitalized COVID-19 patients: a target trial emulation. *J Clin Epidemiol.*



3 Information Groups by Area



3.4 Large System Pathologies Area

2022; 151: 96-103. Article. IF: 7.2; D1

- Martínez-Alés G, Fernández-Jiménez E, Mediavilla R, Quintana-Díaz M, Louzao I, Cebolla S, Muñoz-Sanjosé A, Bayón C, Susser ES, Bravo-Ortiz MF. Role of medical comorbidity in the association between psychiatric disorders and mortality among patients with COVID-19. Soc Psych Psych Epid. 2022; 57(8): 1727-30. Article. IF: 4.4; Q2
- Nanwani KLN, Montiel BE, Erce JAG, Quintana-Díaz M. Blood donation from brain-dead patients: Feasible and ethical? Med Intensiva. 2022; 46(9): 538-9. Letter. IF: 3; Q3
- Nanwani KLN, Montiel BE, Quintana-Díaz M, Erce JAG. Reflections and aspects to consider about blood donation in brain-dead patients. Med Intensiva. 2022; 46(9): 540-1. Letter. IF: 3; Q3
- Nanwani-Nanwani K, López-Pérez L, Giménez-Esparza C, Ruiz-Barranco I, Carrillo E, Arellano MS, Díaz-Díaz D, Hurtado B, García-Muñoz A, Relucio MA, Quintana-Díaz M, Urbez MR, Saravia A, Bonan MV, García-Rio F, Testillano ML, Villar J, de Lorenzo AG, Arrión JM. Prevalence of post-intensive care syndrome in mechanically ventilated patients with COVID-19. Sci Rep-Uk. 2022; 12(1): 7977. Article. IF: 4.6; Q2
- Quintana-Díaz M, Nanwani-Nanwani K, Marcos-Neira P, Serrano-Lazaro A, Juárez-Vela R, Andrés-Esteban EM. Epidemiology of blood transfusion in the Spanish Critical Care Units: Transfusion Day. Med Intensiva. 2022; 46(3): 123-31. Article. IF: 3; Q3
- Ramírez-Cervantes KL, Huerta-Álvarez C, Quintana-Díaz M. Thromboembolic events in a socio-economically disadvantaged population with covid-19 admitted to a medicalized hotel in madrid. Int J Env Res Pub He. 2022; 19(13): 7816. Article. IF: 2,468; Q2
- Robles-Caballero A, Henríquez-Recine MA, Juárez-Vela R, García-Olmos L, Yus-Teruel S, Quintana-Díaz M. Usefulness of the optic nerve sheath ultrasound in patients with cessation of cerebral flow. Neurocirugia. 2022; 33(1): 9-14. Article. IF: 0.8; Q4
- Rodrigues-García J, Moreira JMD, García-Erce JA. Vaccination to blood donors. Med Clin-Barcelona. 2022; 158(3): 142-4. Letter. IF: 3.9; Q2
- Rodríguez-Matesanz M, Guzmán-García C, Oropesa I, Rubio-Bolívar J, Quintana-Díaz M, Sánchez-González P. A New immersive virtual reality station for cardiopulmonary resuscitation objective structured clinical exam evaluation. Sensors-Basel. 2022; 22(13): 4913. Article. IF: 3.9; Q2
- Vidal-Cortes P, Santos ED, Alonso EA, Menéndez RA, Ballesteros MA, Bodi MA, Laguna MLB, Montero JG, Sánchez MG, Sánchez ML, Martín-Loches I, Calvo AO, Galleymore PR, Carmona SA, Ojeda DA, Arebalo OB, González HB, Sa MB, Castellanos-Ortega A, Estella A, Roca RF, Gutierrez VF, Cabanes MF, Vich CGE, Iglesias CG, Hernández-Tejedor A, Cano JCI, Posadilla DL, Rivera JJ, Jorge CL, Llompart-Pou JA, Camps VL, Cardenas CL, Neira PM, Delgado MCM, González MMM, Villén LM, Casals XN, Suner AO, Díaz MQ, Sedes PR, Núñez MR, Carballo LD, Aguirregabiria MR, Oviedo AR, Betolaza IS, Cuesta CS, Canas BS, Ching CV, González AV, Fenor LZ, Crespo RZ. Recommendations for the management of critically ill patients with COVID-19 in Intensive Care Units. Med Intensiva. 2022; 46(2): 81-9. Article. IF: 3; Q3

● Research projects

Martínez Virto AM. Epidemiología del angiogenesis en los servicios de urgencias. Shire International GMBH. 2020-Ongoing.

Management centre: FIBHULP

Oliver Sáez P. Estudio de gasometría en el lugar de asistencia. Beneficio para el paciente. Asociación Española de Farmacéuticos Analistas. 2012-Ongoing.

Management centre: FIBHULP

Quintana Díaz M. Estudio de la coagulopatía y de los perfiles de inflamación sistémica asociados a la hemorragia subaracnoidea aneurismática. FIBHULP. 2020-Ongoing.

Management centre: FIBHULP

Quintana Díaz M. Estudio de monitorización de heparinas de bajo peso molecular como profilaxis en un Servicio de Urgencias. Bayer Hispania S. L. 2011-Ongoing.

Management centre: FIBHULP

Quintana Díaz M. Identificación de factores de gravedad en el paciente con traumatismo potencialmente grave. FIBHULP. 2013-Ongoing.

Management centre: FIBHULP

Quintana Díaz M. Manejo inicial del paciente con hemorragia crítica traumática en urgencias y emergencias. Varios. 2021-Ongoing.

Management centre: FIBHULP

Quintana Díaz M. Traumatismo y transfusión ¿una asociación necesaria? Fundación Mutua Madrileña. 2019-Ongoing.

Management centre: FIBHULP

Quintana Díaz M. Trombosis en el paciente crítico por COVID-19 (estudio Tromcco). Laboratorios Farmacéuticos Rovi S.A. 2022-Ongoing.

Management centre: FIBHULP

Quintana Díaz M. Tratamientos de depuración extracorporea en pacientes críticos de la investigación a la práctica clínica. Nikkiso America Inc. 2016-Ongoing.

Management centre: FIBHULP

● Clinical trials

Quintana Díaz M. Estudio de fase IIa, multicéntrico, doble ciego (participante e investigador), aleatorizado y controlado con placebo en el que se investigan la farmacocinética, la farmacodinámica, la seguridad y la tolerabilidad de tin816 en el tratamiento de pacientes con lesión renal aguda asociada a sepsis.

Type: Clinical Trials, phase IIa. 2022.282.

Sponsored by: Novartis Farmaceutica, S.A.

Signed date: 05/10/2022.



3 Information Groups by Area



3.4 Large System Pathologies Area



3.4.9 Health Care Nurses Research Group

Publications: 2

Q1: -

COMPOSITION

Patricia Luna Castaño. Supervisora de Enfermería. Hospital Universitario La Paz

Laura Alonso Recio. Profesora Contratada. Universidad de Educación a Distancia

Jesús Castro Toro. Supervisor de Área Funcional. Hospital Universitario La Paz

Víctor Manuel Cornejo del Río. Supervisor de Unidad Quirúrgica. Hospital Carlos III- Hospital Universitario La Paz

Maria Ricardina Delgado Sandoval. Enfermera en Servicio de Consultas Externas. Hospital Universitario La Paz

Maria Luisa Díaz Martínez. Profesora Contratada. Universidad Autónoma de Madrid

Ana Ramos Cruz. Supervisor de Enfermería en Reani-

mación Maternidad. Hospital Universitario La Paz. Profesora Asociada de Grado de Enfermería. Centro Universitario de Ciencias de la Salud San Rafael-Nebrija

Maria Durán Agüi. Enfermera en Servicio de Medicina Interna. Hospital Universitario La Paz

Salomé Herrero Cereceda. Enfermera Unidad Quirúrgica. Hospital Cantoblanco-Hospital Universitario La Paz

Pedro Piquerás Rodríguez. Supervisor de Enfermería en Unidad de Neonatología. Hospital Universitario La Paz

Maria del Carmen Sellán Soto. Profesora Contratada. Universidad Autónoma de Madrid

Gema Tapia Serrano. Enfermera de Cuidados Intensivos Pediátricos. Hospital Universitario La Paz



STRATEGIC OBJECTIVE

Care is an indispensable activity for survival, since humanity exists. Care has been relevant as a primary function to promote and develop all those activities that make people live.

This research group aims to collaborate on growing clinical evidence on health care. The real gap between what generates scientific knowledge and the decisions that are made in the day to day is ethically unacceptable. Between 30 and 40% of patients do not receive care consistent with the results of the research and around 20-25% of care may be unnecessary or potentially harmful. Evidence-Based Practice (PBE) or Evidence is based on the fact that greater knowledge and use of research results in clinical practice will contribute to improving the health of the population. Today, it is well known that the implementation of the best scientific evidence available in the clinical practice improves quality of care and clinical outcomes.

In addition, decision-makers based on available evidence tend to be more satisfied with their role and focus on improving the quality of care given to patients.

Finally, it should be noted that using evidence in daily practice can achieve health goals at a minimum cost.

Cost-effectiveness studies have been conducted in which evidence-based care is linked to a reduction in health costs compared to traditional care.

At the same time, society is facing new economic, political, demographic, social and cultural challenges that require health services capable of meeting the growing health needs of the population.



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It is necessary to investigate in clinical practice the most advanced care in order to achieve the full development of care and ensure the achievement of the best results in terms of overall health and quality of life of patients. Effectiveness of interventions, greater cohesion of health care teams, and of course, all contribute to the sustainability of the health system and user satisfaction.

RESEARCH ACTIVITY

● Doctoral theses

Avilés Martínez M. El papel de la enfermera en anticoncepción posparto: el método amenorrea de la lactancia [dissertation]. Madrid: UAM; 2022(05/05/2022).

Director: Sellán Soto MC.

Mateo Martínez G. La construcción de la identidad enfermera contemporánea en España. La es-cultura del cuidado: entre la cruz y el medicamento [dissertation]. Madrid: UAM; 2022(30/09/2022).

Directors: Sellán Soto MC,
Vázquez Sellán A.

● Publications

- Bosch-Alcázar A, Tamame-San Antonio M, Luna-Castaño P, García-Soler P, Pegueroles AF, Alcolea-Monge S, Lorenzo RF, Piquerias-Rodríguez P,

Molina-Gallego I, Potes-Rojas C, Gestí-Senar S, Orozco-Gámez R, Tercero-Cano MC, Saz-Roy MA, Jordán I, Belda-Hofheinz S. Specificity and sensitivity of the Spanish version of the COMFORT Behaviour Scale for assessing pain, grade of sedation and withdrawal syndrome in the critically ill paediatric patient. Multicentre COSAIP study (Phase 1). *Enferm Intensiva*. 2022; 33(2): 58-66. Article. IF: 1.3; Q3

- Martínez MA, Soto MCS, Troca JJD. Differences on postpartum family planning among nursing professionals. *Rev Esp Salud Pública*. 2022; 96: e202202011. Article. IF: 1.1; Q4

● Research projects

Sellán Soto MC. Efectividad del masaje terapéutico para aliviar el malestar de niños y niñas con bronquiolitis. CODEM. 2019-2020.

Management centre: Red Internacional de Enfermería en Salud infantil

RESEARCH LINES

- Vital Processes and complex care.
- Technological innovation and its application in health care.
- Management of care and results of professional practice.

● Clinical trials

Sellán Soto MC. Eficacia del masaje terapéutico para aliviar el malestar de niños y niñas con bronquiolitis.

Type: No EPA. 5508 BRONQUI-MT.

Sponsored by: Sellán Soto, María Carmen.

Sign date: 01/02/2022



3 Information Groups by Area



3.4 Large System Pathologies Area



3.4.10 Emergency and Critical Pathology Group

Publications: 17

Q1: 8

COMPOSITION

Alejandro Martín Quiros. Unidad de Aislamiento de Alto Nivel. Hospital Universitario La Paz

Gillermina Bejarano Redondo. Médico Adjunto en Urgencias. Hospital Universitario La Paz

Lubna Dani Ben Abdel-Iah. Facultativo Especialista de Área en Urgencias. Hospital Universitario La Paz

Maria Elena Calvín García. Facultativo Especialista de Área en Urgencias. Hospital Universitario La Paz

Julio Cobo Mora. Jefe de la Unidad de Urgencias. Hospital Universitario La Paz

Maria de los Ángeles García Martín. Facultativo Especialista de Área especialista en Farmacia Hospitalaria. Hospital Universitario La Paz

Olga González Peña. Facultativo Especialista de Área en Medicina Familiar y Comunitaria. Hospital Universitario La Paz

Manuel Jesús González Viñolis. Facultativo Especialista de Área en Urgencias. Hospital Universitario La Paz

Macarena Lerín Baratas. Facultativo Especialista de Área en Urgencias. Hospital Universitario La Paz

Maria Lorena López Corcuera. Facultativo Especialista de Área en Medicina Interna. Hospital Universitario La Paz

Mikel Rico Briñas. Facultativo Especialista de Área en Urgencias. Hospital Universitario La Paz

Paloma Isabel Romero Gallego-Acho. Facultativo Especialista de Área en Medicina Interna. Hospital Universitario La Paz

María José Simón Merlo. Facultativo Especialista de Área en Radiología. Hospital Universitario La Paz

Yale Tung Chen. Facultativo Especialista de Área en Urgencias. Hospital Universitario La Paz



STRATEGIC OBJECTIVE

We collaborate with other research groups, to study clinical and prognostic usefulness tests in cardiology, to develop new strategies for the treatment and diagnosis of infectious diseases, and to investigate new antibiotics with the pneumology group.

We develop a new and pioneering line of imaging diagnostic, with the line of emergency ultrasound, being national referents in research in this field, in which we have the active support of private enterprise.

We will investigate the possibility of supporting us in new technologies that help the clinician in the decision making in the field of the treatment of the diabetes, impelling global initiatives both at the hospital and the population level .

RESEARCH LINES

- Integral management of the treatment and follow-up of the diabetic patient.
- Emergency ultrasound.
- Sepsis
- SARS-CoV-2 and COVID19 acute management
- Care of infectious diseases in the emergency room.
- Optimization of the management of the acute intoxicated patient and use of chemical substances for terrorist purposes.
- Attention to cardiovascular pathology of emergencies.
- Attention to respiratory pathology.



3 Information Groups by Area



3.4 Large System Pathologies Area

RESEARCH ACTIVITY

● Publications

- Alquézar-Arbe A, Miro O, del Castillo JG, Jiménez S, Llorens P, Martín A, Martín-Sánchez FJ, García-Lamberechts EJ, Pinera P, Jacob J, Porrino JMM, Jiménez B, del Río R, García CP, Aznar JVB, Ponce MC, Fernández ED, Tost J, Mojarrero EM, García AH, Quirós AM, Noceda J, Cano MJC, Almeida AFD, Bayarri MJF, Tejera MG, Rodríguez AD, Burillo-Putze G. Incidence, clinical characteristics, risk factors and outcomes of acute coronary syndrome in patients with covid-19: results of the UMC-19-S10(10). *J Emerg Med.* 2022; 62(4): 443-54. Article. IF: 1.5; Q3
- Barac A, Bartoletti M, Azap O, Bussini L, Ergonul O, Krause R, Paño-Pardo JR, Power NR, Rodríguez-Bano J, Sibani M, Szabo BG, Tsiodras S, Verweij PE, Quirós AM, Zollner-Schwetz I. Inappropriate use of ivermectin during the COVID-19 pandemic: primum non nocere!. *Clin Microbiol Infec.* 2022; 28(7): 908-10. Editorial Material. IF: 14.2; D1
- Bartoletti M, Azap O, Barac A, Bussini L, Ergonul O, Krause R, Martín-Quirós A, Pano-Pardo JR, Power N, Sibani M, Szabo B, Tsiodras S, Zollner-Schwetz I, Rodríguez-Bano J. ESCMID COVID-19 living guidelines: drug treatment and clinical management: author's reply. *Clin Microbiol Infec.* 2022; 28(4): 617-8. Letter. IF: 14.2; D1
- Bartoletti M, Azap O, Barac A, Bussini L, Ergonul O, Krause R, Martín-Quirós A, Paño-Pardo JR, Power N, Sibani M, Szabo BG, Tsiodras S, Zollner-Schwetz I, Rodríguez-Bano J. European society of clinical microbiology and infectious diseases guidelines for coronavirus disease 2019: an update on treatment of patients with mild/moderate disease. *Clin Microbiol Infec.* 2022; 28(12): 1578-90. Article. IF: 14.2; D1
- Cantero-Cid R, Montalbán-Hernández KM, Guevara J, Pascual-Iglesias A, Pulido E, Casalvalla JC, Marcano C, Serrano CB, Valentín J, Bonel-Pérez GC, Avendaño-Ortiz J, Terrón V, Lozano-Rodríguez R, Martín-Quirós A, Marín E, Pena E, Guerra-Pastríán L, López-Collazo E, Aguirre LA. Intertwined leukocyte balances in tumours and peripheral blood as robust predictors of right and left colorectal cancer survival. *World J Gastrointest Oncol.* 2022; 14(1): 295-318. Article. IF: 3; Q3
- Carpio C, Lerín M, Torres I, Fernández-Velilla M, Río FG, Álvarez-Sala R, Prados C. Factors predicting 6-min walking test indexes in adults with cystic fibrosis. *Sci Sport.* 2022; 37(5-6): 438-45. Article. IF: 1.1; Q4
- Casado-López I, Tung-Chen Y, Torres-Arrese M, Luordo-Tedesco D, Mata-Martínez A, Casas-Rojo JM, Montero-Hernández E, de Casasola-Sánchez GG. Usefulness of multi-organ point-of-care ultrasound as a complement to the decision-making process in internal medicine. *J Clin Med.* 2022; 11(8): 2256. Article. IF: 3.9; Q2
- Goncalves BP, Hall M, Jassat W, Balan V, Murthy S, Kartsonaki C, Semple MG, Rojek A, Baruch J, Reyes LF, Dasgupta A, Dunning J, Citarella BW, Pritchard M, Martín-Quirós A, Sili U, Baillie JK, Aryal D, Arabi Y, Rashan A, Angheben A, Caoili J, Carrier FM, Harrison EM, Gomez-Junyent J, Figueiredo-Mello C, Douglas JJ, Nor MBM, Chow YP, Wong XC, Bertagnolio S, Thwin SS, Streinu-Cercel A, Salazar L, Rishu A, Rangappa R, Ong DSY, Hashmi M, Carson G, Díaz J, Fowler R, Kraemer MUG, Wils EJ, Horby P, Merson L, Olliaro PL. An international observational study to assess the impact of the Omicron variant emergence on the clinical epidemiology of COVID-19 in hospitalised patients. *Elife.* 2022; 11: e80556. Article. IF: 7.7; D1
- Hernández-Piriz A, Tung-Chen Y, Jiménez-Virumbrales D, Ayala-Larranaga I, Barba-Martín R, Canora-Lebrato J, Zapatero-Gavira A, de Casasola-Sánchez GG. Usefulness of lung ultrasound in the early identification of severe COVID-19: results from a prospective study. *Med Ultrason.* 2022; 24(2): 146-52. Article. IF: 1.7; Q3
- Lozano-Rodríguez R, Terrón-Arcos V, López R, Martín-Gutiérrez J, Martín-Quirós A, Maroun-Eid C, del Val EM, Canada-Illana C, Iglesias AP, Quiroga JV, Montalbán-Hernández K, Casalvalla-Dueñas JC, García-Garrido MA, del Balzo-Castillo A, Peinado-Quesada MA, Gómez-Lage L, Herrero-Beníto C, Butler RG, Avendaño-Ortiz J, López-Collazo E. Differential immune checkpoint and Ig-like v-type receptor profiles in covid-19: associations with severity and treatment. *J Clin Med.* 2022; 11(12): 3287. Article. IF: 3.9; Q2
- Lozano-Rodríguez R, Terrón-Arcos V, Montalbán-Hernández K, Casalvalla-Dueñas JC, Bergón-Gutiérrez M, Pascual-Iglesias A, Quiroga JV, Aguirre LA, de Diego RP, Vela-Olmo C, López-Morejon L, Martín-Quirós A, del Balzo-Castillo A, Peinado-Quesada MA, García-Garrido MA, Gómez-Lage L, Herrero-Beníto C, Llorente-Fernández I, Martín-Miguel G, Torrejón M, Cubillos-Zapata C, del Fresno C, Avendaño-Ortiz J, López-Collazo E. Prior SARS-CoV-2 infection balances immune responses triggered by four EMA-approved COVID-19 vaccines: An observational study. *Clin Transl Med.* 2022; 12(5): e869. Article. IF: 10.6; Q1
- Lozano-Rodríguez R, Valentín-Quiroga J, Avendaño-Ortiz J, Martín-Quirós A, Pascual-Iglesias A, Terrón-Arcos V, Montalbán-Hernández K, Casalvalla-Dueñas JC, Bergón-Gutiérrez M, Alcamí J, García-Pérez J, Cascajero A, García-Garrido MA, del Balzo-Castillo A, Peinado M, Gómez L, Llorente-Fernández I, Martín-Miguel G, Herrero-Beníto C, Benito JM, Rallón N, Vela-Olmo C, López-Morejon L, Cubillos-Zapata C, Aguirre LA, del Fresno C, López-Collazo E. Cellular and humoral functional responses after BNT162b2 mRNA vaccination differ longitudinally between naive and subjects recovered from COVID-19. *Cell Rep.* 2022; 38(2): 110235. Article. IF: 8.8; Q1
- Quintana MGM, García CH, Misis AG, Quesada-Cubo V, Poza AT, Sanz AC, Fernández OC, Murillo JAR, Alonso AMP, Cabanillas LP, Gil NL, Romero CC, García LP, Riballo ABR, Corcho IC, Rodríguez OR, de la Oliva SG, Benavent EG, Pérez AA, Vinolis MG, García YA, Pérez AA, Francés MR, Jiménez MLM, del Blanco CF, González RB. Factors associated with in-hospital mortality and readmission in a cohort of patients treated with noninvasive ventilation during emergency department or out-of-hospital emergency care: the VentilaMadrid study. *Emergencias.* 2022; 34(1): 7-14. Article. IF: 5.5; D1
- Rampon G, Jia SJ, Agrawal R, Arnold N, Martín-Quirós A, Fischer EA, Malatack J, Jagan N, Sergew A, Case AH, Miller K, Tanios M, Doros G, Ross CS, García MA, Gillmeyer KR, Griffiths NG, Jandali B, Modzelewski KL, Rucci JM, Simpson SQ, Walkey AJ, Bosch NA. Smartphone-Guided Self-prone Positioning vs Usual Care in Nonintubated Hospital Ward Patients With COVID-19 A Pragmatic Randomized Clinical Trial. *Chest.* 2022; 162(4): 782-91. Article. IF: 9.6; Q1
- Rodríguez-Pérez M, Tung-Chen Y, Herrera-Cubas R. Detection and semiquantification of pneumothorax through lung ultrasound: Case report of a COVID-19 patient. *Enferm Infect Micr Cl.* 2022; 40(9): 524-5. Letter. IF: 2.5; Q4
- Torres-Arrese M, de Casasola-Sánchez GG, Méndez-Bailón M, Montero-Hernández E, Cobos-Marcos M, Rivas-Lasarte M, Caurel-Díaz L, Rodríguez-Fuertes P, Villen-Villegas T, Tung-Chen Y. Usefulness of serial multiorgan point-of-care ultrasound in acute heart failure: results from a prospective observational cohort. *Med Lith.* 2022; 58(1): 124. Article. IF: 2.6; Q3
- Tung-Chen Y, Gil-Rodrigo A, Algorta-Martín A, Llamas-Fuentes R, Rodríguez-Fuertes P, Marin-Baselga R, Alonso-Martínez B, Rodríguez ES, Soriano PL, Ramos-Rincon JM. The lung ultrasound Rule of 7 in the prognosis of COVID-19 patients: Results from a prospective multicentric study. *Med Clin-Barcelona.* 2022; 159(1): 19-26. Article. IF: 3.9; Q2

● Research projects

Martín Quirós A. Impacto del retraso en el inicio de la antibioterapia e identificación de biomarcadores pronósticos en la evolución de pacientes con sepsis a shock séptico (PI20/01589). ISCIII. 2021-2023.

Management centre: FIBHULP



3 Information Groups by Area



3.4 Large System Pathologies Area

3.4.11 Hospital Pharmacy Group

Publications: 13

Q1: -

COMPOSITION

Alicia Herrero Ambrosio. Jefa de Servicio de Farmacia Hospitalaria. Hospital Universitario La Paz. Profesora Asociada. Universidad Complutense de Madrid

Susana Andrés Morera. Facultativo Especialista de Área en Farmacia Hospitalaria. Hospital Universitario La Paz

Cristina Bilbao Gómez-Martino. Facultativo Especialista de Área en Farmacia Hospitalaria. Hospital Universitario La Paz

Nuria Blázquez Ramos. Farmacéutico Especialista en Farmacia Hospitalaria. FIBHULP

Cristina Cárdenas Serralde. Farmacéutico . FIBHULP

María Gema Casado Abad. Facultativo Especialista de Área en Farmacia Hospitalaria. Hospital Universitario La Paz

María del Río Durango. Farmacéutica. FIBHULP

Luis González del Valle. Jefe de Sección de Farmacia Hsopitalaria. Hospital Universitario La Paz

María Ángeles González Fernández. Facultativo Especialista de Área en Farmacia Hospitalaria. Hospital Universitario La Paz

Inmaculada Jiménez Nacher. Facultativo Especialista de Área en Farmacia Hospitalaria. Hospital Universitario La Paz

Catalina Lara Cátedra. Facultativo Especialista de Área en Farmacia Hospitalaria. Hospital Universitario La Paz

Marta Moro Agud. Subdirectora Médico de Servicios Centrales. Hospital Universitario La Paz

Tamara Pérez Robles. Facultativo Especialista de Área en Farmacia Hospitalaria. Hospital Universitario La Paz

Elena María Rodríguez Martín. Facultativo Especialista de Área en Farmacia Hospitalaria. Hospital Universitario La Paz

José Antonio Romero Garrido. Facultativo Especialista de Área en Farmacia Hospitalaria. Hospital Universitario La Paz. Personal Docente e Investigador. Universidad Complutense de Madrid

Rosario Fátima Ros Catellar. Facultativo Especialista de Área en Farmacia Hospitalaria. Hospital Universitario La Paz

Margarita Ruano Encinar. Facultativo Especialista de Área en Farmacia Hospitalaria. Hospital Universitario La Paz

Luis Sánchez-Rubio Fernández. Facultativo Especialista de Área en Farmacia Hospitalaria. Hospital Universitario La Paz

Carmen Sobrino Jiménez. Facultativo Especialista de Área en Farmacia Hospitalaria. Hospital Universitario La Paz



María Luisa Testillano Tarrero. Facultativo Especialista de Área en Farmacia Hospitalaria. Hospital Universitario La Paz

Elena Villamañán Bueno. Facultativo Especialista de Área en Farmacia Hospitalaria. Hospital Universitario La Paz

STRATEGIC OBJECTIVE

The Hospital Pharmacy group aims to investigate on pharmacotherapy focused on both, researches on treatments and innovation technology related to the medication use process in order to optimize clinical practice.



3 Information Groups by Area



3.4 Large System Pathologies Area

RESEARCH LINES

1 Introduction

2 Executive Summary

3 Information Groups by Area

4 Associated Clinicians

1. Evaluation of Drugs - Real World Outcomes, especially those associated with high economic impact or with limited clinical evidence. In this regard, our target is to investigate on the following fields:

- Coagulopathies.
- Oncology.
- Biologic therapies.
- Infectious diseases.
- Rare diseases.
- Gene therapy.
- Molecular biology of the innate immune system.

2. Investigation on strategies for early detection and prevention of medication errors either in patients with critical illness and patients with complex chronic conditions.

3. Analysis of the impact on medication adherence and health outcomes of innovation in new technologies applied to the medication use process:

- Telepharmacy programs including or not medications home delivery. Evaluation of their impact on medication adherence and health outcomes in different pathologies such as migraine, multiple sclerosis, prostate cancer and asthma.
 - Development and evaluation of digital health tools applied to congenital coagulopathies and its impact in terms of adherence and treatment cost-effectiveness improvement.
 - Research on the effect of predictive analytics and big data on clinical decision making and pharmaceutical outcomes optimization.
 - Identification of signalling pathways connecting nicotinic alpha₇ receptors and negative regulators of TLR-mediated inflammation in human macrophages.
4. Development of new drugs: Advanced therapies.

RESEARCH ACTIVITY

● Doctoral theses

García-Trevijano Cabetas M. Análisis de la farmacoterapia en cáncer de próstata metastásico resistente a la castración e identificación de factores predictivos de respuesta[dissertation]. Madrid: UCM; 2022(13/07/2022).

Directors: Romero Garrido JA,
Espinosa Arranz E,
Benedí González J.

Ruiz de Hoyos M. Evaluación del proceso de consentimiento informado en pacientes que participan en ensayos clínicos con medicamentos[dissertation]. Madrid: UAM; 2022(24/10/2022).

Directors: Frías Iniesta J,
Villamañan Bueno E.

● Publications

- Caro MC, Hidalgo MJC, García-Erce JA, Ubeda JLB, Boatella MGT, Diaz EG, Encinar MR, Bayon

IM, Pico JN, Berral JEA, Solano AM, Merino SJ, Cerezales M, Cuervo J. Applying reflective multicriteria decision analysis to understand the value of therapeutic alternatives in the management of gestational and peripartum anaemia in Spain. *BMC Pregnancy Childb.* 2022; 22(1): 157. Article. IF: 3.1; Q2

• Zozaya N, Caballero T, González-Quevedo T, Setién PG, González MA, Jodar R, Poveda-Andrés JL, Guillén-Navarro E, Cuadrado AR, Hidalgo-Vega A. A multicriteria decision analysis (MCDA) applied to three long-term prophylactic treatments for hereditary angioedema in Spain. *Glob Reg Health Technol Assess.* 2022; 9: 14-21. Article. IF: 0.5; Q4

• Caro-Codón J, Rey JR, Iniesta AM, Rosillo SO, Castrejón-Castrejón S, Rodríguez-Sotelo L, García-Veas JM, Marco I, Martínez LA, Martín-Polo L, Merino C, Martínez-Cossiani M, Buño A, González-Valle L, Herrero A, López-de-Sa E, Merino JL. Impact of the withdrawal of renin-angiotensin-aldosterone inhibitors on mortality in COVID-19 patients. *Rev Port Cardiol.* 2022; 41(10): 823-30. Article. IF: 1.8; Q4

• Rey JR, Llorens JLM, Manjavacas AMI, Rodríguez SOR, Castrejon-Castrejon S, Arbas-Redondo E, Poveda-Pinedo ID, Tebar-Márquez D, Severo-

Sanchez A, Rivero-Santana B, Juárez-Olmos V, Martínez-Cossiani M, Buño-Soto A, González-Valle L, Herrero-Ambrosio A, López-de-Sa E, Caro-Codón J. Influence of statin treatment in a cohort of patients admitted for COVID-19. *Med Clin-Barcelona.* 2022; 158(12): 586-95. Article. IF: 3.9; Q2

• Nanwani-Nanwani K, López-Pérez L, Giménez-Esparza C, Ruiz-Barranco I, Carrillo E, Arellano MS, Díaz-Díaz D, Hurtado B, García-Muñoz A, Relucio MA, Quintana-Díaz M, Urbez MR, Saravia A, Bonan MV, García-Río F, Testillano ML, Villar J, de Lorenzo AG, Anón JM. Prevalence of post-intensive care syndrome in mechanically ventilated patients with COVID-19. *Sci Rep-Uk.* 2022; 12(1): 7977. Article. IF: 4.6; Q2

• Escudero-Vilaplana V, Bernal E, Casado G, Collado-Borrell R, Díez-Fernández R, Román ABF, Folguera C, González-Cortijo L, Herrero-Fernández M, Marquina G, Nieto CM, Rodríguez MA, Rubio AR, SanMartín-Fenollera P, Castillo MJV, Comellas M, Guerra EM. Defining a standard set of patient-reported outcomes for patients with advanced ovarian cancer. *Front Oncol.* 2022; 12: 885910. Article. IF: 4.7; Q2

• Olivas-Mazón R, Bueno D, Sisinni L, Mozo Y, Casado-Abad G, Martínez AP. A retrospective study of

treosulfan versus busulfan-based conditioning in pediatric patients. *Eur J Haematol.* 2022; 109(5): 474-82. Article. IF: 3.1; Q3

• Granda P, Villamañan E, Carpio C, Laorden D, Sobrino C, Herrero A, Quirce S, Álvarez-Sala R. Adherence to inhalers in patients with severe asthma treated with anti-interleukin-5 biologics. *Farm Hosp.* 2022; 46(4): 203-7. Article. IF: 1.4; Q4

• Villanueva-Bueno C, Collado-Borrell R, Revuelta-Herrero JL, Fernández-Román AB, Casado-Abad G, Escudero-Vilaplana V. Implementation of a methodology to assess patient reported outcomes in lung cancer patients: The PeOpLe (Patient-reported Outcomes in Lung cancer) study protocol. *Farm Hosp.* 2022; 46(4): 265-9. Article. IF: 1.4; Q4

• Montoro-Ronsano JB, Poveda-Andrés JL, Romero-Garrido JA, Barrena BLC, Vella VA. Hospital pharmacy initiatives for improving the management of patients with congenital coagulopathies. *Farm Hosp.* 2022; 46(3): 109-15. Article. IF: 1.4; Q4

• Montañes B, Casado G, Medina A, Nieto P, Ramírez-Payer A. Cost-minimisation analysis of chronic lymphocytic leukemia in Spain in the era of oral targeted therapies. *Farm Hosp.* 2022; 46(2): 72-9. Article. IF: 1.4; Q4



3 Information Groups by Area



3.4 Large System Pathologies Area

- Sanmartín-Fenollera P, Mangues-Bafalluy I, Talens-Bolos A, Ibarra-Barrueta O, Villamañan-Bueno E, Monte-Boquet E, Morillo-Verdugo R, Margusino-Framinan L. Telepharmacy scorecard: Activity and quality indicators for the pharmaceutical care in a hospital pharmacy service. *Farm Hosp.* 2022; 46(7): 92-105-. Review. IF: 1.4; Q4
- Ruano-Encinar M, Jiménez-Núñez C, Herrero-Ambrosio A. Impact of the COVID-19 pandemic on the activity of a Pharmacy Service through activity and quality indicators. *Rev Ofil.* 2022; 32(2): 121-8. Article. Not Indexed

Research projects

Herrero Ambrosio A. Desarrollo de un sistema de gestión de medicamentos en investigación. Sanofi Aventis S.A. 2008-Ongoing.

Management centre: FIBHULP

Herrero Ambrosio A. Evaluación de la notifi-

cación de alergias a fármacos en pacientes hospitalizados. Utilidad de la prescripción electrónica en la prevención de errores de medicación. Amgen S.A. 2012-Ongoing.

Management centre: FIBHULP

Herrero Ambrosio A. Implantación del módulo epase en la elaboración de antineoplásicos (PI-1609). Amgen S.A. 2013-Ongoing.

Management centre: FIBHULP

Romero Garrido JA. Estudio de adherencia al tratamiento de los pacientes en profilaxis con factores de la coagulación y su relación con los episodios de sangrado (PI-2356). Amgen S.A. 2014-Ongoing.

Management centre: FIBHULP

Herrero Ambrosio A. Informatización y optimización de procesos en la unidad de ensayos clínicos del Servicio de Farmacia. Vifor

Pharma España S.L. 2015-Ongoing.

Management centre: FIBHULP

Romero Garrido JA. Estudio de adherencia al tratamiento sustitutivo con factores de la coagulación en pacientes diagnosticados de hemofilia grave en régimen de demanda y profilaxis y su relación con episodios de sangrado. Pfizer, S.L.U. 2016-Ongoing.

Management centre: FIBHULP

Herrero Ambrosio A. Actualización y promoción de la actividad investigadora en el Servicio de Farmacia del Hospital Universitario La Paz. Vifor Pharma España S.L. 2016-On-going.

Management centre: FIBHULP

Herrero Ambrosio A. Estudio de evaluación del servicio de telefarmacia y entrega no presencial de medicación desde la farmacia hospitalaria a partir de la pandemia covid-19. Amgen S.A. 2020-Ongoing.

Management centre: FIBHULP

Villamañan Bueno E. Evaluación de las objeciones alegadas por un comité ético de investigación clínica a los consentimientos informados de los estudios clínicos. Amgen,S.A. 2016-Ongoing.

Management centre: FIBHULP

Moro Agud M. Evaluación de la implantación de una plataforma de gestión del conocimiento para la comunicación, formación y docencia en el Hospital Universitario La Paz. Pfizer S.L.U. 2020-Ongoing.

Management centre: FIBHULP

Villamañan Bueno E. Búsqueda de marcadores genéticos en el tratamiento de la fibrosis pulmonar idiopática con pirfenidona y nintedanib. Fundación Española de Farmacia Hospitalaria (FEFH). 2020-Ongoing.

Management centre: FIBHULP

Romero Garrido JA. Fármacos que marcan

un antes y un después: Resultados e implicaciones económicas de la incorporación de emcizumab al tratamiento de la hemofilia. Fundación Española de Farmacia Hospitalaria (FEFH). 2021-Ongoing.

Management centre: FIBHULP

Herrero Ambrosio A. Convenio de colaboración entre el Ministerio de Sanidad y Consumo y la Comunidad de Madrid para el impulso de prácticas seguras en los centros sanitarios. Ministerio de Sanidad y Consumo. 2009-2013.

Management centre: FIBHULP

Clinical trials

Romero Garrido JA. Programa educativo y de apoyo a pacientes con hemofilia para la mejora de la adherencia.

Type: EPA-OD. PI-4961 OATPE-HEM2102.

Sponsored by: Grupo Oat Observatorio de La Salud, S.L.

Signed date: 17/02/2022.

Patents and trademarks

Herrero Ambrosio A, Ramírez García E, Ojeda Feo JJ, Pérez Rodríguez J, Asensio Martín MJ, González Sánchez ML, Moro Agud M, Lorente Romeo M, López Nieto M, Gómez Rioja R, authors; FIBHULP, assignee. Trademark name: SINOIRES; CM 13.080.056; 2014 July 14.





3 Information Groups by Area



3.4 Large System Pathologies Area

1 Introduction

2 Executive Summary

3 Information Groups by Area

4 Associated Clinicians



3.4.12 Translational Hepatology Group

Publications: 17

Q1: 6

COMPOSITION

Francisco Javier García-Samaniego

Rey. Jefe de Sección en Hepatología. Hospital Universitario La Paz. Profesor Titular. Universidad Complutense de Madrid

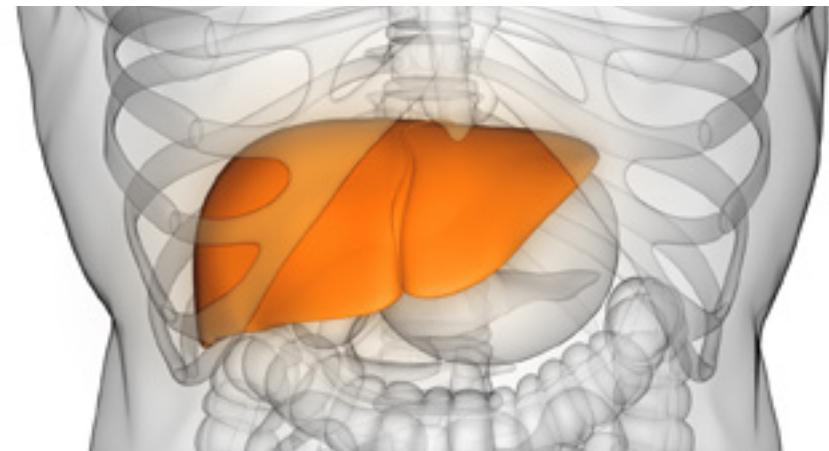
Marina Cambor Murube. Investigadora Predoctoral. Universidad Autónoma de Madrid

Antonio Madejón Seiz.

Investigador Postdoctoral. CIBERehd

Antonio Olveira Martín. Facultativo Especialista de Área en Hepatología. Hospital Universitario La Paz

Miriam Romero Portales. Facultativo Especialista de Área en Gastroenterología. Hospital Universitario La Paz



STRATEGIC OBJECTIVE

The research group conducted by Dr. García-Samaniego has extensive experience in the study of liver diseases, focusing its research activity, in both, clinical and basic aspects. In recent years the group has developed its activity preferentially in the study of viral hepatitis. The expertise areas of the research group are the study of infections caused by the hepatitis viruses [hepatitis viruses B (HBV), C (HCV) and delta (HDV)] and the chronic liver disease related to HBV, HCV

and HDV at a time in which highly efficient antiviral systems against HBV, and especially against HCV has been developed.

In addition to complete the research lines, the global strategy of the group will be focused in maintaining the high level of collaboration, both with CIBERehd research groups and with external groups, as well as to increase of the cooperation ways with private enterprise.

RESEARCH LINES

Main research lines:

- Study of the epidemiological situation and optimization of the cascade of care for patients with infection by the hepatitis delta virus (HDV). Project in collaboration with the Hospital Clinic of Barcelona and Infanta Leonor of Madrid, and funded by the HDV DESCRIBE program sponsored by Gilead Scientific, S.A.
- Development of HCV micro-elimination strategies through the optimization and implementation of HCV detection and quantification systems at diagnostic points.
- Analysis of the role of epigenetic modifications induced by infection by hepatotropic viruses in the evolution of liver disease and the development of liver cancer, before

and after antiviral treatment. Project performed in collaboration with the Department of Biochemistry of the Faculty of Medicine of the UAM and the Virology laboratory of the Molecular Biology Center "Severo Ochoa".

- Study of liver fibrosis progression factors in patients with metabolic hepatic steatosis..

Alternative lines of work:

- Study of the role of the intestinal microbiota as a prognostic factor for adverse effects in biological cancer therapy. Project developed in collaboration with the Department of Biochemistry of the Faculty of Medicine of the UAM.
- Study of the influence of pre-existing liver disease on the evolution of COVID.



3 Information Groups by Area



3.4 Large System Pathologies Area

RESEARCH ACTIVITY

● Doctoral theses

● Master Theses

Marchena Pasero A. Variants of aurora kinase B: New biomarkers of hepatocellular carcinoma[dissertation]. Madrid: UAM; 2022(27/06/2022).

Director: Madejón Seiz A.

● Publications

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3 Information Groups by Area



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Research projects

García-Samaniego Rey J. Búsqueda activa de pacientes con hepatitis crónica viral (VHC Y VHD) no diagnosticada, en población general, desde los Centros de salud de la Comunidad de Madrid. Gilead Sciences. 2022-2023.

Management centre: FIBHULP

García-Samaniego Rey J. Epidemiological status of HDV infection in two big urban areas in Spain. Optimization of the cascade of care. Gilead Sciences (HDVDESCRIBE Program). 2022-2023.

Management centre: CIBER

Cibers and Retics

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Clinical trials

García-Samaniego Rey J. Estudio de fase II, aleatorizado, doble ciego, con doble simulación, controlado con placebo, para evaluar la seguridad y la eficacia de semaglutida y la combinación a dosis fija de cilofexor y firocostat, en monoterapia y en combinación, en pacientes con cirrosis compensada (f4) debida a esteatohepatitis no alcohólica.

Type: Clinical Trials, phase II. 6005 6005 GS-US-454-6075.

Sponsored by: Gilead Sciences, S.L.
Signed date: 17/01/2022

Olveira Martín A. Ensayo fase IIb/III, aleatorizado, doble ciego, comparado con placebo para evaluar la seguridad y eficacia de la cotadutida en pacientes con esteatohepatitis no alcohólica no cirrótica con fibrosis. (estudio proxymo-advance).

Type: Clinical Trials, phase IIb. 2022.023.

Sponsored by: Astrazeneca Ab.
Signed date: 17/05/2022

Romero Portales M. Optimización de las exploraciones mediante vcte en el bazo con fibroscan.

Type: Clinical Trials, phase . 6044.
Sponsored by: Echosens, Sa.
Signed date: 12/04/2022

Olveira Martín A. Estudio de prolongación en fase II y sin enmascaramiento para evaluar la seguridad y la farmacodinámica de belcesirán en pacientes homocigotos pizz con hepatopatía asociada al déficit de α1-antitripsina.

Type: Clinical Trials, phase II. 6058.
Sponsored by: Dicerna Pharmaceuticals Inc.
Signed date: 12/04/2022

García-Samaniego Rey J. Estudio de fase 2, aleatorizado, en doble ciego y controlado con placebo de heptcell (fp-02.2 potenciada) como vacuna inmunoterapéutica en pacientes con hepatitis b crónica inactiva no tratados previamente.

Type: Clinical Trials, phase II. 2022.165.
Sponsored by: Altimune Inc.
Signed date: 18/04/2022

García-Samaniego Rey J. Datos de la vida real para evaluar a los pacientes con vhc tratados con sof/vel sin rbv-real-world data to assess hcv patients treated with sof/vel without rbv.

Type: EOM no prospectivo. 2022.438.
Sponsored by: Gilead Sciences, S.L..
Signed date: 05/10/2022

Olveira Martín A. Estudio multicentrico de fase III, doble ciego, aleatorizado, a largo plazo y controlado con placebo para evaluar la seguridad y la eficacia del ácido obeticolico en sujetos con esteatohepatitis no alcohólica.

Type: Clinical Trials, phase III. 2022.509.

Sponsored by: Intercept Pharmaceuticals, Inc.

Signed date: 27/07/2022

Olveira Martín A. Estudio en fase II, multicéntrico, con doble enmascaramiento, aleatorizado, comparado con placebo y de extensión a largo plazo sin enmascaramiento para evaluar la seguridad y la eficacia de elafibranor en participantes adultos con co-angitis esclerosante primaria (cep).

Type: Clinical Trials, phase II. 2022.562.
Sponsored by: Ipsen Bioscience, Inc.
Signed date: 14/12/2022

Olveira Martín A. Estudio de fase 2a aleatorizado, doble ciego y controlado con placebo de la seguridad, la tolerabilidad, la farmacocinética y la farmacodinamia de dcr-a1at en pacientes con déficit de alfa-1 antitripsina pizz.

Type: Clinical Trials, phase II. 2022.696.
Sponsored by: Medpace Clinical Research, Llc.
Signed date: 21/11/2022

García-Samaniego Rey J. Estudio fase IIb, aleatorizado, multicéntrico, de grupos paralelos, parcialmente ciego (promotor y participante ciegos, equipo investigador no ciego) para evaluar la eficacia y seguridad del tratamiento con GSK3228836 en sujetos con Hepatitis B crónica. (B-Clear)

Patents and trademarks

Castán P, Gil-García AI, Madejón A, Sainz-Martínez E, Montoya JJ, OUAHID YOUNESS, inventors; MIRNAX BIOSENS S.L., assignee. Bivalent reverse primers Application number (EPO): 20382336.4-1118. 2020 April 24.

Madejón A; inventor; Agile Life Sciences LTD, assignee. Kit and methods Application number: GB202010372.A. 2020 July 6.



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**COMPOSITION**

Leocadio Rodríguez Mañas. Jefe Servicio de Geriatría. Hospital Universitario de Getafe

David Bernal López. Gestor de proyectos europeos de investigación. Hospital Universitario de Getafe

José Antonio Carnicero Carreño. Data Manager. Investigador Senior. Hospital Universitario de Getafe

Betty Davies Urizar. Médico Adjunto en Geriatría. Hospital Universitario de Getafe

Mariam El Assar de la Fuente. Investigadora Postdoctoral. CIBERES

Patricia Laosa Zafra. Investigadora Postdoctoral. Hospital Universitario de Getafe

Laura Pedraza Sepúlveda. Farmacóloga Clínica. Hospital Universitario de Getafe

Laura Rivero Álvarez. Gestora de Proyectos Europeos de Investigación. Hospital Universitario de Getafe

Patricia Sosa Callejas. Investigadora Postdoctoral. Hospital Universitario de Getafe

STRATEGIC OBJECTIVE

This research area, has been developed along the last 25 years by our group, with outstanding contributions to several aspects of the field, ranging from basic science (endothelial function, role of lab and image biomarkers, magnetoencephalography, musculoskeletal function...) to clinical and epidemiological research, raising data that have allowed to promote technological devices (platform to detect, treat and monitor functional decline in an non-obtrusive way) and leading to the creation of a technological SME (MG Biomed).

RESEARCH ACTIVITY**● Doctoral theses**

Álvarez Bustos A. Factores asociados a la disminución de la función física en adultos mayores[dissertation]. Madrid: UAM; 2022(14/12/2022).

Directors: Rodríguez Mañas L, Alonso Bouzón C.

● Publications

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- Baztan Cortes JJ, Rodríguez-Mañas L. Effectiveness and efficiency of acute geriatric units: A classic topic revisited. *Rev Esp Geriatr Gerontol.*

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- Formiga F, Rodríguez-Mañas L. Type 2 diabetes mellitus in elderly or frail individuals. *Topics to be considerer.* *Rev Clin Esp.* 2022; 222(8): 506. Letter. IF: 2.9; Q2
- Casado-Díaz A, La Torre M, Priego-Capote F, Verdu-Soriano J, Lazaro-Martínez JL, Rodríguez-Mañas L, Pérez MB, Túnez I. EHO-85: A multi-

functional amorphous hydrogel for wound healing containing olea europaea leaf extract: effects on wound microenvironment and preclinical evaluation. *J Clin Med.* 2022; 11(5): 1229. Article. IF: 3.9; Q2

- Verdu-Soriano J, de Cristina-Espinar M, Luna-Morales S, Dios-Guerra C, Caballero-Villarraso J, Moreno-Moreno P, Casado-Díaz A, Berenguer-

**RESEARCH LINES**

- Endothelial dysfunction associated with aging, diabetes and obesity.
- Clinical aspects of frailty.
- New Technologies Applied to Frailty, functional decline and Healthy Aging.



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Pérez M, Guler-Caamano I, Laosa-Zafra O, Rodríguez-Mañas L, Lázaro-Martínez JL. Superiority of a novel multifunctional amorphous hydrogel containing *olea europaea* leaf extract (eho-85) for the treatment of skin ulcers: a randomized, active-controlled clinical trial. *J Clin Med.* 2022; 11(5): 1260. Article. IF: 3.9; Q2

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- Álvarez-Bustos A, Rodríguez-Sánchez B, Carnicer-Carreño JA, Sepúlveda-Loyola W, García-García FJ, Rodríguez-Mañas L. Healthcare cost expenditures associated to frailty and sarcopenia. *Bmc Geriatr.* 2022; 22(1): 747. Article. IF: 4.1; Q1
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- El Assar M, Álvarez-Bustos A, Sosa P, Angulo J, Rodríguez-Mañas L. Effect of physical activity/exercise on oxidative stress and inflammation in muscle and vascular aging. *Int J Mol Sci.* 2022; 23(15): 8713. Review. IF: 5.6; Q1
- El Assar M, García-Rojo E, Sevilleja-Ortiz A, Sánchez-Ferrer A, Fernández A, García-Gómez B, Romero-Otero J, Rodríguez-Mañas L, Angulo J. Functional role of STIM-1 and orai1 in human microvascular aging. *Cells.* 2022; 11(22): 3675. Article. IF: 6; Q2
- Mañas A, Cruz BD, Ekelund U, Reyna JL, Gomez IR, Carreno JAC, Mañas LR, García FJG, Ara I. Response to McAvoy and Tudor-Locke on their commentary on our manuscript: Association of accelerometer-derived step volume and intensity with hospitalizations and mortality in older adults: A prospective cohort study. *J Sport Health Sci.* 2022; 11(6): 639-40. Letter. IF: 11.7; D1
- Davies B, Walter S, Rodríguez-Laso A, Carreno JAC, García-García FJ, Álvarez-Bustos A, Rodríguez-Mañas L. Differential association of frailty and sarcopenia with mortality and disability: insight supporting clinical subtypes of frailty. *J Am Med Dir Assoc.* 2022; 23(10): 1712-6. Article. IF: 7.6; D1

- Mañas A, Cruz BD, Ekelund U, Reyna JL, Gómez IR, Carreno JAC, Mañas LR, García FJG, Ara I. Association of accelerometer-derived step volume and intensity with hospitalizations and mortality in older adults: A prospective cohort study. *J Sport Health Sci.* 2022; 11(5): 578-85. Article. IF: 11.7; D1
- Álvarez-Bustos A, Carnicer-Carreño JA, Davies B, García-García FJ, Rodríguez-Artalejo F, Rodríguez-Mañas L, Alonso-Bouzón C. Role of sarcopenia in the frailty transitions in older adults: a population-based cohort study. *J Cachexia Sarcopeni.* 2022; 13(5): 2352-60. Article. IF: 8.9; D1
- Rodríguez-Sánchez I, Rodríguez-Mañas L, Laosa O. Long COVID-19 the need for an interdisciplinary approach. *Clin Geriatr Med.* 2022; 38(3): 533-44. Article. IF: 3.3; Q3
- Sánchez-Sánchez JL, Carnicer-Carreño JA, García-García FJ, Álvarez-Bustos A, Rodríguez-Sánchez B, Rodríguez-Mañas L. Physical performance measures in frailty screening: diagnostic and prognostic accuracy in the Toledo Study of Healthy Ageing. *Maturitas.* 2022; 165: 18-25. Article. IF: 4.9; Q1
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- Rodríguez-Gómez I, Sánchez-Martín C, García-García FJ, García-Esquinas E, Miret M, Jiménez-Pavón D, Guadalupe-Grau A, Mañas A, Carnicer JA, Casajus JA, Ayuso-Mateos JL, Rodríguez-Artalejo F, Rodríguez-Mañas L, Ara I. Frailty in kidney transplant candidates: a comparison between physical frailty phenotype and FRAIL scales. *J Nephrol.* 2022; 35(7): 1841-9. Article. IF: 3.4; Q2
- Sevilleja-Ortiz A, El Assar M, García-Gómez B, La Fuente JM, Alonso-Isa M, Romero-Otero J, Martínez-Salamanca JI, Fernández A, Rodríguez-Mañas L, Angulo J. STIM/Orai Inhibition as a stra-

- Oviedo-Briones M, Rodríguez-Laso A, Carnicer JA, Gryglewska B, Sinclair AJ, Landi F, Vellas B, Artalejo FR, Chec-López M, Rodríguez-Mañas L. The ability of eight frailty instruments to identify adverse outcomes across different settings: the FRAILTOOLS project. *J Cachexia Sarcopeni.* 2022; 13(3): 1487-501. Article. IF: 8.9; D1
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- Rodríguez-Laso A, García-García FJ, Rodríguez-Mañas L. Transitions between frailty states and its predictors in a cohort of community-dwelling spaniards. *J Am Med Dir Assoc.* 2022; 23(3): 524. Article. IF: 7.6; D1
- Rodríguez-Gómez I, Sánchez-Martín C, García-García FJ, García-Esquinas E, Miret M, Vicente-Rodríguez G, Gusi N, Mañas A, Carnicer JA, González-Gross M, Ayuso-Mateos JL, Rodríguez-Artalejo F, Rodríguez-Mañas L, Ara I. The medium-term consequences of a COVID-19 lockdown on lifestyle among Spanish older people with hypertension, pulmonary disease, cardiovascular disease, musculoskeletal disease, depression, and cancer. *Epidemiol Health.* 2022; 44: e2022026. Article. IF: 3.8; Q2
- Casado-Díaz A, Moreno-Rojas JM, Verdu-Soriaño J, Lázaro-Martínez JL, Rodríguez-Mañas L, Túñez I, La Torre M, Pérez MB, Priego-Capote F, Pereira-Caro G. Evaluation of antioxidant and wound-healing properties of EHO-85, a novel multifunctional amorphous hydrogel containing *olea europaea* leaf extract. *Pharmaceutics.* 2022; 14(2): 349. Article. IF: 5.4; Q1
- Pérez-Sáez MJ, Dávalos-Yerovi V, Redondo-Pachón D, Arias-Cabralles CE, Faura A, Bach A, Buxeda A, Burballa C, Junyent E, Nogues X, Crespo M, Marco E, Rodríguez-Mañas L, Pascual J. Frailty in kidney transplant candidates: a comparison between physical frailty phenotype and FRAIL scales. *J Nephrol.* 2022; 35(7): 1841-9. Article. IF: 3.4; Q2
- Sevilleja-Ortiz A, El Assar M, García-Gómez B, La Fuente JM, Alonso-Isa M, Romero-Otero J, Martínez-Salamanca JI, Fernández A, Rodríguez-Mañas L, Angulo J. STIM/Orai Inhibition as a stra-

tegy for alleviating diabetic erectile dysfunction through modulation of rat and human penile tissue contractility and in vivo potentiation of erectile responses. *J Sex Med.* 2022; 19(12): 1733-49. Article. IF: 3.5; Q2

● Research projects

Rodríguez Mañas L. Scaling-up of and evidence-based intervention programme in older people with Diabetes and Frailty in LatinAmerica (DIABFRAIL LATAM). EU. 2019-2022.

Management centre: HUG

Rodríguez Mañas L. SYNergies for Cohorts in Health: integrating the ROle of all Stakeholders (SYNCHROS). EU. 2019-2022.

Management centre: HUG

Rodríguez Mañas L. Dual effects of insulin resistance on frailty status, disability and death: proof of concept and risk models building project (PI20/00977). ISCIII. 2021-2023.

Management centre: HUG

Rodríguez Mañas L. ActiveUP: Dimensión Científica y clínica PID2019-108408RB-C22. Agencia Estatal de Investigación. Retos de la Sociedad 2019. 2020-2023.

Management centre: HUG

Rodríguez Mañas L. Asistente virtual para la prevención del delirium en personas mayores hospitalizadas (ADELA). Fundación Mapfre. 2022-2022.

Management centre: HUG

Rodríguez Mañas L. Papel de la disfunción mitocondrial en la relación entre multimorbilidad crónica y deterioro funcional en ancianos (MITOFUN). Fundación Francisco Soria Melguizo. 2021-2022.

Management centre: HUG



3 Information Groups by Area



3.4 Large System Pathologies Area

1 Introduction

2 Executive Summary

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COMPOSITION

Miguel Ángel Salinero Fort. Gerente Adjunto de Planificación y Calidad. Atención Primaria

Beatriz Álvarez Embarba. Enfermera. Escuela Universitaria de Enfermería Cruz Roja Española

Navid Behzadi Koochani. Facultativo Especialista de Área en Medicina Familiar y Comunitaria. Atención Primaria

Juan Cárdenas Valladolid. Enfermero. Atención Primaria

Enrique Carrillo de Santa Pau. Biólogo. Fundación IMDEA Alimentación

María Victoria Castell Alcalá. Facultativo Especialista de Área en Medicina Familiar y Comunitaria. Atención Primaria

Paloma Gómez Campelo. Subdirectora Técnica de IdiPAZ. Investigadora Postdoctoral. FIBHULP

Alicia Gutiérrez Misis. Profesor Ayudante Doctor. Universidad Autónoma de Madrid

Víctor Iriarte Campo. Médico. Atención Primaria

Paula Reguerio Toribio. Facultativo Especialista de Área en Medicina Familiar y Comunitaria. Atención Primaria

Belén Taulero Escalera. Investigadora Predocoral. Atención Primaria

Francisco Javier San Andrés Rebollo. Facultativo Especialista de Área en Medicina Familiar y Comunitaria. Atención Primaria

Pilar Vich Pérez. Facultativo Especialista de Área en Medicina Familiar y Comunitaria. Atención Primaria

STRATEGIC OBJECTIVE

The group's research focuses on the morbidity and mortality risks of elderly patients in the community setting, with particular attention to the study of modifiable factors such as nutrition, alcohol consumption, smoking, inappropriate use of drugs, lack of therapeutic adherence, sedentary lifestyle, and vulnerability to climate change. In addition, classic factors such as hyper-

tension, diabetes, obesity/overweight, hypercholesterolemia, multimorbidity, and suboptimal control of blood pressure, glucose, and LDL cholesterol. Furthermore, the study of the factors that delay urgent/emergent attention of time-dependent pathologies (**). All with a perspective of gender and vulnerability across the life course.

RESEARCH LINES

- Effect of Glycemic Variability on morbidity and mortality.
- Effect of Arterial Hypertension Variability on morbidity and mortality.
- Predictive model of morbidity and mortality in elderly patients residing in the community.
- Predictive model of morbidity and mortality in patients with type 2 diabetes mellitus.
- Effect of product of fasting glucose and triglyceride (TyG index), on incident Type 2 Diabetes Mellitus.
- Sex differences in preventive medicine.

- Incidence of mortality in adult patients diagnosed with epilepsy in the community of Madrid: EPILEPSIE- Madrid retrospective cohort.
- Mortality Rates and causes of death in patients with Type 2 Diabetes: An Analysis of MADIBATES Cohort (Spain).
- Metabolomics, genomics and nutrition for personalized medicine of cardiovascular disease (OMIC-CARD).
- LADA-type diabetes: development and validation of a high-risk score for use in Primary Care.

*Group recently created, december 2022

** Those emergency diseases in which the diagnostic or therapeutic delay negatively influences the process's evolution and prognosis since its morbidity and mortality are directly related to the delay in starting treatment



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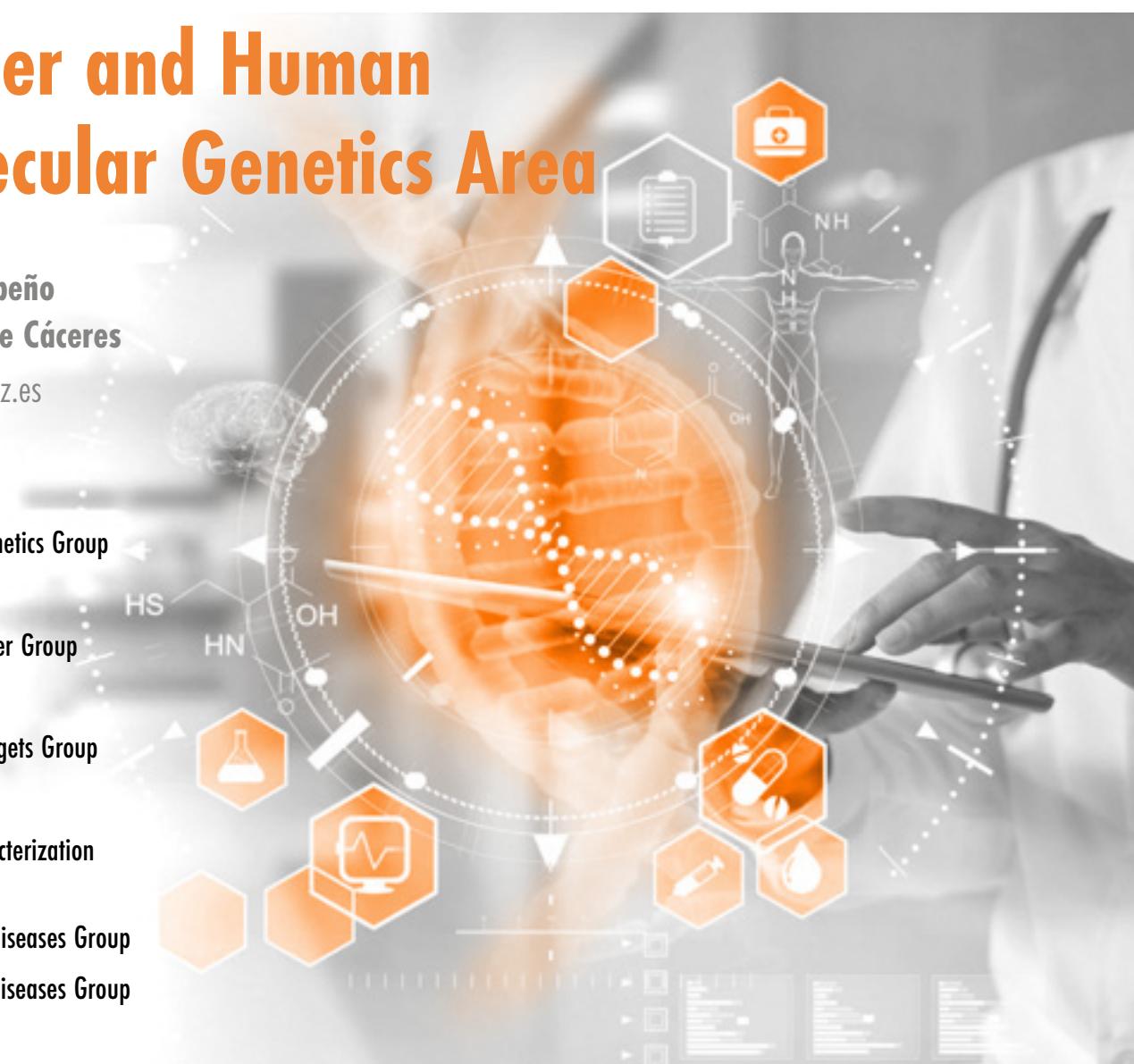


3.5 Cancer and Human Molecular Genetics Area

Area Coordinators: Javier de Castro Carpeño
Inmaculada Ibáñez de Cáceres
coordinadorcancer@idipaz.es

Documents: 218 Originals: 185 D1: 27 Q1: 93

- 3.5.1 INGEMM- Institute of Medical and Molecular Genetics Group
- 3.5.2 Translational Oncology Group
- 3.5.3 Experimental Therapies and Biomarkers in Cancer Group
- 3.5.4 Oto-Neurosurgery Research Group
- 3.5.5 Cancer Molecular Pathology and Therapeutic Targets Group
- 3.5.6 Mechanisms of Tumour Progression Group
- 3.5.7 Animal and Cell Models for Detection and Characterization of Leukemic Stem Cells Group
- 3.5.8 Research and Diagnosis of Inherited Metabolic Diseases Group
- 3.5.9 Dyslipidemias of Genetic Origin and Metabolic Diseases Group
- 3.5.10 Human Genetic Variability Group





3 Information Groups by Area



3.5 Cancer and Human Molecular Genetics Area

Strategic Objectives

Cancer and Medical Genetics area is made up of 10 groups and its objective is to deepen its knowledge in all aspects related to neoplastic disease, including the biology of the tumour, identification of therapeutic targets, development of new treatments, analysis of the efficacy of available treatments, identification of biomarkers and carrying out studies aimed at prevention and early diagnosis. In relation to human and molecular genetics, the aim is to identify genetic alterations related to human diseases in order to make an early diagnosis and prevent the development of pathologies.

Development forecast for the coming years

Research in the area of cancer and genetics is expanding, both in terms of basic and translational research and clinical research. It is foreseeable that collaboration between groups in the area will continue to increase but also the collaboration with external organisations.

In order to facilitate its development, it will be necessary for the Institution to provide sufficient space and adequate common infrastructures.

It is foreseeable that this expansion will lead to the possibility of applying for European projects and leading consortiums, where once again the support of the Foundation will be essential for their application and management.

Actions

Facilitate the application request for European projects through the IdiPAZ Internationalization Platform.

Support researchers to continue being a reference in the international area.

Promote at international level the different research groups of the area, identifying possible synergies between groups and centers, new partners and funding sources, as well as to forge strategic alliances.

High impact publications

Gámez-Chiachio M, Molina-Crespo A, Ramos-Nebot C, Martínez-Val J, Martínez L, Gassner K, Llobet FJ, Soriano M, Hernández A, Cordani M, Bernado-Morales C, Díaz E, Rojo-Sebastián A, Trivino JC, Sánchez L, Rodríguez-Barrueco R, Arribas J, Llobet-Navas D, Sarrio D, **Moreno-Bueno G**. Gasdermin B over-expression modulates HER2-targeted therapy resistance by inducing protective autophagy through Rab7 activation. *J Exp Clin Canc Res.* 2022; 41(1): 285. Article. IF: 11.3; D1

Iturrate A, Rivera-Barahona A, Flores CL, Otaify GA, Elhossini R, Pérez-Sanz ML, Nevado J, Tenorio-Castano J, Trivino JC, García-Gonzalo FR, Piceci-Sparascio F, de Luca A, Martínez L, Kalayci T, Lapunzina P, Altunoglu U, Aglan M, Abdalla E, **Ruiz-Pérez VL**. Mutations in SCN1M cause orofaciocdigital syndrome due to minor intron splicing defects affecting primary cilia. *Am J Hum Genet.* 2022; 109(10): 1828-49. Article. IF: 9.8; D1

Mota A, Oltra SS, Selenica P, Moiola CP, Casas-Arozamena C, López-Gil C, Díaz E, Gatius S, Ruiz-Miro M, Calvo A, Rojo-Sebastián A, Hurtado P, Pineiro R, Colas E, Gil-Moreno A, Reis-Filho JS, Muñoz-Romay L, Abal M, Matías-Guiu X, Weigelt B, **Moreno-Bueno G**. Intratumor genetic heterogeneity and clonal evolution to decode endometrial cancer progression. *Oncogene.* 2022; 41(13): 1835-50. Article. IF: 8; Q1

Gilleros-Rodríguez D, Martín-Morales R, Barbeito P, Roy AD, Loukil A, Sierra-Rodero B, Herranz, G, Pampliega O, Redrejo-Rodríguez M, Goetz SC, Izquierdo M, Inoue T, **García-Gonzalo FR**. Multiple ciliary localization signals control INPP5E ciliary targeting. *Oncogene.* 2022; 11: e78383. Article. IF: 7.7; D1

López-Camacho E, Trilla-Fuertes I, Gámez-Pozo A, Dapia I, López-Vacas R, Zapater-Moros A, Lumbreras-Herrera MI, Arias P, Zamora P, Vara JAF, **Espinosa E**. Synergistic effect of antimetabolic and chemotherapy drugs in triple-negative breast cancer. *Biomed Pharmacother.* 2022; 149: 112844. Article. IF: 7.5; Q1



3 Information Groups by Area



3.5 Cancer and Human Molecular Genetics Area

Scientific Events by Cancer and Human Molecular Genetics Area

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- | | |
|--|---|
| 03/02/2022 Disrupción endocrina ambiental del reciclaje de yodo | 02/06/2022 Identificación de nuevos enhancers de SHOX |
| 17/02/2022 Nuevos datos genéticos en malformaciones vasculares | 09/06/2022 Fenotipo parkinsoniano en ratón knockout Deha1 |
| 24/02/2022 Cáncer de páncreas hereditario | 16/06/2022 Aspectos éticos de la aplicación de la genética en la práctica asistencial |
| 03/03/2022 Acreditación de la European Molecular Genetics Quality Network (EMQN) | 22/09/2022 Medicina de Precisión en Cáncer de Vejiga |
| 10/03/2022 Functional proteomics unravels mechanisms of resistance in melanoma treated with anti-PD1 inhibitor | 29/09/2022 Papel del exoma/genoma en medicina fetal. Casos clínicos |
| 17/03/2022 Control de temperaturas mediante el programa SIRIUS. Actualización del proceso de Certificación de Genética | 06/10/2022 Aplicaciones, ventajas y desventajas del MinION en Microbiología Clínica |
| 24/03/2022 Las lesiones quísticas del páncreas: Aspectos genéticos | 20/10/2022 Oftalmogenética: bases genéticas y casos clínicos |
| 31/03/2022 Genética del desarrollo sexual | 26/10/2022 Genética de la hipertensión arterial pulmonar: análisis molecular de una cohorte de pacientes e identificación de nuevos genes asociados mediante técnicas de secuenciación masiva |
| 07/04/2022 Estudio de sinergias de fármacos en modelos celulares de cáncer de mama | 03/11/2022 Sesión Futuro de la biopsia líquida en oncología |
| 28/04/2022 Caracterización clínica, radiológica y molecular de pacientes con talla baja y anomalías esqueléticas leves. Rendimiento de un panel de secuenciación masiva de genes implicados en displasias esqueléticas | 10/11/2022 Genética de las enfermedades cardíacas hereditarias |
| 05/05/2022 Uso de herramientas CRISPR en enfermedades raras | 17/11/2022 Sistemas de expresión génica inducibles por calor |
| 12/05/2022 Las lesiones quísticas del páncreas: Aspectos clínicos | 23/11/2022 Actualización de infección por Clostridoides difficile. Experiencia con los nuevos tratamientos en nuestro hospital |
| 26/05/2022 ARMS, seguimiento de una muestra | 24/11/2022 Sesión Genética de las enfermedades cardíacas hereditarias |
| | 23/11/2022 I Jornada Internacional de la Red Oncológica Madrileña (ROM) |
| | 01/12/2022 Caracterización molecular avanzada de la Leucemia Linfocítica Aguda en pediatría |
| | 14/12/2022 Jornada Anticipando la Medicina del Futuro |
| | 15/12/2022 Diagnóstico molecular de Fibrosis quística. Variantes de splicing |
| | 22/12/2022 Sesión INGEMM Caracterización funcional de la primera variante hipomórfica detectada en el gen CYBB en un paciente con enfermedad inflamatoria intestinal |





3 Information Groups by Area



3.5 Cancer and Human Molecular Genetics Area



3.5.1

INGEMM - Instituto de Genética Médica y Molecular (Institute of Medical and Molecular Genetics) Group

Publications: 35
Q1: 13

COMPOSITION

Pablo Daniel Lapunzina Badía. Facultativo Especialista de Área en Genética. Hospital Universitario La Paz

Cinthia Añíos Carbonero. Técnico de Laboratorio. Hospital Universitario La Paz

Pedro Arias Lajara. Técnico de Laboratorio. Hospital Universitario La Paz

Sara Benito Sanz. Investigadora Postdoctoral. Hospital Universitario La Paz

Ángel Campos Barros. Investigador Senior (Contrato Miguel Servet- I2). Jefe de Laboratorio. FIBHULP

Ángela del Pozo Mate. Técnico Informático. Hospital Universitario La Paz

Begoña Ezqueta Zubizaray. Bioquímico Adjunto. Hospital Universitario La Paz

Luis Fernández García-Moya. Biólogo. Hospital Universitario La Paz

Blanca Nieves Fernández Martínez. Técnico de Laboratorio. Hospital Universitario La Paz

María Victoria Fernández Montaña. Técnico de Laboratorio. Hospital Universitario La Paz

Amparo García Cardenal. Técnico de Laboratorio. Hospital Universitario La Paz

Fe Amalia García Santiago. Bióloga. Hospital Universitario La Paz



Sixto García-Miñaur Rica. Genetista. Hospital Universitario La Paz

Isabel Gómez Nieto. Técnico de Laboratorio. Hospital Universitario La Paz

Karen Elise Heath. Investigadora Senior (Contrato Ramón y Cajal- I3). Jefe de Laboratorio. FIBHULP

Teresa López Timénez. Técnico de Laboratorio. Hospital Universitario La Paz

Alicia Llorente Alonso. Técnico de Laboratorio. Hospital Universitario La Paz

María Elena Mansilla Aparicio. Genetista. Hospital Universitario La Paz

Pilar Martínez González. Bióloga. Hospital Universitario La Paz

tario La Paz

Víctor Manuel Martínez González. Investigador Postdoctoral. Hospital Universitario La Paz

María Cruz Martínez Martínez. Técnico de Laboratorio. Hospital Universitario La Paz

José Carlos Moreno Navarro. Facultativo Especialista de Área en Genética. Hospital Universitario La Paz

María Ángeles Mori Álvarez. Bioquímico Adjunto. Hospital Universitario La Paz

Julián Nevado Blanco. Biólogo. Hospital Universitario La Paz

María Palomares Bralo. Bióloga. Hospital Universitario La Paz

María Sol Pérez Coto. Técnico de Laboratorio. Hospital Universitario La Paz

Víctor Luis Ruiz Pérez. Investigador Científico de OPIs. Jefe de laboratorio. Ilb "Alberto Sols"

Carmen Sánchez Gómez. Técnico de Laboratorio. Hospital Universitario La Paz

Jesús Solera García. Facultativo Especialista de Área en Análisis Bioquímicos. Hospital Universitario La Paz

Mario Solís López. Bioinformático. Hospital Universitario La Paz

Elena Vallespin García. Jefa de Grupo de la Sección de Ofalmogenética Molecular. Hospital Universitario La Paz



3 Information Groups by Area



3.5 Cancer and Human Molecular Genetics Area

STRATEGIC OBJECTIVE

This is a clinical and basic research team that conducts several lines of research into early diagnosis, disease mechanisms and new therapeutic strategies for genetic diseases, developmental disorders and congenital defects.

It is a heterogeneous group consisting of physicians, pharmacists, molecular biologists, bioinformaticians, technicians and administrative officers.

RESEARCH LINES

- Subtelomeric rearrangements in patients with idiopathic mental retardation.
- Genetic and functional analysis of the SHOX and SHOX2 genes in human growth.
- Overgrowth syndromes. Clinical and molecular analysis.
- Genetic determinants of syndromic and non-syndromic proportional short stature
- Genetic determinants of dysglycaemia: hypoglycaemia, diabetes mellitus and hyperinsulinism
- Genetic determinants of congenital hypopituitarism
- SNPs arrays in pharmacogenetics, HIV patients and genetic associations.
- CGHarrays and genomic rearrangements in patients with congenital malformations, intellectual disability and tumores.
- Molecular genetics of hypertrophic cardiomyopathy.
- Functional analysis of CLCN1 mutations in congenital myotonia.

- Molecular study of endothelial dysfunction in diabetes and ageing.
- Molecular characterization of the 22q11.2 region by MLPA, microsatellites and FISH.
- Pharmacogenetics and pharmacogenomics.
- Autosomal recessive osteogenesis imperfecta.
- Genomic tools for diagnosis: oligos and SNP arrays.
- Macrocephaly-capillary malformations and syndromes with macrocephaly.
- Next generation sequencing as a new tool in the diagnosis of genetic diseases.
- Classification and Ontologies of Diseases
- Primary Pulmonary hypertension
- Análisis genómico global en el Síndrome de inv dup(15) [idic(15) syndrome]
- Molecular characterization of inv dup del (8p) by Karyotype, SNP arrays and FISH.

RESEARCH ACTIVITY

● Doctoral theses

Santos-Simarro F. Caracterización clínica y molecular de pacientes con discapacidad intelectual sindrómica mediante aplicación de tecnologías genómicas[dissertation]. Madrid: UAM: 2022(02/03/2022).

Directors: Palomares Bralo M,
Lapunzina Badía P.

Sandoval Talamantes AK. Validación de nuevas tecnologías genómicas en la rutina clínica asistencial en pacientes con trastorno del espectro autista primario, mediante el abordaje combinado de microarrays y NGS[dissertation]. Madrid: UAM: 2022(17/11/2022).

Directors: Lapunzina Badía P,
Nevado Blanco J.

Sentchordi Montané L. Caracterización clínica, radiológica y molecular de pacientes con talla baja y anomalías esqueléticas leves. Rendimiento de un panel de secuenciación masiva de genes implicados en displasias esqueléticas[dissertation]. Madrid: UAM: 2022(06/05/2022)44687).

Directors: Heath KE,
Ros Pérez P.

● Final Degree Theses

Zambrano D. Importancia del manejo nutricional en pacientes con déficit de transcobalamina II[dissertation]. Madrid: UEM: 2022(17/09/2022).

Director: Tenorio J.

Pamela J. Diferencias entre el uso de

proteínas sintéticas frente al glicocompuesto en pacientes con fenilcetonuria en España[dissertation]. Madrid: UEM: 2022(17/09/2022).

Director: Tenorio J.

● Publications

- Leiva-Gea A, Lirio MFM, Bonis ACB, del Barrio SM, Heath KE, Reina PM, Guillén-Navarro E, Simarro FS, Galan IR, Fernández DY, Leiva-Gea I. Achondroplasia: Update on diagnosis, follow-up and treatment. *An Pediatr*. 2022; 97(6): 423. Article. IF: 2.1; Q3
- Adamina M, Ademuyiwa A, Adisa A, Bhangu AA, Bravo AM, Cunha MF, Emile S, Ghosh D, Glasbey JC, Harris B, Keller D, "et al". Using interpretable machine learning to identify baseline predictive factors of remission and drug durability in crohn's disease patients on ustekinumab. *J Clin Med*. 2022; 11(15): 4518. Article. IF: 3.9; Q2
- Baz-Redón N, Soler-Colomer L, Fernández-Cancio M, Benito-Sanz S, Garrido M, Molina T, Clemente M, Camats-Tarruella N, Yeste D. Novel variant in HHAT as a cause of different sex development with partial gonadal dysgenesis associated with microcephaly, eye defects, and distal phalangeal hypoplasia of both thumbs: Case report. *Front Endocrinol (Lausanne)*. 2022; 13: 957969. Article. IF: 5.2; Q1
- Santurtun M, Mediavilla-Martínez E, Vega AI, Gallego N, Heath KE, Tenorio JA, Lapunzina P, Riancho-Zarzabeitia L, Riancho JA. Pain and health-related quality of life in patients with hypophosphatasemia with and without ALPL gene mutations. *Front Endocrinol (Lausanne)*. 2022; 13: 965476. Article. IF: 5.2; Q1
- Cardoso LCD, Parra A, Gil CR, Arias P, Gallego N, Romanelli V, Kantaputra PN, Lima L, Llerena JC, Arberas C, Guillén-Navarro E, Nevado J, Tenorio-Castano J, Lapunzina P. Clinical spectrum and tumour risk analysis in patients with Beckwith-Wiedemann Syndrome



3 Information Groups by Area

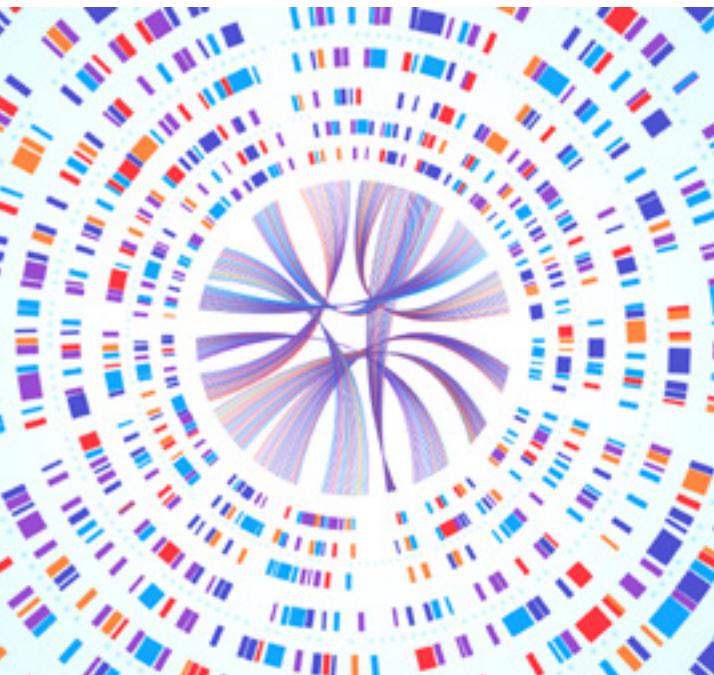
3.5 Cancer and Human Molecular Genetics Area

due to CDKN1C pathogenic variants. *Cancers* (Basel). 2022; 14(15): 3807. Article. IF: 5.2; Q2

- Gonzalez-Iglesias E, López-Vázquez A, Noval S, Nieves-Moreno M, Granados-Fernández M, Arribi N, Rosa-Pérez I, Pacio-Miguez M, Montano VEF, Rodríguez-Solana P, del Pozo A, Santos-Simarro F, Vallespin E. Next-Generation sequencing screening of 43 families with non-syndromic early-onset high myopia: a clinical and genetic study. *Int J Mol Sci.* 2022; 23(8): 4233. Article. IF: 5.6; Q1
- Prapa M, Lago-Docampo M, Swietlik EM, Montani D, Eyries M, Humbert M, Welch CL, Chung WK, Berger RMF, Bogaard HJ, Danhaine O, Escrivano-Subias P, Gall H, Girerd B, Hernández-González I, Holden S, Hunt D, Jansen SMA, Kerstjens-Frederikse W, Kiely DG, Lapunzina P, McDermott J, Molledina S, Pepke-Zaba J, Polwarth GJ, Schotte G, Tenorio-Castaño J, Thompson AAR, Wharton J, Wort SJ, Megy K, Mapeta R, Treacy CM, Martin JM, Li W, Swift AJ, Upton PD, Morrell NW, Graf S, Valverde D. First genotype-phenotype study in tbx4 syndrome gain-of-function mutations causative for lung disease. *Am J Resp Crit Care.*

2022; 206(12): 1522-33. Article. IF: 24.7; D1

- Cospain A, Rivera-Barahona A, Dumontet E, Gerner B, Bailleul-Forestier I, Meyts I, Jouret G, Isidor B, Brewer C, Wylys W, Moens L, Delafontaine S, Lam WWK, Van den Bogaert K, Boogaerts A, Scalais E, Besnard T, Cogne B, Guissard C, Rollier P, Carre W, Bouvet R, Tarte K, Gómez-Carmona R, Lapunzina P, Odent S, Faoucher M, Dubourg C, Ruiz-Pérez VL, Devriendt K, Pasquier L, Perez-Jurado LA. FOSL2 truncating variants in the last exon cause a neurodevelopmental disorder with scalp and enamel defects. *Genet Med.* 2022; 24(12): 2475-86. Article. IF: 1.3; Q4
- Eggermann T, Yapici E, Bliek J, Pereda A, Begelemann M, Russo S, Tannarella P, Calzari L, de Nanciaro GP, Lombardi P, Temple IK, Mackay D, Riccio A, Kagami M, Ogata T, Lapunzina P, Monk D, Maher ER, Turner Z. Trans-acting genetic variants causing multilocus imprinting disturbance (MLID): common mechanisms and consequences. *Clin Epigenetics.* 2022; 14(1): 41. Article. IF: 5.7; Q1
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3 Information Groups by Area



3.5 Cancer and Human Molecular Genetics Area

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Research projects

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Management centre: FIBHULP

Heath KE. Análisis genético y funcional de las displasias esqueléticas (PID2020-116263RB-100). Ministerio de Ciencia e Innovación. 2021-2023.

Management centre: FIBHULP

Heath KE. Estudio comprensivo de la genética de las displasias esqueléticas: 1) caracterización de la regulación de shox en la placa de crecimiento humano, y 2) análisis genético de las displasias esqueléticas mediante ACGH y NGS. Biomarin International Limited. 2012-Ongoing.

Management centre: FIBHULP

Lapunzina Badía PD. ONTOPREC. Implementación de Ontologías, taxonomías y estandarización de las enfermedades crónicas en Medicina de Precisión. Uso de los escores de riesgo poligénicos (PRS) como casos de uso. (PMP21/00063). ISCIII. 2021-2023.

Management centre: FIBHULP

Lapunzina Badía PD. An omnigenic view of genetic susceptibility to severe covid19. Fundació Marató TV3. 2021-Ongoing.

Management centre: FIBHULP

Lapunzina Badía PD. Análisis genético y genómico en pacientes afectados por la enfermedad de gorham-stout y por anomalías generales. Lymphatic Malformation Institute. 2012-Ongoing.

Management centre: FIBHULP

Lapunzina Badía PD. Análisis genómico global en el síndrome de invdup 15 syndrome: evaluación de la dosis genómica mediante microarrays personalizados de snps y estudio de genes candidatos del fenotipo. Fundación Inversión Duplicación del Cromosoma 15. 2017-Ongoing.

Management centre: FIBHULP

Lapunzina Badía PD. Análisis genómico global en el síndrome de invdupdel 8p: evaluación de la dosis genómica mediante microarrays personalizados de SNPs y estudio de genes candidatos del fenotipo. Asociación Síndrome Duplicidad, Inversión, Deleción del Brazo Corto del Cromosoma 8. 2015-On-going.

Management centre: FIBHULP

Lapunzina Badía PD. Análisis genómico y funcional de una variante patogénica en el gen khl11 en 6 miembros de una familia sin diagnóstico. Fundación Feder. 2022-On-going.

Management centre: FIBHULP

Lapunzina Badía PD. Aplicación de técnicas genómicas (genoma completo y 4C-Seq para TDA) en pacientes con síndromes de sobrecrecimiento (PI20/01053). ISCIII. 2021-2023.



3 Information Groups by Area

3.5 Cancer and Human Molecular Genetics Area

Management centre: FIBHULP

Lapunzina Badía PD. Busqueda de mutaciones en el gen cripak y otros modificadores en pacientes con hipertension arterial pulmonar. Fundación Contra La Hipertension Pulmonar. 2018-Ongoing.

Management centre: FIBHULP

Lapunzina Badía PD. Craniofacial microsomia> genetic causes and pathway discovery. Seattle Children-S Hospital Research Foundation. 2017-Ongoing.

Management centre: FIBHULP

Lapunzina Badía PD. Estudio clínico molecular en pacientes con síndrome de sobrecrecimiento. Estudio de los genes nsd1, nizp1, hras, cdkn1c, glp3, y de las regiones cromosómicas 5q35, xq26 y 11p en pacientes con ssc. Efficce Servicios Para La Investigacion S.L. 2005-Ongoing.

Management centre: FIBHULP

Lapunzina Badía PD. Estudio genético-molecular de genes candidatos en pacientes con hipertension pulmonar idiopática. Actelion Pharmaceuticals España. 2011-Ongoing.

Management centre: FIBHULP

Lapunzina Badía PD. Evaluación genómica en el síndrome de wolf-hirschhorn [síndrome 4p]: microarrays personalizados de snps y estudio de genes candidatos. Asociación Española del Síndrome de Wolf Hirschhorn. 2017-Ongoing.

Management centre: FIBHULP

Lapunzina Badía PD. Evaluación psicométrica en pacientes con síndrome de phelan-m dermid Síndrome de Microdelección 22q13.. Oryzon Genomics S.A. 2020-Ongoing.

Management centre: FIBHULP

Lapunzina Badía PD. Inteligencia artificial y machine learning en enfermedades humanas. Fundación Ramón Areces. 2019-Ongoing.

Management centre: FIBHULP

Lapunzina Badía PD. Screening of high-risk pediatric population using an epilepsy gene panel for early diagnosis of neuronal ceroid lipofuscinosis type 2 (cln2) disease. Biomarin International Limited. 2017-Ongoing.

Management centre: FIBHULP

Martínez González VM. en búsqueda del diagnóstico genético en pacientes con espectro pros. Fundación La Caixa. 2019-Ongoing.

Management centre: FIBHULP

Moreno Navarro JC. Disección genética de la narcolepsia y otras hipersomnias centrales. Francisco Jose Garcia Sanpedro. 2019-Ongoing.

Management centre: FIBHULP

Moreno Navarro JC. Síndrome de restistencia a las hormonas tiroideas. estudio genético-molecular en población española. José Carlos Moreno Navarro. 2013-Ongoing.

Management centre: FIBHULP

Nevado Blanco J. Aproximación genómica en el síndrome de phelanmc dermid Síndrome de Microdelección 22q13: microarrays personalizados de snps y evaluación de los genes candidatos. Asociación Síndrome Phelan-Mcdermid. 2017-Ongoing.

Management centre: FIBHULP

Nevado Blanco J. Evaluación genómica en el S. de Wolf-Hirschhorn; microarrays personalizados de SNPs y genes candidatos: Aproximación a las alteraciones dentales y a una epilepsia compleja (PI18/01433). ISCIII. 2019-2023.

Management centre: FIBHULP

Palomares Bralo M. Implementación y evaluación de un protocolo de secuenciación rápida del exoma en pacientes pediátricos ingresados en unidades de críticos o de alta complejidad (PI19/01681). ISCIII. 2020-2022.

Management centre: FIBHULP

Palomares Bralo M. Red de recursos genómicos, funcionales, clínicos y terapéuticos para el estudio de las enfermedades raras neurológicas (RAREGENOMICS-CM) (S2017/BMD-3721). CM. 2018-2022.

Management centre: FIBHULP

Solera García J. Estudio de micrornas en pacientes con glucogenosis tipo II (Enfermedad de Pompe) como marcadores de diagnóstico, progresión de la enfermedad y respuesta al tratamiento. Fundación Genzyme. 2013-Ongoing.

Management centre: FIBHULP

Tenorio Castaño JA. Moving toward to a -omic classification for pulmonary arterial hypertension (PI21/01593). ISCIII. 2022-2024.

Management centre: FIBHULP

Tenorio Castaño JA. Pasión hp-genética de la hipertensión pulmonar. Fundación contra la Hipertension Pulmonar. 2020-Ongoing.





3 Information Groups by Area

3.5 Cancer and Human Molecular Genetics Area

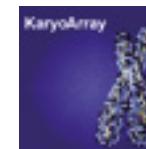
● Patents and trademarks

Friedman S, Li D, Narla G, Martignetti J, Heath K, inventors; Mount Sinai School of Medicine, assignee; Kruppel-like factor 6 (klf6), a tumor suppressor protein, and diagnostics, therapeutics, and screening based on this protein. PCT/US2001/025046, EP1332362, US2005181374, US2011059899, AU8479001, CA2419064; 2000 August 09.

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INGEMM, author; FIBHULP, assignee. Brand name: OverGrowthArray; ESM 2.958.709-3, USM 85.334.932, CM 10.009.256; 2010 December 02, 2011 June 01, 2011 May 31.



Management centre: FIBHULP

Vallespin García E. Desarrollo e implementación de un protocolo integral combinado con la búsqueda de nuevos genes de cataratas congénitas bilaterales no sindrómicas. Grupo Social Once. 2020-Ongoing.

Management centre: FIBHULP

Vallespin García E. Miopía magna de inicio precoz (<10 años) con o sin nistagmo: estudio clínico y genético (PI18/01234). ISCIII. 2019-2023.

Management centre: FIBHULP

● Cibers and Retics

Lapunzina Badía P. Centro de investigación en Red de Enfermedades Raras (CIBERer). Lapunzina Badía P (31/12/2023). FIBHULP

● Clinical trials

Lapunzina Badía PD. Estudio de fase I/II con aumento escalonado y ampliación de la dosis, multicéntrico, abierto y con un solo grupo, para evaluar la seguridad, la tolerabilidad, las características farmacocinéticas y la actividad antitumoral de fcn-159 en participantes adultos y menores de edad con neurofibromatosis de tipo 1.

Type: Clinical Trials, phase I. 5974 FCN-159-002.

Sponsored by: Shanghai Fosun Pharmaceutical Industrialdevelopment Co.

Signed date: 08/02/2022

INGEMM, author; FIBHULP, assignee. Brand name: MetabolArray; ESM 2.958.711-5, USM 85.334.903, CM 10.009.348; 2010 December 02, 2011 June 01, 2011 May 31.



Palomares M, Lapunzina P, Nevado J, Vallespin E, Vallcorba I, Melero J, authors; FIBHULP, Hospital Infanta Cristina (Badajoz) Fundesalud, assignees. Brand name: OncoHematoArray; ESM 2.958.703-4, USM 85.334.842, CM 10.009.181; 2010 December 02, 2011 June 01, 2011 May 31.



INGEMM, author; FIBHULP, assignee. Brand name: OncoArray; ESM 2.962.910, USM 85.363.107, CM 10.091.882; 2011 January 05, 2011 July 05, 2011 July 01.



Lapunzina P, Nevado J, Solera J, Vallespin E, Martínez P, Martínez-González V, authors; FIBHULP, assignee. Brand name: ONCOSeq; USM 85.457.843, CM 9.969.064; 2011 October 27, 2011 May 16.



Moreno JC, Moya CM, Vallespin E, Lapunzina P, Nevado J, authors; FIBHULP, assignee. Brand name: ThyroArray; USM 85.686.688, CM 10.904.951; 2012 July 25, 2012 May 23.



Lapunzina Badía P, Borobia Pérez AM, Carrasco Sansuán AJ, Tenorio Castaño JA, Arias Lajara P, Lubomirov Jristov R, authors; FIBHULP, UAM, assignees. Brand name: PharmArray; USM 86.004.412, CM 11.608.403; 2013 July 08, 2013 February 27.



Lapunzina Badía PD, Borobia Pérez AM, Carrasco Sansuán AJ, Tenorio Castaño JA, Arias Lajara P, Frías Iniesta J, Dapia García I, Muñoz M, authors; FIBHULP, UAM, assignees. Brand name: ClinPharmarray.; CM15489511; 2016 May 31, 2016 September 07.



Palomares Bralo M, Vallespin García E, del Pozo Mate A, Santos Simarro F, authors; FIBHULP, assignee. Brand name: RD-Seq Sequencing Rare Diseases; CM 17.911.029; 2018 May 31.





3 Information Groups by Area



3.5 Cancer and Human Molecular Genetics Area

1 Introduction

2 Executive Summary

3 Information Groups by Area

4 Associated Clinicians



3.5.2 Translational Oncology Group

Publications: 38

Q1: 17

COMPOSITION

Jaime Feliú Batlle. Jefe de Servicio de Oncología Médica. Hospital Universitario La Paz. Catedrático de Oncología. Universidad Autónoma de Madrid

Jorge Barriuso Feijoó. Facultativo Especialista de Área en Oncología . Hospital Universitario La Paz

Borja Belandía Gómez. Científico Titular. IIb "Alberto Sols"

Beatriz Castelo Fernández. Facultativo Especialista de Área en Oncología. Hospital Universitario La Paz

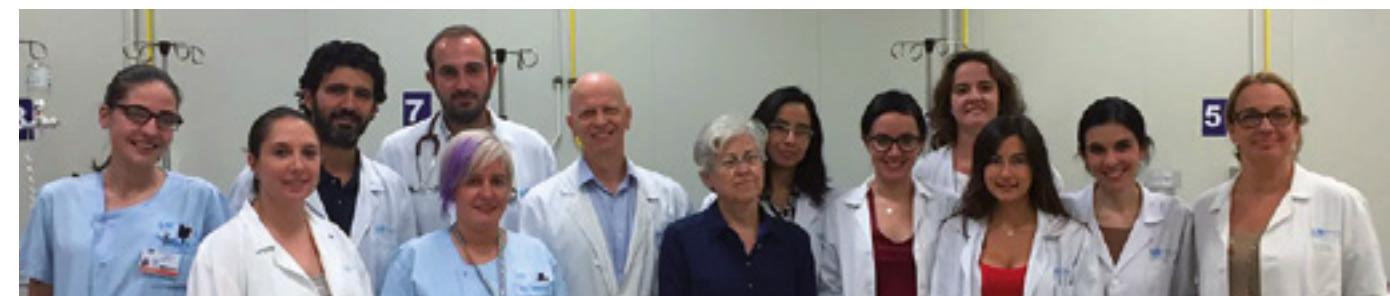
Paloma Cejas Guerrero. Investigadora Postdoctoral. Hospital Universitario La Paz

Roberto Crespo San Pedro. Técnico Superior en Anatomía Patológica. Hospital Universitario La Paz

Ana Belén Custodio Carretero. Facultativo Especialista de Área en Oncología. Hospital Universitario La Paz

Enrique Espinosa Arranz. Jefe de Sección de Oncología Médica. Hospital Universitario La Paz. Profesor Titular de Oncología. Universidad Autónoma de Madrid

Juan Ángel Fresno Vara. Investigador Senior (Contrato Miguel Servet - I2). Jefe de Laboratorio. FIBHULP



Alejandro Gallego Martínez. Facultativo Especialista de Área en Oncología. Hospital Universitario La Paz

Ángelo Gámez Pozo. Investigador Postdoctoral (Contrato Técnico de Apoyo). FIBHULP

Laura García Acebedo. Médico Interno Residente. Coordinadora del Registro de Tumores. Hospital Universitario La Paz

Ismael Ghanem Cañete. Facultativo Especialista de Área en Oncología. Hospital Universitario La Paz

Juan Carlos Lacaín Sanjuán. Profesor de Investigación. IIb "Alberto Sols"

Victoria María Heredia Soto. Investigadora Postdoctoral. Hospital Universitario La Paz

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Virginia Martínez Marín. Facultativo Especialista de Área en Oncología. Hospital Universitario La Paz

Ignacio Palmero Rodríguez. Científico Titular. IIb "Alberto Sols"

Álvaro Pinto Marín. Facultativo Especialista de Área en Oncología. Hospital Universitario La Paz

Andrés Redondo Sánchez. Facultativo Especialista de Área en Oncología. Hospital Universitario La Paz. Profesor Asociado. Universidad Autónoma de Madrid

Nuria Rodríguez Salas. Facultativo Especialista de Área en Oncología. Hospital Universitario La Paz

Lucía Trilla Fuertes. Investigadora Predoctoral. Biomedicina Molecular Medicine S. L.

Pilar Zamora Auñón. Facultativo Especialista de Área en Oncología. Hospital Universitario La Paz. Profesor Asociado. Universidad Autónoma de Madrid

STRATEGIC OBJECTIVE

The aim of cancer research is to improve understanding of all aspects of the disease, including deepening our understanding of the biology of the tumour, developing new treatments, analysing the efficacy of diagnostic tests and performing studies aimed at prevention and early diagnosis.

The Translational Oncology group's objective is to conduct highly scientific applied research in such a way that basic research can be rapidly translated to clinical practice. In other words, cancer patients at La Paz University Hospital benefit almost immediately from the results of research conducted by their own physicians.



3 Information Groups by Area



3.5 Cancer and Human Molecular Genetics Area

Although important advances have been made in recent years in our understanding of the origin and evolution of cancer, their implementation in healthcare takes too much time. The Translational Oncology Unit (TOU) was established with the objective of facilitating the incorporation into clinical practice of new advances in molecular biology and the technology developed in this field.

The main lines of study are based on tumours with the greatest incidence and impact on survival,

such as lung, colorectal, breast and ovarian cancer, although other types of neoplasms have been incorporated such as gastric and renal cancer. A series of fundamental objectives have been established for these neoplasms that can be summarised as early diagnosis, molecular classification for therapeutic goals and the search for individualised treatments. The majority of TOU projects have as their primary objective the search for predictors of susceptibility or resistance to anticancer agents and the search for prognostic factors related to the evolution of the tumour.

RESEARCH LINES

- Identification of prognostic factors Clinical Genomic Proteomic.
- Identification of mechanisms of resistance to drugs.
- Efficacy and toxicity of antineoplastic therapies.
- Palliative care and supportive treatments.

RESEARCH ACTIVITY

● Doctoral theses

Gallego Martínez A. Marcadores pronósticos de inflamación en el carcinoma de ovario endometrioide y de células claras[dissertation]. Madrid: UAM: 2022 (08/07/2022).

Directors: Redondo Sánchez A,
García Pérez MJ.

Ramón Patiño JL. Evaluación de las herramientas de estratificación pronóstica en el cáncer de endometrio en estadios iniciales[dissertation]. Madrid: UAM: 2022 (21/11/2022).

Directors: Redondo Sánchez A,
Mendiola Sabio M.

Rodríguez Cobos J. Identificación de dianas efectoras de ANp73 asociadas a angiogénesis y linfangiogénesis. Valor diagnóstico y pronóstico en vesículas extracelulares en pacientes con cáncer colorrectal[dissertation]. Madrid: UAM: 2022 (14/10/2022).

Directors: Domínguez Muñoz G,
Rodríguez Salas N.

Zapater Moros A. Evaluación del metabóloma sanguíneo como herramienta para el

manejo de pacientes de cáncer de mama en el contexto neoadyuvante.[dissertation]. Madrid: UAM: 2022(22/04/2022).

Directors: Gamez Pozo A,
Fresno Vara JA.

● Master theses

Martínez Pérez D. Estudio retrospectivo sobre derivación a cuidados paliativos en pacientes con cáncer avanzado: características, frecuencia y momento de derivación[dissertation]. Madrid: UAM: 2022 (18/06/2022).

Directors: Feliú Batlle J,
Alonso A.

Chacón Moreno AD, López Gómez V. Evaluación de prevalencia de pacientes con necesidades paliativas en las plantas de hospitalización de agudos de oncología y medicina interna en dos hospitales de tercer nivel de la Comunidad de Madrid[dissertation]. Madrid: UAM: 2022(20/06/2022).

Director: Feliú Batlle J.

Pérez Wert P. Tratamiento con inhibidores de PARP en cáncer de ovario: estudio de

factores predictivos de eficacia y toxicidad hematológica[dissertation]. Girona: Universitat de Girona: 2022(20/10/2022).

Director: Feliú Batlle J.

● Publications

- Albanell J, Pérez-García JM, Gil-Gil M, Curgilián G, Ruiz-Borrego M, Comerma L, Gibert J, Bellet M, Bermejo B, Calvo L, de la Haba J, Espinosa E, Minisini AM, Quiroga V, Bertran AS, Mina L, Bello-sillo B, Rojo F, Menéndez S, Sampayo-Cordero M, Popa C, Malfettone A, Cortes J, Llombart-Cussac A. Palbociclib rechallenge for hormone receptor-positive/HER-negative advanced breast cancer: findings from the phase II BioPER trial. Clin Cancer Res. 2022; 29(1): 67-80. Article. IF: 11.5; D1
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3 Information Groups by Area



3.5 Cancer and Human Molecular Genetics Area

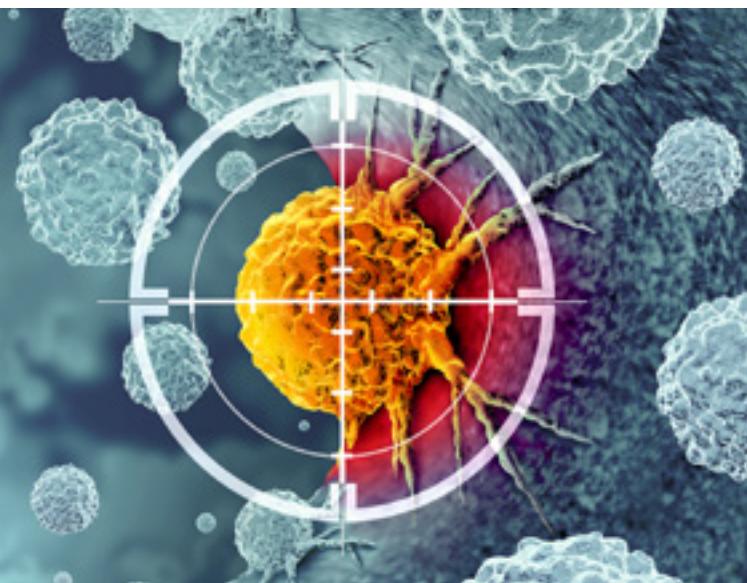
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3 Information Groups by Area



3.5 Cancer and Human Molecular Genetics Area

LM, San Gil RH, Cruz-Castellanos P, Gil-Raga M, Villalba V, Ghanem I, Jiménez-Fonseca P, Calderón C. Role of sex on psychological distress, quality of life, and coping of patients with advanced colorectal and non-colorectal cancer. *World J Gastrointest Oncol.* 2022; 14(10): 2025-37. Article. IF: 3; Q3

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Research projects

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Management centre: FIBHULP

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Management centre: FIBHULP

Espinosa Arranz E. Antitumor effects of anti PD-L1 immunotherapy atezolizumab plus metformin and chemotherapy in triple negative breast cancer. Roche Farma S. A. 2021-Ongoing.

Management centre: FIBHULP

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Management centre: FIBHULP

Espinosa Arranz E. Desarrollo y validación de un predictor molecular con valor pronóstico en melanoma en estadios localizados para mejorar el seguimiento y el uso de terapia adyuvante (IND2017/BMD-7783). CM. 2018-2021.

Management centre: FIBHULP

Feliú Batlle J. Optimización del tratamiento adyuvante del cáncer de páncreas en función del subtipo molecular determinado por biomarcadores inmunohistoquímicos. Fundación SEOM. 2022-Ongoing.

Management centre: FIBHULP

Feliú Batlle J. Clinical implications of microbiome analysis in colorectal cancer using paraffin samples. EASI Genomics European Consortium. 2022-Ongoing.

Management centre: EASI Genomics European Consortium

Feliú Batlle J. Estudio de biomarcadores pronósticos y predictivos en adenocarcinoma de páncreas. Varios. 2015-Ongoing.

Management centre: FIBHULP

Feliú Batlle J. Estudio de factores predictivos de toxicidad grave (grado 3-4) en anciano. Fundación Pfizer. 2012-Ongoing.

Management centre: FIBHULP

Feliú Batlle J. Foro iberoamericano de investigación oncológica. Lapharcon LLC. 2017-Ongoing.

Management centre: FIBHULP

Feliú Batlle J. Identificación de una huella genética para el pronóstico en pacientes con cáncer de colon en estado II operados con intención curativa. Varios. 2013-Ongoing.

Management centre: FIBHULP

Feliú Batlle J. Promover la actividad investigadora en el servicio de oncología. Amgen S.A. 2010-Ongoing.

Management centre: FIBHULP

Feliú Batlle J. Proyecto desarrollo de consulta de psicooncología en el Hospital Universitario La Paz. Merck S. L. 2012-Ongoing.

Management centre: FIBHULP

Feliú Batlle J. Reanima. Bases moleculares y celulares de la regeneración cardíaca: desde los modelos animales al corazón humano (S2017/BMD-3875). CM. 2018-2021.

Management centre: FIBHULP

Feliú Batlle J. Utilidad de la determinación del DNA circulante para monitorizar la respuesta al tratamiento neoadyuvante en los pacientes con cáncer de recto localmente avanzado. Fundación SEOM. 2014-Ongoing.

Management centre: FIBHULP

Feliú Batlle J. Validation of biomarkers to predict response to anti-egfr therapy identified by shotgun proteomics. FIBHULP. 2018-Ongoing.

Management centre: FIBHULP

Fresno Vara JA. Caracterización molecular del cáncer de mama mediante TaqMan Low Density Arrays: Aplicación al diagnóstico.



3 Information Groups by Area



3.5 Cancer and Human Molecular Genetics Area

FIBHULP. 2014-Ongoing.

Management centre: FIBHULP

Fresno Vara JA. Contrato Miguel Servet Categoría A (CES11/020). ISCIII. 2012-2025.

Management centre: FIBHULP

Fresno Vara JA. Desarrollo de test moleculares predictivos, basados en el análisis del metaboloma, de la respuesta a neoadyuvancia en cáncer de mama (IND2018/BMD-9262). CM. 2019-2021.

Management centre: FIBHULP

Ghanem Cañete I. Alteraciones genómicas en carcinoma escamoso de ano. Secuenciación del exoma completo. Roche Farma S. A. 2019-Ongoing.

Management centre: FIBHULP

Martínez Marín V. Estudio perfil mutacional e inmunohistoquímico en GIST: búsqueda de factores pronósticos y predictivos. Pfizer S. L. U. 2013-Ongoing.

Management centre: FIBHULP

Pinto Marín A. Evaluación del metaboloma sanguíneo como fuente de biomarcadores para el manejo del paciente con cáncer: el caso del cáncer de próstata metastásico. Varios. 2015-Ongoing.

Management centre: FIBHULP

Pinto Marín A. Predictive factors for perioperative treatments in bladder carcinoma (EPIC-XS-000310). EPIC-XS Proteomics Consortium. 2021-Ongoing.

Management centre: EPIC-XS Proteomics Consortium

Pinto Marín A. Validación del test con valor pronóstico BIO-MIRCC. Biomédica Molecular Medicine S. L. 2020-Ongoing.

Management centre: FIBHULP

Redondo Sánchez A. Análisis de expresión de miRNAs relacionados con el proceso angio-

génico en cáncer mama. Roche Farma S. A. 2014-Ongoing.

Management centre: FIBHULP

Redondo Sánchez A. Cáncer de mama y angiogénesis: estudio de perfiles de expresión génica en muestras parafinadas. Roche Farma S.A. 2009-Ongoing.

Management centre: FIBHULP

Redondo Sánchez A. Caracterización de la acción de trabectedina y análogos, lurbinectedina y análogos y PM60184 en modelos celulares en dos y tres dimensiones de carcinoma de ovario. Pharmamar S. A. 2016-Ongoing.

Management centre: FIBHULP

Redondo Sánchez A. Caracterización in vitro del efecto antitumoral de eribulina (en monoterapia y en combinación con otros fármacos) en líneas celulares de liposarcoma y leiomiosarcoma. EISAI Farmacéutica S. A. 2018-Ongoing.

Management centre: FIBHULP

Redondo Sánchez A. Caracterización molecular y estudio de biomarcadores de inmunomodulación en el cáncer de endometrio. Subestudio: Estudio in vitro de modelos de cocultivo entre células tumorales de cáncer de ovario y fibroblastos. Grupo Español de Investigación Cáncer de Ovario. 2019-Ongoing.

Management centre: FIBHULP

Redondo Sánchez A. Estudio in vitro de modelos en tres dimensiones de cáncer de ovario: interacción entre las células tumorales y células del microambiente tumoral. Roche Farma S. A. 2017-Ongoing.

Management centre: FIBHULP

Redondo Sánchez A. Sesiones clínicas en investigación y actualización en oncología médica del Hospital Universitario La Paz. Astrazeneca Farmacéutica Spain S.A. 2021-Ongoing.

Management centre: FIBHULP

Rodríguez Salas N, Muñoz Terol A. Cáncer colorrectal en población joven. Estudio farmacogenómico en organoides y efectos del microambiente tumoral (ICI20/00057). ISCIII. 2021-2024.

Management centre: FIBHULP

Zamora Auñón P. Metabolómica y modelización del metabolismo celular del cáncer para la detección de enfermedad mínima residual en pacientes con cáncer de mama. Roche Farma S. A. 2018-Ongoing.

Management centre: FIBHULP

Zamora Auñón P. Sesiones clínicas en investigación y actualización en oncología médica del Hospital Universitario La Paz. Astrazeneca Farmacéutica Spain S.A. 2010-Ongoing.

Management centre: FIBHULP

● Cibers and Retics

Feliú Batlle J. Networked Biomedical Research Center for Cancer (CIBERonc). ISCII. (31/12/2022). FIBHULP

● Clinical trials

Castelo Fernández B. Ensayo de fase II abierto, aleatorizado, de bnt113 en combinación con pembrolizumab frente a pembrolizumab en monoterapia como tratamiento de primera línea para pacientes con carcinoma de células escamosas de cabeza y cuello (ccccc) irresecable, recurrente o metastásico, que es positivo para el genotipo 16 del virus del papiloma humano (vph16+) y expresa pdl1.

Type: Clinical Trials, phase II. Appendix 1 5739.

Sponsored by: Biontech Rna Pharmaceuticals.

Signed date: 05/04/2022





3 Information Groups by Area



3.5 Cancer and Human Molecular Genetics Area

Castelo Fernández B. Estudio de fase 2 de prueba de concepto, aleatorizado, doble ciego y controlado con placebo para evaluar la eficacia, seguridad y tolerabilidad y los efectos en los biomarcadores tumorales del inhibidor de nox1/4 setanaxib, administrado en combinación con el inhibidor de pd-1 pembrolizumab, en pacientes con carcinoma escamoso de cabeza y cuello (cecc) recurrente o metastásico.

Type: Clinical Trials, phase II. 6068
GSN000400.

Sponsored by: Genkyotex Suisse Sa.
Signed date: 21/01/2022

Castelo Fernández B. Estudio de fase 2 de tratamiento combinado con magrolimab en pacientes con carcinoma de células escamadas de cabeza y cuello.

Type: Clinical Trials, phase II. 2022.458.
Sponsored by: Gilead Sciences, S.L..
Signed date: 07/09/2022

Castelo Fernández B. Estudio de fase 2 de tratamiento combinado con magrolimab en pacientes con carcinoma de células escamadas de cabeza y cuello.

Type: Clinical Trials, phase II. 5985.
Sponsored by: Gilead Sciences, S.L.
Signed date: 18/05/2022

Castelo Fernández B. Estudio de fase II, aleatorizado, de dos brazos de tratamiento de abemaciclib en combinación con terapia endocrina (letrozol y fulvestrant) con o sin un ciclo corto de quimioterapia de inducción con paclitaxel como tratamiento de primera linea en pacientes con cancer de mama hr positivo/her2 negativo localmente avanzado e irseable o mestastásico con criterios de enfermedad agresiva (abigail).

Type: Clinical Trials, phase II. Appendix 1 5747.
Sponsored by: Medica Scientia Innovation Research, S.L.

Signed date: 03/03/2022

Castelo Fernández B. Estudio en fase 2, abierto y multicéntrico de la inmunoterapia de combinación con pds0101 (r-dotap [versamune®] + hpvmix) y pembrolizumab (keytruda®) en sujetos con cáncer de cabeza y cuello recurrente y/o metastásico e infección por virus del papiloma hu.

Type: Clinical Trials, phase II. 6067.
Sponsored by: Pds Biotechnology Corporation.
Signed date: 30/03/2022

Castelo Fernández B. Estudio en fase III, aleatorizado, doble ciego y controlado con placebo de debio 1143 en combinación con quimioterapia con un derivado del platino y radioterapia de intensidad modulada con fraccionamiento convencional en pacientes con carcinoma escamoso de cabeza y cuello localmente avanzado apto para quimiorradioterapia definitiva (trilynx).

Type: Clinical Trials, phase III. Appendix 2 5602.
Sponsored by: Merck Healthcare Kgaaa.
Signed date: 24/02/2022

Castelo Fernández B. Estudio en fase III, aleatorizado, doble ciego y controlado con placebo de debio 1143 en combinación con quimioterapia con un derivado del platino y radioterapia de intensidad modulada con fraccionamiento convencional en pacientes con carcinoma escamoso de cabeza y cuello localmente avanzado apto para quimiorradioterapia definitiva (trilynx).

Type: Clinical Trials, phase III. Appendix O 3 5602.
Sponsored by: Merck Healthcare Kgaaa.
Signed date: 01/03/2022

Castelo Fernández B. registro internacional de cáncer de cabeza y cuello en pacientes con covid-19. (international registry on head and neck cancer patients with covid-19).

Type: No EPA. PI-5116.

Sponsored by: Hellenic Cooperative Oncology Group.
Signed date: 09/03/2022

Castelo Fernández B. Un ensayo multicéntrico, aleatorizado y abierto de fase 3 que compara selpercatinib con los medicamentos cabozantinib o vandetanib, preferidos por los médicos, en pacientes con cáncer medular de tiroides progresivo y avanzado con ret mutante y sin tratamiento anterior con inhibidores de quinasa (libretto-531).

Type: Clinical Trials, phase III. 2022.164.
Sponsored by: Lilly, S.A.
Signed date: 29/04/2022

Custodio Carretero AB. Ensayo en fase 3 aleatorizado, multicéntrico, abierto, comparativo con tratamiento activo para evaluar la eficacia y seguridad de octreotida (cam2029) subcutánea de liberación prolongada frente a octreotida Ip o lanreotida atg en pacientes con tumores neuroendocrinos gastroenteropancreáticos.

Type: Clinical Trials, phase III. Appendix 1 5893.
Sponsored by: Labcorp Development S.A.U. (Covance Clinical Development, S.A.).
Signed date: 14/02/2022

Custodio Carretero AB. Ensayo internacional fase III, aleatorizado, doble-ciego, controlado con placebo y multicéntrico, de durvalumab administrado simultáneamente con terapia de quimiorradiación definitiva en pacientes con carcinoma esofágico de células escamadas inoperable, localmente avanzado (kunlun).

Type: Clinical Trials, phase III. Appendix 1 5760.
Sponsored by: Astrazeneca Farmaceutica Spain, S.A.
Signed date: 02/03/2022

Custodio Carretero AB. Estudio clínico en fase III aleatorizado, doble ciego, controlado con placebo, para comparar la eficacia

y la seguridad de tislelizumab (bgb-a317) más platino y fluoropirimidina frente a placebo más platino y fluoropirimidina como tratamiento de primera línea en pacientes con adenocarcinoma gástrico o de la unión gastroesofágica localmente avanzado irresecable o metastásico.

Type: Clinical Trials, phase III. 2023.022.
Sponsored by: Beigene Usa, Inc.
Signed date: 17/11/2022

Custodio Carretero AB. Estudio clínico en fase III aleatorizado, doble ciego, controlado con placebo, para comparar la eficacia y la seguridad de tislelizumab (bgb-a317) más platino y fluoropirimidina frente a placebo más platino y fluoropirimidina como tratamiento de primera línea en pacientes con adenocarcinoma gástrico o de la unión gastroesofágica localmente avanzado irresecable o metastásico.

Type: Clinical Trials, phase III. 2023.024.
Sponsored by: Beigene Usa, Inc.
Signed date: 17/11/2022

Custodio Carretero AB. Estudio de fase I/II, multicéntrico, abierto, clínico y farmacocinético de lurbinectedina en combinación con irinotecán en pacientes previamente tratados con tumores sólidos avanzados seleccionados.

Type: Clinical Trials, phase I. 6064.
Sponsored by: Pharmamar, S.A..
Signed date: 25/04/2022

Espinosa Arranz E. Comparison of different techniques for testing braf v600 mutation in blood in melanoma patients.

Type: Clinical Trials, phase. 2022.471.
Sponsored by: Grupo Español Multidisciplinar de Melanoma Gem.
Signed date: 04/10/2022

Espinosa Arranz E. Estudio abierto, multicéntrico, de fase 1b/2 con e7386 en combinación con pembrolizumab en pacientes previamente tratados con tumores sólidos específicos.



3 Information Groups by Area



3.5 Cancer and Human Molecular Genetics Area

Type: Clinical Trials, phase I. 2022.325.

Sponsored by: Eisai Europe Limited.

Signed date: 11/10/2022

Espinosa Arranz E. Estudio de fase III de fianlimab (regn3767, anti-lag-3) + cemiplimab en comparación con pembrolizumab en pacientes con melanoma metastásico o localmente avanzado inoperable no tratado previamente.

Type: Clinical Trials, phase III. 6145.

Sponsored by: Regeneron Pharmaceuticals, Inc.

Signed date: 19/10/2022

Espinosa Arranz E. Estudio fase II, aleatorizado, para evaluar la incidencia de discontinuación debida a diarrea en los 3 primeros ciclos de tratamiento en pacientes con cáncer de mama precoz her2 positivo (her2+), receptor hormonal positivo (rh+), tratados con neratinib má.

Type: Clinical Trials, phase II. 6013.

Sponsored by: Fundacion Grupo Español de Investigacion en Cancer de Mama Geicam.

Signed date: 26/09/2022

Espinosa Arranz E. Phase II, open-label study of preliminary efficacy of sitravatinib in combination with tislelizumab in patients with metastatic uveal melanoma with liver metastases. situveal-m.

Type: Clinical Trials, phase II. 6123.

Sponsored by: Grupo Español Multidisciplinar de Melanoma Gem.

Signed date: 27/07/2022

Feliú Batlle J. A phase 1/2, safety confirmation and double-blind, placebo-controlled, randomized study of relatlimab in combination with nivolumab and bevacizumab in treatment-naïve advanced/metastatic hepatocellular carcinoma (relativity-106).

Type: Clinical Trials, phase I. 6131.

Sponsored by: Bristol-Myers Squibb International Corporation (Bmsic).

Signed date: 02/06/2022

Feliú Batlle J. Estudio abierto en fase Ib/iipara evaluar la seguridad y la eficacia del mitazalimab en combinación con quimioterapia en pacientes con adenocarcinoma ductal pancreático.

Type: Clinical Trials, phase II. 6087 A-20-1013-C-03.

Sponsored by: Alligator Bioscience Ab.

Signed date: 11/03/2022

Feliú Batlle J. Estudio aleatorizado global, multicéntrico, doble ciego de fase III de carboplatino paclitaxel con incmga00012 o placebo para participantes con carcinoma escamoso localmente recurrente o metastásico inoperable del canal anal no tratado previamente con quimioterapia sistémica (pod1um-303/interaact).

Type: Clinical Trials, phase III. 2022.338.

Sponsored by: Incyte Corporation.

Signed date: 13/05/2022

Feliú Batlle J. Estudio aleatorizado, doble ciego, y controlado con placebo de nabpaclitaxel y gemcitabina con o sin sbp-101 en pacientes con adenocarcinoma ductal de páncreas metastásico no tratados previamente.

Type: Clinical Trials, phase II. 6114.

Sponsored by: Panbela Therapeutics, Inc.

Signed date: 17/06/2022

Feliú Batlle J. Estudio de fase 1 para evaluar la seguridad, tolerabilidad, farmacocinética y farmacodinámica de amg 404, un anticuerpo de la muerte celular programada 1 (pd-1), en pacientes con tumores sólidos avanzados.

Type: Clinical Trials, phase I. Appendix 1 5659.

Sponsored by: Amgen, S.A..

Signed date: 15/02/2022

Feliú Batlle J. Estudio de fase I/II de pbi-200 en sujetos con tumores sólidos avanzados o metastásicos positivos para fusiones de ntrk.

Type: Clinical Trials, phase I. 5917.

Sponsored by: Pyramid Biosciences.

Signed date: 08/09/2022

Feliú Batlle J. Estudio de fase II de tas-117 en pacientes con tumores sólidos avanzados que presentan mutaciones germinales inactivadoras del gen pten.

Type: Clinical Trials, phase II. 5981 TAS-117-201.

Sponsored by: Taiho Oncology, Inc.

Signed date: 24/03/2022

Feliú Batlle J. Estudio de fase III, multicéntrico, en doble ciego y aleatorizado, para investigar la eficacia y la seguridad de cs1003 en combinación con lenvatinib comparados con placebo en combinación con lenvatinib como tratamiento de primera línea en sujetos con carcinoma hepatocelular avanzado.

Type: Clinical Trials, phase III. 2022.560.

Sponsored by: Parexel International (Irl) Limited.

Signed date: 18/10/2022

Feliú Batlle J. Estudio en fase I, aleatorizado, sin enmascaramiento, de una sola dosis, de dos etapas, con biterapia y con grupos cruzados bidireccional para evaluar la bioequivalencia de onivyde (inyección liposomal de irinotecán) fabricado en dos centros diferentes y.

Type: Clinical Trials, phase I. 6078.

Sponsored by: Ipsen Pharma S.P.S..

Signed date: 28/04/2022

Feliú Batlle J. Estudio retrospectivo de eficacia y tolerabilidad de irinotecan liposomal más 5fu/lv en el tratamiento de adenocarcinoma de páncreas.

Type: EOM no prospectivo. PI-4981 NALIRI.



3 Information Groups by Area



3.5 Cancer and Human Molecular Genetics Area

Sponsored by: Fundacion de Investigación Hm Hospitales.

Signed date: 25/03/2022

Feliú Batlle J. Primer estudio en humanos de fase I/II de la seguridad y eficacia del imc103c en monoterapia y en combinación con atezolizumab en pacientes con hla-a*0201 positivo y cáncer positivo para mage-a4 avanzado.

Type: Clinical Trials, phase I. Appendix 2 5423.

Sponsored by: Immunocore.

Signed date: 24/02/2022

Feliú Batlle J. Primer estudio en humanos, fase 1 / 2a, multicentro, abierto para la evaluación de la seguridad, tolerabilidad, farmacocinética y eficacia de pbp1510 en pacientes con cáncer de páncreas avanzado/metastásico.

Type: Clinical Trials, phase I. 6009.

Sponsored by: Prestige Biopharma Limited.

Signed date: 31/05/2022

Ghanem Cañete I. Revisión retrospectiva y longitudinal de historias clínicas de pacientes con colangiocarcinoma.

Type: EOM prospectivo. 2022.490.

Sponsored by:

Signed date: 24/10/2022

Martínez Marín V. Estudio en fase III, intervencionista, aleatorizado, multicéntrico y abierto de dcc-2618 frente a sunitinib en pacientes con tumores del estroma gastrointestinal avanzados tras el tratamiento con imatinib.

Type: Clinical Trials, phase III. 2022.377.

Sponsored by: Deciphera Pharmaceuticals, Llc.

Signed date: 29/03/2022

Martínez Marín V. Patrones de tratamiento europeos y los resultados asociados a los tratamientos de primera línea con inhibido-

res de cdk4/6 y hormonales evaluados en un estudio no intervencionista de la práctica real (eucharis).

Type: EPA-OD. PI-5085 A5481170.

Sponsored by: Pfizer Inc.

Signed date: 13/01/2022

Pinto Marín A. A phase 2 clinical trial of pembrolizumab in combination with carboplatin and cabazitaxel in aggressive variant metastatic castration resistant prostate cancer.

Type: Clinical Trials, phase II. 2022.283.

Sponsored by: Fundacion Oncosur.

Signed date: 22/11/2022

Pinto Marín A. Ensayo de fase III, multicéntrico, doble ciego, aleatorizado y controlado con placebo de infiratrinib para el tratamiento adyuvante de sujetos con carcinoma urotelial invasivo con alteraciones del gen fgfr3 sensibles (proof 302).

Type: Clinical Trials, phase III. 2022.326.

Sponsored by: Qed Therapeutics Inc.

Signed date: 23/05/2022

Pinto Marín A. Estudio de escalada y expansión de dosis para evaluar la seguridad y la farmacocinética de xl092 en monoterapia y tratamiento combinado en pacientes con tumores sólidos localmente avanzados o metastásicos inoperables.

Type: Clinical Trials, phase I. 5885 XL092-001.

Sponsored by: Exelixis, Inc.

Signed date: 07/01/2022

Pinto Marín A. Estudio de fase 3, aleatorizado, abierto, controlado, de cabozantinib (xl184) en combinación con atezolizumab frente a una segunda terapia hormonal novedosa (thn) en pacientes con cáncer de próstata metastásico y resistente a la castración.

Type: Clinical Trials, phase III. 6117.

Sponsored by: Exelixis Inc.

Signed date: 04/07/2022

Pinto Marín A. Estudio de fase II aleatorizado para comparar 3 y 6 ciclos de quimioterapia con un derivado del platino antes del tratamiento de mantenimiento con avelumab en el cáncer urotelial avanzado.

Type: Clinical Trials, phase II. 6006

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Sponsored by: Quenn Mary Univesity Of London.

Signed date: 11/03/2022

Pinto Marín A. Estudio de fase II multicéntrico, aleatorizado, abierto, controlado de ro7247669 administrado solo o en combinación con tiragolumab frente a atezolizumab en pacientes con carcinoma urotelial localmente avanzado o metastásico, no tratados previamente, que no son aptos para recibir quimioterapia basada en platino.

Type: Clinical Trials, phase II. 2022.694.

Sponsored by: F.Hoffmann-La Roche Ltd.

Signed date: 29/12/2022

Pinto Marín A. Estudio en fase II abierto de sacituzumab govitecán en el cáncer urotelial metastásico o localmente avanzado irresecable.

Type: Clinical Trials, phase II. 2022.433.

Sponsored by: Gilead Sciences Inc.

Signed date: 09/12/2022

Redondo Sánchez A. A phase 3, multicenter, open-label, randomized study of nemvaleukin alfa in combination with pembrolizumab versus investigator's choice chemotherapy in patients with platinum-resistant epithelial ovarian, fallopian tube, or primary peritoneal cancer (artistry-7).

Type: Clinical Trials, phase III. 2022.118.

Sponsored by: Alkermes, Inc.

Signed date: 25/10/2022

Redondo Sánchez A. Brightline-1: estudio de fase II/III, aleatorizado, abierto y multicéntri-

co de bi 907828 comparado con doxorrubicina como tratamiento de primera línea de pacientes con liposarcoma desdiferenciado avanzado.

Type: Clinical Trials, phase II. 6071.

Sponsored by: Boehringer Ingelheim España, S.A.

Signed date: 17/03/2022

Redondo Sánchez A. Brightline-1: estudio de fase II/III, aleatorizado, abierto y multicéntrico de bi 907828 comparado con doxorrubicina como tratamiento de primera línea de pacientes con liposarcoma desdiferenciado avanzado.

Type: Clinical Trials, phase II. 2022.407.

Sponsored by: Boehringer Ingelheim España, S.A.

Signed date: 20/06/2022

Redondo Sánchez A. Catch-r: estudio de continuación para proporcionar acceso continuo al tratamiento clínico con rucaparib.

Type: Clinical Trials, phase III. 5862.

Sponsored by: Clovis Oncology, Inc.

Signed date: 29/03/2022

Redondo Sánchez A. Ensayo fase III, aleatorizado y doble ciego de quimioterapia basada en platino con o sin atezolizumab, seguida de mantenimiento con niraparib con o sin atezolizumab, en pacientes con cáncer de ovario, de trompa de falopio o peritoneal recidivante e intervalo libre de tratamiento con platino (ilp) >6 meses.

Type: Clinical Trials, phase III. Appendix 2 5112.

Sponsored by: Grupo Español de Investigacion Cancer de Ovario (Geico).

Signed date: 03/02/2022

Redondo Sánchez A. Ensayo fase III, multicéntrico, aleatorizado, doble ciego, controlado con placebo, de mantenimiento con olaparib en monoterapia en pacientes con



3 Information Groups by Area

3.5 Cancer and Human Molecular Genetics Area

cáncer de ovario avanzado, estadio IIIb-iv de la figo, con mutación de brca que están en respuesta completa o parcial después de quimioterapia de primera línea basada en platino (solo 1).

Type: Clinical Trials, phase III. 2022.276.

Sponsored by: AstraZeneca Farmaceutica Spain, S.A..

Signed date: 03/06/2022

Redondo Sánchez A. Estudio abierto en fase I sobre la seguridad, la farmacocinética y la eficacia preliminar de stro-002, un conjugado de anticuerpo y fármaco (caf) dirigido contra el receptor a de folato (folra), en pacientes con cáncer epitelial de ovario en estadio avanzado (incluido el cáncer de trompas de falopio o el cáncer peritoneal primario) y cánceres de endometrio.

Type: Clinical Trials, phase I. Appendix 1 5838.

Sponsored by: Labcorp Drug Development Inc (Covance Inc).

Signed date: 31/01/2022

Redondo Sánchez A. Estudio abierto en fase I sobre la seguridad, la farmacocinética y la eficacia preliminar de stro-002, un conjugado de anticuerpo y fármaco (caf) dirigido contra el receptor a de folato (folra), en pacientes con cáncer epitelial de ovario en estadio avanzado (incluido el cáncer de trompas de falopio o el cáncer peritoneal primario) y cánceres de endometrio.

Type: Clinical Trials, phase I. 2022.351.

Sponsored by: Labcorp Drug Development Inc (Covance Inc).

Signed date: 05/07/2022

Redondo Sánchez A. Estudio aleatorizado de paclitaxel – carboplatino seguido de mantenimiento con niraparib en comparación con paclitaxel – carboplatino – bevacizumab seguido de mantenimiento con niraparib + bevacizumab en pacientes con cáncer de

ovario avanzado, después de una cirugía citorreductora completa de primera línea (nirvana-1).

Type: Clinical Trials, phase II. 2022.029.

Sponsored by: Grupo Español de Investigacion Cancer de Ovario (Geico).

Signed date: 16/05/2022

Redondo Sánchez A. Estudio aleatorizado fase III de quimioterapia con platino y paclitaxel mas bevacizumab y atezolizumab frente a quimioterapia con platino y paclitaxel mas bevacizumab en el carcinoma de cérvix metastásico (estadio ivb), persistente o recurrente.

Type: Clinical Trials, phase III. Appendix 1 5088.

Sponsored by: Grupo Español de Investigacion Cancer de Ovario (Geico).

Signed date: 11/02/2022

Redondo Sánchez A. Estudio de fase 1/1b para evaluar la seguridad y la tolerabilidad de ab308 en combinación con ab122 en participantes con neoplasias malignas avanzadas.

Type: Clinical Trials, phase I. 2022.107.

Sponsored by: Arcus Biosciences Europe Limited.,

Signed date: 31/08/2022

Redondo Sánchez A. Estudio de fase 1b/2, abierto, para evaluar la seguridad y la eficacia de lucitanib en combinación con nivolumab en pacientes con un tumor sólido metastásico, en estadio avanzado.

Type: Clinical Trials, phase II. Appendix 1 5721.

Sponsored by: Clovis Oncology, Inc.

Signed date: 10/02/2022

Redondo Sánchez A. Estudio de fase 2, aleatorizado, sin enmascaramiento, en el que se evalúa abemaciclib en combinación con irinotecán y temozolomida en participantes

con sarcoma de ewing recidivante o resistente al tratamiento.

Type: Clinical Trials, phase II. 2022.073.

Sponsored by: Eli Lilly Co Uk Ltd.

Signed date: 27/09/2022

Redondo Sánchez A. Estudio de fase II del anticuerpo monoclonal anti-pd-1 cemiplimab y la vacuna isa101b en pacientes con cáncer cervicouterino por vph 16 recidivante/metastásico que han presentado progresión de la enfermedad tras recibir quimioterapia de primera línea.

Type: Clinical Trials, phase II. 6086 R2810-ONC-ISA-1981.

Sponsored by: Regeneron Pharmaceuticals, Inc.

Signed date: 31/01/2022

Redondo Sánchez A. Estudio de fase II del an-

ticuerpo monoclonal anti-pd-1 cemiplimab y la vacuna isa101b en pacientes con cáncer cervicouterino por vph 16 recidivante/metastásico que han presentado progresión de la enfermedad tras recibir quimioterapia de primera línea.

Type: Clinical Trials, phase II. 2023.073.

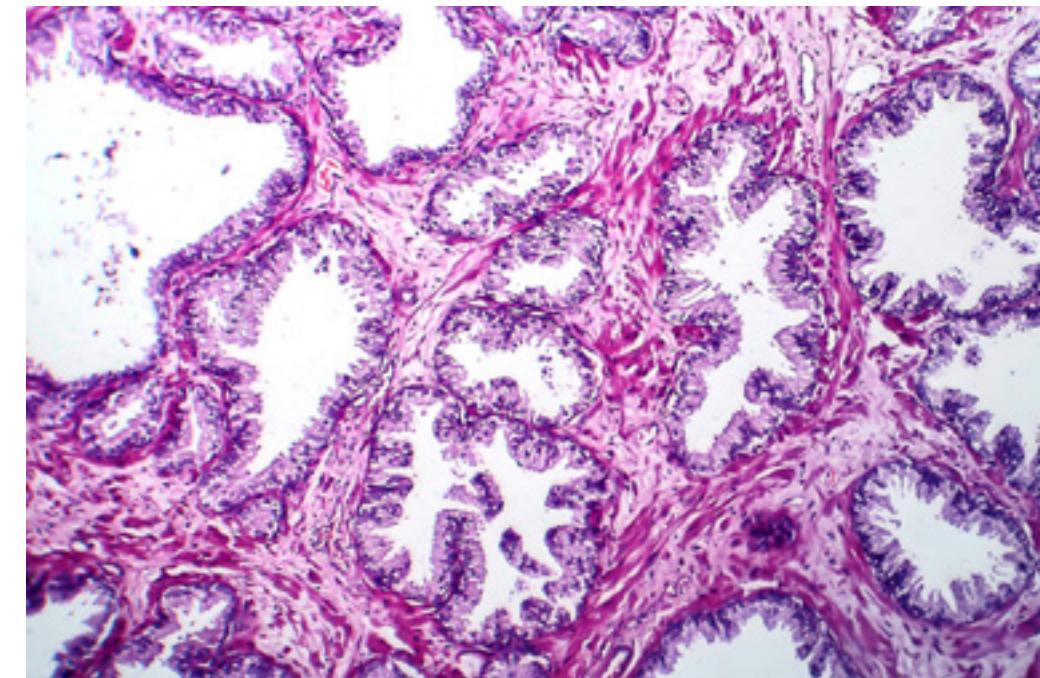
Sponsored by: Regeneron Pharmaceuticals, Inc.

Signed date: 15/12/2022

Redondo Sánchez A. Estudio plataforma, de fase II, abierto y multicéntrico para evaluar la eficacia y la seguridad de tratamientos basados en biomarcadores en pacientes con tumores epiteliales de ovario raros persistentes o recurrentes.

Type: Clinical Trials, phase II. 2022.354.

Sponsored by: F.Hoffmann-La Roche Ltd.





3 Information Groups by Area

3.5 Cancer and Human Molecular Genetics Area

Signed date: 08/07/2022

Redondo Sánchez A. phase I-II prospective trial, multicenter, open label, exploring the combination of trabectedin plus radiotherapy in soft tissue sarcoma patients.

Type: Clinical Trials, phase I. 2022.363.

Sponsored by: Grupo Español de Investigación en Sarcomas.

Signed date: 20/07/2022

Redondo Sánchez A. protocolo maestro de fase II, multicéntrico, abierto, para evaluar la eficacia y seguridad de datopotamab deruxtecan (dato-dxd) en monoterapia y en combinación con antineoplásicos, en pacientes con tumores sólidos en estadio avanzado o metastásico (tropion-pantumor03).

Type: Clinical Trials, phase II. 2022.324.

Sponsored by: Astrazeneca Ab.

Signed date: 19/10/2022

Rodríguez Salas N. Ensayo en fase III global, multicéntrico, aleatorizado y controlado con placebo para comparar la eficacia y la seguridad de fruquintinib, más los mejores cuidados paliativos frente a placebo, más los mejores cuidados paliativos en pacientes con cáncer de colorrectal metastásico resistente (fresco2).

Type: Clinical Trials, phase III. 2022.632.

Sponsored by: Hutchison MediPharma Limited.

Signed date: 23/09/2022

Rodríguez Salas N. Estudio abierto, aleatorizado, fase 3 comparando trifluridina/ tipiracilo (s95005) en combinación con bevacizumab y capecitabina en combinación con bevacizumab en primera línea de tratamiento de pacientes con cáncer colorrectal metastásico que no son candidatos a terapia intensiva (estudio solstice).

Type: Clinical Trials, phase III. 2022.166.

Sponsored by: Laboratorios Servier, S.L..

Signed date: 29/04/2022

Rodríguez Salas N. Estudio abierto, multicéntrico de fase I/II de la vacuna genética nous-209 para el tratamiento de tumores sólidos con inestabilidad de microsatélites.

Type: Clinical Trials, phase I. 2022.311.

Sponsored by: Nouscom Srl.

Signed date: 22/11/2022

Rodríguez Salas N. Estudio de fase 3 multicéntrico, aleatorizado, abierto y con control activo de sotorasib y panitumumab frente al tratamiento de elección del investigador (trifluridina y tipiracilo o regorafenib para el tratamiento de sujetos con cáncer colorrectal metastásico con la mutación p.g12c en el kras tratados previamente).

Type: Clinical Trials, phase III. 6022

20190172.

Sponsored by: Amgen, S.A..

Signed date: 24/02/2022

Rodríguez Salas N. Estudio de fase II multicéntrico, aleatorizado, doble ciego, de grupos paralelos, controlado con placebo para evaluar la eficacia y la seguridad de atx01 (amitriptilina hidrocloruro tópico al 10 % y al 15 % p/p) en comparación con el placebo, en pacientes adultos supervivientes de cáncer con neuropatía periférica inducida por quimioterapia (npiq).

Type: Clinical Trials, phase II. 2022.195.

Sponsored by: Algo Therapeutix.

Signed date: 07/06/2022

Rodríguez Salas N. Estudio en fase II abierto, de un solo grupo y multicéntrico para evaluar la eficacia y la seguridad de sot101 en combinación con cetuximab en pacientes con cáncer colorrectal ras nativo (aurelio-05).

Type: Clinical Trials, phase II. 2022.359.

Sponsored by: Sotio A.S.

Signed date: 05/10/2022

Rodríguez Salas N. Estudio en fase II, multicéntrico, sin enmascaramiento, aleatorizado

y controlado para comparar la eficacia de ro7198457 con la estrategia de actitud expectante en pacientes con cáncer colorrectal resecado en estadio II (riesgo elevado) y estadio III que presenten positividad de adn tumoral circulante (adnct) tras la resección tumoral.

Type: Clinical Trials, phase II. ANEXO 1

5688.

Sponsored by: Biontech Se.

Signed date: 30/03/2022

Rodríguez Salas N. Estudio en fase II, multicéntrico, sin enmascaramiento, aleatorizado y controlado para comparar la eficacia de ro7198457 con la estrategia de actitud expectante en pacientes con cáncer colorrectal resecado en estadio II (riesgo elevado) y estadio III que presenten positividad de adn tumoral circulante (adnct) tras la resección tumoral.

Type: Clinical Trials, phase II. 2022.729.

Sponsored by: Biontech Se.

Signed date: 17/11/2022

Rodríguez Salas N. Estudio en fase III, aleatorizado, abierto de una combinación de dosis fijas de relatlimab-nivolumab frente a regorafenib o trifluridina + tipiracilo (tas-102) para participantes con cáncer colorrectal metastásico con líneas de tratamiento posteriores.

Type: Clinical Trials, phase III. 2022.016.

Sponsored by: Bristol-Myers Squibb International Corporation (Bmsic).

Signed date: 09/09/2022

Rodríguez Salas N. phase II trial of pembrolizumab and olaparib in homologous-recombination deficient (hrd) advanced colorectal cancer (crc) - pembrola.

Type: Clinical Trials, phase II. 6055.

Sponsored by: Grupo Español Multidisciplinario en Cáncer Digestivo (Gemcad) Grupo Español Multidisciplinario Del Cáncer Digestivo.

Signed date: 21/06/2022

Zamora Auñón P. Ensayo en fase 3, randomizado, multicéntrico con tratamiento abierto de trastuzumab deruxtecan (t-dxd; ds-8201a) frente a quimioterapia a elección del investigador en pacientes con cáncer de mama con expresión baja del receptor del factor de crecimiento epidérmico-2 (her2-low) y receptores hormonales positivos, cuya enfermedad ha progresado durante el tratamiento endocrino en el contexto metastásico (destiny-breast06).

Type: Clinical Trials, phase III. 2022.690.

Sponsored by: Astrazeneca Farmaceutica Spain, S.A.

Signed date: 23/11/2022

Zamora Auñón P. Ensayo fase 3, abierto, aleatorizado, de datopotamab deruxtecan (dato-dxd) en comparación con la quimioterapia de elección del investigador en pacientes con cáncer de mama triple negativo, localmente recurrente inoperable o metastásico, que no son candidata.

Type: Clinical Trials, phase III. 6138.

Sponsored by: Astrazeneca Farmaceutica Spain, S.A.

Signed date: 18/05/2022

Zamora Auñón P. Estudio de fase III aleatorizado, abierto para evaluar la eficacia y seguridad de giredestrant en combinación con phesgo comparado con phesgo tras tratamiento de inducción con phesgo + taxano en pacientes con cáncer de mama localmente avanzado o metastásico her2 positivo y receptor de estrógenos positivo, no tratados previamente.

Type: Clinical Trials, phase III. 6088.

Sponsored by: F.Hoffmann-La Roche Ltd.

Signed date: 02/08/2022

Zamora Auñón P. Estudio de fase III, multicéntrico y abierto de ribociclib en comparación con palbociclib en pacientes con cáncer



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3.5 Cancer and Human Molecular Genetics Area

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de mama avanzado con receptores hormonales positivos/her2-negativo/her2-enriquecido - ensayo harmonia.

Type: Clinical Trials, phase III. 6034 SOLTI-2101.

Sponsored by: Grupo Solti.
Signed date: 02/02/2022

Zamora Auñón P. Estudio de fase III, multicéntrico y abierto de ribociclib en comparación con palbociclib en pacientes con cáncer de mama avanzado con receptores hormonales positivos/her2-negativo/her2-enriquecido - ensayo harmonia.

Type: Clinical Trials, phase III. 2023.003. Sponsored by: Grupo Solti.
Signed date: 08/08/2022

Zamora Auñón P. Estudio fase III de post-neoadyuvancia que evalúa sacituzumab govitecan, un anticuerpo conjugado, en pacientes con cáncer primario de mama her2 negativo con alto riesgo de recaída tras el tratamiento neoadyuvante estándar - sascia.

Type: Clinical Trials, phase III. 5868 GBG 102. Sponsored by: Fundacion Grupo Español de Investigacion en Cancer de Mama Geicam.
Signed date: 19/01/2022

Zamora Auñón P. Estudio global en fase II de arx788 en pacientes con cáncer de mama metastásico positivo para her2, resistente o refractario a tratamientos que contengan t-dm1 y/o t-dxd y/o tucatinib.

Type: Clinical Trials, phase II. 5873 ACE-

Breast-03.

Sponsored by: Ambrx, Inc.
Signed date: 07/02/2022

Zamora Auñón P. Estudio para evaluar la supervivencia global (SG) ampliada del ensayo parsifal: eficacia y seguridad de palbociclib en combinación con fulvestrant o letrozol en pacientes con cáncer de mama metastásico her2 negativo y re positivo. (parsifal-long).

Type: EPA-OD. 2022.323. Sponsored by: Medica Scientia Innovation Research, S.L.
Signed date: 29/08/2022

Zamora Auñón P. Trastuzumab y pertuzumab sin quimioterapia en cáncer de mama her2 positivo: estrategia adaptada en función de la respuesta evaluada por fdg-pet. Estudio phergain.

Type: Clinical Trials, phase II. 2023.002. Sponsored by: Medica Scientia Innovation Research, S.L.
Signed date: 24/10/2022

● Patents and trademarks

Cejas Guerrero P, Belda Iniesta C, Feliú Batlle J, de Castro Carpeño J, Moreno García V, Burgos Lizalde E, Casado Sáenz E, Sánchez Hernández JJ, inventors; FIBHULP, UAM, Empresa Pública Hospital del Norte, assignees. Genomic fingerprint for predicting the clinical response to an antitumor therapy in colorectal cancer. P201130863, PCT/ES2012/070379; 2011 May 26.

Cejas Guerrero P, Belda Iniesta C, Feliú Batlle J, González Barón M, de Castro Carpeño J, Casado Sáenz E, Sánchez Hernández JJ, inventors; FIBHULP, UAM, assignees. Genomic fingerprint for the prognosis of the evolution of colorectal adenocarcinoma. P200703229, PCT/ES2008/000756, EP2236626; 2007 December 04.

Cejas Guerrero P, González Barón M, Casado Sáenz E, Sánchez Hernández JJ, Perona Abe-Hlón R, inventors; FIBHULP, UAM, CSIC, assignees. Use of trefoil factor family 3 (TFF3) in the prognosis of patients diagnosed with colorectal cancer. P200703230, PCT/ES2008/000757, EP2236625; 2007 December 04.

Espinosa Arranz E, Fresno Vara JA, Gámez Pozo A, López Vacas R, Berges Soria J, inventors; FIBHULP, assignee. Method for tumor subclassification. P201430887, 2014 June 09.

Espinosa Arranz E, Fresno Vara JA, Gámez Pozo A, Sánchez Navarro I, inventors; FIBHULP, assignee. Method for tumor subclassification. P200803509, PCT/ES2009/070533; 2008 December 11.

Miranda Utrera N, Castellano D, Villacampa Aubá F, Fresno Vara JA, Gámez Pozo A, inventors; FIBH12O, FIBHULP, assignees. Prognostic method for determining the risk of relapse in renal cancer patients with a clear cell type of renal carcinoma, stages I and II, and kit for same. P201531360, PCT/EP2016/072723, EP16774644.5, US20180346990, CN108174608; 2015 September 23.

tember 23.

Moreno Rubio J, Cejas Guerrero P, Feliú Batlle J, Ramírez de Molina Al, Reglero Rada G, Vargas Alonso T, Molina Arranz S, González-Vallinas Garrachón M, inventors; FIBHULP, Fundación Imdea Alimentacion, assignees. Methods and kits for the prognosis of colorectal cancer. P201231918, PCT/ES2013/070864; 2012 December 10.

Redondo Sánchez A, Hardisson Hernández D, Barriuso Feijoo J, Mendiola Sabio M, inventors; FIBHULP, assignee. Method to obtain useful data for the prediction of a patient's clinical response to an anticancer treatment. P200930400; 2009 July 01.

Redondo Sánchez A, Hardisson Hernández D, Barriuso Feijoo J, Mendiola Sabio M, inventors; FIBHULP, assignee. Method to obtain useful data for the prediction of a patient's pathological response to an anticancer treatment. P200930438; 2009 July 10.

Carlos Fernández Martos; Lucía Trilla Fuentes; Juan Ángel Fresno Vara; Angelo Gámez Pozo; Ismael Ghanem Cañete; Jaime Feliú Battle. EP19382982.7. In vitro method for the prognosis of anal squamous cell carcinoma. 11/11/2019. Biomedica Molecular Medicine SL.

Francisco Gayá Moreno; Mariana Díaz Almirón; Lucía Trilla Fuentes; Juan Ángel Fresno Vara; Angelo Gámez Pozo. Nuevo método de resolución de Gene-Protein-Reaction Asociations. 30/08/2017. Biomedica Molecular Medicine SL.



3.5.3 Experimental Therapies and Biomarkers in Cancer Group

Publications: 8
Q1: 4

COMPOSITION

María Inmaculada Ibáñez de Cáceres. Investigadora Senior (Miguel Servet). Jefe de Laboratorio. FIBHULP

Javier de Castro Carpeño. Jefe de Sección de Oncología. Hospital Universitario La Paz. Profesor Asociado. Universidad Autónoma de Madrid

Miranda Burdiel Herencia. Investigadora Predoctoral. Universidad Autónoma de Madrid

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María Dolores Diestro Tejada. Facultativo Especialista de Área en Ginecología y Obstetricia. Unidad de Ginecología Oncológica. Hospital Universitario La Paz

María Isabel Esteban Rodríguez. Facultativo Especialista de Área en Anatomía Patológica. Hospital Universitario La Paz

Álvaro García Guede. Investigador Predoctoral. FIBHULP

Julia Jiménez Hernández. Investigadora Predoctoral. Universidad Autónoma de Madrid

Cristina Manguán García. Técnico de Laboratorio. IIb "Alberto Sols"

Rocío Moreno Velasco. Técnico de Laboratorio. FIBHULP

Olga Pernía Arias. Investigadora Predoctoral. Universidad Autónoma de Madrid

Carlos Rodríguez Antolín. Bioinformático. FIBHULP

Rocío Rosas Alonso. Investigadora Postdoctoral (Juan Rodés). Hospital Universitario La Paz

Olga Vera Puente. Investigadora Postdoctoral (Sara Borrell). FIBHULP



STRATEGIC OBJECTIVE

Genetic and epigenetic mechanisms play significant roles in tumor progression and the development of resistance to treatment. The dynamic nature of tumors and their ability to adapt and resist therapies pose critical challenges in clinical practice. In our research, we have employed diverse strategies to address these challenges. Firstly, we have focused on the identification of novel markers throughout the course of lung cancer, aiming to uncover crucial indicators of disease progression. Additionally, we have pursued various approaches to identify specific targets involved in drug response, striving to enhance treatment efficacy. Our investigations have transcended the realm of theory, extending into the realm of clinical practice through the meticulous analysis of human samples. It is through this granular examination that we have un-

raveled the alterations occurring at the individual patient level. Moreover, we have successfully pinpointed epigenetic changes in tumor suppressor genes that are strongly associated with drug resistance. Furthermore, we have made significant strides in understanding the role of epigenetic regulators in lung and melanoma, particularly in the context of oxidative stress. These findings shed light on novel avenues for therapeutic interventions and provide valuable insights into the complex interplay between genetic, epigenetic, and environmental factors in cancer progression and treatment resistance.

Through the application of genomic, transcriptomic, and expression reactivation techniques,



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we have made significant strides in identifying a diverse array of biomarkers, including genes and microRNAs. These biomarkers hold immense potential for non-invasive cancer diagnosis, particularly in the context of non-small cell lung cancer (NSCLC). Our pioneering research has demonstrated the efficacy of liquid biopsy as a reliable method for detecting these biomarkers, providing a promising avenue for early detection and diagnosis of lung cancer. In addition, we have focused our attention on assessing chronic obstructive pulmonary disease

(COPD) patients to establish the presence of early-stage lung cancer. By leveraging these advanced techniques, we have successfully unraveled the intricate transcriptomic alterations at miRNA level, occurring during the establishment of lung cancer in COPD patients. These groundbreaking findings not only hold great promise for improving the accuracy and efficiency of cancer diagnosis but also pave the way for personalized treatment approaches that can potentially enhance patient outcomes.

RESEARCH LINES

1. Identification of predictive epigenetic biomarkers in the appearance of resistance to treatment in solid tumors. Within the oncological markers, those for predictive use are the most necessary to help direct therapies since the vast majority of patients are diagnosed when the tumor needs to be treated. Platinum-derived compounds are the standard treatment for high-incidence tumors such as those of the lung, ovary, and rectum, so the fact of finding markers of response to their use would allow the selection of patients, optimizing treatment and associated healthcare costs.

1.1 Lung cancer: In this line we have identified the methylation of the IGFBP3 gene promoter, whose epigenetic silencing is related to platinum resistance, extending its validation to cohorts of lung cancer patients likely to benefit from its use. In addition, the effectiveness of this biomarker is being tested in liquid biopsy as a non-invasive test. This line of research has given rise to three concatenated publications (Oncogene 2010 PMID: 20023704, Oncogene 2013 PMID: 22543588, Epigenetics 2014 PMID: 25482372) and a patent in the joint exploitation phase with a Spanish biotechnology company that has licensed said patent. This patent has passed a Pre-commercial Public Purchase in SERGAS and its validation in national phases has had the support of two concatenated RETOS projects.

1.2 Brain Tumors: Regarding our line with brain tumors, we assess the methylation status of the MGMT gene in glioblastomas, as a care and research task since 2014 in our laboratory, developing advanced high-sensitivity technology for its detection in liquid biopsy. The data obtained to date in more than 200 patients in a prospective trial has given rise to a recent publication (Clinical Epigenetics 2021 PMID: 33750464) and a second article in process, in addition to a European patent that has just passed PCT extension, and the award of two competitive public projects, one of them a DTS20 technological project for diagnosis and blood monitoring of patients with glioblastomas, and a PLEC project (RETOS) in collaboration with ValdeHebron for fine-tuning diagnostic technologies and monitoring with tracers PET. In addition, these results have allowed the defense in 2021 of the doctoral thesis of Rocío Rosas, a member of our team, who has just started her independent line in January 2022 as a "Juan Rodés" researcher.

1.3 Ovarian Cancer: We also have an open line in ovarian cancer, in which we have published a recent article (Clinical Epigenetics 2021 PMID: 34454589) and has allowed us to participate as work package leaders in a Transcan European project led by Italy, which has just successfully passed the first round of evaluation.

1.4 Melanoma. In this emerging line, we are focusing on the characterization of the oncogenic role of MAFG in the response to immunotherapy in melanoma. Dr. Olga Vera, recently has incorporated to the group as a Sara Borrell postdoctoral researcher to lead this line. Previous studies of Olga have identified MAFG as a potential oncogene in melanoma and with potential therapeutic applications. The successful completion of our study will significantly advance our understanding of the role of MAFG in melanoma, determine new therapeutic targets and open new lines of research focused on dissecting the oncogenic role of MAFG.

2. Study of the molecular mechanisms underlying simultaneous resistance to platinum in cancer, through the epigenetic regulation of regulatory non-coding RNAs. In this line, changes in the expression of microRNAs and lncRNAs in platinum-sensitive and -resistant human NSCLC and ovarian cancer cell lines established in our research group are studied. We have identified 7 microRNAs whose expression appears to be under epigenetic regulation. One of them under the epigenetic regulation of its regulatory region (miRNA-7) as a potential predictive biomarker of response to platinum in ovarian cancer in terms of overall survival and time to progression. Product of the development of this line has been the publication of an article in the journal (Theranostics 2017 PMID: 29158814), as well as a patent that is in the PCT phase. Based on these findings, in 2016 we began a collaboration with the MOFFITT cancer center in Tampa (USA) to study Long Non-Coding RNAs (lnc-RNAs) and their possible regulation through DNA methylation in these cell lines. With this project we assess the changes in the expression of lncRNAs and their epigenetic regulation at the level of DNA methylation, characterizing two groups of lncRNAs differentially regulated in the development of resistance to cisplatin, and thus opening the way for the identification of new ones. As a result of the activity of this collaboration, highly innovative results were obtained in this field (Epigenetics PMID: 29436261 and Translational Research 2018, PMID: 30053382), and the research activity focused on the characterization of these novel biomarkers is maintained thanks to the funding supported for the PI21/00145 and Caixa Impulse projects.

3. Identification of new therapeutic targets. In recent years we have also identified the direct regulation of the MAFG gene through miR-7 in our experimental models. The function of MAFG is associated with detoxification in a situation of oxidative stress and our in vitro studies have shown its involvement in the appearance of cisplatin-resistant phenotypes. Our translational approach indicates that MAFG could be a diagnostic



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marker in patients with lung and ovarian cancer treated with platinum-based chemotherapy. To date, this line has provided four articles (Translational Research 2018, PMID: 30053382; Cell Biosci. 2019 PMID: 31406565; Arch Bronconeumol (Engl Ed). 2020. PMID: 31780284; Antioxidants (Basel).PMID: 32492865) and one European patent that has just been extended to national phases in the USA and Europe, which describes the clinical use of MAFG in patients with lung and ovarian cancer. We have currently addressed the study and use of MAFG as a therapeutic target through in vitro and in vivo assays after editing the MAFG gene using CRISPR/Cas9 technology, a project funded by the ISCIII (PI18/00050, P21/000145) in addition to extending and validating its use with the potential development of a kit for clinical use thanks to obtaining a RETOS project (RTC2019-007229-1) from the 2019 call and which is ongoing with the collaboration of H. Ramón y Cajal and the companies Aptus and Atrys.

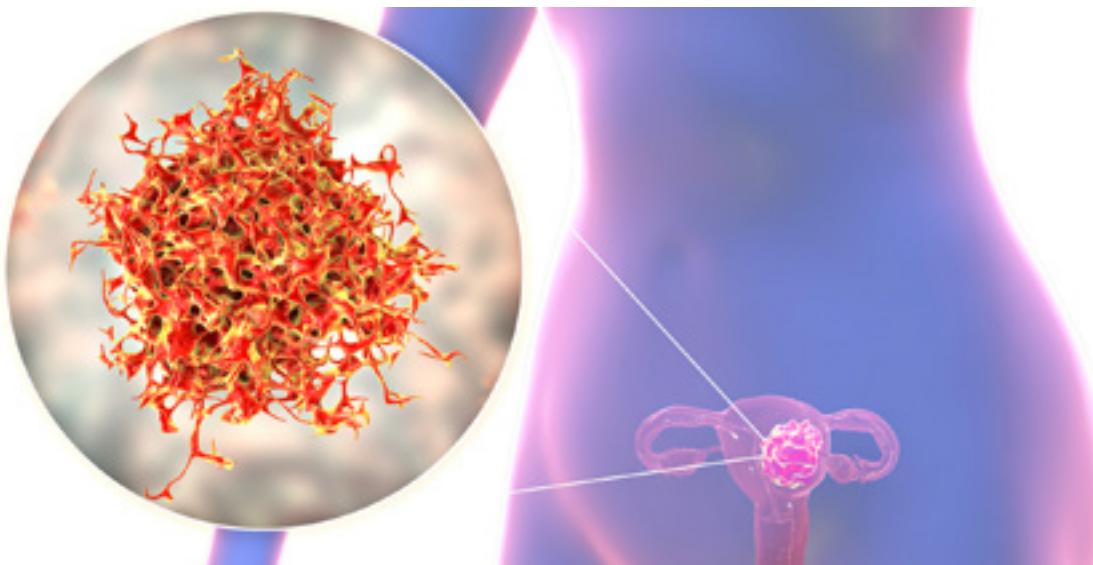
4. Identification of biomarkers in exosomes such as liquid biopsy in patients with lung and ovarian cancer. With this line we intend, through a first basic approach, to characterize and compare the protein and microRNA content of exosomes from the secretome of paired sensitive and resistant lung cancer cell lines. In the translational study of the project, the candidates identified in the cell lines in circulating exosomes from samples of lung and ovarian cancer patients are being validated, which have given rise to different results. On the one hand, two candidate miRNAs with prognostic significance in this pathology, and on the other hand, a miRNA with possible universal value has been identified as endogenous capable of normalizing the value of the content of the exosomal miRNoma, both in healthy individuals and in individuals with different tumor types. These results have given rise to a European patent that is in national phases and

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the obtaining of a Caixa Impulse Validate project for the constitution of a Spin-off, in our institution focused on the development of a first RUO product for the normalization of exosomal content. in human blood samples, in addition to two manuscripts in preparation, as well as the defense of Julia Jiménez's thesis in July 2019.

5. Identification of pharmacogenetic biomarkers associated with efficacy and toxicity of cancer treatments. Led by Dr R Rosas.

Pharmacogenetics is the field of knowledge that seeks to identify genetic variants to provide information that will allow a better understanding of drug response in terms of efficacy and toxicity, thus contributing to personalised precision medicine. Despite progress in the research and development of new cancer treatments, the efficacy and safety of these drugs vary widely between patients. In this context, this line of research aims to understand how genetic variations in individuals may influence the efficacy and toxicity of cancer treatments. The use of pharmacogenetic biomarkers is a reality in routine clinical practice and has been shown to improve the efficacy and reduce the side effects of treatments, resulting in a better quality of life for patients and reduced costs for the national healthcare system. Our ultimate goal is to identify new pharmacogenetic biomarkers that will allow better selection of cancer treatments for each patient, thus promoting the medicine of the future with a personalised and individualised approach. This line currently has two projects awarded in public (PI22/00128) and private (Jose Luis Castaño-SEQC Foundation) competitive calls, led by Dr Rocío Rosas."

6. Identification of microRNA hypermethylation patterns associated with an increased risk of developing non-small cell lung cancer in patients with mild COPD and moderate to high tobacco consumption. In recent years, the potential role of epigenetic alterations in the development of lung cancer in COPD patients, mediated by changes in the activity of various microRNAs, small non-coding RNA molecules (19-25 nucleotides) with a regulatory function of gene expression, which induce the degradation of messenger RNA or inhibit its translation, has gained particular importance. It is therefore interesting to consider whether there may be hypermethylation profiles of different microRNAs that are associated with an increased risk of lung cancer in COPD patients, which would facilitate appropriate risk selection for screening programmes. This line currently has one project, which was awarded in a competitive public call (PI22/001764), under the co-direction of Olga Pernía Arias.

7. Fine-tuning of high performance techniques available to the National Health System (NHS). (NGS and Characterization of DNA methylation status). Implicit in the group's cross-cutting lines and in our commitment to support the implementation in the NHS of the technological advances derived from our research activity, we have fine-tuned the characterization of the methylation status at the PAZ genetics facilities of DNA through the use of these new aspects of NGS applied to the field of epigenetics, both from a global approach and limited to certain regions, to implement its possible care applicability in cancer patients through personalized panels in solid tumors including glioblastomas, through the use of Methylseq technology and the 850K EPIC-arrays. Likewise, in these years we have fine-tuned the use of commercial NGS panels in strict compliance with quality regulations to address the characterization of the genetic pro-



3 Information Groups by Area



3.5 Cancer and Human Molecular Genetics Area

file of tumors in patients with lung cancer. Thanks to the addition to our team such as Dra Rocío Rosas, Juan Rodés from 2022, we are starting the hospital implementation phase, in which we have already tested careers with various platforms from different commercial houses. Its fine-tuning would allow its use both for research activities and its future healthcare applicability, especially in the classification of brain tumors. This activity is financed by the Spanish Group of Transversal Oncology and Rare Orphan Tumors (Getthi), which has just financed the group with a competitive project for this purpose. Given the experience acquired by the group in the use of massive data, we

have been able to participate in the EU ISIDORE project and have begun the study of predictive bioinformatic matrices of response to platinum treatment. We intend to combine the information available in public domain databases with relevant clinical information associated with our own experimental results (methylation and gene expression microarrays and microRNAs, bisulfite sequencing, RNAseq and miRNAs) to generate a predictive matrix of response to treatment. With these analytical models, we intend to identify "global markers" that define a predictive profile for treatment with platinum in lung and ovarian cancer based on the transcriptome, microRNome, and/or methylome.

1 Introduction

2 Executive Summary

3 Information Groups by Area

4 Associated Clinicians

RESEARCH ACTIVITY

● Doctoral theses

● Final Degree Theses

Cruz Castellanos P. Estudio de miARNs exomáles en respuesta a platino en cáncer de ovario: Validación en biopsia líquida.[dissertation]. Madrid: UCM; 2022(03/06/2023).

Director: Ibáñez de Cáceres I.

● Publications

- Sooy RA, Han JY, Dafni U, Cho BC, Yeo CM, Nadal E, Carcereny E, de Castro J, Sala MA, Bernabe R, Coate L, Pulla MP, Campelo RG, Cuffe S, Hashemi SMS, Früh M, Massuti B, García-Sánchez J, Domine M, Majem M, Sánchez-Torres JM, Britschgi C, Pless M, Dimopoulos G, Roschitzki-Voser H, Ruepp B, Rosell R, Stahel RA, Peters S. A randomised phase II study of osimertinib and bevacizumab versus osimertinib alone as second-line targeted treatment in advanced NSCLC with confirmed EGFR and acquired T790M mutations: the European Thoracic Oncology Platform (ETOP 10-16) BOOSTER trial. *Ann Oncol.* 2022; 33(2): 181-92. Article. IF: 5.0; Q1
- Remón J, Girard N, Novello S, de Castro J, Biagay-Game L, Bernabe R, Greillier L, Mosquera J, Cousin S, Juan O, Sampayo M, Besse B. PECAPI: A multicentric, open-label, single-arm phase II study to evaluate the efficacy and safety of pembrolizumab and lenvatinib in pretreated b3-thymoma and thymic carcinoma patients. *Clin Lung Cancer.* 2022; 23(3): E243-6. Article. IF: 3.6; Q2
- Dafni U, Soo RA, Peters S, Tsourtzi Z, Zygoura P, Vervita K, Han JY, de Castro J, Coate L, Früh M,

Villalba V, Ghanem I, Jiménez-Fonseca P, Calderón C. Role of sex on psychological distress, quality of life, and coping of patients with advanced colorectal and non-colorectal cancer. *World J Gastrointest Oncol.* 2022; 14(10): 2025-37. Article. IF: 3; Q3

● Research projects

Burdiel Herencia M. Contrato predoctoral (FI19/00061). ISCIII-MICINN. 2021-2023.

Management centre: FIBHULP

Cruz Castellanos P. App respira. Boehringer Ingelheim España S.A. 2019-Ongoing.

Management centre: FIBHULP

de Castro Carpeño J. Avanzando en el tratamiento del cáncer de pulmón con terapia dirigida. Un paso más: de la investigación a la práctica clínica. Pfizer S.L.U. 2022-Ongoing.

Management centre: FIBHULP

de Castro Carpeño J. Comité de gestión de programa: diseño, mediante inteligencia artificial, de algoritmos predictivos para la identificación de individuos en riesgo de desarrollar sobre peso/obesidad y sus patologías asociadas: aportación del análisis genético (S2017/BMD-3773). CM. 2018-2021.

Management centre: FIBHULP

de Castro Carpeño J. Desarrollo de las tareas necesarias para la puesta en marcha

del estudio clínico ml40221 título: estudio de práctica clínica en condiciones reales para evaluar la toma de decisiones en el tratamiento de segunda línea conforme a las normas asistenciales y basado en los perfiles de foundation medicine en pacientes con cáncer de pulmón no microcítico (cpnm) localmente avanzado o metastásico con histología de adenocarcinoma en España. Roche Farma S. A. 2018-Ongoing.

Management centre: FIBHULP

de Castro Carpeño J. Determinación mediante inmunohistoquímica de la expresión de PDL-1 en carcinoma de célula no pequeña de pulmón. Fundación ECO. 2016-Ongoing.

Management centre: FIBHULP

de Castro Carpeño J. Eluxa 2: estudio de fase III, abierto, aleatorizado y controlado con producto activo, multicéntrico e internacional, para evaluar la eficacia de BI1482694 frente a un doblete de quimioterapia estandar que incluye platino en pacientes con cáncer de pulmón no microcítico localmente avanzado o metastásico, con la mutación T790 M, cuya enfermedad ha progresado con el tratamiento previo con un inhibidor de la tirosina cinasa del receptor del factor de crecimiento epidérmico (EGFR-TKI). Parexel International (Irl) Limited. 2016-Ongoing.

Management centre: FIBHULP



3 Information Groups by Area

3.5 Cancer and Human Molecular Genetics Area

de Castro Carpeño J. Identificación de nuevos mecanismos genéticos y epigenéticos de resistencia a la inmunoterapia de primera línea en pacientes con cáncer de pulmón no microcítico metastásico (cpnmm) con alta expresión pd-l1. Estudio Keypredict. Fundación Mutua Madrileña. 2022-Ongoing.

Management centre: FIBHULP

de Castro Carpeño J. Prestación de servicios para el desarrollo de las tareas necesarias en el estudio Estudio observacional de alectinib en pacientes con CPNM ALK+ en el programa de acceso precoz en España. Roche Farma S. A. 2018-Ongoing.

Management centre: FIBHULP

Esteban Rodríguez MI. Proyecto para la evaluación retrospectiva de muestras pareadas de biopsia y citología para la detección de reordenamientos de alk y expresión de pd-l1 en cpcnp. Roche Farma S.A. 2017-Ongoing.

Management centre: FIBHULP

Esteban Rodríguez MI. Proyecto para la evaluación retrospectiva de muestras pareadas de biopsia y citología para la detección de reordenamientos de alk y expresión de pd-l1 en cpcnp. Roche Farma S.A. 2017-Ongoing.

Management centre: FIBHULP

Ibáñez de Cáceres MI. Early molecular nano-DIAGnostics of brain tumors using Immune-PET (DIAGBI) (PLEC2021-008034). MICIIN. 2021-2024.

Management centre: FIBHULP

Ibáñez de Cáceres MI. Estudio de la Plasticiidad Tumoral Epigenética a través de la carcinogénesis y progresión del CPNM en biopsia líquida . SETuP (PI21/00145). ISCIII. 2022-2024.

Management centre: FIBHULP

Ibáñez de Cáceres MI. Estudio de los mecanismos moleculares y celulares responsables de la aparición de resistencia a quimiotera-

pia mediados MOR MAFG y su implicación como nueva diana diagnóstica y terapéutica en cancer de pulmón no microcítico (PI18/00050). ISCIII. 2019-2021;3.

Management centre: FIBHULP

Ibáñez de Cáceres MI. Estudio de los mecanismos moleculares y celulares responsables de la aparición de resistencia a quimioterapia mediados por mafg y su implicación como nueva diana diagnóstica y terapéutica. FIBHULP. 2022-Ongoing.

Management centre: FIBHULP

Ibáñez de Cáceres MI. Evaluación y puesta a punto del biomarcador epigenético MGMT en biopsia líquida como prueba no invasiva de seguimiento, en pacientes con gliomas. Juan Cuesta Barrio. 2017-Ongoing.

Management centre: FIBHULP

Ibáñez de Cáceres MI. First bio-Tool for Exosomal normalization in Liquid biopsy and its clinical applicability for Lung cancer patients stratification. LUCADIA (CI20-00182). Caixa-Impulse Validate. 2020-ongoing.

Management centre: FIBHULP

Ibáñez de Cáceres MI. Plataforma del grupo de investigación de terapias experimentales y biomarcadores en cáncer (TEBC). Helicon Medical S.L. 2021-Ongoing.

Management centre: FIBHULP

Ibáñez de Cáceres MI. Prediapt: desarrollo de un sistema predictivo de respuesta al tratamiento con derivados del platino en cáncer de pulmón basado en aptámeros (RTC-2019-007229-1). MICIU. 2020-2023.

Management centre: FIBHULP

Ibáñez de Cáceres MI. Validación del biomarcador epigenético MGMT en biopsia líquida como prueba no invasiva en pacientes con gliomas (DTS20/00029). ISCIII. 2021-2023.

Management centre: FIBHULP

de Castro Carpeño J. Resistencia a la inmunoterapia de primera línea en pacientes con cáncer de pulmón no microcítico metastásico con expresión de PD-L1 mayor o igual al 50%. Fundación Mutua Madrileña. 2022-on-going.

Management centre: FIBHULP

Rodríguez Antolín C. Aplicación del metiloma en el diagnóstico de tumores del sistema nervioso central de difícil clasificación a través de algoritmos de aprendizaje automático. Fundación de la Comunidad Valenciana Hospital Provincial de Castellón. 2022-On-going.

Management centre: FIBHULP

Rodríguez Antolín C. Aplicación del metiloma en el diagnóstico del sistema nervioso central de difícil clasificación a través de algoritmos de aprendizaje automático. Ghetti.

2022-Ongoing.

Management centre: FIBHULP

Rodríguez Antolín C. Implementación diagnóstica del análisis de metilación dirigida en plataformas de secuenciación masiva de cáncer. Roche Farma S. A. 2019-Ongoing.

Management centre: FIBHULP

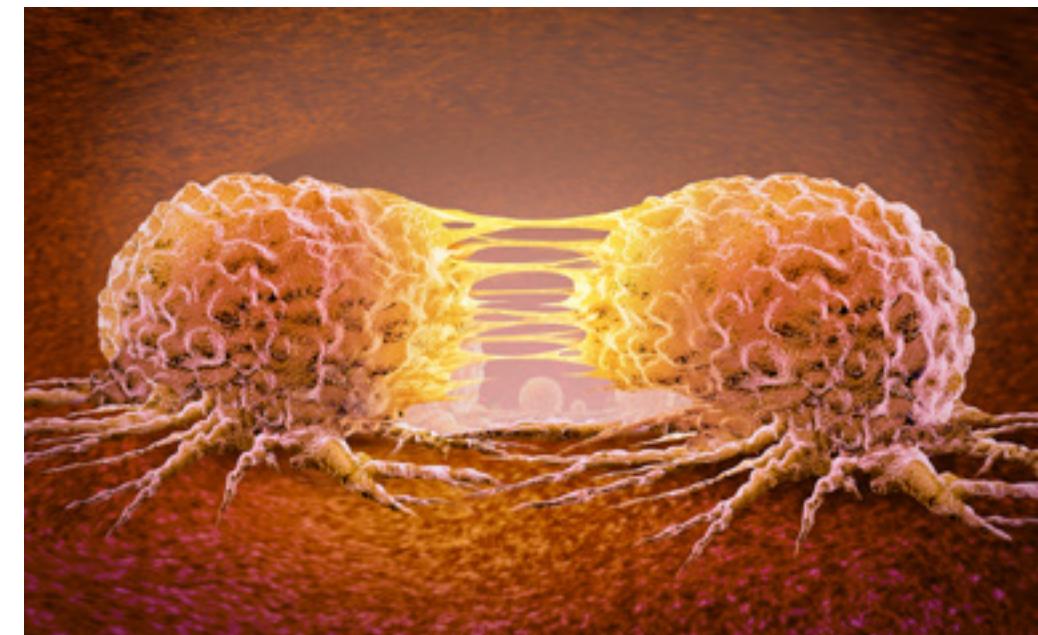
Rodríguez Antolín C. Implementación diagnóstica del análisis de metilación dirigida en plataformas de secuenciación masiva de cáncer. Roche Farma S. A. 2019-Ongoing.

Management centre: FIBHULP

Rosas Alonso R. Contrato Río Hortega (CM19/00100). ISCIII. 2020-2021.

Management centre: FIBHULP

Rosas Alonso R. Estudio de nuevas variantes asociadas a toxicidad por fluoropirimidinas. Fundación José Luis Castaño para el De-





3 Information Groups by Area



3.5 Cancer and Human Molecular Genetics Area

sarrollo del Laboratorio Clínico. 2022-On-going.

Management centre: FIBHULP

Cibers and Retics

de Castro Carpeño J. Dinamización e innovación de las capacidades industriales del SNS y su transferencia al sector productivo (PT20/0002). ISCIII. (31/12/2023). FIBHULP

Ibáñez de Cáceres I. European Infrastructure for Translational Medicine. (EATRIS). EU. (31/12/2023). FIBHULP

Clinical trials

de Castro Carpeño J. Estudio en fase II abierto, de un solo grupo y multicéntrico para evaluar la eficacia y la seguridad de taletrectinib en pacientes con cpnm ros1 positivo avanzado o metastásico y otros tumores sólidos.

Type: Clinical Trials, phase II. 5975 AB-106-G208.

Sponsored by: Anheart Therapeutics Inc.
Signed date: 25/01/2022

de Castro Carpeño J. Estudio de fase I-II para evaluar la seguridad, tolerabilidad y eficacia de pm01183 y atezolizumab en pacientes con cáncer de pulmón de células pequeñas avanzado que haya progresado tras el tratamiento con quimioterapia de platino.

Type: Clinical Trials, phase II. 5966 2SMALL.
Sponsored by: Fundacion Oncosur.
Signed date: 19/01/2022

de Castro Carpeño J. Ensayo de fase 3, abierto, aleatorizado y multicéntrico que compara selpercatinib con una terapia basada en platino y pemetrexed, con o sin pembrolizumab, como tratamiento inicial del cáncer de pulmón no microcítico avanzado o metastásico, positivo para fusión de ret..

Type: Clinical Trials, phase III. ANEXO 2 5442.

Sponsored by: Lilly, S.A..
Signed date: 22/02/2022

de Castro Carpeño J. A phase I/II, open-label, multicenter study to assess the safety, tolerability, pharmacokinetics and anti-tumor efficacy of dzd9008 in patients with advanced non-small cell lung cancer (nsclc) with egfr or her2 mutation / estudio en fase I/II, abierto, multicéntrico para evaluar la seguridad, la tolerabilidad, la farmacocinética y la eficacia antitumoral de dzd9008 en pacientes con cáncer de pulmón no microcítico (cpnm) avanzado con mutación de egfr o her.

Type: Clinical Trials, phase I. 5936 DZ2019E0001.
Sponsored by: Dizal(Jiangsu) Pharmaceutical Co, Ltd.
Signed date: 08/03/2022

de Castro Carpeño J. Estudio en fase II, aleatorizado, doble ciego de relatlimab más nivolumab en combinación con quimioterapia frente a nivolumab en combinación con quimioterapia como tratamiento de primera línea para los participantes con cáncer de pulmón no microcítico localmente avanzado o metastásico con mutación del egfr. mariposa.

Type: Clinical Trials, phase II. ANEXO 1 5809.
Sponsored by: Bristol-Myers Squibb International Corporation (Bmsic).
Signed date: 03/03/2022

de Castro Carpeño J. Estudio global de fase III, multicéntrico, aleatorizado, controlado y abierto de capmatinib en combinación con osimertinib, frente a quimioterapia basada en doblete de platino y pemetrexed, en pacientes con nsclc localmente avanzado o metastásico con mutaciones activadoras del egfr que hayan progresado a un tratamiento previo con tki del egfr y cuyos tumores pre-

senten mutación t790m negativa y amplificación de met (geometry-e).

Type: Clinical Trials, phase III. 6049 CIN-C280L12301.

Sponsored by: Novartis Farmaceutica, S.A..
Signed date: 10/03/2022

de Castro Carpeño J. Estudio de fase I-III multicéntrico para evaluar la eficacia y seguridad de múltiples tratamientos en cohortes de pacientes seleccionados basándose en el estado de los biomarcadores, con cáncer de pulmón no microcítico en estadio III localmente avanzado, no resecable.

Type: Clinical Trials, phase I. 6099 BO42777.
Sponsored by: F.Hoffmann-La Roche Ltd.
Signed date: 16/03/2022

de Castro Carpeño J. Estudio fase 3 aleatorizado de la combinación de amivantamab y lazertinib frente a osimertinib como tratamiento de primera línea en pacientes con cáncer de pulmón no microcítico localmente avanzado o metastásico con mutación del egfr. mariposa.

Type: Clinical Trials, phase III. ANEXO 1 5636.
Sponsored by: Janssen Cilag International Nv.
Signed date: 25/03/2022

de Castro Carpeño J. Estudio de fase III, abierto y aleatorizado para evaluar la eficacia y seguridad de alecitinib adyuvante frente a la quimioterapia adyuvante con un derivado del platino en pacientes con carcinoma de pulmón no microcítico positivo para la cinasa del linfoma anaplásico en estadio Ib (tumores ≥ 4 cm) a IIIa completamente extirpado.

Type: Clinical Trials, phase III. ANEXO 1 5014.
Sponsored by: F.Hoffmann-La Roche Ltd.
Signed date: 17/03/2022

de Castro Carpeño J. Observación del cán-

cer residual mediante evaluación por biopsia líquida (observation of residual cancer with liquid biopsy evaluation, oracle).

Type: No EPA. PI-5196.

Sponsored by: Guardant Health, Inc..
Signed date: 21/10/2022

Cruz Castellanos P. Implementación de una herramienta de telemedicina para mejorar la continuidad de la atención de pacientes oncológicos.

Type: No EPA. PI-5131.

Sponsored by: Cureety Sas.
Signed date: 29/04/2022

de Castro Carpeño J. Estudio de fase III, abierto, aleatorizado, global y multicéntrico de sacituzumab govitecán frente a docetaxel en pacientes con cáncer de pulmón no microcítico (cpnm) avanzado o metastásico con progresión durante o después de la quimioterapia a base de pl.

Type: Clinical Trials, phase III. 6041.
Sponsored by: Gilead Sciences, S.L..
Signed date: 15/02/2022

de Castro Carpeño J. Estudio de fase III aleatorizado, multicéntrico y abierto de lorbinecedina como agente único o lorbinecedina en combinación con irinotecán frente a la elección del investigador (topotecán o irino-tecán) en pacientes con cáncer de pulmón de células pequeñ.

Type: Clinical Trials, phase III. 6083.
Sponsored by: Pharmamar, S.A..
Signed date: 25/04/2022

de Castro Carpeño J. Estudio de fase II, abierto, de un solo grupo y multicéntrico para evaluar la eficacia y la seguridad de pemigatinib en participantes con cáncer pulmonar no microcítico avanzado con una alteración del receptor del factor de crecimiento fibroblástico que p.

Type: Clinical Trials, phase II. 6089.



3 Information Groups by Area

3.5 Cancer and Human Molecular Genetics Area

Sponsored by: Incyte Corporation.

Signed date: 18/05/2022

de Castro Carpeño J. Estudio en fase II, abierto y multicéntrico de la combinación de rmc-4630 y sotorasib para pacientes con cáncer de pulmón no microcítico (cpnm) con mutación krasg12c tras el fracaso de tratamientos estándar previos.

Type: Clinical Trials, phase II. 6132.

Sponsored by: Revolution Medicines Inc.

Signed date: 26/09/2022

de Castro Carpeño J. Estudio fase 3, aleatorizado, abierto, para comparar nivolumab más quimiorradioterapia concurrente (qrtc) seguidos por nivolumab más ipilimumab o nivolumab más qrtc seguidos por nivolumab frente a qrtc seguida por durvalumab en el cáncer de pulmón no microcítico localmente avanzado (cpnm la) no tratado previamente.

Type: Clinical Trials, phase III. Appendix 2 5403.

Sponsored by: Bristol-Myers Squibb Inter-

national Corporation (Bmsic).

Signed date: 23/03/2022

de Castro Carpeño J. Ensayo fase III, internacional, multicéntrico, doble ciego, aleatorizado y controlado con placebo de durvalumab tras el tratamiento con radioterapia estereotáctica corporal (sbrt), para el tratamiento de pacientes con cáncer de pulmón no microcítico, estadio I/II no resecado, con ganglios linfáticos negativos (pacific -4/rto-3515).

Type: Clinical Trials, phase III. Appendix 1 5241.

Sponsored by: AstraZeneca Farmaceutica Spain, S.A.

Signed date: 05/04/2022

de Castro Carpeño J. A phase 3, open-label, randomized study of lazertinib with subcutaneous amivantamab administered via manual injection compared with intravenous amivantamab or subcutaneous amivantamab administered via on body delivery system in patients with egfr-mutated advanced or me-

tastatic non-small cell lung cancer after progresión on osimertinib and chemotherapy (paloma-3).

Type: Clinical Trials, phase III. 2022.069.

Sponsored by: Janssen Cilag International Nv.

Signed date: 16/06/2022

de Castro Carpeño J. Estudio de screening maestro para determinar el estado de los biomarcadores y su potencial elegibilidad en ensayos para pacientes con tumores malignos.

Type: No EPA. 2022.139.

Sponsored by: Roche Farma, S.A..

Signed date: 04/05/2022

de Castro Carpeño J. Estudio observacional retrospectivo sobre la eficacia y seguridad de lorlatinib en pacientes con cáncer de pulmón de células no pequeñas metastásico alk o ros1 tratados dentro del programa de uso compositivo en España.

Type: Clinical Trials, phase . 2022.286.

Sponsored by: Fundacion Gecp.

Signed date: 30/06/2022

de Castro Carpeño J. A randomised phase II trial of osimertinib and bevacizumab versus osimertinib alone as second-line treatment in stage IIIb-IVb nsclc with confirmed egfrm and t790m.

Type: Clinical Trials, phase II. 2022.300.

Sponsored by: Grupo Español Cancer Pulmon.

Signed date: 20/06/2022

de Castro Carpeño J. Phase 1/2 open-label platform study to evaluate the safety and efficacy of multiple amivantamab-based therapeutic combinations in participants with advanced, unresectable lung cancer (lc) kaleidoscope. investigation-specific appendix 1 to master protocol platformpansc2001 (kaleidoscope) a phase 1/2 study evaluating the safety and efficacy of amivantamab and capmatinib combination therapy in unresec-

table metastatic non-small cell lung cancer (metalmark).

Type: Clinical Trials, phase I. 2022.340.

Sponsored by: Janssen Cilag International Nv.

Signed date: 08/11/2022

de Castro Carpeño J. Estudio de fase 1 para evaluar la seguridad, tolerabilidad y farmacocinética de amg 757 en sujetos con cáncer de pulmón microcítico.

Type: Clinical Trials, phase I. 2022.349.

Sponsored by: Amgen, S.A..

Signed date: 06/07/2022

de Castro Carpeño J. Estudio de fase I-III multicéntrico para evaluar la eficacia y seguridad de múltiples tratamientos en cohortes de pacientes seleccionados basándose en el estado de los biomarcadores, con cáncer de pulmón no microcítico en estadio III localmente avanzado, no resecable.

Type: Clinical Trials, phase I. 2022.380.

Sponsored by: F.Hoffmann-La Roche Ltd.

Signed date: 14/07/2022

de Castro Carpeño J. A phase 2, open-label, parallel cohort study of subcutaneous amivantamab in multiple regimens in patients with advanced or metastatic solid tumors including epidermal growth factor receptor mutated non-small cell lung cancer (paloma-2).

Type: Clinical Trials, phase II. 2022.401.

Sponsored by: Janssen Cilag International Nv.

Signed date: 21/09/2022

de Castro Carpeño J. Ensayo fase II, de un solo brazo, para evaluar la eficacia de osimertinib en combinación con savolitinib en pacientes con cáncer de pulmón no microcítico localmente avanzado o metastásico, con mutación egfrm positivo y met positivo, que hayan progresado después de un tratamiento con osimertinib (ensayo savannah).

Type: Clinical Trials, phase II. 2022.512.

Sponsored by: AstraZeneca Farmaceutica Spain, S.A.





3 Information Groups by Area



3.5 Cancer and Human Molecular Genetics Area

Signed date: 20/09/2022

de Castro Carpeño J. Ensayo de plataforma de fase 2 basdo en biomarcadores en pacientes con cancer de pulmon no microcítico avanzado cuya enfermedad ha progresado durante el tratamiento con osimertinib en primera linea (orchard).

Type: Clinical Trials, phase II. 2022.513.

Sponsored by: AstraZeneca Farmaceutica Spain, S.A.

Signed date: 08/09/2022

de Castro Carpeño J. Características clínicas, manejo y uso de los recursos del hospital en pacientes con estadio temprano y localmente avanzado de cáncer de pulmón de célula no pequeña: un estudio multicéntrico y retrospectivo de s ehr (electronic health record) historias clínicas electrónicas utilizando el procesamiento del lenguaje natural (nlp). EP19382614.6 (Publication Number pending); 2019 July 19.

Type: EPA-OD. 2022.578.

Sponsored by: Merck Sharp and Dohme de España, S.A.

Signed date: 21/12/2022

de Castro Carpeño J. Estudio en fase II, aleatorizado, doble ciego de relatlimab más nivolumab en combinación con quimioterapia frente a nivolumab en combinación con quimioterapia como tratamiento de primera línea para los participantes con cáncer de pulmón de células no pequeñas (cpcnp) en estadio iv o recurrente.

Type: Clinical Trials, phase II. 2023.085.

Sponsored by: Bristol-Myers Squibb International Corporation (Bmsic).

Signed date: 14/12/2022

● Patents and trademarks

Ibáñez de Cáceres I, de Castro Carpeño J, Jiménez Hernández J, Rodríguez Antolín C, Rodríguez Jiménez C, Rosas Alonso R, Cruz Cas-

tellanos P, Burdiel Herencia M, Pernía Arias O, Diestro Tejada MD, Esteban Rodríguez MI, inventors; FIBHULP, assignee. miR-151A-3p as an universal endogenous control for exosome cargo normalization. EP19382252.5 (Publication Number pending); 2019 April 05.

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Ibáñez de Cáceres I, Belda Iniesta C, Pernía Arias O, Perona Abellón R, Cortés Sempere M; inventors. FIBHULP, CSIC, UAM, Fundación Hospital de Madrid, assignees. Method for predicting the response to a treatment consisting of radiotherapy combined with cisplatin-based chemotherapy. P201330783, PCT/ES2014/070433, EP3006572, US20160122828; 2013 May 29.

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Perona Abellón R, Sastre Garzón L, Machado Pinilla R, Sánchez Pérez I, inventors; CSIC, UAM, assignees. Use of inductor agents GSE24.2 for producing pharmaceutical compositions for treating illnesses relating to cellular senescence. P200703106, PCT/ES2008/070212, EP2216043, US2011300115, JP2011504483, CA2706467; 2007 November 23.

Perona Abellón R, Sánchez Pérez I, Machado Pinilla R, Sastre Garzón L, Murguía Ibáñez JR, inventors; CSIC, UAM, Universidad Politécnica de Valencia, assignees. Sequence of nucleotides and peptides GSE 24.2 of dyskerin, which can induce telomerase activity, method for obtaining same, therapeutic compositions and applications thereof. P200502511, PCT/ES2006/070152, EP1947175, US20090202503, US2015337022, AT469212, CA2625981, DK1947175, JP2009511036, JP5560398, PT1947175; 2005 October 14.



3 Information Groups by Area



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3.5.4 Oto-neurosurgery Research Group

Publications: 22

Q1: 5

COMPOSITION

Luis Lassalleta Atienza. Jefe de Sección de Otorrinolaringología. Hospital Universitario La Paz

Carolina Alfonso Carrillo. Facultativo Especialista de Área en Otorrinolaringología. Hospital Universitario La Paz

Miryam Calvino Fernández. Investigadora Postdoctoral. Universidad Autónoma de Madrid

Alejandro Castro Calvo. Facultativo Especialista de Área en Otorrinolaringología. Hospital Universitario La Paz

Isabel García López. Facultativo Especialista de Área en Otorrinolaringología. Hospital Universitario La Paz

Javier Gavilán Bouzas. Jefe de Servicio de Otorrinolaringología. Hospital Universitario La Paz. Catedrático. De-

partamento de Cirugía. Facultad de Medicina. Universidad Autónoma de Madrid

Teresa González Otero. Facultativo Especialista de Área en Cirugía Maxilofacial. Hospital Universitario La Paz

José Manuel Morales Puebla. Facultativo Especialista de Área en Otorrinolaringología. Hospital Universitario La Paz

Silvia Murillo Cuesta. Investigadora Postdoctoral. IIb "Alberto Sols"

María Fernanda Pedrero Escalas. Facultativo Especialista de Área en Otorrinolaringología. Hospital Universitario La Paz

Isabel Pilar Sánchez Cuadrado. Facultativo Especialista de Área en Otorrinolaringología. Hospital Universitario La Paz



María Isabel Varela Nieto. Profesor de Investigación. IIb "Alberto Sols"

Antonio Villalobo Polo. Profesor de Investigación. IIb "Alberto Sols"

STRATEGIC OBJECTIVE

The systematic use of magnetic resonance imaging (MRI) has dramatically increased the diagnosis of patients with vestibular schwannoma (VS). The majority of patients with VS complain of hypoacusis or tinnitus, and very few present more debilitating symptoms. Therefore, the approach with a patient with VS is complex because the treatment of the tumour is directed towards avoiding complications arising from its growth and not necessarily towards improving the patient's quality of life. Currently, there are no factors that allow us to predict the growth of vestibular schwannoma.

Recent advances in the field of oncogenetics have allowed us to better understand the development of VS.

The study of the correlation between clinical variables related to the biological behaviour of VS and its genetic and epigenetic disorders aims to find the factors that predict the behaviour of

VS. This will help us identify patients who need active treatment of the tumour and avoid the morbidity associated with the treatment in those who do not need it.

The cochlear implant (CI) is currently the only solution for relieving the condition in patients with severe or profound hypoacusis who do not benefit from a prosthetic adaptation with a conventional hearing aid. It is estimated that there are currently 120,000 adults in Spain with profound sensorineural hypoacusis. In recent years, new hearing implants have been developed including osseointegrated implants and active middle ear implants. Its excellent and often spectacular results and its low rate of complications have transformed CI from an innovative technology in the experimental phase to a routine, safe and effective procedure, capable of returning deaf individuals to the hearing world and ending their isolation, increasing their quality of life. Over the past decade the relationship between hearing loss and cognitive decline in the older population has become the subject of research. We also explore the relationships



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between the cognitive function and the audiometric performances in patients wearing a CI. Moderate to severe hypoacusis is one of the most prevalent medical problems. Ciliated sensory cells and neurons do not regenerate in mammals, which is the main cause of sensorineural hearing loss (SNHL). Mutations altering the levels of Insulin like growth factor type 1 (IGF-1) cause SNHL in humans and mice. IGF-1 is an essential factor in the postnatal development of mammals, and its level decreases with ageing. We are studying the participation of IGF-1 in the pathophysiology of SNHL, as well as the molecular signalling networks conferring specificity in the otic cellular response to IGF-1. We are studying the signals that regulate otic damage with the objective of identifying the key factors implicated in functional repair and regeneration of

inner ear cells. In short, our work contributes to the study of auditory pathophysiology, with the ultimate objective of investigating the potential clinical usefulness of IGF-1 and downstream signalling in human sensorineural deafness.

Bell's palsy is the most common diagnosis associated with facial nerve weakness or paralysis. However, not all patients with facial paresis / paralysis have Bell's palsy. Other common causes include treatment of vestibular schwannoma, head and neck tumors, iatrogenic injuries, Herpes zoster, or trauma. The approach to each of these conditions varies widely. The addition of adjunctive major or minor facial procedures in the context of a multidisciplinary Facial Paralysis Unit improves the final facial outcome.

RESEARCH LINES

- Tumors of the CNS: vestibular schwannoma, meningiomas, gliomas, and other: surgery, oncogenetics, quality of life, etc.
- Auditory implants: cochlear implants, middle ear implants, bone-conduction implants: surgical aspects, telephone use, quality of life, perception of music, cognitive decline, anatomy based fitting, etc.
- IGF-I deficiency: a rare syndromic human deafness.
- Neurobiology of hearing: molecular and cellular bases of hearing loss of different aetiology (genetic, noise exposure, malnutrition, and ototoxic drugs). Identification of transcriptional networks.
- Development of experimental models of deafness (genetic, noise exposure, malnutrition, ototoxic drugs and surgery associated trauma) for pre-clinical studies with po-

tential therapeutic molecules, thus identifying possible therapeutic targets, potential markers for diagnosis and generation of vital guidelines.

- Head and Neck tumors and voice pathology.
- The role of cellular senescence in the development of the inner ear and the auditory pathology.
- Studies on three systems implicated in the development of tumor metastasis: the tyrosine kinase receptors EGFR/ErbB2; the non-receptor tyrosine kinase c-Src; and the adaptor protein Grb7.
- Facial paralysis: evaluation, diagnosis and surgery
- Thyroid cancer.

RESEARCH ACTIVITY

● Doctoral theses

Bermúdez Muñoz JM. Factores de protección contra la hipoacusia neurosensorial progresiva: mecanismos de regulación de la respuesta al daño y modulación de la defensa antioxidante[dissertation]. Madrid: UAM; 2022(29/03/2022).

Director: Varela Nieto I.

● Publications

- Acle-Cervera L, González-Aguado R, Bauer M, Bernal-Lafuente C, Drake-Pérez M, Manrique-Rodríguez M, de Lucas EM, Ropero-Romero F, Sambola-Cabrera I, Sánchez-Fernández R, Lassa-

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- Alsina B, Heller S, Varela-Nieto I. Editorial: Inner ear biology: Development, physiopathology, repair and recovery. *Front Cell Dev Biol.* 2022; 10: 1049463. Editorial Material. IF: 5.5; Q1
- Andries E, Bienkowska K, Swierniak W, Skarzynski PH, Skarzynski H, Calvino M, Cuadrado IS, Muñoz E, Gavilán J, Lassaletta L, Tavora-Vieira D, Acharya A, Killan C, Ridgwell J, Raine C, Van de Heyning P, Van Rompaey V, Mertens G. Evolution of type D personality traits after cochlear implantation in severely hearing impaired adults 55 years and older: an exploratory prospective, longitudinal, controlled, multicenter study. *Otol Neurotol.* 2022; 43(8): E865-71. Article. IF: 2.1; Q3
- Andries E, Lorens A, Skarzynski PH, Skarzynski H, Calvino M, Gavilán J, Lassaletta L, Tavora-Vieira D, Acharya A, Kurz A, Hagen R, Anderson I, Amann E, Van de Heyning P, Van Rompaey V, Mertens G. Evaluating the revised work rehabilitation questionnaire in cochlear implant users: cochlear implant outcome assessment based on the international classification of functioning, disability, and health (ICF). *Otol Neurotol.* 2022; 43(5): E571-77. Article. IF: 2.1; Q3
- Aragón-Ramos P, García-López I, Santiago S, Martínez A, Gavilán J. Laryngeal electromyography, a useful tool in difficult cases of pediatric laryngeal mobility disorders. *Int J Pediatr Otorhi.* 2022; 161: 111264. Article. IF: 1.5; Q3
- Calvino M, Sánchez-Cuadrado I, Gavilán J, Gutiérrez-Revilla MA, Polo R, Lassaletta L. Effect of cochlear implantation on cognitive decline and quality of life in younger and older adults with severe-to-profound hearing loss. *Eur Arch Oto-Rhino-L.* 2022; 279(10): 4745-9. Article. IF: 2.6; Q2
- Calvino M, Sánchez-Cuadrado I, Gavilán J, Lassaletta L. The effect of risk factors on cognition in adult cochlear implant candidates with severe to profound hearing loss. *Front Psychol.* 2022; 13: 837366. Article. IF: 3.8; Q1
- da Silva RS, de Moraes LS, da Rocha CAM, Ferreira-Fernandes H, Yoshioka FKN, Rey JA, Pinto GR, Burbano RR. Telomere length and telomerase activity of leukocytes as biomarkers of selective serotonin reuptake inhibitor responses in patients with major depressive disorder. *Psychiatr Genet.* 2022; 32(1): 34-6. Article. IF: 0.9; Q4
- Hagen R, Rak K, Kurz A, Baumgartner WD, Gavi-



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- Landegger LD, Fujita T, Jan TA, Varela-Nieto I. Editorial: otologic trauma, pathology, and therapy. *Front Cell Neurosci.* 2022; 16: 900074. Editorial Material. IF: 5.3; Q1
- Lassaletta L, Calvino M, Sánchez-Cuadrado I, Skarzynski PH, Cywka KB, Czajka N, Kutyba J, Tavora-Vieira D, van de Heyning P, Mertens G, Staeker H, Humphrey B, Zernotti M, Zernotti M, Magele A, Ploder M, Zabeu JS. Using generic and disease-specific measures to assess quality of life before and after 12 months of hearing implant use: a prospective, longitudinal, multicenter, observational clinical study. *Int J Env Res Pub He.* 2022; 19(5): 2503. Article. IF: 2.468; Q2
- Luque J, Mendes I, Gómez B, Morte B, de Heredia ML, Herreras E, Corrochano V, Bueren J, Gallano P, Artuch R, Fillat C, Pérez-Jurado LA, Montoliu L, Carracedo A, Millan JM, Webb SM,

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me J, Van de Heyning P, Verhaert N, Wesarg T, Westerkull P, Wollenberg B, Zahnert T, Zarowski A, Snik A. Consensus statement on bone conduction devices and active middle ear implants in conductive and mixed hearing loss. *Otol Neurotol.* 2022; 43(5): 513-29. Article. IF: 2.1; Q3

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Mertens G, Andries E, Kurz A, Tavora-Vieira D, Calvino M, Amann E, Anderson I, Lorens A. Towards a consensus on an ICF-based classification system for horizontal sound-source localization. *J Pers Med.* 2022; 12(12): 1971. Article. Not Indexed

- Munk M, Villalobo E, Villalobo A, Berchtold MW. Differential expression of the three independent CaM genes coding for an identical protein: Potential relevance of distinct mRNA stability by different codon usage. *Cell Calcium.* 2022; 107: 102656. Review. IF: 4; Q3

Palmero I, Gorgoulis V, Varela-Nieto I. Editorial: The role of cellular senescence in health and disease. *Front Cell Neurosci.* 2022; 16: 882417. Editorial Material. IF: 5.3; Q1

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- van de Heyning PH, Dazert S, Gavilán J, Lassaletta L, Lorens A, Rajan GP, Skarzynski H, Skarzynski PH, Tavora-Vieira D, Topsakal V, Usami SI, Van Rompaey V, Weiss NM, Polak M. Systematic literature review of hearing preservation rates in cochlear implantation associated with medium- and longer-length flexible lateral wall electrode arrays. *Front Surg.* 2022; 9: 893839. Review. IF: 1.8; Q3
- Villalobo E, Gutiérrez G, Villalobo A. Calmodulin in paramecium: Focus on genomic data. *Microorganisms.* 2022; 10(10): 1915. Review. IF: 4.5; Q2

● Research projects

Castro Calvo A. Towards A better paradigm for head and neck Cancer Treatment applying artificial Intelligence: an international Cohort study of electronic health records. HNC-TACTIC. (PI-5150). Head and Neck Cancer International Group y Savana. 2022-Ongoing.

Management centre:

García-López I. Parálisis bilateral de las cuerdas vocales: epidemiología y posibilidades terapéuticas aplicadas (PI-3780). Med-El Elektromedizinische Geräte Gesellschaft M. B. H.. 2019-Ongoing.

Management centre: FIBHULP

Lassaletta Atienza L. Análisis de las habilidades musicales y de la voz en niño y adultos con IC (PI21/0147). ISCIII. 2022-2024.

Management centre: FIBHULP

Lassaletta Atienza L. Leespq en niños con implante coclear en español (PI-4725). Med-El Elektromedizinische Geräte GmbH. 2021-Ongoing.

Management centre: FIBHULP

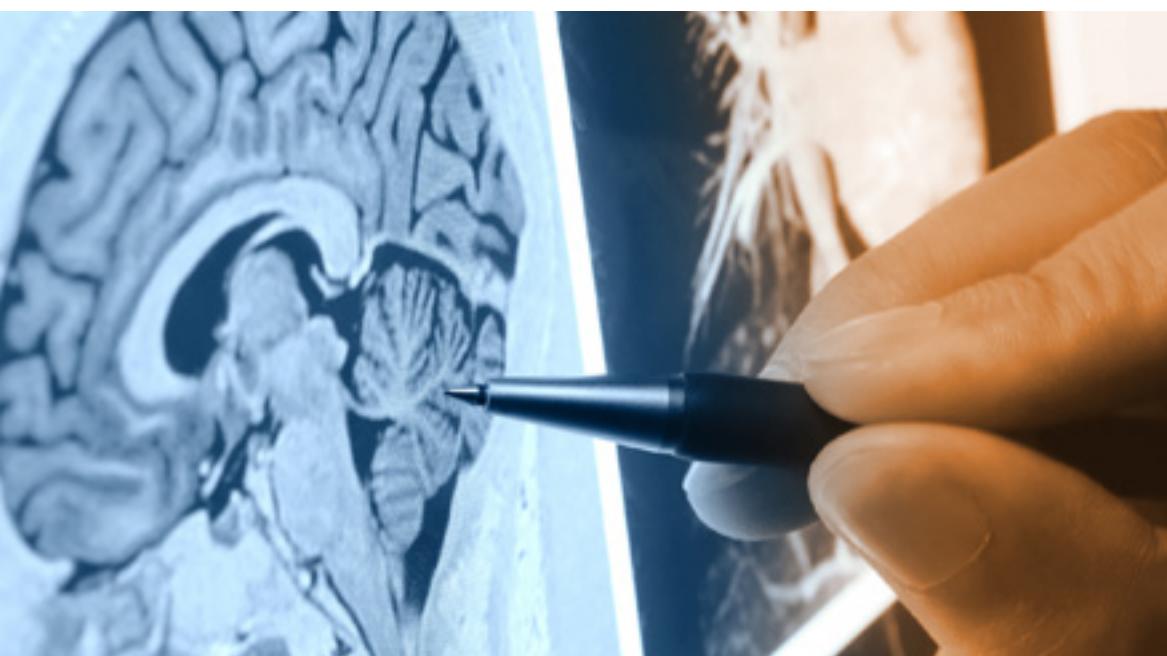
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Management centre: FIBHULP

Murillo Cuesta S. Delivery of Antisense RNA Therapeutics (CA17103). EU Framework Programme Horizon 2020. COST. 2018-2022.

Management centre: Biocruces Bizkaia Health Research Institute

Murillo Cuesta S. Grupo de Trabajo Modelos murinos para el estudio de enfermedades raras (ERP1PDI761). CIBERER. 2020-2022.

Management centre: CIBERER

Rey Herranz JA. Contrato Miguel Servet Categoría A (CES05/027). ISCIII. 2006-2025.

Management centre: FIBHULP

Rodríguez de la Rosa L. Grupo de Trabajo Edición Genómica y Terapia Génica (ERP1PDI755). CIBERER. 2020-2022.

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Sánchez Cuadrado I. Validación al español de la escala de valoración clínica eFACE y del SunnyBrook Facial Grading System (PI20/01032). ISCIII. 2020-2023.

Management centre: FIBHULP

Sánchez Cuadrado I. Validación al español de la escala de valoración clínica eFACE y del sunnybrook facial grading system (PI20/01032). ISCIII. 2021-2024.

Management centre: FIBHULP

Varela Nieto I. Bench to bedside transition for pharmacological regulation of NRF2 in noncommunicable diseases (BenBedPhar) (CA20121). EU Framework Programme Horizon 2020. COST. 2021-2024.

Management centre: UAM

Varela Nieto I, Marco-Contelles JL. Prueba de concepto para determinar el efecto de la Colesteronitrina F2 en el tratamiento de la Presbiacusia (NITROPROHEAR). Fundación General CSIC. 2020-2022.

Management centre: IIBM CSIC

Varela Nieto I, Murillo Cuesta S. Addendum to the contract by and between Consorcio Centro de Investigación Biomédica en Red, M.P. (CIBER) and Spiral Therapeutics Inc (SPRAL) on April 26 2017 for scientific research and development services in the field of hearing loss. Spiral Therapeutics. 2017-Ongoing.

Management centre: CIBERER

Varela Nieto I, Murillo Cuesta S. Bases genéticas y moleculares de la sordera neurosensorial y del daño auditivo: exploración de nuevas dianas y estrategias terapéuticas (T-HEARPY) (PID2020-115274RB-I00). MCIN. 2021-2024.

Management centre: CSIC

Varela Nieto I. A sound proteome for a sound body: targeting proteolysis for proteome remodeling (ProteoCure). (CA20113). EU Framework Programme Horizon 2020. COST. 2021-2025.

Management centre: Centro de Investigación Príncipe Felipe

Varela Nieto I. Ayuda para la realización de doctorado industrial para la Agencia Estatal Consejo Superior de Investigaciones Científicas y la empresa Alodia Farmacéutica S.L. (IND2020/BMD-17454). Agencia Estatal CSIC. Aloda Farmacéutica S.L. 2020-2023.

Management centre: CSIC

Varela Nieto I. Conexión Nanomedicina del CSIC (NANOMED-CSIC). Agencia Estatal CSIC. 2021-2024.

Management centre: Instituto de Química Médica CSIC

Varela Nieto I. Grupo de Trabajo Desarrollo de nuevas herramientas terapéuticas basadas en RNA para el tratamiento de enfermedades raras (ERP1PDI756). CIBERER. 2020-2022.

Management centre: CIBERER

Varela Nieto I. Imagen multimodal de la respuesta terapéutica a estrategias multidiana en enfermedades neurológicas (MULTITARGET&VIEWCM) (B2017/BMD-3688). CAM. 2018-2022.

Management centre: IIBM (CSIC)

Varela Nieto I. Senescencia celular: mecanismos y terapias (SENESTHERAPY) (RED2018-102698-T). Ministerio de Ciencia, Innovación y Universidades. 2018-2022.

Management centre: Fundacio Institut de Recerca Biomedica

Cibers and Retics

Varela Nieto I. Centro de Investigación en Red de Enfermedades Raras. (CIBERer) (CB06/07/1021). ISCIII. (31/12/2022). FIBHULP

Clinical trials

Sánchez Cuadrado IP. Estudio multicéntrico, de tres brazos, doble ciego, doblemente en-

mascarado, de grupos paralelos, controlado con placebo para la evaluación de la eficacia y la seguridad de la formulación de liberación prolongada de betahistina pr 48 mg una vez al día en comparación con la formulación de liberación convencional de betahistina ir 24 mg, enfermedad de meniere.

Type: Clinical Trials, phase III. 6063 0796-19 / BERTIGO.

Sponsored by: Intas Pharmaceuticals, Ltd.

Signed date: 28/03/2022.

Patents and trademarks

Polak M, Roca-Ribas Serdá F, Gavilán Bouzas J, Lassaletta Atienza L, Miró Castillo N, Rodrigo Dacosta J, inventors; MED-EL Elektromedizinische Geraete GmbH, assignee. Hearing treatment in patients with questionable cochlear nerve functionality. US2011275953, PCT/US2011/035312; 2010 May 05.

Cobo Parra P, Varela Nieto I, Murillo-Cuesta S, Navares Zaera R, Martínez Vega R, Cediel Algovia R, inventors; CSIC, UCM, assignees. Anechoic acoustic chamber for evaluating the auditory function in laboratory animals. P201031720; 2010 November 23.

Cobo Parra P, Varela Nieto I, Murillo-Cuesta S, Cediel Algovia R, inventors; CSIC, UCM, assignees. Method for designing a reverberating acoustic chamber for hearing test with animals. Procedimiento para diseñar una cámara acústica reverberante para ensayos auditivos con animales. P200802895, PCT/ES2009/070433; 2008 October 14.



3.5.5

Cancer Molecular Pathology and Therapeutic Targets Group

Publications: 27

Q1: 8

COMPOSITION

David Hardisson Hernández. Jefe de Servicio de Anatomía Patológica. Hospital Universitario La Paz. Catedrático. Facultad de Medicina. Universidad Autónoma de Madrid

Alberto Berjón García. Médico Adjunto Especialista de Área en Anatomía Patológica. Hospital Universitario La Paz

Javier de Santiago García. Jefe de Servicio de Ginecológica Oncológica. Hospital Universitario La Paz. Profesor Asociado. Facultad de Medicina. Universidad Autónoma de Madrid

Laura Guerra Pasterán. Médico Adjunto Especialista de Área en Anatomía Patológica. Hospital Universitario La Paz

Marta Mendiola Sabio. Investigadora Postdoctoral. Hospital Universitario La Paz

Jorge Martín Pérez. Investigador Científico. IIb "Alberto Sols"

María Miguel Martín. Técnico de Laboratorio. Hospital Universitario La Paz

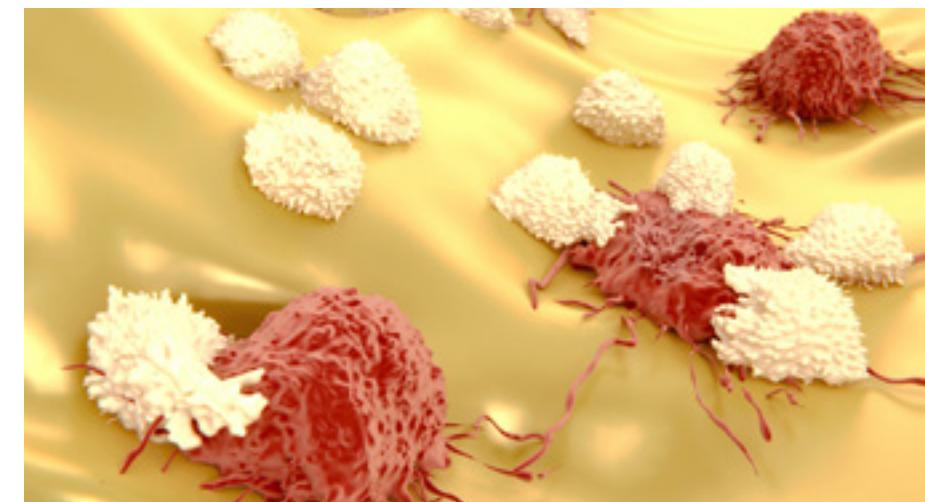
Alberto Peláez García. Investigador Postdoctoral. Hospital Universitario La Paz

Elia Pérez Fernández. Investigadora Predoctoral. Hospital Universitario La Paz

José Juan Pozo Kreilinger. Facultativo Especialista de Área en Anatomía Patológica. Hospital Universitario La Paz

José Ignacio Sánchez Méndez. Jefe de Sección en Ginecología y Obstetricia. Hospital Universitario La Paz. Profesor Asociado. Facultad de Medicina. Universidad Autónoma de Madrid

Laura Yébenes Gregorio. Médico Adjunto Especialista de Área en Anatomía Patológica. Hospital Universitario La Paz



STRATEGIC OBJECTIVE

The fundamental interest of our research group is centered in the study of molecular biomarkers that have a direct implication in the handling of the cancer patients with the last aim to identify and to validate therapeutic targets.

Ovarian cancer Research Line

The ovarian carcinoma is the main cause of gynecological cancer mortality in the western societies. Nevertheless, the classic parameters are imperfect predictors for patients outcome, partly due to the complexity of the molecular genetic events that sublie these tumors and to the fact that they are not totally known. Research on this field could identify more precise markers to correctly stratify the patients according to their probability to recur and response to treatments.

Angiogenesis, epithelial to mesenchymal transition and hypoxia are processes demonstrated to have an important role in the development of these tumors. The main objective of this line of investigation, therefore, is to identify discrete markers or gene expression profiles related to these events, with predictive and prognostic value for ovarian cancer patients.

Endometrial cancer Research Line

Endometrial carcinoma is the fourth most common cancer in women in the developed world. Histomorphologic criteria are not strongly enough tools to distinguish more aggressive tumors. Based on molecular characterization, risk stratification systems could be useful for decision making. The main objective of this line of investigation, therefore, is to identify molecular markers with predictive and prognostic value for endometrial cancer patients.



3 Information Groups by Area



3.5 Cancer and Human Molecular Genetics Area

Breast cancer Research Line

C-Src is overexpressed and/or hyperactive in breast carcinoma biopsies and their implication in the tumorigenesis has been proved in murine models.

Our studies on genetically modified human breast cancer cells and mice can establish the relevance of the function of scaffolding of SFKs in breast cancer. In addition, our work can lead to the development of new prognosis and therapeutic tools to improve the treatment of the breast cancer. Angiogenesis and breast cancer. Angiogenesis is a key process in tumor development. Our group has been working for years on the search of biomarkers related to this process. Specifically on breast cancer, it is important to identify patients that will benefit of evacizumab containing regimes.

Sarcomas Research Line

Bone and Soft tissue sarcomas includes a group of heterogeneous pathologies that were traditionally treated in the same way. The clinical investigation has allowed the identification of

sub-groups with different response to treatments. The objective of this line of work is to find biomarkers for the best stratification of the patients, as well as to get a better knowledge of the molecular mechanisms for the development of these tumors.

Neuroendocrine tumors Research Line

The neuroendocrine tumors (NET) include heterogeneous neoplasias, regarding morphologic and functional features. They constitute a challenge for the medical management, mainly regarding diagnosis and handling. Although we have improved the knowledge of molecular events related to their development in the last decade, we need to better know these tumors, in order to establish an early detection, that improves the rates of survival.

In vitro 2- and 3D cell culture models for functional studies

The identification of potential markers in different pathologies might be complemented by functional studies, focused on the characterization of cancer and stromal cell features, important for tumor development that improves the rates of survival.

RESEARCH LINES

- Ovarian and endometrial cancer
- Breast cancer
- Sarcomas

- Neuroendocrine tumors
- New in vitro models of disease

RESEARCH ACTIVITY

● Doctoral theses

Ramón Patiño JL. Evaluación de las herramientas de estratificación pronóstica en el cáncer de endometrio en estadios iniciales [dissertation]. Madrid: UAM; 2022(21/11/2022).

Directors: Redondo Sánchez A,
Mendiola Sabio M.

● Publications

• Busca C, Sánchez-Conde M, Rico M, Rosas M, Valencia E, Moreno A, Moreno V, Martín-Carbonero L, Moreno S, Pérez-Valero I, Bernardino JI, Arribas JR, González J, Olveira A, Castillo P, Abadia M, Guerra L, Méndez C, Montes ML. Assessment of noninvasive markers of steatosis and liver fibrosis in human immunodeficiency virus-

monoinfected patients on stable antiretroviral regimens. *Open Forum Infect Dis.* 2022; 9(7): ofac279. Article. IF: 4.2; Q2

• Cantero-Cid R, Montalbán-Hernández KM, Guevara J, Pascual-Iglesias A, Pulido E, Casavilla JC, Marcano C, Serrano CB, Valentín J, Bonel-Pérez GC, Avendaño-Ortiz J, Terrón V, Lozano-Rodríguez R, Martín-Quirós A, Marín E, Peña E, Guerra-Pastrián L, López-Collazo E, Aguirre LA. Intertwined leukocyte balances in tumours and peripheral blood as robust predictors of right and left colorectal cancer survival. *World J Gastrointest Oncol.* 2022; 14(1): 295-318. Article. IF: 3; Q3

• Cruz-Castellanos P, Ortiz-Cruz E, Sánchez-Méndez JL, Tapia M, Morera R, Redondo A. The impact of the first wave of the COVID-19 pandemic on oncological patients in a tertiary hospital. *Rev Esp Patol.* 2022; 55(2): 77-84. Article. Not Indexed

• de Las Casas SG, Spagnolo E, López A, Gregorio LY, Hernández A, Pascual I. Laparoscopic ileocecal resection with intracorporeal anastomosis for bowel endometriosis-a video vignette. *Colorectal Dis.* 2022; 24(5): 667-8. Letter. IF: 3.4; Q1

• Fernández-Hernández JA, Cantín-Blazquez S, García-Somacarrera E, Varo-Pérez E, González-López JA, Asencio-Pascual JM, Mendiola M, Serrant C, García-Granero E, Artigas-Raventos V. Avances en tumores del estroma gastrointestinal: hacia donde vamos? *Cir Cir.* 2022; 90(2): 267-77. Article. IF: 0.5; Q4

• Gallego A, Mendiola M, Hernando B, Berjón A, Cadiz A, Chaves-Urbano B, Heredia-Soto V, Spagnolo E, Gutiérrez AH, Hardisson D, Macintyre G, Redondo A, García MJ. Prognostic markers of inflammation in endometrioid and clear cell ovarian cancer. *Int J Gynecol Cancer.* 2022; 32(8): 1009-16. Article. IF: 4.8; Q1

• García-Casado Z, Oaknin A, Mendiola M, Alkorta-Aranburu G, Antúnez-López JR, Moreno-Bueno G, Palacios J, Yubero A, Márquez R, Gallego A, Sánchez-Heras AB, López-Guerrero JA, Pérez-Segura C, Barretina-Ginesta P, Alarcón J, Gaba L, Márquez A, Matito J, Cueva J, Palacio I, Iglesias M, Arcusa A, Sánchez-Lorenzo L, Guerra-Alia E, Romero I, Vivancos A. Laboratory cross-comparison and ring test trial for tumor brca testing in a multicenter epithelial ovarian cancer series: The BORNEO GEICO 60-0 Study. *J Pers Med.* 2022; 12(11): 1842. Article. Not Indexed

• González-García MC, Pérez Montero P, Pena Burgos EM, Vega Cabrera C, Hernández Cabrero T, Rivas Becerra B, Yébenes L, Hardisson D. SARS-CoV-2 infection associated with monoclonal gammopathy. A case report based on the study of minimally invasive ultrasound-guided autopsy. *Rev Esp Patol.* 2022; 55(1): 41-5. Article. Not Indexed

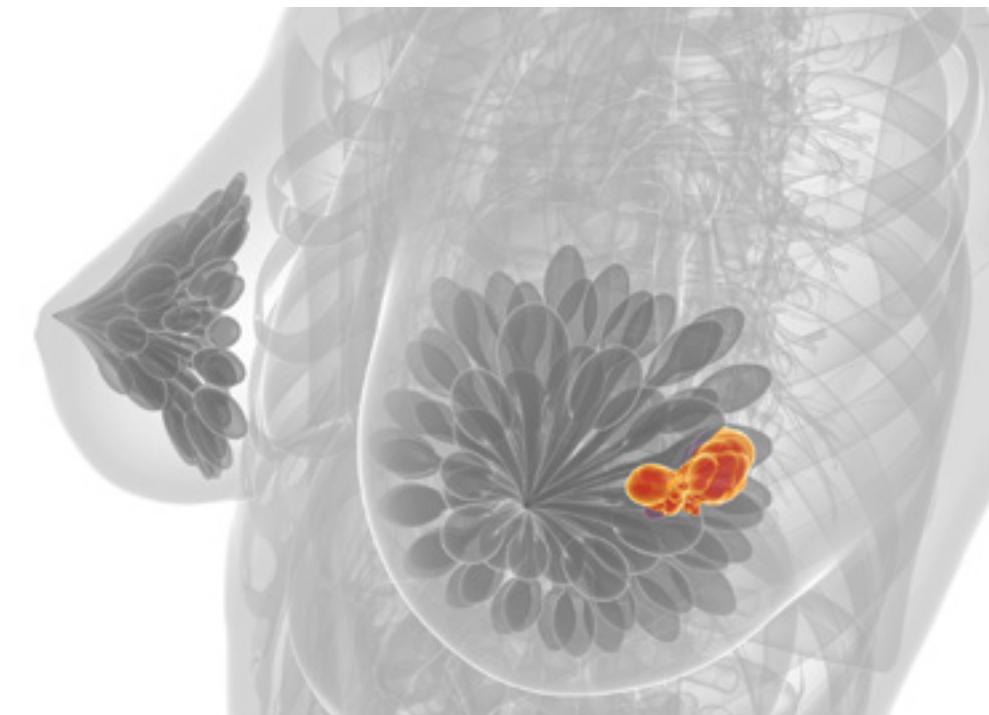


3 Information Groups by Area



3.5 Cancer and Human Molecular Genetics Area

- Heredia-Soto V, Escudero J, Miguel M, Ruiz P, Gallego A, Berjón A, Hernández A, Martínez-Díez M, Zheng SY, Tang J, Hardisson D, Feliú J, Redondo A, Mendiola M. Antitumoral effect of plocabulin in high grade serous ovarian carcinoma cell line models. *Front Oncol.* 2022; 12: 862321. Article. IF: 4.7; Q2
- López-Guerrero JA, Mendiola M, Pérez-Fidalgo JA, Romero I, Torres A, Recalde D, Molina E, Gómez-Raposo C, Levin AM, Herrero A, Alarcón J, Esteban C, Marquina G, Rubio MJ, Guerra E, Sánchez-Lorenzo L, Galvez-Montosa F, de Juan A, Churruca C, Gallego A, González-Martín A. Prospective real-world gynaecological cancer clinical registry with associated biospecimens: a collaborative model to promote translational research between GEICO and the Spanish Biobank Network. *Cancers (Basel).* 2022; 14(8): 1965. Article. IF: 5.2; Q2
- López-Janeiro A, Villalba-Esparza M, Brizzi ME, Jiménez-Sánchez D, Ruz-Caracuel I, Kadioglu E, Masetto I, Goubert V, García-Ros D, Melero I, Peláez-García A, Hardisson D, de Andrea CE. The association between the tumor immune microenvironments and clinical outcome in low-grade, early-stage endometrial cancer patients. *J Pathol.* 2022; 258(4): 426-36. Article. IF: 7.3; D1
- Martí C, Yebenes L, Oliver JM, Moreno E, Fries L, Berjón A, Loayza A, Meléndez M, Roca MJ, Córdoba V, Hardisson D, Rodríguez MA, Sánchez-Méndez JL. The clinical impact of neoadjuvant endocrine treatment on luminal-like breast cancers and its prognostic significance: results from a single-institution prospective cohort study. *Curr Oncol.* 2022; 29(4): 2199-210. Article. IF: 2.6; Q3
- Martínez MC, Pallares PD, Pastríán LG, García AB. Esophageal epidermoid metaplasia: an unusual condition. *Rev Esp Enferm Dig.* 2022; 114(12): 742-3. Editorial Material. IF: 2; Q4
- Melero I, Villalba-Esparza M, Recalde-Zamacona B, Jiménez-Sánchez D, Teijeira A, Argueta A, García-Tobar L, Alvarez-Gigli L, Sainz C, García-Ros D, Toledo E, Abengozar-Muela M, Fernández-Alonso M, Rodríguez-Mateos M, Reina G, Carmona-Torre F, Quiroga JA, del Pozo JL, Cross A, López-Janeiro A, Hardisson D, Echeveste JL, Pérez-Mies B, Caniego-Casas T, Carretero-Barrio I, Biscuola M, López-García MA, Hardisson D, Rosas M, Rodríguez MJL, Cristobal E, Pizarro D, Rosa-Rosa JM, Palacios J. The clonal relationship between the ductal and lobular components of mixed ductal-lobular carcinomas suggested a ductal origin in most tumors. *Am J Surg Pathol.* 2022; 46(11): 1545-53. Article. IF: 5.6; D1
- Mendiola M, Pellinen T, Ramón-Patiño JL, Berjón A, Bruck O, Heredia-Soto V, Turkki R, Escudero J, Hemmes A, de la Calle LEG, Crespo R, Gallego A, Hernández A, Feliú J, Redondo A. Prognostic implications of tumor-infiltrating T cells in early-stage endometrial cancer. *Modern Pathol.* 2022; 35(2): 256-65. Article. IF: 7.5; D1
- Merino-Rueda LR, Barrientos-Ruiz I, Bernabéu-Taboada D, Pozo-Kreilinger JJ, Peleteiro-Pensado M, Cordero-García JM, Ortiz-Cruz EJ. Radiological and histopathological assessment of bone infiltration in soft tissue sarcomas. *Eur J Orthop Surg Tr.* 2022; 32(4): 631-9. Article. IF: 1.7; Q4
- Montero-Calle A, de Cedrón MG, Quijada-Freire A, Solis-Fernández G, López-Alonso V, Espinosa-Salinas I, Peláez-García A, Fernández-Aceniero MJ, de Molina AR, Barberas R. Metabolic reprogramming helps to define different metastatic tropisms in colorectal cancer. *Front Oncol.* 2022; 12: 903033. Article. IF: 4.7; Q2
- Ortiz-Cruz EJ, García-Maurino Penin C, Moriel-Garceso DJ, Peleteiro Pensado M, Barrientos Ruiz I, Redondo Sánchez A, Pozo-Kreilinger JJ, Belinchon-Olmeda B, Tapia-Vine M. Oligometastases in oncological orthopedic surgery. Our experience. *Rev Esp Cir Ortop Traumatol.* 2022; 66(5): 389-96. Article. Not Indexed
- Peña-Burgos EM, Iglesias-Urraca C, González-García MC, Rodríguez-García AM, Tapia-Vine M, Ortiz-Cruz EJ, Pozo-Kreilinger JJ. Calcifying aponeurotic fibroma: Radiologic-pathologic analysis of ten cases and review of the literature. *Ann Diagn Pathol.* 2022; 61: 152056. Review. IF: 2; Q3
- Peña-Cardelles JF, Pozo-Kreilinger JJ, Roncador G, Esteban-Hernández J, Moro-Rodríguez JE, Sastre-Perona A, Castelo-Fernández B, Cebrián-Carretero JL. Prognosis value of immunoregulatory molecules in oral cancer microenvironment: an immunohistochemical study. *Biomedicines.* 2022; 10(3): 710. Article. IF: 4.7; Q1
- cer. *Expert Rev Clin Pharmacol.* 2022; 15(1): 1-9. Article. IF: 4.4; Q2
- San Martín ESM, Aldeguer LF, Álvarez PO, Calvo LG, del Pozo CE, Gadea LD, Álvarez CM, Gutiérrez AH, Sánchez-Mendez JL. Indications and results of Sentinel Lymph Node Biopsy in breast cancer: changes observed in 2018 compared to 2012. *Rev Esp Med Nucl Ima.* 2022; 41(6): 345-9. Article. IF: 1.2; Q4
- Solís-Fernández G, Montero-Calle A, Martínez-Useros J, López-Janeiro A, de los Ríos V, Sanz R, Dziakova J, Milagrosa E, Fernández-Aceniero MJ, Peláez-García A, Casal JI, Hofkens J, Rocha S, Barberas R. Spatial proteomic analysis of isogenic metastatic colorectal cancer cells reveals key dysregulated proteins associated with lymph node, liver, and lung metastasis. *Cells.* 2022; 11(3): 447. Article. IF: 6; Q2
- Solis-Fernández G, Montero-Calle A, Sánchez-





3 Information Groups by Area



3.5 Cancer and Human Molecular Genetics Area

Martínez M, Peláez-García A, Fernández-Acenero MJ, Pallares P, Alonso-Navarro M, Mendiola M, Hendrix J, Hardisson D, Bartolome RA, Hofkens J, Rocha S, Barderas R. Aryl-hydrocarbon receptor-interacting protein regulates tumorigenic and metastatic properties of colorectal cancer cells driving liver metastasis. *Brit J Cancer*. 2022; 126(11): 1604-15. Article. IF: 8.8; Q1

- Trilla-Fuertes L, Gámez-Pozo A, Lumbieras-Herrera MI, López-Vacas R, Heredia-Soto V, Ghannem I, López-Camacho E, Zapater-Moros A, Miguel M, Peña-Burgos EM, Palacios E, de Uribe M, Guerra L, Dittmann A, Mendiola M, Vara JAF, Feliú J. Identification of carcinogenesis and tumor progression processes in pancreatic ductal adenocarcinoma using high-throughput proteomics. *Cancers (Basel)*. 2022; 14(10): 2414. Article. IF: 5.2; Q2

Research projects

Guerra Pastrián L. Desarrollo de tareas de revisión patológica nacional del ensayo clínico Paediatric Hepatic International Tumour Trial (PHITT). Fundación para la Investigación Biomédica de Córdoba Fibico. 2019-Ongoing.

Management centre: FIBHULP

Hardisson Hernández D. Identificación de biomarcadores de recaída en carcinomas de endometrio de riesgo clínico intermedio mediante análisis multi-ómico y de microambiente inmune (PI21/00920). ISCIII. 2022-2024.

Management centre: FIBHULP

Hardisson Hernández D. Identificación de biomarcadores en cáncer de pulmón no microcítico (cpnm). Astrazeneca Farmaceutica Spain S.A. 2020-Ongoing.

Management centre: FIBHULP

Hardisson Hernández D. Puesta en marcha del ensayo clínico "idyllatm"genefusion panel 1.x clinical performance study. Biocartis NV. 2022-Ongoing.

Management centre: FIBHULP

Hardisson Hernández D. Realización de las tareas necesarias para el desarrollo del ensayo clínico a phase Ib/IIa, randomized, double blind, placebo controlled, multicenter clinical trial to evaluate the safety, pharmacokinetics and efficacy of oral treatment with ost-122 in patients with moderate to severe ulcerative colitis ct-ost-122-02. Oncostellae S.L. 2020-Ongoing.

Management centre: FIBHULP

Hardisson Hernández D. Riesgo de recaída en pacientes con carcinoma de mama primario HER2 negativo y receptores estrogénicos positivos: estudio comparativo de dos perfiles de expresión génica (Mammaprint® y Endopredict®). Fundación Sociedad Española de Anatomía Patológica. 2019-Ongoing.

Management centre: FIBHULP

Mendiola Sabio M., Hardisson Hernández D. Identificación de biomarcadores en cáncer

de pulmón no microcítico. Astrazeneca Farmacéutica Spain S. A. 2020-Ongoing.

Management centre: FIBHULP

Mendiola Sabio M. Establecimiento y caracterización de modelos in vitro de sarcoma. FIBHULP. 2022-Ongoing.

Management centre: FIBHULP

Mendiola Sabio M. Exploration of 2 and 3d models of angiosarcoma and their farcological screening . Grupo Español de Investigación en Sarcomas. 2019-Ongoing.

Management centre: FIBHULP

Mendiola Sabio M. Identificación de perfiles de expresión génica diferencial relacionados con la angiogénesis entre el carcinoma de ovario primario y sus metástasis. Ortomediatec. 2012-Ongoing.

Management centre: FIBHULPP

Mendiola Sabio M. Identificación de perfiles de expresión génica diferencial relacionados con la angiogénesis entre el carcinoma de ovario primario y sus metástasis. Ortomediatec. 2012-Ongoing.

Management centre: FIBHULPP

Mendiola Sabio M. Papel de RANKL en el sarcoma de Ewing: un estudio in vitro para la confirmación de una nueva diana terapéutica. Grupo Español de Investigación en Sarcomas. 2012-Ongoing.

Management centre: FIBHULPP

Mendiola Sabio M. Realización de técnicas de detección de expresión proteica el IGTP. Construcción de matrices tisulares y tinciones con anticuerpos específicos. Fundació Institut D'investigació Én Ciències de la Salut Germans Trias i Pujol. 2015-Ongoing.

Management centre: FIBHULPP

Patents and trademarks

Redondo Sánchez A, Hardisson Hernández D, Barriuso Feijoo J, Mendiola Sabio M, inventors; FIBHULP, assignee. Method to obtain useful data for the prediction of a patient's clinical response to an anticancer treatment. P200930400; 2009 July 01.

Redondo Sánchez A, Hardisson Hernández D, Barriuso Feijoo J, Mendiola Sabio M, inventors; FIBHULP, assignee. Method to obtain useful data for the prediction of a patient's pathological response to an anticancer treatment. P200930438; 2009 July 10.

Zapardiel Gutiérrez I, de Santiago García J, inventors; FIBHULP, assignee. Laparoscopic surgical instrument. P201230950, PCT/ES2013/000139; 2012 June 18.

Zapardiel Gutiérrez I, de Santiago García J, inventors; FIBHULP, assignee. Surgical device. P201330532, PCT/ES2014/070277; 2013 April 15.



3.5.6 Mechanisms of Tumour Progression Group

Publications: 14

Q1: 10

COMPOSITION

José Manuel González Sancho. Profesor Titular. Universidad Autónoma de Madrid

David Albandea Rodríguez. Investigador Predoctoral. IIb "Alberto Sols"

Antonio Barbachano Becerril. Investigador Postdoctoral. IIb "Alberto Sols"

Pilar de la Paz Bustamante Madrid. Investigadora Postdoctoral. Universidad Autónoma de Madrid

Gemma Domínguez Muñoz. Profesora Titular. Universidad Autónoma de Madrid

Asunción Fernández Barral. Investigadora Postdoctoral. IIb "Alberto Sols"

Gemma Ferrer Mayorga. Investigadora Postdoctoral. IIb "Alberto Sols"

María Jesús Larriba Muñoz. Científica Titular. IIb "Alberto Sols"

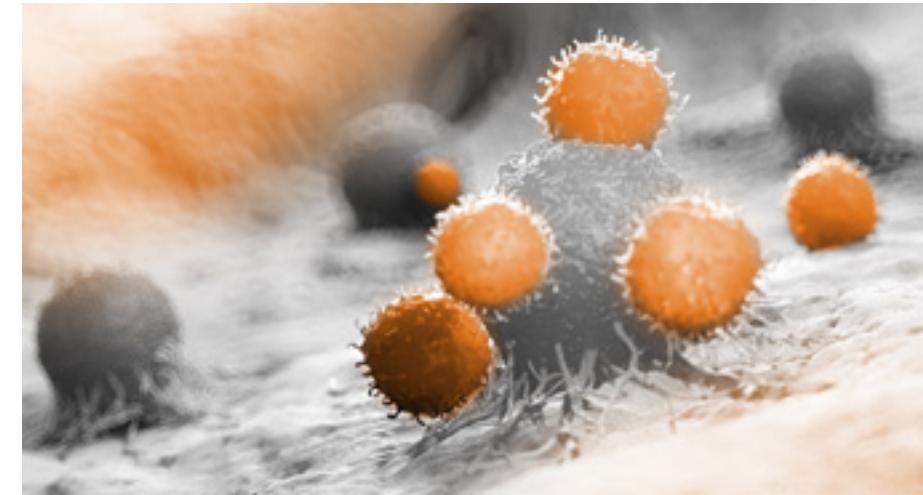
Ester Martín Villar. Investigadora Postdoctoral. IIb "Alberto Sols"

Alberto Muñoz Terol. Profesor de Investigación. IIb "Alberto Sols"

José Luis Orgaz Bueno. Jefe de Laboratorio de Citoesqueleto y Metástasis. IIb Alberto Sols

Francisco Portillo Pérez. Catedrático. Universidad Autónoma de Madrid

Javier Rodríguez Cobos. Investigador Postdoctoral. FIBHULP



STRATEGIC OBJECTIVE

Study of novel resistance mechanisms.

Analysis of tumor invasion and metastasis mechanisms in solid tumors.

Caracterización de nuevos biomarcadores en carcinomas de mama y ginecológicos.

Design of new targeted therapies to biomarkers formerly characterized by the group.

Characterization of EMT processes in tumor metastasis.

Characterize vitamin D action in stem cells and tumor microenvironment in colorectal cancer.

RESEARCH LINES

- Characterization of new resistance mechanism in breast tumors (HER2+).
- Intratumor heterogeneity study in different types of tumors.
- Cell plasticity and tumor metastasis.

- Study of vitamin D effects on patient-derived colon normal and cancer-associated fibroblasts and organoids.
- Identificación de marcadores de diagnóstico precoz en biopsia líquida en cáncer colorrectal.



3 Information Groups by Area



3.5 Cancer and Human Molecular Genetics Area

RESEARCH ACTIVITY

● Doctoral theses

Rodríguez Cobos J. Identificación de dianas efectoras de ANp73 asociadas a angiogénesis y linfangiogénesis. Valor diagnóstico y pronóstico en vesículas extracelulares en pacientes con cáncer colorrectal.[dissertation]. Madrid: UAM; 2022(14/10/2022).

Directors: Rodríguez Salas N,
Domínguez Muñoz G.

Vázquez Naharro A. Estudio de la contribución de la proteína LOXL3 a la progresión tumoral y plasticidad celular en melanoma.[dissertation]. Madrid: UAM; 2022(21/10/2022).

Directors: González Santamaría P,
Cano García A.

Bustamante Madrid PP. Establecimiento de un sistema de diferenciación celular en organoides colónicos humanos. Efecto de la vitamina D.[dissertation]. Madrid: UAM; 2022(11/11/2022).

Directors: Muñoz Terol A,
Fernández Barral A.

● Publications

- Carlberg C, Muñoz A. An update on vitamin D signaling and cancer. *Semin Cancer Biol.* 2022; 79: 217-30. Review. IF: 14.5; D1
- Casas-Arozamena C, Cortegoso A, Pineiro-Pérez R, Abalo A, Arias E, Sampayo V, Vilar A, Bouso M, Díaz E, Moreno-Bueno G, López-López R, Muinelo-Romay L, Abal M, Cueva J. Improving the management of endometrial cancer patients through the use of liquid biopsy analyses: a case report. *Int J Mol Sci.* 2022; 23(15): 8539. Article. IF: 5.6; Q1
- Fajardo P, Taskova M, Martín-Serrano MA, Hansen J, Slott S, Jakobsen AK, Wibom ML, Salegi B, Muñoz A, Barbachano A, Sharma A, Gubatan JM, Habtezion A, Sanz-Ezquerro JJ, Astakhova K, Cuenda A. p38 gamma and p38 delta as biomarkers in the interplay of colon cancer and inflammatory bowel diseases. *Cancer Commun (Lond).* 2022; 42(9): 897-901. Letter. IF: 16.2; D1
- Galindo-Pumarino C, Collado M, Castillo ME, Barquín J, Romio E, Larriba MJ, de Mier GJM, Carrato A, de la Pinta C, Pena C. SNAI1-expressing fibroblasts and derived-extracellular matrix as mediators of drug resistance in colorectal cancer patients. *Toxicol Appl Pharm.* 2022; 450: 116171. Article. IF: 3.8; Q2
- Gámez-Chiachio M, Molina-Crespo A, Ramos-Nebot C, Martínez-Val J, Martínez L, Gassner K, Llobet FJ, Soriano M, Hernández A, Cordani M, Bernado-Morales C, Díaz E, Rojo-Sebastián A, Trivino JC, Sánchez L, Rodríguez-Barreco R, Arribas J, Llobet-Navas D, Sarrio D, Moreno-Bueno G. Gasdermin B over-expression modulates HER2-targeted therapy resistance by inducing protective autophagy through Rab7 activation. *J Exp Clin Canc Res.* 2022; 41(1): 285. Article. IF: 11.3; D1
- Gámez-Chiachio M, Sarrio D, Moreno-Bueno G. Novel therapies and strategies to overcome resistance to anti-her2-targeted drugs. *Cancers (Basel).* 2022; 14(18): 4543. Review. IF: 5.2; Q2
- García-Casado Z, Oaknin A, Mendiola M, Alkorta-Aranburu G, Antunez-López JR, Moreno-Bueno G, Palacios J, Yubero A, Márquez R, Gallego A, Sánchez-Heras AB, López-Guerrero JA, Pérez-Segura C, Barretina-Ginesta P, Alarcon J, Gaba L, Márquez A, Matito J, Cueva J, Palacio I, Iglesias M, Arcusa A, Sánchez-Lorenzo L, Guerra-Alia E, Romero I, Vivancos A. Laboratory cross-comparison son and ring test trial for tumor brca testing in a multicenter epithelial ovarian cancer series: The BORNEO GEICO 60-0 Study. *J Pers Med.* 2022; 12(11): 1842. Article. Not Indexed
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Miro M, Calvo A, Rojo-Sebastián A, Hurtado P, Pineiro R, Colas E, Gil-Moreno A, Reis-Filho JS, Muinelo-Romay L, Abal M, Matías-Guiu X, Weigelt B, Moreno-Bueno G. Intratumor genetic heterogeneity and clonal evolution to decode endometrial cancer progression. *Oncogene.* 2022; 41(13): 1835-50. Article. IF: 8; Q1

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• Sole L, Lobo-Jarne T, Álvarez-Villanueva D, Alonso-Marañón J, Guillén Y, Guiu M, Sangrador I, Rozalen C, Vert A, Barbachano A, Lop J, Salido M, Bellósillo B, García-Romero R, Garrido M, González J, Martínez-Iniesta M, López-Arribillaga E, Salazar R, Montagut C, Torres F, Iglesias M, Celia-Terrassa T, Muñoz A, Villanueva A, Bigas A, Espinosa L. p53 wild-type colorectal cancer cells that express a fetal gene signature are associated with metastasis and poor prognosis. *Nat Commun.* 2022; 13(1): 2866. Article. IF: 16.6; D1

• Vázquez-Naharro A, Bustos-Tauler J, Floristán A, Yuste L, Oltra SS, Vinyals A, Moreno-Bueno G, Fabra A, Portillo F, Cano A, Santamaría PG. Loxl3 promotes melanoma progression and dissemination influencing cell plasticity and survival. *Cancers (Basel).* 2022; 14(5): 1200. Article. IF: 5.2; Q2

● Research projects

Moreno Bueno G (IP subgrupo FMDA); Matías-Guiu X (coordinador IDIBELL). Targeting the most aggressive type of endometrial carcinoma.(GCTRA18014MATI). AECC. 2018-2024.

Management centre: FMDA-UAM

Moreno Bueno G. Molecular characterization of Gasdermin B cytotoxic activity and its potential application for the treatment of cancer (GB-citoTOX). (PID2019-104644RB-I00). Ministerio de Ciencia e Innovación. 2020-2023.

Management centre: UAM

Moreno Bueno G. Targeting Gasdermin-B overexpression as a new therapeutic approach in Her2+ cancers (PROYE19036MO-RE). AECC. 2019-2022.

Management centre: UAM

Domínguez Muñoz G. Identificación de los mecanismos implicados en la diseminación peritoneal del cáncer colorrectal. Papel de Deltanp73: implicaciones diagnósticas, pronósticas y terapéuticas (PI18/00473). ISCIII. 2019-2022.

Management centre: FIBHULP

Muñoz Terol A, Larriba Muñoz MJ. Estudio de los efectos de la vitamina D en la fisiología y patología del colon humano usando organoides y cultivos primarios de fibroblastos derivados de pacientes (PID2019-104867RB-I00). Ministerio de Ciencia e Innovación. 2020-2023.

Management centre: CSIC

Rodríguez Salas N, Muñoz Terol A. Cáncer colorrectal en población joven. Estudio farmacogenómico en organoides y efectos del microambiente tumoral (ICI20/00057). ISCIII. 2021-2024.

Management centre: FIBHULP

Portillo Pérez F. LOXL2 y LOXL3: Descubriendo nuevas vulnerabilidades terapéuticas en la progresión tumoral (PID2019-111052RB-100). Ministerio de Ciencia e Innovación. 2020-2023.

Management centre: UAM



3 Information Groups by Area

3.5 Cancer and Human Molecular Genetics Area

● Patents and trademarks

García García JF, Martín Moreno AM, Rondador G, Martínez Torrecuadra JL, Moreno Bueno G, inventors; Fundación MD Anderson International España, Fundación Centro Nacional de Investigaciones Oncológicas (CNIO), assignees; Method for the diagnosis and/or prognosis of lymphomas. P201231304; 2012 August 14.

Management centre: FIBHULP

González Sancho JM. PRECICOLON-CM Hacia la medicina de precisión en cáncer de colon: Biomarcadores, microambiente tumoral y microbiota (P2022/BMD-7212). CM. 2023-2026.

Management centre: UAM

Moreno-Bueno G. (CoPI-WP1, PI-WP6); de Alava E (coordinator). Exploring the Feasibility of predictive and pharmacodynamics biomarkers of immunotherapy in solid tumors (Immune4ALL) (PMP22/00054). ISCIII. 2022-2025.

Management centre: CIBER-UAM

Moreno-Bueno G. Personalized Clinical Management of Endometrial Cancer using Liquid Biopsy, Genomics and Artificial Intelligence, ECLAI (ERAPERMED2021-076 ECLAI). ISCIII, AECC. 2022-2024.

Management centre: CIBER-UAM

● Cibers and Retics

Moreno Bueno G. Networked Biomedical Research Center for Cancer (CIBERonc) (CB16/12/00295). ISCIII. (31/12/2023). CIBER

Muñoz Terol A. Networked Biomedical Research Center for Cancer. (CIBERonc) (CB16/12/00273). ISCIII. (31/12/2023). CSIC

P201231560; 2012 October 10.

Matías-Guiu Guiú FJ, Dolcet Roca FJ, Reventós Puigjaner J, Colás Ortega E, Prat Díaz de Losada J, Palacios Calvo J, Abal Posada M, López López R, Moreno Bueno G, Gil Moreno A, inventors; Institut de Recerca Biomèdica de Lleida Fundació Doctor Pifarré, Universitat de Lleida, Fundació Hospital Universitari Vall d'Hebron-Institut de Recerca, Fundació Institut de Recerca de l'Hospital de la Santa Creu i Sant Pau, Servei Andaluz de Salud, Servizo Galego de Saúde, Fundació MD Anderson International España, assignees. Method to predict risk of recurrence in endometrial carcinoma. Annexin-A2 as

predictor biomarker of recurrent disease in endometrial cancer. EP14155510.2, PCT/EP2015/053387; 2014 February 18.

Olmeda Casadomé D, Moreno Bueno G, Portillo Pérez F, Cano García A, inventors; UAM, CSIC, assignees. Method for the diagnosis and/or prognosis of breast cancer. P200702342, PCT/ES2008/000563; 2007 August 28.

Olmeda Casadomé D, Peinado Selgas H, Portillo Pérez F, Nieto Toledano MA, Cano García A, inventors; UAM, assignee. Materials and methods for the derepression of the Ecadherin promoter. US20060003956; 2004 March 03.





3.5.7

Animal and Cell Models for Detection and Characterisation of Leukemic Stem Cells Group

Publications: 6
Q1: 2

COMPOSITION

Carmela Calés Bourdet. Profesora Titular Departamento de Bioquímica. Facultad de Medicina. Universidad Autónoma de Madrid

Mónica Bravo Madrigal. Investigadora Predoctoral. Universidad Autónoma de Madrid

Miguel Ramón Campanero García. Científico Titular. IIb "Alberto Sols"

Miguel Ángel Canales Albendea. Jefe de Sección de Hematología. Hospital Universitario La Paz

Raquel de Paz Arias. Facultativo Especialista de Área en Hematología. Hospital Universitario La Paz

Bárbara Fernández Morales. Investigadora Predoctoral. Universidad Autónoma de Madrid

Dolores Hernández Maraver. Facultativo Especialista de Área en Hematología. Hospital Universitario La Paz

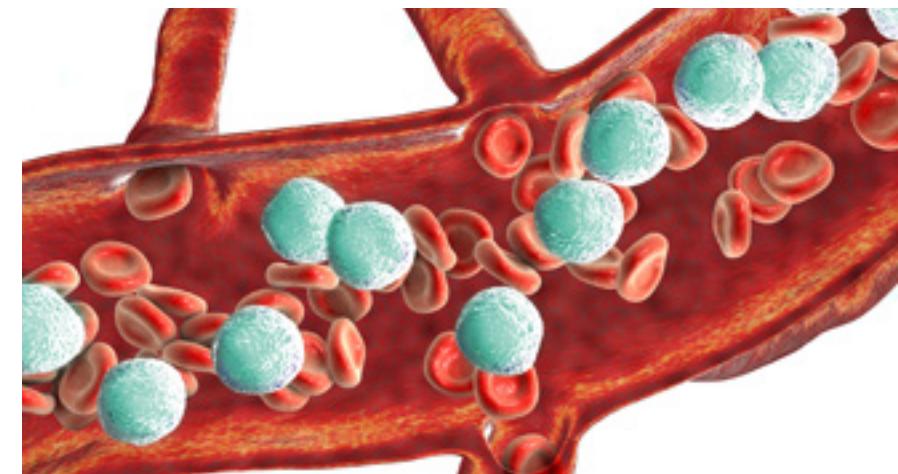
Ana Kerguelen Fuentes. Facultativo Especialista de Área en Hematología. Hospital Universitario La Paz

Yenny Montenegro Medina. Investigadora Postdoctoral. Universidad Autónoma de Madrid

Marta Morado Arias. Técnico de Laboratorio. Hospital Universitario La Paz

Gema Pérez Chacón. Investigadora Postdoctoral. IIb "Alberto Sols"

Juan Manuel Zapata Hernández. Científico Titular. IIb "Alberto Sols"



STRATEGIC OBJECTIVE

Proper homeostasis of stem cells and pluripotent progenitor is pivotal to the development of haematopoietic proliferative disorders such as myelodysplastic or myeloproliferative syndromes, leukaemia and lymphoma. It is well known that alterations in transcriptional programs lead to transformed phenotypes, which are at the basis of the insidious acquisition of stem-like phenotypes of immature cells. Our group is interested in the role of transcriptional regulators, global regulators such as c-myc, c-myb, E2F and epigenetic controllers such as Pcg factors in limiting the self-renewal capacity of common myeloid and lymphoid progenitors.

Our group has two main activities: basic research aimed to unravel the molecular mechanisms responsible for the acquisition of malignant haematological phenotypes (mouse models as well as ex vivo cell models to approach the questions outlined above); and research aimed to document clinical parameters and molecular markers that may be of use to a better understanding of the progression and outcome of haematological diseases, mainly myelodysplasia, lymphoma and multiple myeloma.



3 Information Groups by Area



3.5 Cancer and Human Molecular Genetics Area

RESEARCH LINES

- Role of epigenetic and transcriptional regulators in myelodysplasia: cellular and animal models.
- Molecular markers of haematological malignancies.

- Molecular and cellular basis of lymphoid neoplasias: non Hodgkin lymphomas and chronic lymphocytic leukaemia.

RESEARCH ACTIVITY

● Doctoral theses

Serrano del Hoyo S. El papel de la proteína RING1B en el proceso de inmortalización de progenitores hematopoyéticos [dissertation]. Madrid: UAM; 2022 (16/12/2022).

Director: Vidal Caballero MA.

● Publications

- Fernández-Fournier M, Kerguelen A, de Rivera FJR, Lacruz L, Jimeno S, Losantos I, Hernández-Maraver D, Puertas I, Tallón-Barranco A, Viejo A, García AF, Díez-Tejedor E. Therapeutic plasma exchange for myasthenia gravis, Guillain-Barre syndrome, and other immune-mediated neurological diseases, over a 40-year experience. *Expert Rev Neurother.* 2022; 22(10): 897-903. Article. IF: 4.3; Q1
- Zijlstra JM, Follows G, Casasnovas RO, Vermaat JSP, Kalakonda N, Choquet S, Hill B, Thieblemont C, Cavallo F, Cruz FD, Kuruvilla J, Hamad N, Jaeger U, Caimi P, Gurion R, Warzocha K, Bakhshi S, Sancho JM, Follows G, Egyed M, Offner F, Vassilakopoulos T, Samal P, Ku M, Ma XW, Corona K, Chamoun K, Shah J, Shacham S, Kauffman MG, Canales M, Maerevoet M. Effect of prior therapy and disease refractoriness on the efficacy and safety of oral selinexor in patients with diffuse large b-cell lymphoma (DLBCL): A post-hoc analysis of the SADAL Study. *Clinical Lymphoma Myeloma Leukem.* 2022; 22(7): 483-94. Article. IF: 2.7; Q3
- Fernández A, Pérez-Martínez A, Escudero A, Mirones I, González B, de Paz R, Matamala N, Clares L, Navarro A, Galán V, Martínez-Romera I, Martínez-López J, Leivas A, Vales-Gómez M, Ferreras C, Fernández L. Infusion of haploididentical NKG2D-CAR-TCD45RA+ cells in two pediatric patients with advanced relapsed and refractory acute leukemia was safe but achieved no clinical benefits. *Leukemia Lymphoma.* 2022; 63(8): 1970-4. Letter. IF: 2.6; Q3
- Casasnovas RO, Follows G, Zijlstra JM, Vermaat JSP, Kalakonda N, Choquet S, Van den Neste E, Hill B, Thieblemont C, Cavallo F, de la Cruz F, Kuruvilla J, Hamad N, Jaeger U, Caimi PF, Gurion R, Warzocha K, Bakhshi S, Sancho JM, Schuster M, Egyed M, Offner F, Vassilakopoulos TP, Samal P, Ku M, Ma XW, Chamoun K, Shah J, Canales M, Maerevoet M, Shacham S, Kauffman MG, Goy A. Comparison of the effectiveness and safety of the oral selective inhibitor of nuclear export, selinexor, in diffuse large b cell lymphoma subtypes. *Clinical Lymphoma Myeloma Leukem.* 2022; 22(1): 24-33. Article. IF: 2.7; Q3
- Budde LE, Sehn LH, Matasar M, Schuster SJ, Assouline S, Giri P, Kuruvilla J, Canales M, Dietrich S, Fay K, Ku M, Nastoupil L, Cheah CY, Wei MC, Yin S, Li CC, Huang H, Kwan A, Penuel E, Bartlett NL. Safety and efficacy of mosunetuzumab, a bispecific antibody, in patients with relapsed or refractory follicular lymphoma: a single-arm, multicentre, phase 2 study. *Lancet Oncol.* 2022; 23(8): 1055-65. Article. IF: 51.1; D1
- Schuster M, Zijlstra J, Casasnovas RO, Vermaat JSP, Kalakonda N, Goy A, Choquet S, van Den

Management centre: FIBHULP

Canales Albendea MA. Preceptorship. Derribando fronteras en el manejo de los procesos linfoproliferativos indolentes. Dendrita Health Marketing S. A. 2020-Ongoing.

Management centre: FIBHULP

Sponsored by: Seagen, Inc.
Signed date: 22/04/2022

Canales Albendea Ma. Estudio en fase III multicéntrico, aleatorizado, doble ciego, controlado con placebo y con comparador activo, de brentuximab vedotina o placebo en combinación con lenalidomida y rituximab en pacientes con linfoma difuso de células b grandes (ldcbg) recidivante o resistente.

Type: Clinical Trials, phase III. 2022.330.
Sponsored by: Seagen, Inc.
Signed date: 06/05/2022

Canales Albendea Ma. Estudio fase 1, multicéntrico, abierto para determinar la seguridad, farmacocinética y eficacia preliminar de una molécula pequeña, cc-99282, disponible para administración oral en monoterapia y en combinación con rituximab en sujetos con linfoma no hodgkin en recaída o refractorio (lnh r/r).

Type: Clinical Trials, phase I. Appendix 1 5879.
Sponsored by: Takeda Development Center Americas.
Signed date: 23/03/2022

Canales Albendea Ma. Estudio de fase I/II, modular, abierto y multicéntrico, para evaluar azd4573 en combinaciones novedosas con agentes antitumorales en pacientes con neoplasias malignas hematológicas en estudio avanzado.

Type: Clinical Trials, phase I. 2022.274.
Sponsored by: Astrazeneca Ab.
Signed date: 09/03/2022

Canales Albendea Ma. Estudio en fase II, abierto y de dos cohortes de brentuximab vedotina y chp (a+chp) en el tratamiento de primera línea de sujetos con linfoma de linfocitos t periféricos (lltp) con menos de un 10% de expresión.

Type: Clinical Trials, phase II. 2022.163.
Sponsored by: Celgene Corporation.
Signed date: 03/02/2022

de Paz Arias R. A phase 2a/2b, open-label, proof of concept (phase 2a) and double-blind, randomized, placebo-controlled (phase 2b), multicenter, efficacy, and safety study of ag-946 in participants with anemia due to lower-risk myelodysplastic syndromes.

Type: Clinical Trials, phase II. 2022.404.
Sponsored by: Agios Pharmaceuticals, Inc.

● Research projects

Canales Albendea MA. Programa para la investigación en neoplasias linfoides. Astellas Pharma S. A. 2008-Ongoing.



3 Information Groups by Area



3.5 Cancer and Human Molecular Genetics Area

Signed date: 20/12/2022

de Paz Arias R. Estudio de fase II, abierto y de un único grupo de sabatolimab en combinación con azacitidina y venetoclax en pacientes adultos con síndrome mielodisplásico(smd) de riesgo alto o muy alto.

Type: Clinical Trials, phase II. 6042 CM-BG453B12203.

Sponsored by: Novartis Farmaceutica, S.A.
Signed date: 02/03/2022

de Paz Arias R. Estudio en fase Ia/Ib de elvno01 para el tratamiento de la leucemia mielógena crónica.

Type: Clinical Trials, phase I. 6137.

Sponsored by: Enliven Therapeutics, Inc.
Signed date: 23/05/2022

de Paz Arias R. Estudio para evaluar imetelstat (GRN163I) en sujetos con síndrome mielodisplásico (SMD) de riesgo IPSS bajo o intermedio-1 recurrente/refractario al tratamiento con agentes estimuladores de la eritropoyesis (aee), dependientes de las transfusiones.

Type: Clinical Trials, phase III. 2022.510.

Sponsored by: Geron Corporation.
Signed date: 22/07/2022

Morado Arias M. Atlas de la enfermedad de células falciformes en España: un estudio epidemiológico observacional transversal exploratorio.

Type: Producto Sanitario. 2022.289.

Sponsored by: Asociación Española de Afectados Por Linfoma, Mieloma Y Leucemia Aleal.

Signed date: 30/06/2022

Morado Arias M. Eficacia y seguridad de m281 en adultos con anemia hemolítica autoinmunitaria por anticuerpos calientes: estudio multicéntrico, aleatorizado, doble ciego y controlado con placebo.

Type: Clinical Trials, phase II. 2022.511.

Sponsored by: Momenta Pharmaceuticals Inc.
Signed date: 06/09/2022

Morado Arias M. Ensayo multicéntrico para evaluar la eficacia y la seguridad de decitabina-tetrahidouridina (ndec) oral en pacientes con anemia falciforme.

Type: Clinical Trials, phase II. 2022.193.

Sponsored by: Novo Nordisk A/S.
Signed date: 04/10/2022

Morado Arias M. Estudio de fase 1 para evaluar la seguridad, tolerabilidad, farmacocinética y farmacodinámica de ag-946 en voluntarios sanos y sujetos con anemia de células falciformes.

Type: Clinical Trials, phase I. 2023.069.

Sponsored by: Agios Pharmaceuticals, Inc.
Signed date: 14/11/2022

Morado Arias M. Estudio de fase 1 para evaluar la seguridad, tolerabilidad, farmacocinética y farmacodinámica de ag-946 en voluntarios sanos y sujetos con anemia de células falciformes.

luar la seguridad, tolerabilidad, farmacocinética y farmacodinámica de ag-946 en voluntarios sanos y sujetos con anemia de células falciformes.

Type: Clinical Trials, phase I. 6106.

Sponsored by: Agios Pharmaceuticals, Inc.
Signed date: 04/04/2022

Morado Arias M. Estudio multicéntrico de fase III, aleatorizado, doble ciego y controlado con un placebo, para evaluar la eficacia y la seguridad del pegcetacoplán en pacientes con enfermedad por crioaglutininas.

Type: Clinical Trials, phase III. 6136.

Sponsored by: Swedish Orphan Biovitrum Ab.
Signed date: 18/07/2022

Morado Arias M. Estudio multicéntrico en fase 3, doble ciego, aleatorizado y controlado con placebo para evaluar la eficacia y seguridad de mitapivat en sujetos con α- o β-talasemia dependiente de transfusiones (energize-t).

Type: Clinical Trials, phase III. 2022.178.

Sponsored by: Agios Pharmaceuticals, Inc.
Signed date: 25/04/2022

Morado Arias M. Estudio multicéntrico en fase 3, doble ciego, aleatorizado y controlado con placebo para evaluar la eficacia y seguridad de mitapivat en sujetos con α- o β-talasemia no dependiente de transfusiones (energize).

β-talasemia no dependiente de transfusiones (energize).

Type: Clinical Trials, phase III. 2022.177.

Sponsored by: Agios Pharmaceuticals, Inc.
Signed date: 25/04/2022

● Patents and trademarks

Campanero García MR, Molina Privado I, inventors; CSIC, UAM, assignees. Method for identifying patients with sporadic Burkitt's lymphoma, identification method and use of compounds for the treatment of sporadic Burkitt's lymphoma. P200702595, PCT/ES2008/070182; 2007 October 03.

Molina Privado I, Campanero García MR, Rodríguez Martínez M, inventors; CSIC, UAM, assignees. Method for the differential diagnosis between Burkitt lymphoma and diffuse large B-cell lymphoma. P200900651; 2009 March 09.

Zapata Hernández JM, Pérez Chacón G, inventors; CSIC, UAM, assignees. Use of an indolic compound with nucleophilic substituents at C3 and the dimeric variants thereof in the production of a pharmaceutical composition that can be used in the treatment of B-lymphoid neoplasms. P201331397, PCT/ES2014/070726; 2013 September 25.



3.5.8

Research and Diagnosis of Inherited Metabolic Diseases Group

Publications: 14

Q1: 5

COMPOSITION

Maria Belén Pérez González. Catedrática Bioquímica y Biología Molecular. Universidad Autónoma de Madrid. CBM "Severo Ochoa"

Patricia Alcaide Alonso. Investigadora Postdoctoral. CEDEM

Margarita Castro Reguera. Investigadora Predoctoral. CEDEM

Magdalena de Ugarte Pérez. Directora. CEDEM

Isaac Ferrer López. Técnico de Laboratorio. CEDEM

María Alejandra Gámez Abascal. Investigadora Senior (Contrato Ramón y Cajal). CBM "Severo Ochoa"

Fernando García Muñoz. Técnico de Laboratorio. CEDEM

Fátima Leal Pérez. Técnico de Laboratorio. CIBERER

Rosa María Navarrete López de Soria. Técnico de Laboratorio. CIBERER

Eva María Richard Rodríguez. Profesora Titular. Universidad Autónoma de Madrid. CBM "Severo Ochoa"

María Pilar Rodríguez Pombo. Profesora Titular. Universidad Autónoma de Madrid. CBM "Severo Ochoa"

María Lourdes Ruiz Desviat. Catedrática Bioquímica y Biología Molecular. Universidad Autónoma de Madrid. CBM "Severo Ochoa"

Pedro Ruiz Sala. Investigador Postdoctoral. CEDEM



STRATEGIC OBJECTIVE

- Development of multiomic approaches aimed at improving the diagnosis of hereditary metabolic diseases.
- Study of mitochondrial dysfunction and oxidative stress as a modifier of the clinical phenotype and as a potential therapeutic target in organic acidurias.
- Development of animal and cellular models.
- Development of novel therapeutic strategies: antisense therapy, pharmacological chaperone, repurposing.
- Pathophysiology studies targeted to identify new druggable targets.
- Registry of patients with hereditary metabolic diseases.

RESEARCH LINES

- Improved diagnosis of congenital defects of glycosylation and mitochondrial defects through the application of genomic techniques
- Identification of deep intronic mutations in metabolic disorders gene by transcriptional analysis. Functional validation in cellular splicing systems.
- Development of antisense therapy and pharmacological chaperones as therapeutic approaches
- Study of oxidative stress and evaluation of common signatures of neuropathogenicity and cardiotoxicity in congenital defects of glycosylation, organic acidemias and mitochondrial diseases.
- Evaluation of drugs aimed at the recovery of mitochondrial function and biogénesis.
- Search for biomarkers as predictors of severity and as systems for the evaluation of pharmacological therapies.
- Characterization of pathophysiology in a murine model of propionic acidemia.



3 Information Groups by Area



3.5 Cancer and Human Molecular Genetics Area

- Identification of dysregulated miRNA in propionic acidemia and characterization of its association with pathology and its usefulness as biomarkers.

- Generation of iPS from patient-derived fibroblast with organic acidemia and congenital defects of glycosylation. Differentiation to hepatocytes, neural progenitors or cardiomyocytes.

1 Introduction

2 Executive Summary

3 Information Groups by Area

4 Associated Clinicians

RESEARCH ACTIVITY

● Publications

- Alcaide P, Ferrer-López I, Gutiérrez L, Leal F, Martín-Hernández E, Quijada-Fraile P, Bellusci M, Morais A, Pedrón-Giner C, Rausell D, Correcher P, Unceta M, Stanescu S, Ugarte M, Ruiz-Sala P, Pérez B. Lymphocyte medium-chain acyl-coa dehydrogenase activity and its potential as a diagnostic confirmation tool in newborn screening cases. *J Clin Med.* 2022; 11(10): 2933. Article. IF: 3.9; Q2
- Briso-Montiano A, Vilas A, Richard E, Ruiz-Sala P, Morato E, Desviat LR, Ugarte M, Rodríguez-Pombo P, Pérez B. Hepatocyte-like cells differentiated from methylmalonic aciduria cblB type induced pluripotent stem cells: A platform for the evaluation of. *BBA-Mol Basis Dis.* 2022; 1869(9): 166433. Article. IF: 6.2; D1
- López-Márquez A, Martínez-Pizarro A, Pérez B, Richard E, Desviat LR. Modeling splicing variants amenable to antisense therapy by use of CRISPR-Cas9-based gene editing in HepG2 Cells. *Methods Mol Biol.* 2022; 2434: 167-84. Article. IF: 3.5; Q3
- Martínez-Pizarro A, Desviat LR. RNA solutions to treat inborn errors of metabolism. *Mol Genet Metab.* 2022; 136(4): 289-95. Review. IF: 3.8; Q2
- Martínez-Pizarro A, Leal F, Holm LL, Doktor TK, Petersen USS, Bueno M, Thony B, Pérez B, Andresen BS, Desviat LR. Antisense oligonucleotide rescue of deep-intronic variants activating pseudoexons in the 6-pyruvoyl-tetrahydropterin synthase gene. *Nucleic Acid Ther.* 2022; 32(5): 378-90. Article. IF: 4; Q2
- Martín-Rivada A, Conejero AC, Martín-Hernández E, López AM, Belanger-Quintana A, Villarroya EC, Quijada-Fraile P, Bellusci M, Calzada SC, Martínez AB, Stanescu S, Casanova MMP, Ruiz-Sala P, Ugarte M, González BP, Pedrón-Giner C. Newborn screening for propionic, methylmalonic acidemia and vitamin B12 deficiency. Analysis of 588,793 newborns. *J Pediatr Endocr Met.* 2022; 35(10): 1223-31. Article. IF: 1.4; Q4
- Paredes-Fuentes AJ, Oliva C, Montero R, Alcaide P, Ruijter GJG, García-Villoria J, Ruiz-Sala P, Artuch R. Technical aspects of coenzyme Q(10)
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- Stanescu S, Belanger-Quintana A, Fernández-Feliz BM, Ruiz-Sala P, Alcaide P, Arrieta F, Martínez-Pardo M. Plasma CoQ10 status in patients with propionic acidemia and possible benefit of treatment with ubiquinol. *Antioxidants.* 2022; 11(8): 1588. Article. IF: 7; D1
- Stanescu S, Belanger-Quintana A, Fernández-Feliz BM, Ruiz-Sala P, del Valle M, García F, Arrieta F, Martínez-Pardo M. Interorgan amino acid inter-

change in propionic acidemia: the missing key to understanding its physiopathology. *Amino Acids.* 2022; 54(5): 777-86. Article. IF: 3.5; Q3

- Stanescu S, Bravo-Alonso I, Belanger-Quintana A, Pérez B, Medina-Díaz M, Ruiz-Sala P, Flores NP, Buenache R, Arrieta F, Rodríguez-Pombo P. Mitochondrial bioenergetic is impaired in Monocarboxylate transporter 1 deficiency: a new clinical case and review of the literature. *Orphanet J Rare Dis.* 2022; 17(1): 243. Review. IF: 3.7; Q2

● Research projects

Pérez González MB. Enfoque cross-ómico para el descubrimiento de la base genética de errores innatos del metabolismo y para una intervención terapéutica personalizada (PI19/01155). ISCIII. 2020-2022.

Management centre: UAM

Pérez González MB. Estudio observacional: Estudio a-REVEAL. Chiese Therapeutics. 2021-2022.

Management centre: UAM

Pérez González MB. Identificación y diagnóstico de la deficiencia AADC. PTC Therapeutics. 2021-2022.

Management centre: UAM

Richard Rodríguez EM. Acidemia propiónica: impacto en el epigenoma y el proteoma en relación con el fenotipo cardíaco y neurológico. Fundacion Ramón Areces. 2021-2023.

Management centre: Fundación Severo Ochoa

Richard Rodríguez EM. Acidemia propiónica: impacto en el epigenoma y el proteoma en relación con el fenotipo cardíaco y neuroló-

gico. Fundación Ramón Areces. 2021-2024.

Management centre: UAM

Ruiz Desviat LM. Delivery of RNA therapy. European cooperation in Science and Technology (CA17103). EU Cost Action. 2018-2022.

Management centre: UAM

Ruiz Desviat LM. Mecanismos responsables del fenotipo patológico en enfermedades neurometabólicas raras y aproximaciones terapéuticas personalizadas (PID2019-105344RB-I00). MCINN. 2020-2023.

Management centre: UAM

● Cibers and Retics

Pérez González MB. Centro de Investigación en Red de Enfermedades Raras. (CIBERER) (CB06/07/0004). ISCIII. (31/12/2024). UAM

● Patents and trademarks

Pérez González B, Ruiz Desviat L, Jorge Finnigan A, Ugarte Pérez M, Martínez Ruiz A, Underhaug J, Barnejee R, inventors; UAM, Universidad de Bergen, Universidad de Michigan, assignees; Compounds useful for the treatment of methylmalonic aciduria. P201330171; 2013 February 11.

Pérez González B, Gámez Abascal A, Yuste Checa P, Arduim Brasil S, Ugarte Pérez M, Martínez Ruiz A, Underhaug J, inventors; UAM, Universidad de Bergen, assignees; Compounds for treating congenital disorders of glycosylation. EP16382373.5; 2016.

**3.5.9****Dyslipidemias of Genetic Origin and Metabolic Diseases Group**

Publications: 2

Q1: 0

COMPOSITION

Sonia María Rodríguez Novoa. Facultativo Especialista de Área. Responsable del Laboratorio de Genética de Enfermedades Metabólicas. Hospital Universitario La Paz

Ana Carazo Álvarez. Técnico de Laboratorio. Hospital Universitario La Paz

Amanda Herranz Cecilia. Investigadora Predoctoral. Hospital Universitario La Paz

Álvaro del Monte Vergara. Investigador Predoctoral. Hospital Universitario La Paz

Carmen Rodríguez Jiménez. Especialista en Bioquímica Clínica. Hospital Universitario La Paz

Javier Sanguino Otero. Investigador Posdoctoral. Hospital Universitario La Paz

Elena Sevilla Alonso. Investigadora Predoctoral. Hospital Universitario La Paz

STRATEGIC OBJECTIVE

Our research is especially focused on the molecular diagnosis of dyslipidemias of genetic origin. Among dyslipidemias, Familial Hypercholesterolemia (FH) stands out for its impact on health. FH is an important risk factor in the development of early cardiovascular disease. Patients with pathogenic variants in the main genes involved in FH (LDLR, APOB, PCSK9, and LDLRAP1) are at high risk of premature coronary disease. The autosomal dominant hypercholesterolemia is caused by pathogenic variants at LDLR, APOB or PCSK9 genes. Patients with FH have a 50% of having a child with the condition. In this context, early detection of genetic alterations in patient's relatives is essential in order to establish an early treatment. Genetic studies of the family have proven to be cost-effective. The massively parallel sequencing technology (NGS) provide an useful tool to carry out this type of studies. However, it is important not only



the detection of new variants but the characterization of them to determine their impact or pathogenicity. For this purpose, our research group has developed and validated functional in vitro studies for the characterization of genetic variants in the main genes associated with FH.

An important percentage of patients with hypercholesterolemia do not present pathogenic variants in the most frequent genes. Our group has a line of research focused on the search for new candidate genes and epigenetic causes related with altered lipid metabolism. We have developed in vitro studies to determine the impact of microRNAs on the expression of LDLR and PCSK9.

In addition to FH, we also study other genetic dyslipidemias such as familial hypertriglyceridemia and other "rare" dyslipidemias that are often not diagnosed with the usual diagnostic tools.



3 Information Groups by Area



3.5 Cancer and Human Molecular Genetics Area

RESEARCH LINES

- Molecular diagnosis of familial hypercholesterolemia by massive sequencing of a panel of genes. Study of the exome to detect new candidate genes.
- Study of microRNAs as modulators of cholesterol regulation and their impact on familial hypercholesterolemia.

- Functional studies of genetic variants in LDLR, PCSK9 and APOB in cellular model.
- Molecular diagnosis of hypertriglyceridemia and other "rare" dyslipidemia.
- Genetic diagnosis of metabolic diseases.

RESEARCH ACTIVITY

● Doctoral theses

Rodríguez Jiménez C. Implementación de la validación funcional de las variantes en LDLR, APOB, PCSK9 y LDLRAP1 para confirmar el diagnóstico genético de la Hipercolesterolemia Familiar en la práctica asistencial. [dissertation]. Madrid: UAM; 2022 (13/12/2022).

Director: Rodríguez Novoa S.

● Final Degree Theses

Asensio Rodríguez M. Caracterización de nuevos biomarcadores de riesgo cardiovascular en pacientes con sospecha de Hipercolesterolemia Familiar (FH). [dissertation]. Madrid: Universidad Francisco de Vitoria; 2022(14/07/2022).

Director: Rodríguez Novoa S.

● Publications

- Gómez-González C, Pizarro-Sánchez C, Rodríguez-Antolín C, Pascual-Pascual I, García-Ro-

mero M, Rodríguez-Jiménez C, de Sancho-Martín R, del Pozo-Mate A, Solis-López M, Castro CPD, Torres RJ. Hereditary spastic paraparesis associated with a novel homozygous intronic noncanonical splice site variant in the AP4B1 gene. *Ann Hum Genet.* 2022; 86(3): 109-18. Article. IF: 1.9; Q4

• Pacio-Míguez M, Parrón-Pajares M, Gordon CT, Santos-Simarro F, Jiménez CR, Mena R, Arenas IR, Montano VEF, Fernández M, Solis M, del Pozo A, Amiel J, García-Miñaur S, Palomares-Bralo M. Broadening the phenotypic spectrum of EVEN-PLUS syndrome through identification of HSPA9 pathogenic variants in the original EVE dysplasia family and two sibs with milder facial phenotype. *Am J Med Genet A.* 2022; 188(9): 2819-24. Article. IF: 2; Q3

● Research projects

Rodríguez Novoa SM. Diagnóstico genético de la hipercolesterolemia familiar mediante secuenciación masiva. Estudio funcional de nuevas variantes y detección de mosaicismo. Estudio de miRNAs (PI18/00917). ISCIII. 2019-2022.

Management centre: FIBHULP

Rodríguez Novoa SM. Impacto de las variantes genéticas en región 3'UTR de los genes causantes de la Hipercolesterolemia Familiar: regulación del metabolismo de lípidos mediante miRNAs. (PI21/01239). ISCIII. 2022-2024.

Management centre: FIBHULP

Rodríguez Novoa SM. Renal tubular and markers of bone turnover in hbv monoinfected patients during long term treatment with entecavir or tenofovir (P11/30). Bristol-Myers Squibb International Corporation. 2011-On-going.

Management centre: FIBHULP

Rodríguez Novoa SM. Plataforma: dislipemias de origen genético y enfermedades metabólicas. Varios Financiadores. 2021-On-going.

Management centre: FIBHULP

● Patents and trademarks

Rodríguez Novoa SM, del Monte Vergara A, Rosas Alonso R, Queiruga Parada J, Yuste González F, authors; FIBHULP, assignee. Trademark name: Pharma Genfinder; CM18332183; 2020 November 05.



Ibáñez de Cáceres I, de Castro Carriño J, Jiménez Hernández J, Rodríguez Antolín C, Rodríguez Jiménez C, Rosas Alonso R, Cruz Castellanos P, Burdiel Herencia M, Pernía Arias O, Diestro Tejada MD, Esteban Rodríguez MI, inventors; FIBHULP, assignee. miR-151A-3p as an universal endogenous control for exosome cargo normalization. EP19382252.5 (EP3719144), PCT/EP2020/059774 PCT Direct, EP20719957.1 (EP3947733), US17/601,657; 2019 April 05.



3 Information Groups by Area



3.5 Cancer and Human Molecular Genetics Area



3.5.10 Human Genetic Variability Group

Publications: 2

Q1: 1



COMPOSITION

Ana Fernández Santander. Catedrática de Genética del Departamento de Medicina. Universidad Europea de Madrid

Beatriz Antón Pascual. Médico Adjunto en Oncología Médica. Hospital Universitario Doce de Octubre

Maria Gaíbar Alonso. Profesora contratada doctora. Universidad Camilo José Cela

Diego Malón Jiménez. Médico Adjunto en Oncología Médica. Hospital Universitario de Fuenlabrada

Apolonia Novillos Villajos. Profesora ayudante doctor. Universidad Complutense de Madrid

José María Rodríguez Piñas. Profesor Adjunto. Universidad Europea de Madrid

Alicia Romero Lorca. Catedrática de Bioquímica y Biología Molecular. Universidad Europea de Madrid

Amalia Moreno Torres. Facultativo Especialista de Área en Anatomía Patológica. Hospital Universitario de Fuenlabrada

STRATEGIC OBJECTIVE

The final objective of our group is to contribute to pharmacogenetics and precision medicine. We try to identify genetic biomarkers that could be used to predict who patients will have better response, benefit and outcome and lesser toxicity to specific drugs.

Planned Research Projects

- Genetic biomarkers of toxicity in oncological immunotherapy
- Genetic biomarkers of efficacy in oncological immunotherapy
- Worldwide genetic variability in polymorphisms associated with COVID severity

Transfer of Results

- Contributions in national and international congresses
- Publications in JCR journals

Training and education programme

- Students of medicine, nursery, etc, will be able to join to the group as PhD students

Dissemination

- Publications in JCR journals and national and international congresses
- Guides for physicians

Internationalization

The team will call for European programs when specific programs related to our re-

search will be opened. Gender Equality Quality Program: Gender equality is achieved in our group because women and men have the same conditions and opportunities to belong and to work with us.

RESEARCH LINES

Pharmacogenetics and cancer

- Pharmacogenetics in breast cancer
- Pharmacogenetics in colorectal cancer
- Pharmacogenetics and immunotherapy

Genetic variability of human populations

RESEARCH ACTIVITY

Publications

- Romero-Lorca A, de la Calle L, Novillo A, Fernández-Santander A, Blanco MA, Rodelgo T, Andréu-Vázquez C, Gaíbar M. Artistic swimming in girls: anthropometrics, genotype and athletic performance. Rev Int Med Cienc Ac. 2022; 22(85): 215-29. Article. IF: 1.3; Q4
- Gaíbar M, Novillo A, Romero-Lorca A, Malón D, Antón B, Moreno A, Fernández-Santander A. FGFR1 amplification and response to neoadjuvant Anti-HER2 treatment in early HER2-positive breast cancer. Pharmaceutics. 2022; 14(2): 242. Article. IF: 5.4; Q1.

Research projects

Fernández Santander A. Biomarcadores genéticos de toxicidad en inmunoterapia en pacientes con melanoma maligno: análisis de polimorfismos de tipo SNP en genes reguladores de las respuestas inmunitaria e inflamatoria (2022/UEM19). UEM. 2022-2023.

Management centre: UEM

Fernández Santander A. Estudio de polimorfismos de tipo CNV como posibles biomarcadores de eficacia del tratamiento con bevacizumab así como de supervivencia en pacientes con cáncer colorrectal metastásico (2021/UEM08). UEM. 2021-2022.

Management centre: UEM



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3.6 Surgery, Transplant and Health Technologies Area

Area Coordinator: Nuria Vilaboa Díaz

coordinadordcirugia@idipaz.es

Documents: 222 Originals: 158 D1: 19 Q1: 70

- 3.6.1 Bone Pathophysiology and Biomaterials Group
- 3.6.2 Cellular Engineering Group
- 3.6.3 Clinical Pharmacology Group
- 3.6.4 Osteoarticular Surgery Research – GICOA Group
- 3.6.5 Translational Research in Maxillofacial Surgery and Head and Neck Cancer Group
- 3.6.6 Patients Safety and Quality Research Group
- 3.6.7 Translational Research and Innovation in General and Digestive Surgery Group





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Strategic Objectives

Surgery, Transplant and Health Technologies Area is composed of 10 very heterogeneous groups and the absence of common activities between them make the general objectives equivalent to the sum of the research lines of each of the groups. The main objective of the area is to locate points where synergies between groups can be established.

Development forecast for the coming years

Cellular and organ engineering, underdeveloped.

Stem and precursor cells. This is one of the most successful lines and the one that has motivated more collaborations between them. It is certainly one of the possibilities for the future.

Animal models. Cellular models. They require personnel trained in cell culture techniques and who masters animal models of human diseases.

Minimally invasive surgery: one of the most important translational fields in recent years, a permanent demand from the population and an indicator of the quality of healthcare systems.

Actions

Support researchers to continue being a reference in the national area.

Identify and promote at international level the new research lines identifying as innovative and competitive.

High impact publications

Hessheimer AJ, Rosa G, Gastaca M, Ruiz P, Otero A, Gómez M, Alconchel F, Ramírez P, Bosca A, López-Andujar R, Atutxa L, Royo-Villanova M, Sánchez B, Santoyo J, Marín LM, Gómez-Bravo MA, Mosteiro F, Herrera MTV, del Moral JV, González-Abos C, Vidal B, López-Domínguez J, Llado L, Roldán J, Justo I, Jiménez C, López-Monclus J, Sánchez-Turrión V, Rodríguez-Laiz G, Sánchez EV, López-Baena JA, Caralt M, Charco R, Tome S, Varo E, Martí-Cruchaga P, Rotellar F, Varona MA, Barrera M, Rodríguez-Sanjuán JC, Briceno J, López D, Blanco G, Nuno J, Pacheco D, Coll E, Domínguez-Gil B, Fondevila C. Abdominal normothermic regional perfusion in controlled donation after circulatory determination of death liver transplantation: Outcomes and risk factors for graft loss. *Am J Transplant*. 2022; 22(4): 1169-81. Article. IF: 8.8; D1

de la Corte-Rodríguez H, **Rodríguez-Merchan EC**, Álvarez-Román MT, Martín-Salces M, Rivas-Pollmar I, Jiménez-Yuste V. Arthropathy in people with mild haemophilia: Exploring risk factors. *Thromb Res*. 2022; 211: 19-26. Article. IF: 7.5; Q1

Rodríguez-Fanjul V, Guerrero-López R, Fernandez-Varas B, Perona R, **Sastre-Perona A**, Sastre L. Comparison of colorectal cancer stem cells and oxaliplatin-resistant cells unveils functional similarities. *Cells*. 2022; 11(3): 511. Article. IF: 6; Q2

Quirós-Fernández R, López-Plaza B, Bermejo LM, Milla SP, Zangara A, **Candela CG**. Oral supplement containing hydroxytyrosol and punicalagin improves dyslipidemia in an adult population without co-adjuvant treatment: a randomized, double-blind, controlled and crossover trial. *Nutrients*. 2022; 14(9): 1879. Article. IF: 5.9; Q1

Rodríguez A, García-García I, de Soto LM, de las Huertas AGL, Borobia AM, González-Torbay A, Akatbach-Bousaid I, González-Muñoz M, **Ramírez E**. Utility of lymphocyte transformation test for assisting updated roussel uclaf causality assessment method in drug-induced liver injury: a case-control study. *Front Pharmacol*. 2022; 13: 819589. Article. IF: 5.6; Q1



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Scientific Events by Surgery, Transplant and Health Technologies Area

21/04/2022 Identificación de mecanismos de resistencia a terapias en tumores orales

20/05/2022 Webinar 'de los primeros pasos a la actualidad de los ensayos clínicos'

26/09/2022 Metodología en Investigación Clínica: Diseño, puesta en marcha y desarrollo de estudios clínicos

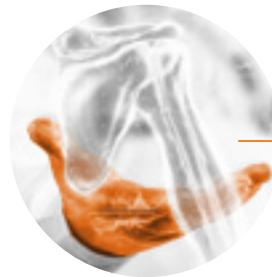
17/10/2022 Formación en Bioestadística

27/10/2022 Webinar Planificación metodológica

17/11/2022 Webinar: Sistemas de expresión génica inducibles por calor

23/11/2022 Management en Investigación Clínica





3.6.1 Bone Pathophysiology and Biomaterials Group

Publications: 3

Q1: 2

COMPOSITION

Nuria Elda Vilaboa Díaz. Investigadora Senior (Miguel Servet contract - I2). Jefe de Laboratorio. FIBHULP

Clara Escudero Duch. Investigadora Postdoctoral. CIBER-BBN

Marcos de Mesa Cáceres. Técnico de Laboratorio. FIBHULP

Mabel Falguera Uceda. Investigadora Predoctoral. Hospital Universitario La Paz

Eduardo García Cimbrelo. Médico Emérito de la Comunidad de Madrid. Hospital Universitario La Paz. Profesor Asociado. Departamento de Cirugía. Facultad de Medicina. Universidad Autónoma de Madrid

Miguel Ángel Lerma Juárez. Investigador Predoctoral. FIBHULP

Leila Maestro Paramio. Investigadora Predoctoral. FIBHULP

Carmen Martín Hervás. Facultativo Especialista de Área en Radiodiagnóstico. Hospital Universitario La Paz. Profesora Asociada. Facultad de Medicina. Universidad Autónoma de Madrid

Alonso Carlos Moreno García. Facultativo Especialista de Área en Cirugía Orotópédica y Traumatología. Hospital Universitario La Paz

Laura Saldaña Quero. Investigadora Senior (Contrato Miguel Servet-Tipo II). Jefe de Laboratorio. FIBHULP

Gema Vallés Pérez. Investigadora Senior. Responsables de Cultivos Celulares y de los Laboratorios Comunes de IdiPAZ. FIBHULP



STRATEGIC OBJECTIVE

The Bone Physiopathology and Biomaterials group includes basic and clinical researchers from IdiPAZ. The group has broad experience in clinical and basic research on biomaterials for orthopaedic implants and bone tissue engineering. The principal goal of the group is to improve the clinical outcome of orthopaedic surgery through research on implants and biomaterials used for manufacturing prosthetic devices.

The group is also interested in the study of mechanisms underlying joint diseases and in bone tissue engineering applications, in evaluating scaffolds manufactured by collaborative partners, in developing novel gene therapy strategies aimed to heal bone defects and in the study of the interactions of the immune and skeletal systems. Specific areas of clinical research on implants include follow-up studies on various devices in use for osteoarticular surgery.

The main areas of interest in basic research on the biocompatibility of materials include:

- understanding the influence of the surface biomaterial properties on the behaviour of bone-related cells.
- the study of cell reactions occurring in the vicinity of implanted materials caused by wear particles.
- the deliberate manipulation of cell responses after exposure to nanoparticles designed for gene delivery and optical hyperthermia applications.

The team is also interested in the development of transcriptional targeting strategies to ensure tight control of the expression of therapeutic proteins and their potential application in inducing an orchestrated expression of growth factors involved in bone healing.



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3.6 Surgery, Transplant and Health Technologies Area

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RESEARCH ACTIVITY

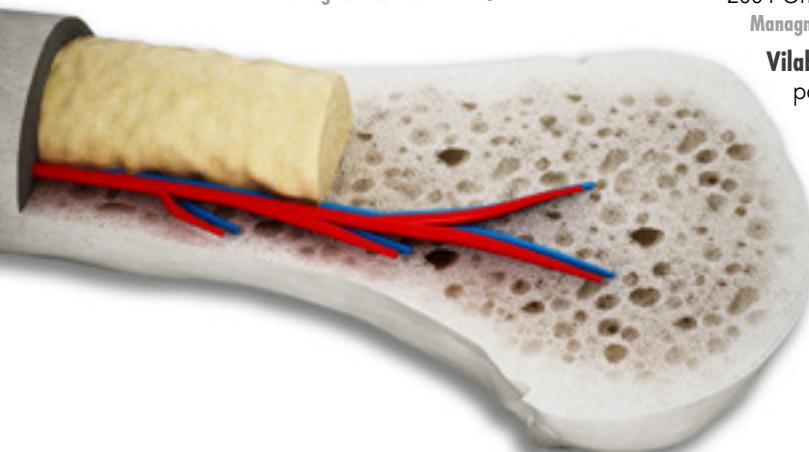
● Publications

- García-Rey E, Cruz-Pardos A, Saldaña L. New polyethylenes in total hip arthroplasty a 20-to 22-year follow-up study. *Bone Joint J.* 2022; 104B(9): 1032-8. Article. IF: 4.6; D1
- Moreno-García, A; Rodríguez-Merchán, EC. Orthobiologics: current role in orthopedic surgery and traumatology. *Arch Bone Jt Surg.* 2022; 10(7): 536-42. Review. IF: 1.3; Q4
- Uceda, MFL; Sánchez-Casanova, S; Escudero-Duch, C; Vilaboa, N. A Narrative review of cell-based approaches for cranial bone regeneration. *Pharmaceutics.* 2022; 14(1): 132. Review. IF: 5.4; Q1

● Research projects

- Lerma Juarez MA.** Contrato predoctoral (PRE2019-090430). MICIU. 2020-2024.

Management centre: FIBHULP



Saldaña Quero L. Identificación de factores moleculares implicados en la osteonecrosis idiopática: análisis del transcriptoma del tejido óseo (PI18/00643). ISCIII. 2019-2023.

Management centre: FIBHULP

Vilaboa Díaz NE, Saldaña Quero L. Desarrollo de fluidos que potencien o favorezcan la osteointegración de los implantes ante distintas situaciones. Mozo-Grau S. A. 2017-Ongoing.

Management centre: FIBHULP

Vilaboa Díaz NE. Contrato Miguel Servet Categoría A (CES07/031). CM. 2007-2025.

Management centre: FIBHULP

Vilaboa Díaz NE. Detección de activación de HSF partes XV y XVI. HSF Pharmaceutica. 2004-Ongoing.

Management centre: FIBHULP

Vilaboa Díaz NE. Hidrogeles que responden a energía infrarroja y contienen adenovirus de alta capacidad. Aplicación en regeneración ósea (RTI2018-095159-B-I00). MICIU. 2019-2022.

Management centre: FIBHULP

Vilaboa Díaz NE. Potencial translacional de inhibidores del factor de transcripción HSF1 como dro-

- Control of the expression of therapeutic transgenes and development of strategies to enhance bone regeneration.
- Study of the pathophysiology of joint diseases.

gas anticancerigenas (PID2021-126325OB-100). Ministerio de Ciencia e Innovación. 2022-2024.

Management centre: FIBHULP

● Cibers and Retics

Vilaboa Díaz NE. Networked Biomedical Research Center for Bio-engineering, Biomaterials and Nanomedicine. (CIBER-bbn). Instituto de Salud Carlos III. (31/12/2024). FIBHULP

● Patents and trademarks

González Carrasco JL, Benavente Castro R, Cifuentes Cuellar SC, Lieblich Rodríguez M, Olalde Graells B, Atorrasagasti Goyalde G, Argarate Madariaga N, Pacha Olivenza MA, Fernández Calderón MC, Saldaña Quero L, González Martín ML, Pérez Giraldo C, Gallardo Moreno AM, inventors; CSIC, Fundación Tecnalia Research & Innovation, FIBHULP, Universidad de Extremadura, Centro de Investigación Biomédica en Red (CIBER). Moldable, biodegradable, biocompatible and bioresorbable implant material, method for its preparation and uses thereof. P201530683; 2015 May 18.

Martín Saavedra FM, Vilaboa Díaz NE, Ce-

brián Hernando V, Arreuebo Gordo M, Santamaría Ramiro J, Gómez Navascués L, inventors; FIBHULP, CIBER-BBN, Universidad de Zaragoza, assignees. Fibrin hydrogel with plasmonic nanoparticles; P201330894, PCT/ES2014/070484; 2013 June 14.

Vilaboa Díaz NE, Calzado Martín A, Crespo García L, Saldaña Quero L, Moreo Calvo P, Alastrué Vera V, inventors; FIBHULP, CIBER-BBN, assignees. Chamber device for dynamic cell culture on biomaterials; P201330040, PCT/ES2013/070819; 2013 January 16.

Vilaboa Díaz NE, González Carrasco JL, Multigner Domínguez M, Lieblich Rodríguez M, Muñoz Hernández M, Frutos Torres E, Saldaña Quero L, inventors; FIBHULP, CSIC, CIBER-BBN, Universidad Alfonso X El Sabio, assignees. Magnesium/polymer composite biomaterial for biomedical applications; P201030950, PCT/ES2011/070440; 2010 June 21.

Vilaboa Díaz NE, González Carrasco JL, Saldaña Quero L, Frutos Torres E, inventors; FIBHULP, CSIC, CIBER-BBN, assignees. Method to obtain a metallic-coated biomaterial; P201030949, PCT/ES2011/070400; 2010 June 21.



3 Information Groups by Area



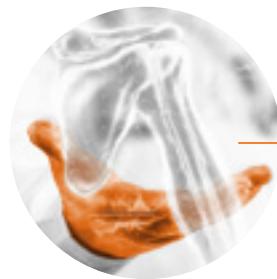
3.6 Surgery, Transplant and Health Technologies Area

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3.6.2 Cellular Engineering Group

Publications: 9

Q1: 3

COMPOSITION

María Paz de Miguel González. Investigadora Senior (Contrato Miguel Servet - I2). Jefe de Laboratorio. FIBHULP

Marta Cadenas Martín. Investigador Predoctoral. FIBHULP

María Pilar González-Peramato Gutiérrez. Facultativo Especialista de Área en Anatomía Patológica. Hospital Universitario La Paz

Manuel Nistal Martín de Serrano. Catedrático Departamento de Histología y Neurociencia. Facultativo de Medicina. Universidad Autónoma de Madrid

Javier Francisco Regadera González. Catedrático. Departamento de Histología y Neurociencia. Facultad de Medicina. Universidad Autónoma de Madrid

**STRATEGIC OBJECTIVE**

To ascertain the mechanisms responsible for converting a differentiated cell into a pluripotent cell and at the same time how these establish a relationship between cellular reprogramming and oncogenic transformation, in order to use divergent pathways governing these processes as clinical early diagnostic tools and therapeutic targets for clinical intervention.

To develop new cell therapy approaches in diverse organs transplants.

RESEARCH LINES

- Molecular mechanisms of cellular reprogramming in normal and neoplastic environments.
- New techniques and therapies in transplants.



3 Information Groups by Area



3.6 Surgery, Transplant and Health Technologies Area

RESEARCH ACTIVITY

● Doctoral theses

● Master Theses

Linzoain Agos P. Generation of human limbal cells for use in ophthalmology [dissertation]. Madrid: UAM; 2022(15/06/2022).

Director: de Miguel MP.

● Publications

- Albiñana V, Recio-Poveda L, González-Peramato P, Martínez-Pineiro L, Botella LM, Cuesta AM. Blockade of beta 2-adrenergic receptor reduces inflammation and oxidative stress in clear cell renal cell carcinoma. *Int J Mol Sci.* 2022; 23(3): 1325. Article. IF: 5.6; Q1

- Bernardini A, Dueñas M, Martín-Soberón MC, Rubio C, Suárez-Cabrera C, Ruiz-Palomares R, Munera-Maravilla E, Lázaro S, Lodewijk I, Rueda D, Gómez-Sánchez D, Alonso-Gordoa T, Puente J, Pinto A, González-Peramato P, Aguado C, Herrera M, López F, Martínez VMG, Morales L, Castellano D, Paramio JM, de Velasco G. Genomic landscape of vinflunine response in metastatic urothelial cancer. *Cancers (Basel).* 2022; 14(2): 378. Article. IF: 5.2; Q2
- de la Parra I, Serrano A, Vives R, Hermida J, Díez-Valladares LI, Barrera J, Cortes JA, González-Peramato P, Gómez A, Moreno J. Sarcomatoid transformation of chromophobe renal cell carcinoma: an unusual pathology. *Eurasian J Med Oncol.* 2022; 6(2): 192-3. Letter. IF: 2.5; Q2
- del Barrio JLA, de la Mata A, de Miguel MP, Arnalich-Montiel F, Nieto-Miguel T, El Zarif M, Cadenas-Martín M, López-Paniagua M, Galindo S, Calonge M, Alio JL. Corneal regeneration using adipose-derived mesenchymal stem cells. *Cells.* 2022; 11(16): 2549. Review. IF: 6; Q2
- González-del-Alba A, Conde-Moreno AJ, Vicente AGM, González-Peramato P, Linares-Espinós E, Climent MA. Management of patients with metastatic bladder

cancer in the real-world setting from the multidisciplinary team: current opinion of the SO-GUG Multidisciplinary Working Group. *Cancers (Basel).* 2022; 14(5): 1130. Article. IF: 5.2; Q2

- Guerrero-Fernández J, González-Peramato P, Estévez AR, Villar MJA, Parera LA, San Julián MCA, Urqui AC, González LAC, Tello JMM, Palma CM, Macian MFM, Fernández DY, Nistal M. Consensus guide on prophylactic gonadectomy in different sex development. *Endocrinol Diabetes Nutr.* 2022; 69(8): 629-45. Article. IF: 1.9; Q4
- Ramos-Levi A, Barabash A, Valerio J, de la Torre NG, Mendizábal L, Zulueta M, de Miguel MP, Díaz A, Duran A, Familiar C, Jiménez I, del Valle L, Melero V, Moraga I, Herráiz MA, Torrejón MJ, Arregi M, Simón L, Rubio MA, Calle-Pascual AL. Genetic variants for prediction of gestational diabetes mellitus and modulation of susceptibility by a nutritional intervention based on a Mediterranean diet. *Front Endocrinol (Lausanne).* 2022; 13: 1036088. Article. IF: 5.2; Q1
- Rodríguez-Muñoz D, Sánchez A, Pérez-Benavente S, Contreras-Jurado C, Montero-Pedrazuela A, Toledo-Castillo M, Gutiérrez-Hernández M, Rodrigues-Díez R, Folgueira C, Briones AM, Sábio G, Monedero-Cobeta I, Chavez-Coira I, Castejón D, Fernández-Valle E, Regadera J, Bautista JM, Aranda A, Alemany S. Hypothyroidism confers tolerance to cerebral malaria. *Sci Adv.* 2022; 8(14): eabj7110. Article. IF: 13.6; D1
- Zamora JM, de Dicastill BPML, Nistal MG, Rodríguez NAC, Angulo JDZ, Turegano BM, Heredero AF. Outcomes and prosthesis procedure of major amputations in patients with peripheral arterial disease in our center. *Angiologia.* 2022; 74(6): 278-85. Article. IF: 0.1; Q4

sarrolo de láminas ultrafinas de cornea descelularizada colonizadas por endoletio corneal humano expandido en cultivo. Roche Farma S.A. 2016-Ongoing.

Management centre: FIBHULP

de Miguel González MP. Contrato Miguel Servet Categoría A (CP03/0007). CM. 2010-2025.

Management centre: FIBHULP

de Miguel González MP. Contribución de la modificación metabólica a la reprogramación celular y la transformación onco génica. Fundación Domingo Martínez. 2017-Ongoing.

Management centre: FIBHULP

de Miguel González MP. Generación de estroma corneal bio-mimético por impresión 3D de colágeno y células madre mesenquimales. Stem Vision S. L. 2021-Ongoing.

Management centre: FIBHULP

● Patents and trademarks

de Miguel González MP, Arnalich Montiel F, Royuela MM, inventors; FIBHULP, Fundación para la Investigación Biomédica del Hospital Universitario Ramón y Cajal, Universidad de Alcalá, assignees. Corneal endothelium injector; P201131222, PCT/ES2012/070543; 2011 July 18.

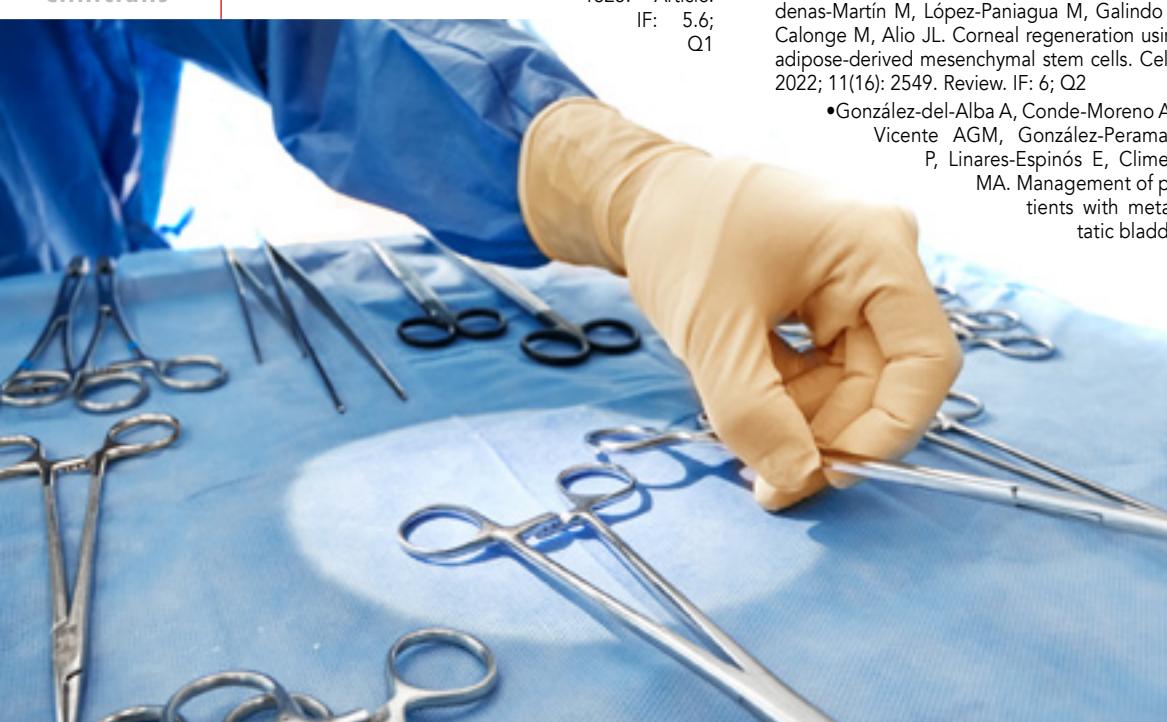
de Miguel González MP, Arnalich-Montiel F, Cadenas Martín M, Moratilla Riofrío A. inventors; FIBHULP, FIBHRYC, assignees. Constructos artificiales para su uso en oftalmología, su procedimiento de obtención y utilización del mismo. Patente Europea EP22382119.0 2022 February 14. PCT/EP2023/053668 2023 February 14.

● Research projects

Cadenas Martín M. Contrato predoctoral (PE-JD-2018-PRE/BMD-8878). CM. 2019-2021.

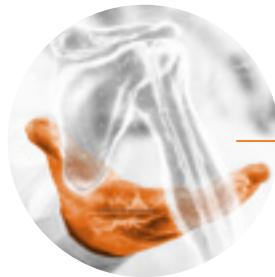
Management centre: FIBHULP

de Miguel González MP. Bio-Ingeniería de tejido corneal para trasplante endotelial: de-





3.6 Surgery, Transplant and Health Technologies Area



3.6.3 Clinical Pharmacology Group

Publications: 12

Q1: 3

COMPOSITION

Antonio Javier Carcas Sansuán. Facultativo Especialista de Área en Farmacología Clínica. Hospital Universitario La Paz. Profesor Titular. Facultad de Medicina. Universidad Autónoma de Madrid

Pilar Ayllón García. Técnico de laboratorio. Universidad Autónoma de Madrid

Alberto Borobia Pérez. Facultativo Especialista de Área en Farmacología Clínica. Hospital Universitario La Paz

Raquel de Madariaga. Enfermera. Coordinadora de Ensayos Clínicos. FIBHULP

Laura Díaz García. Facultativo Especialista en Farmacología Clínica. Hospital Universitario La Paz

Jesús Frías Iniesta. Jefe de Servicio de Farmacología Clínica. Hospital Universitario La Paz. Catedrático. Facultad de Medicina. Universidad Autónoma de Madrid

Blanca Duque Bascuñana. Responsable de calidad. Universidad Autónoma de Madrid

Alberto García Bartolomé. Investigador Postdoctoral. Hospital Universitario La Paz

Irene García García. Facultativo Especialista en Farmacología Clínica. Hospital Universitario La Paz

Cristina López Crespo. Enfermera. Coordinadora de Ensayos Clínicos. FIBHULP

José Carlos Martínez Ávila. Investigador Postdoctoral. Hospital Universitario La Paz

Vega Mauleón Martínez. Enfermera. Coordinadora de Ensayos Clínicos. FIBHULP

Lucía Martínez de Soto. Coordinadora de Ensayos Clínicos. FIBHULP

Pablo Molina Benítez. Investigador Predoctoral. FIBHULP

Paloma Moraga Alapont. Gestora de proyectos SCReN (Spanish Clinical Research Network). FIBHULP

María Cristina Murano Murano. Investigador Postdoctoral. FIBHULP



Paula Prieto Correa. Monitora de Ensayos Clínicos. FIBHULP

Rocío Prieto Pérez. Gestora de proyectos SCReN (Spanish Clinical Research Network). FIBHULP

Laura Vitón Vara. Enfermera. Coordinadora de Ensayos Clínicos. FIBHULP

Hoi Yan Tong. Responsable de Farmacovigilancia. Hospital Universitario La Paz

STRATEGIC OBJECTIVE

Clinical pharmacology, as a scientific and professional discipline, has the objective of achieving an effective, efficacious and efficient use of drugs, at both the individual and group level. This means that Clinical Pharmacology is a cross-sectional discipline that must establish collaborations with numerous other disciplines and health professionals.

In this context and in the field of clinical research, the interests of our group are focused on two fundamental aspects:

1. Customisation of drug treatments: research and development of techniques and methods that individualise the use of drugs, improve their efficacy and reduce their risks.
2. The improvement of treatment by obtaining high quality evidence on the efficacy of clinical trials, strategies of identification, evaluation and prevention of adverse reactions to medication (pharmacovigilance programmes) and evaluation of the suitability of their use and effectiveness (studies on the use of medication).



3 Information Groups by Area



3.6 Surgery, Transplant and Health Technologies Area

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RESEARCH LINES

- Therapeutic drug monitoring (TDM) – Development of individualised therapeutic drug monitoring programmes and pharmacogenetics.

- Getting quality evidences for the establishment of drug efficacy, safety and adequate use of medicines in humans.

RESEARCH ACTIVITY

● Doctoral theses

García García I. Implementación en la práctica clínica de la individualización terapéutica de voriconazol mediante una estrategia combinada de biomarcadores farmacogenéticos y farmacocinéticos[dissertation]. Madrid: UAM: 2022(12/05/2022).

Directors: Borobia Pérez AM,
Carcas Sansuan AJ.

Muñoz Romo R. Desarrollo y resultados de un programa de toxicovigilancia activa en un hospital universitario de tercer nivel[dissertation]. Madrid: UAM: 2022 (03/06/2022).

Director: Carcas Sansuan AJ.

Tong HY. Individualización del tratamiento con acenocumarol: desarrollo de nuevos algoritmos farmacogenéticos y su validación en enfermedad tromboembólica venosa[dissertation]. Madrid: UAM: 2022 (24/01/2022).

Directors: Carcas Sansuan AJ,
Borobia Pérez AM.

Ruiz de Hoyos M. Evaluación del proceso de consentimiento informado en pacientes que participan en ensayos clínicos con medicamentos[dissertation]. Madrid: UAM: 2022 (24/10/2022).

Directors: Frías Iniesta JA,
Villamañan Bueno E.

● Publications

- Chien YH, Wurthwein G, Zubiaur P, Posocco B, Peña MA, Borobia AM, Gagno S, Abad-Santos F, Hempel G. Population pharmacokinetic modelling of imatinib in healthy subjects receiving a single dose of 400 mg. *Cancer Chemoth Pharm*. 2022; 90(2): 125-36. Article. IF: 3; Q3
- de Celis-Ruiz E, Fuentes B, de Leciñana MA, Gutiérrez-Fernández M, Borobia AM, Gutiérrez-Zúñiga R, Ruiz-Ares G, Otero-Ortega L, Laso-García F, Gomez-de Frutos MC, Díez-Tejedor E. Final results of allogeneic adipose tissue-derived mesenchymal stem cells in acute ischemic stroke (AMASCIS): a phase II, randomized, double-blind, placebo-controlled, single-center, pilot clinical trial. *Cell Transplant*. 2022; 31: 9636897221083860. Article. IF: 3.3; Q2
- Fudio S, Sellers A, Ramos LP, Gil-Alberdi B, Zeaiter A, Urroz M, Carcas A, Lubomirov R. Anti-cancer drug combinations approved by US FDA from 2011 to 2021: main design features of clinical trials and role of pharmacokinetics. *Cancer Chemoth Pharm*. 2022; 90(4): 285-99. Review. IF: 3; Q3
- Fuentes B, de la Fuente-Gómez L, Sempere-Iborra C, Delgado-Fernández C, Tarifa-Rodríguez A, de Leciñana MA, de Celis-Ruiz E, Gutiérrez-Zúñiga R, López-Tappero J, Alonso MM, Pastor-Yborra S, Rigual R, Ruiz-Ares G, Rodríguez-Pardo J, Virues-Ortega J, Borobia AM, Blanco P, Bueno-Guerra N. DUBbinglanguage-therapy cinema-based in aphasia post-stroke (DULCINEA): study protocol for a randomized crossover pilot trial. *Trials*. 2022; 23(1): 21. Article. IF: 2.5; Q3
- García-García I, Seco-Meseguer E, Ruiz-Seco P, Navarro-Jiménez G, Martínez-Porqueras R, Espinosa-Díaz M, Ortega-Albas JJ, Sagastagoitia I, García-Morales MT, Jiménez-González M, de Soto LM, Bajo-Martínez AI, del Palacio-Tamarit M, López-García R, Díaz-García L, Queiruga-Parrada J, Giesen C, Perez-Villena A, de Castro-Martínez M, González-García JJ, Rodríguez-Rubio M, de la Oliva P, Arribas JR, Carcas AJ, Borobia AM. Melatonin in the prophylaxis of SARS-CoV-2 infection in healthcare workers (MeCOVID): A randomised clinical trial. *J Clin Med*. 2022; 11(4): 1139. Article. IF: 3.9; Q2
- García-Pérez J, González-Pérez M, de la Osa MC, Borobia AM, Castaño L, Bertran MJ, Campins M, Portoles A, Lara D, Bermejo M, Conde P, Hernández-Gutiérrez L, Carcas A, Arana-Ari E, Tortajada M, Fuentes I, Ascaso A, García-Morales MT, de la Torre-Tarazona HE, Arribas JR, Imaz-Ayo N, Mellado-Pau E, Agusti A, Pérez-Ingidua C, de la Camara AG, Ochando J, Belda-Iniesta C, Frías J, Alcamí J, Pérez-Olmeda M. Immunogenic dynamics and SARS-CoV-2 variant neutralisation of the heterologous ChAdOx1-S/ BNT162b2 vaccination: Secondary analysis of the randomised CombiVacS study. *Eclinicalmedicine*. 2022; 50: 101529. Article. IF: 15.1; D1
- Neuhann JM, Stemler J, Carcas A, Frías-Iniesta J, Bethe U, Heringer S, Tischmann L, Zarrouk M, Cuppers A, Konig F, Posch M, Cornely OA. A multinational, phase 2, randomised, adaptive protocol to evaluate immunogenicity and reactogenicity of different COVID-19 vaccines in adults >= 75 already vaccinated against SARS-CoV-2 (EU-COVAT-1-AGED): a trial conducted within the VACCELERATE network. *Trials*. 2022; 23(1): 865. Article. IF: 2.5; Q3
- Rodríguez A, García-García I, de Soto LM, de las Huertas AGL, Borobia AM, González-Torbay A, Akatbach-Bousaid I, Gonzalez-Munoz M, Ramirez E. Utility of lymphocyte transformation test for assisting updated roussel uclaf causality assessment method in drug-induced liver injury: a case-control study. *Front Pharmacol*. 2022; 13: 819589. Article. IF: 5.6; Q1
- Romo RM, Pérez AMB, Alvira RM, Urroz M, Mariblanca AR, Eguinoa FJG, García LD, Mora JC, Rivera A, Torres R, Sansuán AJC. Acute poisoning readmissions to an emergency department of a tertiary hospital: evaluation through an active toxicovigilance program. *J Clin Med*. 2022; 11(15): 4508. Article. IF: 3.9; Q2
- Salmantón-García J, Stewart FA, Heringer S, Koniordou M, Álvarez-Barco E, Argyropoulos CD, Themistocleous SC, Valle-Simón P, Spivak O, Soukova L, Merakou C, Mendonça MA, Davis RJ, Azzini AM, Asklung HH, Vene S, Van Damme P, Steinbach A, Shiamakkides G, Seidel D, Olesen OF, Noula E, Macken A, Luis C, Leckler J, Launay O, Isitt C, Hellmanns M, Frías-Iniesta J, Di Marzo R, Carcas AJ, Boustras G, Borobia AM, Barta I, Albus K, Akova M, Ochando J, Cohen-Kandli M, Cox RJ, Husa P, Jancoriente L, Mallón P, Marquéz L, Mellinghoff SC, Nauckler P, Tacconelli E, Toth K, Zaoutis TE, Zeitlinger M, Cornely OA, Pana ZD. VACCELERATE Volunteer Registry: A European study participant database to facilitate clinical trial enrolment. *Vaccine*. 2022; 40(31): 4090-7. Article. IF: 5.5; Q2
- Schwarz M, Torre D, Lozano-Ojalvo D, Tan AT, Tabaglio T, Mzoughi S, Sanchez-Tarjuelo R, Le Bert N, Lim JME, Hatem S, Tuballes K, Camara C, López-Granados E, Paz-Artal E, Correa-Rocha R, Ortiz A, Lopez-Hoyos M, Portoles J, Cervera I, González-Pérez M, Bodega-Mayor I, Conde P, Oteo-Iglesias J, Borobia AM, Carcas AJ, Frías J, Belda-Iniesta C, Ho JSY, Nunez K, Hekmaty S, Mohammed K, Marsiglia WM, Carrasco JM, Dar AC, Berin C, Nicoletti G, Della Noce I, Colombo L, Lapucci C, Santoro G, Ferrari M, Nie K, Patel M, Barcessat V, Gnjatic S, Harris J, Sebra R, Merrad M, Krammer F, Kim-schulze S, Marazzi I, Berrotoletti A, Ochando J, Guccione E. Rapid, scalable assessment of SARS-CoV-2 cellular immunity by



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● Research projects

whole-blood PCR. *Nat Biotechnol.* 2022; 40(11): 1680-9. Article. IF: 46.9; D1

- Villatoro JM, Mejía-Abril G, García LD, Zubiaur P, González MJ, Jiménez GF, Cancio I, Arribas JR, Fernández CS, Mingorance J, Rodríguez JG, Ferrer JRV, Carcas AJJ, Frías J, Abad-Santos F, Borobia ÁMM, Ramírez E. A case-control of patients with covid-19 to explore the association of previous hospitalisation use of medication on the mortality of covid-19 disease: a propensity score matching analysis. *Pharmaceuticals (Basel).* 2022; 15(1): 78. Article. IF: 4.6; Q2

aleatorizado y controlado sobre la seguridad y eficacia de las estrategias antitrombóticas en adultos hospitalizados con COVID-19. New York University School of Medicine. 2020-Ongoing.

Management centre: FIBHULP

Borobia Pérez A. AMASCIS-02. Alogenic adipose tissue-derived mesenchymal stem cells in ischemic stroke. A phase IIb multicenter double blind placebo controlled clinical trial (PIC18/00016). ISCI. 2019-2021.
Management centre: FIBHULP

Borobia Pérez A. Coordinación del ensayo clínico Ensayo multicéntrico, adaptativo,

Corona Accelerated R&D in Europe (H2020-JTI-IMI2-2020-21-single-stage). UE. 2020-2025.

Management centre: FIBHULP

Borobia Pérez A. Ensayo clínico aleatorizado y multicéntrico para evaluar la efectividad y la eficiencia de una estrategia de genotipado anticipado de voriconazol en pacientes con riesgo de aspergilosis (PI18/01322). ISCI. 2019-2021.

Management centre: FIBHULP

Borobia Pérez A. European Regimen Accelerator for Tuberculosis - ERA4TB (H2020-JTI-IMI2-2018-15). UE. 2019-Ongoing.

Management centre: FIBHULP

Borobia Pérez A. Marie Skłodowska-Curie Actions - Individual Fellow (CareInTrials). UE. 2019-2023.

Management centre: FIBHULP

Borobia Pérez A. Optimización del tratamiento de la dermatitis atópica con ciclosporina mediante el desarrollo de modelos multiómicos de predicción de respuesta (Proyecto DermAtOmics) (PI21/01219). ISCI. 2022-2024.

Management centre: FIBHULP

Borobia Pérez A. Puesta en marcha del ensayo clínico: efficacy and safety of thrombectomy in stroke with extended lesion and extended time window: a randomized controlled trial (tension). ECRIN European Clinical Research Inf. 2021-Ongoing.

Management centre: FIBHULP

Borobia Pérez A. Puesta en marcha del ensayo clínico: test de gaxilosa en orina en niños de 5 a 11 años de edad: confirmación de la tolerabilidad de la dosis y del límite de normalidad de la cantidad de xilosa excretada en orina. Venter Pharma S.L. 2022-Ongoing.

Management centre: FIBHULP

Borobia Pérez A. Puesta en marcha del estudio: a randomized, double-blind, placebo-controlled, parallel-group, multicentre





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study of the efficacy and safety of nicotinamide in patients with friedreich's ataxia (ni-cofa). ECRIN European Clinical Research Inf. 2020-Ongoing.

Management centre: FIBHULP

Borobia Pérez A. Puesta en marcha del estudio:multi-centre, adaptive, randomized trial of the safety and efficacy of treatments of COVID-19 in hospitalized adults- discovery. ECRIN European Clinical Research Inf. 2022-Ongoing.

Management centre: FIBHULP

Borobia Pérez A. Puesta en marcha y realización del EE.CC.: ensayo clínico aleatorizado controlado y simple ciego en mujeres con cancer de mama y linfadenectomia axilar, para evaluar la efectividad de hemopathcr en la reducción del drenaje seroso postquirúrgico (hvst-hemo-20). Asociación de Cirujanos de Mama de Toledo. 2021-Ongoing.

Management centre: FIBHULP

Borobia Pérez A. Puesta en marcha y realización del ensayo clínico: European discovery for solidarity: an adaptative pandemic and emerging infection platform trial. ECRIN European Clinical Research Inf. 2022-Ongoing.

Management centre: FIBHULP

Borobia Pérez A. Puesta en marcha y realización del ensayo clínico-proyecto acanto y proyecto facet. Fundación para la Investigación Biomédica Hospital Universitario de Getafe. 2018-Ongoing.

Management centre: FIBHULP

Borobia Pérez A. Puesta en marcha y realización del ensayo consistentes principalmente en las que se describen a continuación: apoyo metodológico, monitorización, farmacovigilancia y estadística y manejo de datos. Ensayo clínico para la realización de la investigación clínica sobre una nueva técnica diagnóstica basada en pcr a tiempo real,

para determinar la predisposición a infecciones en pacientes con infarto de miocardio, necesario para su aprobación regulatoria. Crazy Science & Business S.L. 2021-On-going.

Management centre: FIBHULP

Borobia Pérez A. Registro de pacientes atendidos en la unidad de farmacogenética del Hospital La Paz y análisis de la actividad realizada desde su creación. Varios. 2017-On-going.

Management centre: FIBHULP

Borobia Pérez A. Tareas necesarias para la puesta en marcha y realización del ensayo clínico Treatment of high grade non-muscle invasive urothelial carcinoma of the bladder by standard number and dose of intravesical BCG instillations versus reduced number of intravesical instillations with standard dose of BCG, a european association of urology research foundation randomised phase III clinical trial- nimbus. Fundación para la Investigación de la Asociación Europea de Urología. 2017-Ongoing.

Management centre: FIBHULP

Borobia Pérez A. Tareas necesarias para la puesta en marcha y realización del estudio observacional Estudio de evaluación y manejo del dolor agudo en Servicios de Urgencias hospitalarias e intervención educativa: estudio Edurg17. Laboratorio Menarini S. A. 2018-Ongoing.

Management centre: FIBHULP

Carcas Sansuan A. Población en riesgo de hipertermia maligna: cohorte ambispectiva (PI20/01444). ISCIII. 2021-2023.

Management centre: FIBHULP

Carcas Sansúan AJ. Dosificación individualizada de tacrolimus en trasplante renal pediátrico: desarrollo de modelos predictivos, simulaciones y aplicaciones basados

en PBPK (ModSimTer-Tacrolimus) (PI21/01507). ISCIII. 2022-2024.

Management centre: FIBHULP

Carcas Sansúan AJ. Eficacia a cuatro años de las vacunas COVID-19 frente a enfermedad graves e infecciones asintomáticas: estudio COVIDVAC @ España (IIC21/00065). ISCIII. 2022-2024.

Management centre: FIBHULP

Carcas Sansúan AJ. Identificación mediante diferentes estrategias ómicas, de biomarcadores que permitan la mejora en la individualización de tacrolimus en pacientes pediátricos con trasplante renal (PI18/00136). ISCIII. 2019-2021.

Management centre: FIBHULP

Carcas Sansúan AJ. Unidad clínica de Investigación y Control de Ensayos Clínicos. CM. 2011-Ongoing.

Management centre: FIBHULP

● Cibers and Retics

Borobia Pérez A. Unidad de Investigación clínica y ensayos clínicos del Hospital Universitario la Paz (UICEC) (PT20/00036) . ISCIII. (31/12/2023). FIBHULP

Carcas Sansúan A. European Clinical Research Infrastructures Network (ECRIN). EU. (31/12/2023). FIBHULP

Borobia Pérez A. Plataforma ISCIII de soporte para la Investigación Clínica (PTC20/00018). ISCIII. (31/12/2023). FIBHULP

● Clinical trials

Borobia Pérez A. Estudio de fase 3, aleatorizado, con observador ciego, controlado con placebo para evaluar la eficacia, la seguridad y la inmunogenicidad de la vacuna

mrna-1647 para el citomegalovirus (cmv) en participantes sanos de 16 a 40 años de edad.

Type: Clinical Trials, phase III. 6027 mRNA1647-P301.

Sponsored by: Modernatx, Inc

Signed date: 11/01/2022

Borobia Pérez A. Estudio fase 2a, aleatorizado, doble ciego, controlado con placebo, para evaluar un rango de niveles de dosis e intervalos de vacunación de ad26ccovs1 en adultos sanos de 18 a 55 años inclusive.

Type: Clinical Trials, phase II. ANEXO 3 5630.

Sponsored by: Janssen-Cilag España, S.A.

Signed date: 01/01/2022

Borobia Pérez A. Estudio de fase 2/3, autorizado, con observador ciego y controlado con placebo para evaluar la seguridad y la eficacia de mrna-1345, una vacuna de arnm contra el virus respiratorio sincitial (vrs), en adultos a partir de 60 años de edad.

Type: Clinical Trials, phase II. 2022.004.

Sponsored by: Modernatx, Inc

Signed date: 28/03/2022

Borobia Pérez A. Bacterial infections and antimicrobial resistance in the era of the covid-19 pandemic: a multi-country retrospective analysis (bi-amr-covid).

Type: No EPA. PI-4931.

Sponsored by: Amr Insights B.V.

Signed date: 30/03/2022

Carcas Sansúan AJ. Protocolo adaptativo multinacional, de fase 2, aleatorizado, para evaluar la respuesta inmune y los efectos secundarios de diferentes vacunas covid-19 administradas en adultos mayores (75 años y más) ya vacunados contra el sars-cov-2.

Type: Clinical Trials, phase II. 6101.

Sponsored by: Grupo Aleman de Estudio



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de Leucemia Linfocitica Cronica (Llc) de La Universidad de Colonia.

Signed date: 20/05/2022

Borobia Pérez A. Estudio de fase III, multinacional, observador ciego, aleatorizado, controlado con placebo para demostrar la eficacia de una dosis única, así como de dosis anuales de revacunación, de la vacuna en investigación rsvpref3 oa de gsk en adultos de 60 años o más de edad", con el número de protocolo 212494 (rsv oa=adj-006).

Type: Clinical Trials, phase III. 2022.221.

Sponsored by: Glaxosmithkline, S.A..

Signed date: 03/06/2022

Borobia Pérez A. Optimización del tratamiento con ciclosporina en la dermatitis atópica mediante modelos predictivos multiómicos de la respuesta al tratamiento (dermatomics). Optimization of cyclosporin therapy in atopic dermatitis through multiomic predictive models of treatment response (dermatomics).

Type: Clinical Trials, phase IV. 2022.266.

Sponsored by: Fundacion Para La Investigacion Biomedica Hospital Universitario La Paz.

Signed date: 10/08/2022

Borobia Pérez A. Estudio de fase I, abierto, para evaluar el efecto de la insuficiencia renal y el tratamiento de diálisis en la farmacocinética de una dosis única de citisi-nicina 3 mg.

Type: Clinical Trials, phase I. 2022.337.

Sponsored by: Blueclinical– Investigaçao Desenvolvimento Saude, Lda.

Signed date: 07/11/2022

● Patents and trademarks

Carcas Sansuán AJ, author; Carcas Sansuán AJ, assignee. Brand name: IBJ IberoAmerican Journals. ESM 3.063.048; 2013 February 12.



Carcas Sansuán AJ, author; Carcas Sansuán AJ, assignee Brand name: IberoAmerican Journals Plus. ESM 3.063.052; 2013 February 12.



Carcas Sansuán AJ, author; Carcas Sansuán AJ, assignee Brand name: IberoAmerican Journals Clinical Pharmacology. ESM 3.063.053; 2013 February 12.



Carcas Sansuán AJ, author; Carcas Sansuán AJ, assignee Brand name: IberoAmerican Journals Medicine. ESM 3.063.049; 2013 February 12.



Lapunzina Badía P, Borobia Pérez AM, Carcas Sansuán AJ, Tenorio Castaño JA, Arias Lajara P, Lubomirov Jristov R, authors; FIBHULP, UAM, assignees. Brand name: PharmArray. USM 86.004.412, CM 11.608.403; 2013 July 08, 2013 February 27.



Carcas Sansuán AJ, Borobia Pérez AM, authors; FIBHULP, assignee. Brand name: CRDataX. CM 13.681.614; 2015 May 28.



Lapunzina Badía PD, Borobia Pérez AM, Carcas Sansuán AJ, Tenorio Castaño JA, Arias Lajara P, Frías Iniesta J, Dapia García I, Muñoz M, authors; FIBHULP, UAM, assignees. Brand name: ClinPharmarray, CM15489511; 2016 May 31, 2016 September 07.





3 Information Groups by Area



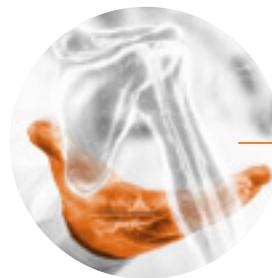
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3.6.4 Osteoarticular Surgery Research - GICOA Group

Publications: 41

Q1: 12

COMPOSITION

Enrique Gómez Barrena. Jefe de Sección de Cirugía Ortopédica y Traumatología. Hospital Universitario La Paz. Catedrático de Cirugía Ortopédica y Traumatología. Facultad de Medicina. Universidad Autónoma de Madrid

Samuel Antuña Antuña. Jefe de Sección en Cirugía Ortopédica y Traumatología. Hospital Universitario La Paz. Profesor Asociado en Cirugía Ortopédica y Traumatología. Facultad de Medicina. Universidad Autónoma de Madrid

Raúl Barco Laakso. Facultativo Especialista de Área en Cirugía Ortopédica y Traumatología. Hospital Universitario La Paz

Ana Cruz Pardos. Jefe de Sección en Cirugía Ortopédica y Traumatología. Hospital Universitario La Paz

Marta Domínguez García-Simón. Enfermera Coordinadora de Ensayos Clínicos. Universidad Autónoma de Madrid

Eduardo García Rey. Facultativo Especialista de Área en

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Pablo Hernández Esteban. Facultativo Especialista de Área en Cirugía Ortopédica y Traumatología. Hospital Universitario La Paz

Carlos Agustín Hernández Gil. Facultativo Especialista de Área en Cirugía Ortopédica y Traumatología. Hospital Universitario La Paz

Norma Griset Padilla Eguiluz. Investigadora Predoctoral. Universidad Autónoma de Madrid

Carlos Emérito Rodríguez Merchán. Jefe de Sección de Cirugía Ortopédica y Traumatología. Hospital Universitario La Paz

Juan Carlos Rubio Suárez. Jefe de Sección en Cirugía Ortopédica y Traumatología. Hospital Universitario La Paz



STRATEGIC OBJECTIVE

Orthopaedic implant studies are required to assess the results of implants, detect the causes of failure, and deepen our understanding of the prevention and solution of these failures. The medical, social, and economic relevance of orthopaedic implants, and their influence on quality of life, place this technology in the centre of translational research in orthopaedic surgery. Reconstruction based on biological strategies and biomaterials is rapidly evolving, and cutting edge research on these topics may offer an advantage in clinical translational research.

The group has also developed studies on sports medicine and ligament reconstruction, with various outcome approaches and devices that may enhance surgical results. In this context, a multidisciplinary clinical and basic research group on orthopaedic surgery deepens our understanding of a wide variety of current research topics in the field and provides further progress towards clinical translation.

In order to contribute to new advances in the field, our main clinical and experimental objecti-



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ves are addressed by a joint research line that covers issues related to bone and joint reconstruction. These issues include the following:

- Failed hip and knee prostheses, including the material, biological, and clinical mechanisms of failure. This research may lead to proposals for materials and design modifications in orthopaedic implants and reconstructive devices and techniques. Functional

recovery of the patient is the ultimate goal, considering various scenarios from an experimental and clinical point of view.

- Regenerative medicine approaches to bone and joint reconstruction, to generate pre-clinical and clinical proposals for bone and joint regeneration and repair, both in traumatic and non-traumatic bone and soft-tissue injuries.

RESEARCH LINES

- Clinical and basic research in Orthopaedics implants, and in bone and joint reconstruction.

RESEARCH ACTIVITY

● Publications

- de la Corte-Rodríguez H, Rodríguez-Merchán EC, Álvarez-Román MT, Martín-Salces M, Rivas-Pollmar I, Jiménez-Yuste V. Arthropathy in people with mild haemophilia: Exploring risk factors. *Thromb Res.* 2022; 211: 19-26. Article. IF: 7.5; Q1
- Encinas-Ullán CA, Gómez-Cardero P, Rodríguez-Merchán EC. Total knee arthroplasty in patients with prior ipsilateral hip fusion: a surgical technique. *HSS J.* 2022; 18(1): 175-81. Article. IF: 2.5; Q2
- Ferández-Fernández R, Moraleda-Novo L, de Armas JN, Cruz-Pardos A. Outcome measures and survivorship following total hip arthroplasty in adolescent population. *Int Orthop.* 2022; 46(12): 2785-91. Article. IF: 2.7; Q2
- Fuentes-Sánchez J, Gómez-Barrena E. Complications and surgical treatment after pathological fracture associated to HIV secondary disease. A case report. *J Surg Case Rep.* 2022; 2022(6): rjac223. Article. IF: 0.5; Q4
- Gálvez-Sirvent E, Ibarzábal-Gil A, Rodríguez-Merchán EC. Complications of the surgical treatment of fractures of the tibial plateau: prevalence, causes, and management. *Efort Open Rev.* 2022; 7(8): 554-68. Article. IF: 3.4; Q1
- García-Rey E, Cruz-Pardos A, Saldaña L. New polyethylenes in total hip arthroplasty a 20-to 22-year follow-up study. *Bone Joint J.* 2022; 104B(9): 1032-38. Article. IF: 4.6; D1
- Gómez-Barrena E, Padilla-Eguíluz NG, López-Marfil M, Reina RRD. Volume and location of bone regeneration after autologous expanded mesenchymal stromal cells in hip osteonecrosis. *Bone Joint Res.* 2022; 11(12): 881-9. Article. IF: 4.6; D1
- Gómez-Barrena E, Warren T, Walker I, Jain N, Kort N, Loublignac F, Newman S, Perka C, Spinarelli A, Whitehouse MR, Zagra L, de la Torre BJ. Prevention of periprosthetic joint infection in total hip and knee replacement: one european consensus. *J Clin Med.* 2022; 11(2): 381. Article. IF: 3.9; Q2
- González-Escobar S, Gimeno-Lluch I, Barco R. Elbow dislocations. *Minerva Med.* 2022; 73(2): 162-75. Review. IF: 0.4; Q4
- Ibarzábal-Gil A, Gálvez-Sirvent E, Martínez-Díez JM, Pallares-Sanmartín J, Kalbakdij-Sánchez C, Mills S, Rubio-Suárez JC, Gil-Garay E, Rodríguez-Merchán EC. Comparative CT study on syndesmosis mobility after static or dynamic fixation for ankle fractures with syndesmotic rupture: A pilot study. *Arch Bone Jt Surg.* 2022; 10(8): 702. Article. IF: 1.3; Q4
- Kachooei A, Rodríguez-Merchán EC. Warning signs of predatory open access journals and pseudo solicitations: advice to avoid literature pollution. *Arch Bone Jt Surg.* 2022; 10(4): 299-300. Editorial Material. IF: 1.3; Q4
- Kooistra B, van den Bekerom M, Priester-Vink S, Barco R. Defining acute Essex-Lopresti injuries is problematic and variable: a systematic review. *Efort Open Rev.* 2022; 7(10): 727-33. Review. IF: 3.4; Q1
- Moreno-García A, Rodríguez-Merchán EC. Orthobiologics: Current role in orthopedic surgery and traumatology. *Arch Bone Jt Surg.* 2022; 10(7): 536-42. Review. IF: 1.3; Q4
- Rodríguez-Merchán C, Kalbakdij-Sánchez C. The impact of Parkinson's disease on results of primary total knee arthroplasty. *Efort Open Rev.* 2022; 7(10): 701-9. Article. IF: 3.4; Q1
- Rodríguez-Merchán C, Ribbans WJ. The role of vancomycin-soaking of the graft in anterior cruciate ligament reconstruction. *J Isakos.* 2022; 7(2): 94-98. Review. IF: 1.6; Q4
- Rodríguez-Merchán C. The current role of the virtual elements of artificial intelligence in total knee arthroplasty. *Efort Open Rev.* 2022; 7(7): 491-7. Article. IF: 3.4; Q1
- Rodríguez-Merchán EC, de la Corte-Rodríguez H, Álvarez-Román MT, Gómez-Cardero P, Jiménez-Yuste V. Radiosynovectomy for the treatment of chronic hemophilic synovitis: an old technique, but still very effective. *J Clin Med.* 2022; 11(24): 7475. Review. IF: 3.9; Q2
- Rodríguez-Merchán EC, de la Corte-Rodríguez H, Álvarez-Román T, Gómez-Cardero P, Encinas-Ullán CA, Jiménez-Yuste V. Complications and implant survival of total knee arthroplasty in people with hemophilia. *J Clin Med.* 2022; 11(21): 6244. Review. IF: 3.9; Q2
- Rodríguez-Merchán EC, de la Corte-Rodríguez H, Álvarez-Román T, Gómez-Cardero P, Encinas-Ullán CA, Jiménez-Yuste V. Total knee arthroplasty in hemophilia: lessons learned and projections of what's next for hemophilic knee joint health. *Expert Rev Hematol.* 2022; 15(1): 65-82. Review. IF: 2.8; Q3
- Rodríguez-Merchán EC, de la Corte-Rodríguez H, Román-Belmonte JM. The effect of biomechanical footwear on pain from knee osteoarthritis. *Arch Bone Jt Surg.* 2022; 10(5): 381-4. Review. IF: 1.3; Q4
- Rodríguez-Merchán EC, Delgado-Martínez AD. Risk Factors for periprosthetic joint infection after primary total knee arthroplasty. *J Clin Med.* 2022; 11(20): 6128. Review. IF: 3.9; Q2
- Rodríguez-Merchán EC, Encinas-Ullán CA, Liddle AD. Osteochondral allografts for large osteochondral lesions of the knee joint: indications, surgical techniques and results. *Arch Bone Jt Surg.* 2022; 10(3): 245-51. Review. IF: 1.3; Q4
- Rodríguez-Merchán EC, Encinas-Ullán CA. Knee osteoarthritis following anterior cruciate ligament reconstruction: frequency, contributory elements, and recent interventions to modify the route of degeneration. *Arch Bone Jt Surg.* 2022; 10(11): 951-8. Review. IF: 1.3; Q4
- Rodríguez-Merchán EC, Peleteiro-Pensado M. Newly released advances in the molecular mechanisms of osseous metastasis and potential therapeutic strategies. *Arch Bone Jt Surg.* 2022; 10(9): 741-55. Review. IF: 1.3; Q4
- Rodríguez-Merchán EC, Shoaie B, Kachooei AR. Distal radioulnar joint instability: diagnosis and treatment. *Arch Bone Jt Surg.* 2022; 10(1): 3-16. Review. IF: 1.3; Q4
- Rodríguez-Merchán EC, Valentino LA. Return to sport activities and risk of reinjury following primary anterior cruciate ligament reconstruction. *Arch Bone Jt Surg.* 2022; 10(8): 648-60. Review. IF: 1.3; Q4
- Rodríguez-Merchán EC. Autologous and allogenous utilization of stromal vascular fraction and decellularized extracellular matrices in orthope-



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dic surgery: a scoping review. *Arch Bone Jt Surg.* 2022; 10(10): 827-832. Review. IF: 1,3; Q4

- Rodríguez-Merchán EC. Bone healing materials in the treatment of recalcitrant nonunions and bone defects. *Int J Mol Sci.* 2022; 23(6): 3352. Article. IF: 5,6; Q1
- Rodríguez-Merchán EC. Intraarticular injections of mesenchymal stem cells in knee osteoarthritis: a review of their current molecular mechanisms of action and their efficacy. *Int J Mol Sci.* 2022; 23(23): 14953. Review. IF: 5,6; Q1
- Rodríguez-Merchán EC. Intra-articular platelet-rich plasma injections in knee osteoarthritis: a review of their current molecular mechanisms of action and their degree of efficacy. *Int J Mol Sci.* 2022; 23(3): 1301. Review. IF: 5,6; Q1
- Rodríguez-Merchán EC. Molecular mechanisms of cartilage repair and their possible clinical uses: a review of recent developments. *Int J Mol Sci.* 2022; 23(22): 14272. Review. IF: 5,6; Q1
- Rodríguez-Merchán EC. Osteoporosis in hemophilia: what is its importance in clinical practice? *Expert Rev Hematol.* 2022; 15(8): 697-710. Review. IF: 2,8; Q3
- Rodríguez-Merchán EC. Past, present, and future of orthopedic surgery in hemophilia: looking to a world without bleeding and arthropathy in the near future. *Expert Rev Hematol.* 2022; 15(9): 821-31. Review. IF: 2,8; Q3
- Rodríguez-Merchán EC. Remarks on some relevant recent reflections about revision total knee arthroplasty. *Arch Bone Jt Surg.* 2022; 10(3): 227-8. Editorial Material. IF: 1,3; Q4
- Rodríguez-Merchán EC. The current role of ankle arthrodesis in hemophilic patients. *Arch Bone Jt Surg.* 2022; 10(2): 129-34. Review. IF: 1,3; Q4
- Rodríguez-Merchán EC. The current role of artificial intelligence in hemophilia. *Expert Rev Hematol.* 2022; 15(10): 927-31. Review. IF: 2,8; Q3
- Rodríguez-Merchán EC. The current role of robotic-assisted total knee arthroplasty. *Arch Bone Jt Surg.* 2022; 10(12): 989-91. Editorial Material. IF: 1,3; Q4
- Rodríguez-Merchán EC. The function of sonication in the diagnosis of periprosthetic joint infection after total knee arthroplasty. *Arch Bone Jt Surg.* 2022; 10(9): 735-40. Review. IF: 1,3; Q4
- Román-Belmonte JM, de la Corte-Rodríguez H, Rodríguez-Merchán EC, Vázquez-Sasot A, Rodríguez-Damiani BA, Resino-Luis C, Sánchez-Laguna F. The three horizons model applied to medical science. *Postgrad Med.* 2022; 134(8): 776-83. Review. IF: 4,2; Q2
- Tandogan RN, Terzi E, Gómez-Barrena E, Violante B, Kayaalp A. Extensor mechanism ruptures. *Efort Open Rev.* 2022; 7(6): 384-95. Article. IF: 3,4; Q1
- Watts DT, Moosa A, Elahi Z, Palmer AJR, Rodríguez-Merchán C. Comparing the results of total ankle arthroplasty vs tibiotalar fusion (ankle arthrodesis) in patients with ankle osteoarthritis since 2006 a systematic review. *Arch Bone Jt Surg.* 2022; 10(6): 470-9. Review. IF: 1,3; Q4

Research projects

Barco Laakso R. Artoplastía de cabeza radial anatómica versus espaciador de metal de vástago liso para traumatismo de codo. Médical Simulator S. L. 2018-Ongoing.

Management centre: FIBHULP

Barco Laakso R. Morfología radiocapilar, un estudio anatómico. Acumed LLC. 2018-Ongoing.

Management centre: FIBHULP

Barco Laakso R. Terapia celular con células troncales derivadas del tejido adiposo (ASC) para mejorar el proceso de reparación en suturas tendinosas. Unión tendón-hueso (roturas del manguito rotador); unión tendón-músculo (roturas del tendón de aquiles). Sociedad Española de Cirugía Ortopédica y Traumatología. 2009-Ongoing.

Management centre: FIBHULP

García Rey E. Identificación de factores moleculares implicados en la Osteonecrosis Idiopática: análisis del transcriptoma del tejido óseo (PI18/00643). Ministerio de Economía, Industria y Competitividad.FIS-ISCIII. 2018-2022.

Management centre: FIBHULP

Gómez Barrena E. Desinfección in vivo de implantes ortopédicos metálicos mediante calor generado por inducción electromagnética. Fundación Mutua Madrileña. 2020-Ongoing.

Management centre: FIBHULP

Gómez Barrena E. ORTHO-3, uso de células mesenquimales de donante expandidas para la regeneración ósea en osteonecrosis de cabeza femoral desarrollada tras trasplante de médula ósea (PI17/01844). ISCIII. 2018-2022.

Management centre: FIBHULP

Gómez Barrena E. ORTHOpedic randomized clinical trial with expanded bone marrow MSC and bioceramics versus autograft in long bone nonUNIONS (ORTHO UNION). UE. 2017-2022.

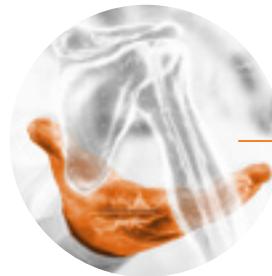
Management centre: FIBHULP

Patents and trademarks

Arenas Vara MA, Conde del Campo A, de Damborenea González JJ, Matykina E, Esteban Moreno J, Gómez Barrena E, Pérez-Jorge Peremach C, Pérez Tanoira R, inventors; CSIC, Instituto de Investigación Sanitaria Fundación Jiménez Díaz, assignees. Titanium materials anodised with fluorine. P201030720, PCT/ES2011/070342; 2010 May 14

Gómez Barrena E, Cordero García-Galán E, Rico Nieto A, Pozo JJ, Esteban Moreno J, Sarnago H, Lucía Gil O, Aceró Aceró J, Burdio JM. Portable desinfection system based on induction heating; September 2022.





3.6.5

Translational Research in Maxillofacial Surgery and Head and Neck Cancer Group

Publications: 4
Q1: 2

COMPOSITION

José Luis Cebrián Carretero. Jefe de Servicio de Cirugía Oral y Maxilofacial. Hospital Universitario La Paz

Ana Sastre Perona. Investigadora senior. FIBHULP

Lucía Aceró Riaguas. Investigadora Predoctoral. FIBHULP

Estefanía Alonso Rodríguez. Facultativo Especialista de Área en Cirugía Oral y Maxilofacial. Hospital Universitario La Paz

Sara María Fernández Díaz. Técnico de Grado Superior. FIBHULP

Javier González Martín-Moro. Facultativo Especialista de Área en Cirugía Oral y Maxilofacial. Hospital Universitario La Paz

Ana Belén Griso Acevedo. Investigadora Predoctoral. FIBHULP

José Luis del Castillo Pardo de Vera. Facultativo Especialista de Área en Cirugía Oral y Maxilofacial. Hospital Universitario La Paz

María José Morán Soto. Facultativo Especialista de Área en Cirugía Oral y Maxilofacial. Hospital Universitario La Paz

Pedro Manuel Losa Muñoz. Facultativo Especialista de Área en Cirugía Oral y Maxilofacial. Hospital Universitario La Paz

Marta María Pampín Martínez. Facultativo Especialista de Área en Cirugía Oral y Maxilofacial. Hospital Universitario La Paz

Elena Ruiz Bravo-Bruguillos. Facultativo Especialista de Área en Anatomía Patológica. Hospital Universitario La Paz



STRATEGIC OBJECTIVE

To improve the diagnosis and surgical treatment of patients with Oral Cancer using the latest technologies applied to the field of Head and Neck Oncology planning and treatment. Our goal is to establish a workflow in which technological and technical advances are included as part of the treatment protocol for patients with oral cavity cancer.

The identification of biomarkers of cancer progression and therapy response in head and neck cancers (HNC). HNC are low frequent tumors with poor outcome and limited treatment options. This is due to a poor understanding on the initial steps in tumor initiation and progres-

sion, and the implication of the tumor microenvironment in these processes. Using mouse models and novel patient derived organoid models, we are defining the mechanism driving the most aggressive HNC and developing this knowledge into translational tools to guide patient management. In addition, we are applying novel functional genomics to identify genes involved in driving resistance to chemo and targeted therapies, to uncover biomarkers of treatment response and new therapeutic targets. Overall, our goal is to improve patient survival and to increase patient life quality.



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- Epigenetic characterization of oral tumors and their association with resistance to chemotherapies and immunotherapies, identification of new biomarkers that predict response: Oral squamous cell carcinomas are an aggressive type of HNC with 370.000 cases per year and 50% 5-year survival rate. This is due to the lack of understanding of the biology of the disease and, in consequence, sufficiently efficient therapies. In this line, we are carrying out an epigenetic characterization of these tumors, analyzing characteristics such as their transcriptome and enhancer landscape using novel massive sequencing techniques on patient samples. Through bioinformatics analysis and monitoring the evolution of patients, we uncovered a population of cancer cells that associates with the most aggressive cancers and predicts patients with worse outcomes. Currently we are evaluating the translational impact of these findings. This research line is funded by CP19/00063 and PI20/00329 (ISCIII) and a Luis Álvarez PI5102 grant (FIBHULP).
- Search for vulnerabilities in oral carcinoma cells using functional genomics. To define the vulnerabilities of tumor cells, our group has established CRISPR/Cas9 screens to evaluate the function of genes involved in the response to different therapies such as chemotherapies or immunotherapies. These screens, which target all protein-coding genes, are allowing us to identify in an unbiased way mechanisms of action that will allow us to understand how cells survive chemotherapy or how they are able to escape the action of the immune system. In this way, we will be able to reuse drugs already approved for these targets or design new ones that will allow us to improve the quality of life of patients with oral tumors. This research line is funded by CP19/00063 and PI20/00329 (ISCIII).
- The implication of the tumor microenvironment in the acquisition of metastatic capacity of oral tumors. In this research line we are analyzing the connection between tumor

microenvironment and the induction cancer progression programs. To this end, we are using novel co-cultures of paired organoids and TME cells from patients and measuring the influence at the level of chromatin remodeling and gene expression. This research is financed by an international competitive grant funded by the Worldwide cancer research and Scientific Foundation of the "Asociación Española Contra el Cáncer" (WWRC-23-0272), and FIBHULP Luis Álvarez grant.

- Salivary glands malignancies. Salivary gland tumors are rare tumors that account for 5% of head and neck tumors. Their histological diversity and the lack of knowledge of the molecular basis of the disease make their treatment complex. Using NGS techniques we are characterizing the mutations, methylation profiles and tumor heterogeneity of these tumors to identify biomarkers of progression, mutations with targeted therapies and possible targets within the tumor microenvironment. Funding PI22/01512, (ISCIII) and Gilead (GLD22/00166).
- Study of mechanism of initiation and progression of cutaneous squamous cell carcinoma (cSCC): In this research line, we are exploring the function of several tumor suppressor genes and how their loss of expression affects the composition on the tumor microenvironment and the response to therapy. This project is done in collaboration with L. Sastre, at IIBM Alberto Sols.
- Application of 3D Medicine in the planning and treatment of head and neck cancer. Virtual design and segmentation of facial structures for generation of biomodels, cutting guides and custom implants. Surgery and personalized medicine. Mutua Madrileña 2022 grant funding.
- Use of radiotracers and fluorescence with indocyanine green for sentinel node detection in squamous tumors and melanoma of the head and neck.

RESEARCH ACTIVITY

● Doctoral theses

● Master Theses

Griso AN. Model establishment and optimization: Assessment of tumor-CAF interplay in Oral Squamous Cell Carcinomas [dissertation]. Madrid: UCM; (07/08/202).

Director: Sastre Perona A.

● Final Degree Theses

Rodríguez S. Implicación de la fosfatasa DUSP1 en la iniciación y progresión de carcinomas escamosos cutáneos [dissertation]. Madrid: UAM; (30/06/2022).

Director: Sastre Perona A.

Posse I. Identificación de nuevos mecanismos de resistencia a cisplatino en tumores de cabeza y cuello [dissertation]. Madrid: UAM; (30/06/2022).

Director: Sastre Perona A.

● Publications

- Michel M, Benítez-Buelga C, Calvo PA, Hanna BMF, Mortusewicz O, Masuyer G, Davies J, Wallner O, Sanjiv K, Albers JJ, Castaneda-Zegarra S, Jemth AS, Visnes T, Sastre-Perona A, Danda AN, Homan EJ, Marimuthu K, Zhao ZJ, Chi CN, Sarno A, Wita E, von Nicolai C, Komor AJ, Rajagopal V, Muller S, Hank EC, Varga M, Scaletti ER, Pandey M, Karsten S, Haslene-Hox H, Loevenich S, Martínez P, Rasti A, Mamonov K, Ortis F, Schomberg F, Loseva O, Stewart J, D'Arcy-Evans N, Koolmeister T, Henriksson M, Michel D, de Ory A, Aceró L, Calvete O, Scobie M, Hertweck C, Vilotijevic I, Kalderen C, Osorio A, Perona R, Stoltz A, Stenmark P, Berglund UW, de Vega M, Helleday T. Small-molecule activation of OGG1 increases oxidative DNA damage repair by gaining a new function. *Science*. 2022; 376(6600): 1471-6. Article. IF: 56,9; D1
- Peña-Cardellos JF, Pozo-Kreilinger JJ, Roncador G, Esteban-Hernández J, Moro-Rodríguez JE, Sastre-Perona A, Castelo-Fernandez B, Cebrián-Carretero JL. Prognosis value of immunoregulatory molecules in oral cancer microenvironment: an immunohistochemical study. *Biomedicines*. 2022; 10(3): 710. Article. IF: 4,7; Q1



3 Information Groups by Area

3.6 Surgery, Transplant and Health Technologies Area

- Griso AB, Acero-Riaguas L, Castelo B, Cebrián-Carretero JL, Sastre-Perona A. Mechanisms of cisplatin resistance in hpv negative head and neck squamous cell carcinomas. *Cells.* 2022; 11(3): 561. Review. IF: 6; Q2
- Rodríguez-Fanjul V, Guerrero-López R, Fernández-Varas B, Perona R, Sastre-Perona A, Sastre L. Comparison of colorectal cancer stem cells and oxaliplatin-resistant cells unveils functional similarities. *Cells.* 2022; 11(3): 511. Article. IF: 6; Q2

● Research projects

del Castillo Pardo de Vera JL. Determinación de la relación causal entre el empleo de bifosfonatos y el desarrollo de osteonecrosis en los maxilares. Aplicación de células madre mesenquimales para su tratamiento sobre modelo experimental animal. Varios Financiadores. 2015-Ongoing.

Management centre: FIBHULP

del Castillo Pardo de Vera JL. Expresión de moléculas inmunoreguladoras pd1/ pd-l1 en el carcinoma oral de células escamosas. Osteoplac Innovations S.L.U. 2021-Ongoing.

Management centre: FIBHULP

del Castillo Pardo de Vera JL. Repositorio de biomodelos en traumatología: una biblioteca 3D multidisciplinar y colaborativa (2022-MM-Cebrián). Fundación Mutua Madrileña. 2022-Ongoing.

Management centre: FIBHULP

Ramírez García E, Cebrián Carretero JL. Cohorte de pacientes quirúrgicos de hulp en situación de pandemia covid-19. Versión 01 de 23.10.2020 (HULP-QoV-2020). FIBHULP. 2020-2022.

Management centre: FIHULP

Sastre Perona A. Contrato garantía juvenil Ayudante de Investigación (PEJ-2020-AI/BMD-17846). CM. 2021-2023.

Management centre: FIBHULP

Sastre Perona A. Contrato garantía juvenil Técnico (PEJ-2021-TL/BMD-21631). CM. 2022-Ongoing.

Management centre: FIBHULP

Sastre Perona A. Desarrollo de herramientas predictivas y terapéuticas para combatir la resistencia a cisplatino en carcinomas escamosos de cabeza y cuello (PI20/00329).

ISCIII. 2021-2023.

Management centre: FIBHULP

Sastre Perona A. Desarrollo de métodos de predicción de la respuesta a inmunoterapia en tumores orales (PI-5102). FIBHULP. 2022-Ongoing.

Management centre: FIBHULP

Sastre Perona A. Developing therapeutic and predictive tools to overcome cisplatin resistance in head and neck squamous cell carcinomas (CP19/00063). ISCIII. 2020-2023.

Management centre: FIBHULP

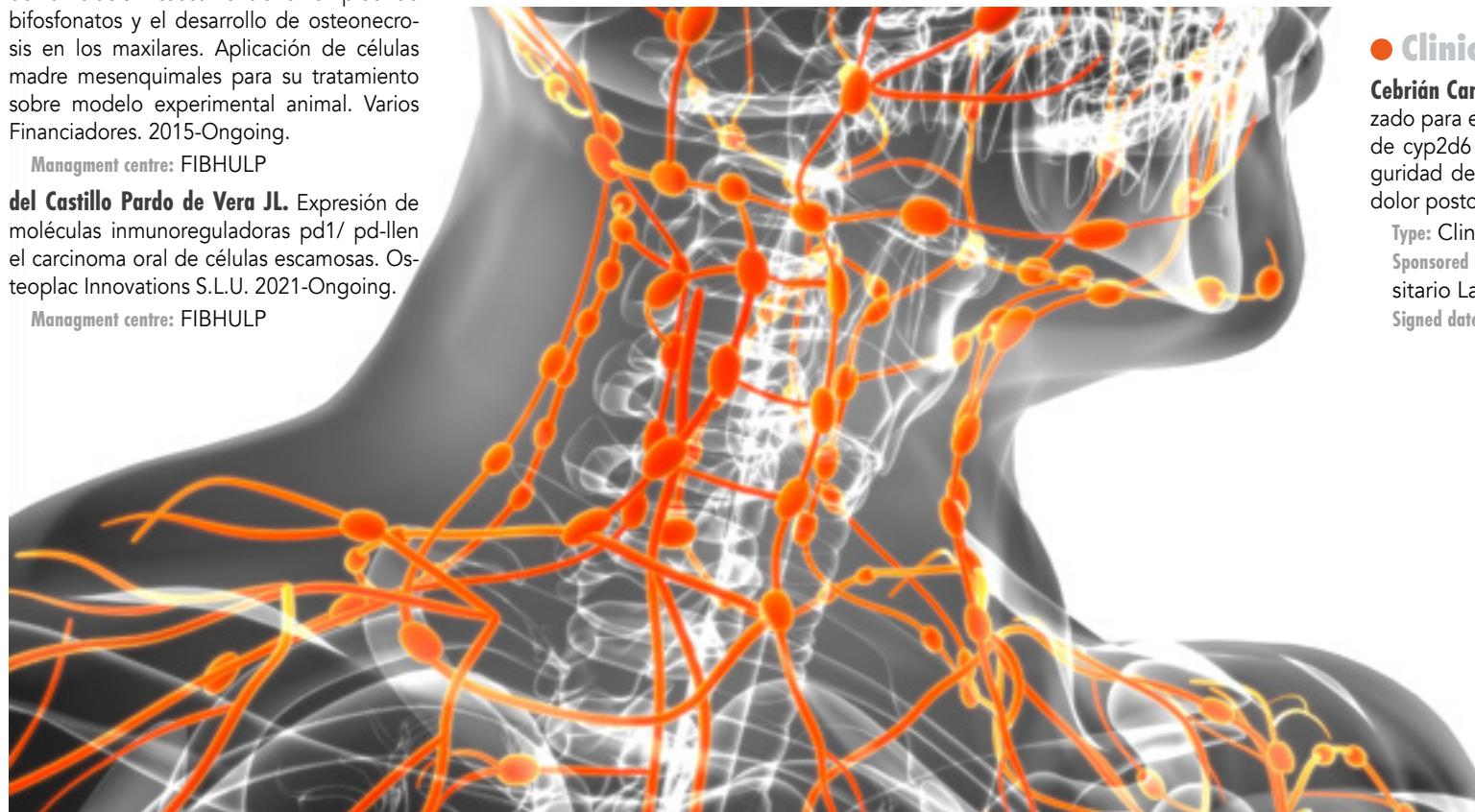
● Clinical trials

Cebrián Carretero JL. Ensayo clínico aleatorizado para evaluar la utilidad del genotipado de cyp2d6 para mejorar la eficacia y la seguridad del tramadol en el tratamiento del dolor postoperatorio agudo.

Type: Clinical Trials, phase IV. 6107.

Sponsored by: Fundacion Hospital Universitario La Princesa.

Signed date: 10/08/2022





3 Information Groups by Area



3.6 Surgery, Transplant and Health Technologies Area

1 Introduction

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4 Associated Clinicians



3.6.6 Patients Safety and Quality Research Group

Publications: 17

Q1: 7

COMPOSITION

Elena Ramírez García. Facultativo Especialista de Área en Farmacología Clínica. Hospital Universitario La Paz

Miguel Avenza Jaén. Fisioterapeuta. Hospital Universitario La Paz

Nelson Butrago Sánchez. Facultativo Especialista de Área en Radiología Pediátrica. Hospital Universitario La Paz

Luis Castro Parga. Facultativo Especialista en Anestesiología y Reanimación. Hospital Universitario La Paz

Susana Francisca Chajma Izquierdo. Facultativo Especialista en Medicina Física y Rehabilitación. Hospital Universitario La Paz

Pilar Durán de la Fuente. Facultativo Especialista en Anestesiología y Reanimación. Hospital Universitario La Paz

María Fernández-Velilla Peña. Facultativo Especialista en Radiología. Hospital Universitario La Paz

Miguel González Muñoz. Facultativo Especialista de Área en Inmunología. Hospital Universitario La Paz

Alberto Martín Vega. Facultativo Especialista de Área en Medicina Preventiva y Salud Pública. Hospital Universitario La Paz

Bárbara Martínez de Miguel. Facultativo Especialista en Radiofarmacia. Hospital Universitario La Paz

Ana Isabel Martínez Escandell. Unidad Hospitalización Quirúrgica. Hospital Universitario La Paz

Covadonga Mendieta Azcona. Facultativo Especialista en Cirugía Vascular. Hospital Universitario La Paz

Inés Narrillos Martín. Enfermera en Cirugía general y del Aparato Digestivo. Hospital Universitario La Paz

José Jonay Ojeda Feo. Facultativo Especialista de Área en Medicina Preventiva y Salud Pública. Hospital Universitario La Paz

Paola Andrea Parra Ramírez. Facultativo Especialista de Área en Endocrinología y Nutrición. Hospital Universitario La Paz

Almudena Quintas Viqueira. Médico Adjunto en Medicina Preventiva. Hospital Universitario La Paz

Ana Robustillo Rodela. Jefe de Servicio de Medicina Preventiva. Hospital Universitario La Paz

Pascual Sanabria Carretero. Jefe de Sección Anestesiología Infantil. Hospital Universitario La Paz

Yuri Fabiola Villán Villán. Responsable de Seguridad del Paciente. Hospital Universitario La Paz





3 Information Groups by Area

3.6 Surgery, Transplant and Health Technologies Area

STRATEGIC OBJECTIVE

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STRATEGIC OBJECTIVE

The occurrence of adverse events due to unsafe care is likely one of the 10 leading causes of death and disability in the world. Research into reducing harm to patients can lead to better health outcomes, as well as significant savings in healthcare costs.

Patient safety is the health care discipline that arises with the increasing complexity of health

care systems and the consequent increase in harm to patients. Its objective is to prevent and reduce the risks, errors and damages suffered by patients during the provision of healthcare. A cornerstone of the discipline is continuous improvement based on learning from mistakes and adverse events.

RESEARCH LINES

- Culture of Patient Safety.
- Incident reporting system for notification and analysis of adverse events associated to Healthcare.
- Zero Infections related to Healthcare.
- Safe Surgery Saves Lives, whose purpose is to reduce the risks associated with surgery.
- Safe Medication, reduce the harm of medications.

- Zero venous thromboembolism, in order to reduce complications attributed to hospitalization.
- Safe Health Worker, Safe patients.
- Safe Transfusions, reduce adverse reactions to transfusion.
- Safe Radiations, to the right patient in the right area.
- Safe Diagnostics, reduce errors that can cause harm.
- Septicemia as a medical emergency.

RESEARCH ACTIVITY

● Publications

- Pose K, Morales-Cabeza C, de las Vecillas L, Muñoz MG, Feito-Rodríguez M, Fiandor A. Varenicline-induced erosive stomatitis: First case report. Contact Dermatitis. 2022; 86(4): 317-8. Editorial Material. IF: 5.5; D1
- Araujo-Castro M, Ramírez PP, Rojas-Marcos PM, Centeno RG, Gimeno PG, Fernández-Ladreda MT, Núñez MAS, Higueruela C, Lázaro CR. Nonfunctioning adrenal incidentalomas with cortisol post-dexamethasone suppression test >0.9 μg/dL have a higher prevalence of cardiovascular disease than those with values <= 0.9 μg/dL. Endocrine. 2023; 79(2): 384-91. Article. IF: 3.7; Q3
- Araujo-Castro M, Fano MP, Boillos MG, Peris BP, Pascual-Corrales E, Cano AMG, Ramírez PP, Rojas-Marcos PM, Ruiz-Sánchez JG, Delgado AV, Hoyos EG, Ferreira R, Sanz IG, Guardiola PD, González JJG, Perdomo CM, Morales M, Hanzu FA. Evolution of the cardiometabolic profile of primary hyperaldosteronism patients treated with adrenalectomy and with mineralocorticoid receptor antagonists: results from the SPAIN-ALDO Registry. Endocrine. 2022; 76(3): 687-96. Article. IF: 3.7; Q3
- Araujo-Castro M, Ojeda CM, Centeno RG, López-García MC, Lamas C, Hanzu FA, Mora M, Tous MD, Gómez PRD, Ramírez PP, Álvarez-Escola C, Carrera CB, San Millán RB, Recasens M, Valdés N, Gimeno PG, Novoa PD, Vicente A, Manjón L, Sanz IG, Michalopoulou T, Calatayud M. Glycemic disorders in patients with pheochromocytomas and sympathetic paragangliomas. Endocr-Relat Cancer. 2022; 29(12): 645-55. Article. IF: 3.9; Q2
- Sánchez-Zapardiel E, Alos M, Nozal P, González-Muñoz M, Frauca-Remacha E, Gavilán LB, Quiles MJ, Hierro L, López-Granados E. Humoral and cellular immune responses to Pfizer-BioNTech BNT162b2 SARS-CoV-2 vaccine in adolescents with liver transplantation: Single center experience. Front Immunol. 2022; 13: 1049188. Article. IF: 7.3; Q1
- Bellón T, Lerma V, Guijarro J, Ramírez E, Martínez C, Escudero C, Fiandor AM, Barranco R, de Barrio M, de Abajo F, Cabañas R. LTT and HLA testing as diagnostic tools in Spanish vancomycin-induced DRESS cases: A case-control study. Front Pharmacol. 2022; 13: 959321. Article. IF: 5.6; Q1
- Ramírez E, González-Muñoz M, Kulkarni C, de Abajo FJ. Editorial: reducing the harm of medication-recent trends in pharmacovigilance. Front Pharmacol. 2022; 13: 964125. Editorial Material. IF: 5.6; Q1
- Rodríguez A, García-García I, de Soto LM, de las Huertas AGL, Borobia AM, González-Torbay A, Akatbach-Bousaid I, González-Muñoz M, Ramírez E. Utility of lymphocyte transformation test for assisting updated roussel uclaf causality assessment method in drug-induced liver injury: a case-control study. Front Pharmacol. 2022; 13: 819589. Article. IF: 5.6; Q1
- Araujo-Castro M, Fano MP, Boillos MG, Peris BP, Pascual-Corrales E, Cano AMG, Ramírez PP, Rojas-Marcos PM, Ruiz-Sánchez JG, Delgado AV, Hoyos EG, Ferreira R, Sanz IG, Sala MR, San Millán RB, César MJP, Guardiola PD, González JJG, Perdomo CM, Miguélez LM, Centeno RG, Percovich JC, Román AR, Gimeno PG, Lázaro CR, Morales-Ruiz M, Hanzu FA. Predictive model of hypertension resolution after adrenalectomy in primary aldosteronism: the SPAIN-ALDO score. J Hypertens. 2022; 40(12): 2486-93. Article. IF: 4.9; Q2
- Vilchez-Sánchez F, Bustos Leis JM, Sendagorta E, Ramírez E, Fiandor A, Bellón T, de Soto Álvarez T, Sánchez Ocando H, Heredia Revuelto R, Cabañas R. Allopurinol-induced DRESS and neosensitization to thalidomide: complex management and diagnosis in a patient with multiple myeloma. J Invest Allerg Clin. 2022; 32(5): 406-407. Article. IF: 7.2; D1



3 Information Groups by Area

3.6 Surgery, Transplant and Health Technologies Area

- Araujo-Castro M, Parra-Ramírez P. Diagnosis of primary hyperaldosteronism. *Med Clin-Barcelona.* 2022; 158(9): 424-30. Article. IF: 3.9; Q2
- Villatoro JM, Mejía-Abril G, García LD, Zubiaur P, González MJ, Jiménez GF, Cancio I, Aribas JR, Fernandez CS, Mingorance J, Rodríguez JG, Ferrer JRV, Carcas AJJ, Frías J, Abad-Santos F, Borobia AMM, Ramírez E. A case-control of patients with covid-19 to explore the association of previous hospitalisation use of medication on the mortality of covid-19 disease: a propensity score matching analysis. *Pharmaceuticals (Basel).* 2022; 15(1): 78. Article. IF: 4.6; Q2
- Hernández-Vaquero D, Rodríguez-Caulo E, Vigil-Escalera C, Blanco-Herrera O, Berastegui E, Arias-Dachary J, Souaf S, Parody G, Laguna G, Adsuar A, Castella M, Valderrama JF, Pulitani I, Canovas S, Ferreiro A, García-Valentín A, Carnero M, Pareja P, Corrales JA, Blázquez JA, Macías D, Fletcher-Sanfelix D, Martínez D, Martín E, Martín M, Margarit J, Hernandez-Estefanía R, Monguio E, Otero J, Silva J. Life expectancy after aortic valve replacement in young patients. *Rev Esp Cardiol (Engl Ed).* 2022; 75(4): 294-9. Article. IF: 5.9; Q1
- Araujo-Castro M, Centeno RG, Lázaro CR, Ramírez PP, Gimeno PG, Rojas-Marcos PM, Fernández-Ladreda MT, Hualpa JCP, Núñez MS, López-García MC, Lamas C, Escola CA, Gutiérrez MC, Carrera CB, Novoa PD, Gallego NV, Hanzu F, Marazuela M, Porta MM, Ojeda CM, Muriel IGG, Escobar-Morreale HF, Valderrabano P. Predictive model of pheochromocytoma based on the imaging features of the adrenal tumours. *Sci Rep-Uk.* 2022; 12(1): 2671. Article. IF: 4.6; Q2
- Araujo-Castro M, Rojas-Marcos PM, Ramírez PP. Familial forms and molecular profile of primary hyperaldosteronism. *Hipertens Riesgo Vasc.* 2022; 39(4): 167-73. Review. IF: 0.6; Q4
- Ramírez PP, Rojas-Marcos PM, Fano MP, Boillos MG, Pascual-Corrales E, García-Cano A, Ruiz-Sánchez JG, Vicente A, Gómez-Hoyos E, Ferreira R, Sanz IG, Recasens M, Peris BP, San Millán RB, César MJP, Guardiola PD, González JJG, Perdomo C, Manjón L, García-Centeno R, Percovich JC, Román AR, Gimeno PG, Lázaro CR, Morales M, Hanzu F, Araujo-Castro M. Differences in the presentation and evolution of primary aldosteronism in elderly (≥ 65 years) and young patients (< 65 years). *Endocr Connect.* 2022; 11(6): e220169. Article. IF: 2.9; Q3

● Research projects

González Muñoz M. Evaluación de la causalidad de las reacciones adversas a medicamentos de carácter grave: utilidad de los algoritmos, test in vitro, toxicología y farmacogenética (HUL-VIT-2018). FIBHULP. 2019-Ongoing.

Management centre: FIBHULP

Quintás Viqueira A. Estudio de incidentes y eventos adversos en el hospital (ESINEA). FIBHULP. 2022-2023.

Management centre: FIHULP

Ramírez García E, Cebrián Carretero JL. Cohorte de pacientes quirúrgicos de hulp en situación de pandemia covid-19. Versión 01 de 23.10.2020 (HULP-QoV-2020). FIBHULP. 2020-2022.

Management centre: FIHULP

Ramírez García E, Sanabria Carretero P. Registro de parada cardiorespiratoria perioperatoria (HUL-PCP-2017). FIBHULP. 2017-On-going.

Management centre: FIHULP

Ramírez García E. Análisis de desproporcionalidad de meningitis aséptica para las vacunas covid-19 en europa, versión 1.0 del 21/02/2022 (NEUROVAC). FIBHULP. 2022-2023.

Management centre: FIHULP

Ramírez García E. Cohorte retrospectiva de miocarditis y pericarditis por vacunas para la covid-19 en el Hospital Universitario La Paz, versión 1.9 del 17/01/2022 (CARDIO-VAC-19). FIBHULP. 2022-2023.

Management centre: FIHULP

Ramírez García E. Estudio de casos y controles anidado en una cohorte para evaluar el efecto de la co-medicación en la evolución de la infección por el coronavirus sars-cov-2. Versión 2 de 24.06.2020 (HULP-COVID19-ACE2-20). FIBHULP. 2021-2022.

Management centre: FIHULP

Ramírez García E. Tareas de consultoría relacionadas con la evaluación de viabilidad de un potencial estudio observacional para evaluar el riesgo de anafilaxis en usuarios de hierro endovenoso. Research Triangle Insti-

tute, Rti Health Solucions. 2021-2022.

Management centre: FIBHULP

Sanabria Carretero P. Mejora de la humanización de la asistencia sanitaria en el bloque quirúrgico infantil del Hospital La Paz. Fundación Icomem para la Educación y Formación Sanitarias. 2021-Ongoing.

Management centre: FIBHULP

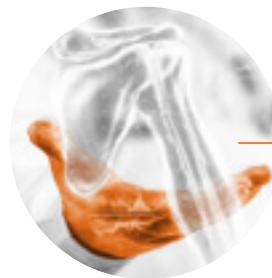
Sanabria Carretero P. Población en riesgo de hipertemia maligna: cohorte ambispectiva (Código HULP: PI-3528) (HUL-RHM-2019). FIBHULP. 2019-Ongoing.

Management centre: FIBHULP

● Patents and trademarks

Herrero Ambrosio A, Ramírez García E, Ojea Feo JJ, Pérez Rodríguez J, Asensio Martín MJ, González Sánchez ML, Moro Agud M, Lorente Romeo M, López Nieto M, Gómez Rioja R, authors; FIBHULP, assignee. Brand name: SINOIRES. CM 13.080.056; 2014 July 14.



**3.6.7****Translational Research and Innovation in General and Digestive Surgery Group**

Publications: **54**
Q1: **28**

COMPOSITION

Constantino Fondevila Campo. Jefe de Servicio de Cirugía General y Digestiva. Hospital Universitario La Paz

Ramón Cantero Cid. Facultativo Especialista de Área en Cirugía General y de Aparato Digestivo. Hospital Universitario La Paz

Joaquín Gómez Ramírez. Coordinador Unidad de Cirugía Endocrina. Hospital Universitario La Paz

Jenny Rosario Guevara Martínez. Facultativo Especialista de Área en Cirugía General y de Aparato Digestivo. Hospital Universitario La Paz

Amelia Hessheimer. Facultativo Especialista de Área en Cirugía General y de Aparato Digestivo. Hospital Universitario La Paz

Javier Muñoz Luque. Técnico de Grado Superior. CIBEREHD

Elisa York Pineda. Facultativo Especialista de Área en Cirugía General y de Aparato Digestivo. Hospital Universitario La Paz

Inés Rubio Pérez. Facultativo Especialista de Área en Cirugía General y de Aparato Digestivo. Hospital Universitario La Paz

Isabel Pascual Miguelañez. Facultativo Especialista de Área en Cirugía General y de Aparato Digestivo. Hospital Universitario La Paz

Maria Isabel Prieto Nieto. Facultativo Especialista de Área en Cirugía General y de Aparato Digestivo. Hospital Universitario La Paz

Javier Salinas Gómez. Facultativo Especialista de Área en Cirugía General y de Aparato Digestivo. Hospital Universitario La Paz

Mario Álvarez Gallego. Facultativo Especialista de Área en Cirugía General y de Aparato Digestivo. Hospital Universitario La Paz

Ramón Corriopio Sánchez. Facultativo Especialista de Área en Cirugía General y de Aparato Digestivo. Hospital Universitario La Paz

Tania Funes Dueñas. Facultativo Especialista de Área en Cirugía General y de Aparato Digestivo. Hospital Universitario La Paz

Jordi Vengohechea Llorens. Investigador Predoctoral. Universidad de Barcelona

**STRATEGIC OBJECTIVE**

PROBLEM: Surgery and perioperative care encompass one of the most expensive and resource-intensive areas of clinical medicine. Surgical patients undergo complex interventions, with the goal of curing or at least relieving distressing symptoms from different medical conditions. These same interventions, however, may sometimes result ineffective in achieving this goal. Additionally, they can provoke complications (morbidity) and further affect a patient's physical, mental, and emotional states.

APPROACH: The Translational Research & Innovation in General Surgery Group (GITIC) is a multidisciplinary group comprised of surgeons, nurses, and biologists, with various areas of

dedication and expertise. The GITIC team works together with the common goal of using surgical innovation and diverse research initiatives to offer the highest level of patient care possible today.

Given its broad knowledge base and skill set, projects that GITIC currently develops include lines of basic science and experimental research, translational and pre-clinical surgical models, clinical investigation, analysis of post-surgical outcomes, studies involving economic evaluation, the creation of mathematical models, and surgical device design and implementation.

In order to fulfill its broad research interests and initiatives, GITIC actively collaborates not only



3 Information Groups by Area



3.6 Surgery, Transplant and Health Technologies Area

with other groups within Hospital Universitario La Paz and IdiPAZ but also other hospitals and public and private research institutions in Spain and abroad. The following is a list of some of GITIC's current collaborations:

- Donation & Transplantation Institute (DTI), Barcelona, España.
- Guangzhou Shunde Innovative Design Institution, Guangdong, China.

• Hospital Virgen de la Salud, Toledo, España.

- Universidad Internacional de Catalunya (UIC), Sant Cugat, España.
- Policlinico Universitario "A. Gemelli", Università Cattolica del Sacro Cuore, Roma, Italia.
- Instituto de Empresa (IE), Madrid, España.
- Tekniker, Gipuzkoa, España.

RESEARCH LINES

Injury, inflammation, organ failure, & transplantation.

- Assessment and implications of chronic inflammation in obesity.
- Experimental models of end-stage liver disease and portal hypertension.
- Applicability and results of liver transplantation in the treatment of acute-on-chronic liver failure.
- Approaches to transplantation in patients with complex portal vein thrombosis.
- Translation and clinical research in ischemia-reperfusion injury.
- Novel preservation solutions and techniques of in situ and ex situ organ machine perfusion.
- Clinical outcomes and strategies for improvement in donation after circulatory death (DCD) organ transplantation.
- Assessment and clinical implications of markers of allograft dysfunction following liver transplantation.

- Development of three-dimensional in vitro organoid biomodels of colon cancer.
- Effectiveness and safety of hyperthermic intraperitoneal chemotherapy in the prevention of peritoneal recurrence in high-risk colorectal cancer patients.
- Immunological and molecular predictors of ovarian cancer arising in the background of endometriosis (Collaboration with H.U. La Paz Gynecology Service).

Surgical technology & innovation:

- Development and pre-clinical evaluation of a novel device for ex situ liver machine perfusion.
- Development and clinical trial assessment on the safety and feasibility of a novel rectoscope for rectal cancer surgery.
- Development and utility assessment of novel surgical drains.
- Evaluation of novel surgical techniques strategies to reduce drainage following axillary lymphadenectomy in breast cancer therapy.

Value-based care:

- Patient safety and prevention of perioperative infection.
- Evaluation of "best possible outcomes" (benchmarks) in surgical care.
- Assessment of perioperative complications, patient quality of life, and postoperative disability following general surgical operations.
- Cost-effectiveness and cost-utility of postoperative cancer surveillance strategies.
- Economic evaluation of novel surgical approaches and technologies.

RESEARCH ACTIVITY

● Doctoral theses

Vilar Tabanera A. Influencia de los valores preoperatorios de hormona paratiroides en el desarrollo de hipoparatiroidismo postquirúrgico [dissertation]. Alcalá de Henares: UAH: 2022(11/07/2022).

Director: Gómez Ramírez J,
Jesús Acero J.

Spagnolo E. Endometriosis intestinal y complicaciones postoperatorias: el papel de la cirugía guiada por fluorescencia [dissertation]. Madrid: UAM: 2022(31/05/2022).

Director: Hernández Gutiérrez MA
Pascual Migueláñez I.

Gortázar de las Casas S. Síndrome de resección anterior baja en pacientes intervenidas

de endometriosis profunda [dissertation]. Madrid: UAM: 2022(18/10/2022).

Director: Pascual Migueláñez I,
Hernández Gutiérrez MA.

● Publications

- Fotopoulos C, Khan T, Bracikoff J, Glasbey J, Abu-Rustum N, Chiva L, Fagotti A, Fujiwara K, Ghebre R, Gutelkin M, Konney TO, Ng J, Pareja R, Seenivasagam RK, Sehouli J, Surappa STS, Bhangu A, Leung E, Sundar S, (Prieto Nieto MI). Outcomes of gynecologic cancer surgery during the COVID-19 pandemic: an international, multicenter, prospective CovidSurg-Gynecologic Oncology Cancer study. Am J Obstet Gynecol. 2022; 227(5): 735. Article. IF: 9.8; D1
- Hessheimer AJ, Rosa G, Gastaca M, Ruiz P, Otero A, Gómez M, Alconchel F, Ramírez P, Boscá



3 Information Groups by Area

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Research projects

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Management centre: FIBHULP

Cantero Cid R. Fabricación inteligente de materiales avanzados para el transporte, la energía y la salud (MAT4.0-CM) (S2018/NMT-4381). CM. 2019-2022.

Management centre: FIBHULP

Cantero Cid R. Generación de microtejidos de colon tridimensionales automatizada para evaluación de fármacos antitumorales. Roche Farma S.A. 2017-Ongoing.

Management centre: FIBHULP

Fondevila Campo C. Estudio para la validación clínica de un nuevo biomarcador para determinar la predisposición a infecciones en pacientes sometidos a cirugía mayor abdominal programada (BIOMAS-001/ PI-5419). Crazy Science & Business S.L. 2022-2024.

Management centre: FIBHULP

Fondevila Campo C. Precondicionamiento portal en injertos hepáticos pequeños mediante perfusión normotérmica ex situ en un modelo porcino (PI18/00894). ISCIII. 2019-2022.

Management centre: FIBHULP

Fondevila Campo C. Prolonged perfusions

of porcine livers on Ipsi device followed by transplantation. Guangdong Shunde Innovative Design Institute. 2021-Ongoing.

Management centre: FIBHULP

Fondevila Campo C. Proyecto orgalive. FI-HULP. 2022-Ongoing.

Management centre: FIBHULP

Fondevila Campo C. Puesta en marcha del ensayo clínico: liver transplantation in patients with cirrhosis and severe acute-on-chronic liver failure (ACLF): indications and outcomes study. European Foundation for the Study of Chronic Liver Failure. 2021-Ongoing.

Management centre: FIBHULP

Rubio Pérez I. Estudio piloto prospectivo titulado: sutura continua subcuticular versus grapas cutáneas en pacientes de cirugía colorrectal ¿existe diferencias en la incidencia de infección quirúrgica según la técnica de cierre empleada? Surgical Infection Society-Europe. 2013-Ongoing.

Management centre: FIBHULP

Cibers and Retics

Fondevila Campo C. CIBER de Enfermedades Hepáticas y Digestivas. (CIBERehd). ISCIII. (31/12/2023). FIBHULP

Clinical trials

Fondevila Campo C. Estudio para la validación clínica de un nuevo biomarcador para determinar la predisposición a infecciones en pacientes sometidos a cirugía mayor abdominal programada.

Type: Estudio prospectivo.

Sponsored by: Crazy Science & Business S.L.

Signed date: 22/11/2022

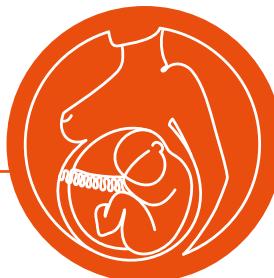


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3.7 Maternal Infant Child and Youth Research Area

Area Coordinators: Cristina Calvo Rey
Antonio Pérez Matínez
coordinadormaterno@idipaz.es

Documents: 251 Originals: 217 D1: 28 Q1: 89

- 3.7.1 Neonatology Group
- 3.7.2 Molecular Hepatology Group
- 3.7.3 Maternal and Fetal Medicine Group
- 3.7.4 Pediatric Respiratory, Systemic and Neurological Infections & Host Immune Response Group
- 3.7.5 Pediatric Systemic Infections; HIV, Tuberculosis, Imported and Emergent Diseases Group
- 3.7.6 Translational Research in Pediatric Oncology, Hematopoietic Transplantation and Cell Therapy Group
- 3.7.7 Congenital Malformations and Transplantation Group
- 3.7.8 Research in Endometriosis Group
- 3.7.9 Research on Comprehensive Care for Transplanted Children and Adolescents Group





3 Information Groups by Area



3.7 Maternal Infant Child and Youth Research Area

Strategic Objectives

The mission of the Maternal, Child and Adolescent Health Area (MIA) is to contribute to the improvement of the health of society by reducing the negative impact of diseases in the pediatric population from birth to adolescence, as well as the mother-child binomial. This recently created area is made up of research groups that cover the entire spectrum of ages from women, through newborns, children and young people. It includes very varied areas of research and proposes to achieve a full development of the adults of the future. To achieve this, we promote and lead cooperative research of excellence, promoting innovation, a multidisciplinary approach, and the translation of scientific results into clinical practice.

Development forecast for the coming years

Actions

Create a stable structure to promote research that encompasses all areas of perinatal medicine, child and adolescent medicine, and women with childbearing potential. Promote collaboration between groups in the area and provide a common space and shared infrastructure and resources that allow joint progress.

Create a portfolio of shared group resources, services and projects for the MIA area that facilitates common work. Hold work meetings to propose shared studies and strategic lines.

Promote the search for both public and private funding for cooperative research within the MIA area. Promote participation in international projects.

Facilitate the application request for European projects through the IdiPAZ Internalization Platform.

Promote the incorporation of new technologies in research to advance personalized and precision medicine and the transfer of research results to the scientific community and society: biomedical industry, health administration, general population and any other interlocutor and disseminate the main advances produced as a result of the research.

Promote at international level the different research groups of the area, identifying possible synergies between groups and centers, new partners and funding sources, as well as to forge strategic alliances.

High impact publications

Bustamante J, Sainz T, Ara-Montojo MF, Almiron MD, Subirats M, Vega DM, Mellado MJ, **López-Hortelano MG**. Screening for parasites in migrant children. *Travel Med Infect Di*. 2022; 47: 102287. Article. IF: 12; D1

Bustamante J, Sainz T, Pérez S, Rodríguez-Molino P, Vega DM, Mellado MJ, **López-Hortelano MG**. Toxocariasis in migrant children: A 6 years' experience in a reference pediatric unit in Spain. *Travel Med Infect Di*. 2022; 47: 102288. Article. IF: 12; D1

Montero JA, Anaut MB, Hernández-Martín S, **López-Gutiérrez JC**. Auricular embryonal rhabdomyosarcoma. *World J Pediatr*. 2022; 18(5): 358-60. Article. IF: 8.7; D1

Martínez-Romera I, Galán-Gómez V, González-Martínez B, García PG, Pacheco SS, Sánchez DC, del Castillo YM, Sánchez DB, Sisinni L, Guerrero AG, Damaso SC, Zapardiel ES, Caracuel BR, Pérez AB, **Pérez-Martínez A**. CD19+lineage chimerism, an early biomarker after anti-CD19 CAR-T cell therapy in patients previously receiving a hematopoietic stem cell transplantation. *Front Immunol*. 2022; 13: 960412. Article. IF: 7.3; Q1

Sainz T, Diaz L, Rojo D, Clemente MI, Barbas C, Gosalbes MJ, Jiménez-Hernández N, Escosa L, Guillen S, Ramos JT, Muñoz-Fernández MA, Navarro ML, Mellado MJ, Serrano-Villar S. Targeting the gut microbiota of vertically HIV-infected children to decrease inflammation and immunoactivation: a pilot clinical trial. *Nutrients*. 2022; 14(5): 992. Article. IF: 5.9; Q1



3 Information Groups by Area



3.7 Maternal Infant Child and Youth Research Area

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Scientific Events by Maternal Infant Child and Youth Research Area

17/02/2022. Jornada Bilateral Reino Unido-España: Modelos Innovadores de Atención Integral

22/02/2022. 9º Taller de simulación de administración menos invasiva de surfactante

15/03/2022. Actuación en situación de crisis en neonatología

27/04/2022. Sesión General: TransplantChild, 5 años de la red y participación del hospital

31/05/2022. 10º Taller de Simulación de Administración Menos Invasiva de Surfactante

09/06/2022. Actuación en Situación de Crisis en Neonatología

11/06/2022. Second Paediatric Expert Patients Workshop

15/09/2022. III Encuentro Terapias Avanzadas

04/10/2022. 11º Taller de simulación de administración menos invasiva de surfactante

18/10/2022. Actuación en situación de crisis en Neonatología

19 / 10/2022. Sesión de la Sociedad Europea de Endometriosis: Thousands of patients, plenty of treatment options

25/11/2022. 8º Curso teórico-práctico con simulación en ECMO NEONATAL

The collage consists of several overlapping event posters:

- ACTUACION EN SITUACION DE CRISIS EN NEONATOI** (15 marzo 2022) - Organized by Servicio de Neonatología Hospital Universitario La Paz.
- ACTUACION EN SITUACION DE CRISIS EN NEONATOI** (9 Diciembre 2022) - Organized by Servicio de Neonatología Hospital Universitario La Paz.
- ACTUACION EN SITUACION DE CRISIS EN NEONATOLOGIA** (18 Octubre 2022) - Organized by Centro de simulación CEASIC.
- CURSO TEÓRICO-PRÁCTICO CON SIMULACIÓN EN ECMO NEONATAL** (Octubre- Noviembre 2022) - Organized by Servicio de Neonatología Hospital Universitario La Paz.
- 9º TALLER DE SIMULACIÓN DE ADMINISTRACIÓN MENOS INVASIVA DE SURFACTANT** (22 febrero) - Madrid, Organized by Servicio de Neonatología Hospital Universitario La Paz.
- 10º TALLER DE SIMULACIÓN DE ADMINISTRACIÓN MENOS INVASIVA DE SURFACTANT** (31 de MAYO) - Madrid, Organized by Servicio de Neonatología Hospital Universitario La Paz.
- 11º TALLER DE SIMULACIÓN DE ADMINISTRACIÓN MENOS INVASIVA DE SURFACTANTE** (4 de octubre 2022) - Madrid, Organized by Servicio de Neonatología Hospital Universitario La Paz.



3 Information Groups by Area



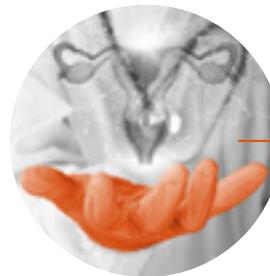
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3.7.1 Neonatology Group

Publications: 42

Q1: 9

COMPOSITION

Adelina Pellicer Martínez. Jefe de Sección de Neonatología. Hospital Universitario La Paz

Susana Ares Segura. Facultativo Especialista de Área en Neonatología. Hospital Universitario La Paz

Maria Carmen Bravo Laguna. Facultativo Especialista de Área en Neonatología. Hospital Universitario La Paz

Antonio Buño Soto. Jefe de Servicio de Laboratorio de Urgencias. Hospital Universitario La Paz

Fernando Cabañas González. Jefe de Servicio de Pediatría y Neonatología. Hospital Universitario Quironsalud Pozuelo; FIBHULP

María Dolores Elorza Fernández. Jefe de Sección de Neonatología. Hospital Universitario La Paz

Esperanza Escrivano Palomino. Médico Adjunto en Neonatología. Hospital Universitario La Paz

Miriam Martínez Biarge. Facultativo Especialista de Área en Neonatología. Hospital Hammer Smith Londres

María Teresa Montes Bueno. Enfermera. Hospital Universitario La Paz

María Jesús del Olmo Barros. Profesora Contratada. Universidad Autónoma de Madrid

Laura Sánchez García. Médico Adjunto en Neonatología. Hospital Universitario La Paz

Miguel Sáenz de Pipaón Marcos. Facultativo Especialista de Área en Neonatología; Profesor Titular. Hospital Universitario La Paz. Universidad Autónoma de Madrid

Belén Sáenz-Rico de Santiago. Profesor Titular. Universidad Complutense de Madrid

Eva Valverde Núñez. Facultativo Especialista de Área en Neonatología. Hospital Universitario La Paz. Profesor Asociado. Universidad Autónoma de Madrid

Carlos Zozaya Nieto. Médico Adjunto en Neonatología. Hospital Universitario La Paz



STRATEGIC OBJECTIVE

Prevent structural and functional damage to organs and systems in the high risk newborn.
Reduce the impact of the processes that occurred in the peri-neonatal stage in later life.



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3.7 Maternal Infant Child and Youth Research Area

RESEARCH LINES

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RESEARCH ACTIVITY

● Doctoral theses

Cordeiro Alcaine M. Evaluación de la función cerebral mediante electroencefalografía integrada por amplitud en el niño prematuro < 28 semanas de edad gestacional: parámetros de normalidad y biomarcadores de lesión cerebral y neurodesarrollo [dissertation]. Madrid: UAM; 2022(08/02/2022).

Director: Valverde Núñez E.

Sánchez García L. Viejos y nuevos virus respiratorios en neonatología: aproximación sistemática a su epidemiología e impacto en la salud [dissertation]. Madrid: UAM; 2022(07/02/2022).

Directors: Pellicer Martínez A, Calvo Rey C.

Mendoza Carretero MR. Detección, despistaje e intervención de alteraciones del neurodesarrollo de menores con cardiopatías congénitas al nacimiento [dissertation]. Madrid: UCM; 2022(08/05/2022).

Directors: Sáenz-Rico B, Ares Segura S.

Núñez Ossorio V. Neurodidáctica: Efecto de la sonrisa de Duchenne en la reorganización neurofuncional del córtex temporal y en las emociones [dissertation]. Madrid: UCM; 2022(27/05/2022).

Director: Saenz Rico B.

Martín-Ordoña P. Incidencia de los contextos culturales y sociales, las relaciones

- Macro- and microcirculation: non-invasive monitoring, signal processing and machine learning. Lead: María Carmen Bravo/Adelina Pellicer.
- Developmental Neurobiology. Lead: Fernando Cabañas/Eva Valverde.

- Nutrition, microbiota and Milkbank. Lead: Miguel Saenz-Pipaón/Marta Cabrera.
- Perinatal and neonatal infectology. Inmunology and vaccines. Lead: Laura Sanchez Garcia.
- Quality improvement. Lead: Adelina Pellicer/Paloma López-Ortego.

entre iguales, la participación y el juego en el aprendizaje social y cívico en Educación Infantil [dissertation]. Madrid: UCM; 2022(28/09/2022).

Director: Saenz Rico B.
International Mention

● Publications

- Ortola R, García-Esquinas E, Buño-Soto A, Carballo-Casla A, Sotos-Prieto M, Banegas JR, Rodríguez-Artalejo F. Alcohol consumption patterns and growth differentiation factor 15 among lifetime drinkers aged 65+years in Spain: a cross-sectional study. *Addiction*. 2022; 117(6): 1647-57. Article. IF: 6; D1
- Monclús ABL, González A, Andréu FAB, Martín IC, Soto AB, Ibarz M, Rodríguez CG, Foncillas JP. Effects of the COVID-19 pandemic on the activity of clinical laboratories in Spain, evolution in the 2019–2021 period. *Adv Lab Med*. 2022; 3(4): 361-70. Article. IF: 1; Q4
- Campillo CR, de Pedro MPS, Barceló SA, Rubio MAB, Soto AB, Rioja RG. Differences in glomerular filtration rate estimated with the new eGFRcr CKD EPI age and sex 2021 vs. the eGFRcr CKD EPI 2009 formula. *Adv Lab Med*. 2022; 3(3): 313-4. Letter. IF: 1; Q4
- Buño A, Oliver P. POCT errors can lead to false potassium results. *Adv Lab Med*. 2022; 3(2): 142-6. Review. IF: 1; Q4
- Bonet LA, Peiro MTB, Marro BL, Babkowski MC, Soto AB, Crespo-Leiro MG. Specific test panels for patients with heart failure: implementation and use in the Spanish National Health System. *Adv Lab Med*. 2022; 3(1): 65-70. Article. IF: 1; Q4
- Delgado JR, Campoy C, Martínez RG, Mayo EG, Gil-Campos M, Jiménez DG, Ferreiro SR, de Pi- paón MS, Leis R. Unhealthy food advertising. A position paper by the AEP Committee on nutrition and breastfeeding. *An Pediatr*. 2022; 97(3): 206. Article. IF: 2.1; Q3
- Martín JJD, Baviera LB, Folgoso CC, Jaime BE, Trabazo MRL, del Castillo MM, Masot RM, Burgos AMC, Aragones AM, Arias MM, Riechmann ER, de Pipaón MS, Navarrete LV. Consensus document on the primary prevention of cow's milk protein allergy in infants aged less than 7 days. *An Pediatr*. 2022; 97(1): 59. Article. IF: 2.1; Q3
- Segura SA. The challenges of breastfeeding in a complex world. *An Pediatr*. 2022; 96(4): 283-5. Editorial Material. IF: 2.1; Q3
- Cabrera-Lafuente M, Alonso-Díaz C, Pumarega MTM, Díaz-Almirón M, Haiek LN, Maastrup R, Pallas-Alonso C. Breastfeeding practices in neonatal wards in Spain. Neo-BFHI international survey. *An Pediatr*. 2022; 96(4): 300-8. Article. IF: 2.1; Q3
- Zozaya C, Ganji N, Li B, Lok MJ, Lee C, Koike Y, Gauda E, Offringa M, Eaton S, Shah PS, Pierro A. Remote ischaemic conditioning in necrotising enterocolitis: a phase I feasibility and safety study. *Arch Dis Child-Fetal*. 2023; 108(1): F69-76. Article. IF: 4.4; D1
- Soto AB, Péoc'h K, Fasano T, Díaz-Garzón J, de la Presa BG, Chicha-Cattoir V, Canovi S, de Pedro MS, Rico N, Robert T, Bonelli E, Calle PF, Mira A, Lefevre G, Vecchia L, Bedini JL. Performance evaluation of the high sensitive troponin I assay on the Atellica IM analyser. *Biochem Medica*. 2022; 32(2): 20709. Article. IF: 3.3; Q2
- López LP, Rocafort AG, Ramchandani BR, Lois JR, Pérez RS, Hernández MJL, Hernández TC, de Lera CL, Fernández OG, Peinado AA. Congenital heart disease, how should we have to be prepared for transplantation?: Surgical tips and tricks. *Cir Cardiov*. 2022; 29(6): 312-8. Article. IF: 0.3; Q4
- Polo L, Peinado AA. Valve sparing and reconstructive surgery on patients with congenital heart disease: State of the art. *Cir Cardiov*. 2022; 29(3): 123-4. Editorial Material. IF: 0.3; Q4
- Ramchandani B, Polo L, Sánchez R, Rey J, González A, Lamas MJ, Centella T, Aroca A. Multi-valve sparing surgery in patients with congenital heart disease. Is it possible? *Cir Cardiov*. 2022; 29(3): 144-50. Article. IF: 0.3; Q4
- García-Esquinas E, Ortola R, Buño A, Olmedo P, Gil F, Banegas JR, Pérez-Gómez B, Navas-Acien A, Rodríguez-Artalejo F. Cadmium exposure and growth differentiation factor-15 (GDF-15) levels in non-smoking older adults. *Environ Res*. 2022; 206: 112250. Article. IF: 8.3; D1
- Oulego-Erroz I, Alonso-Ojembarena A, Aldecoa-Bilbao V, Bravo MD, Montero-Gato J, Mosqueda-Pena R, Núñez AR. Ultrasound-guided vascular access in the neonatal intensive care unit: a nationwide survey. *Eur J Pediatr*. 2022; 181(6): 2441-51. Article. IF: 3.6; Q1
- Caro-Codón J, López-Fernández T, Álvarez-Ortega C, Auñón PZ, Rodríguez IR, Prieto PG, Soto AB, Albendea MC, Albaladejo A, Mediavilla G, Batlle JF, Fraga OR, Monzonis AM, González-Costello J, Antolín JMS, Chamorro RC, González-Juanatey JR, López-Sendón J. Cardiovascular risk factors during cancer treatment. Prevalence and prognostic relevance: insights from the CARDIOTOX registry. *Eur J Prev Cardiol*. 2022; 29(6): 859-68. Article. IF: 8.3; Q1
- Álvarez P, Ramiro-Cortijo D, Montes MT, Moreno B, Calvo MV, Liu G, Romero AE, Ybarra M, Cordeiro M, Murube MC, Valverde E, Sánchez-Pacheco A, Fontecha J, Gibson R, de Pipaón MS. Randomized controlled trial of early arachidonic acid and docosahexaenoic acid enteral supplementation in very preterm infants. *Front Pediatr*. 2022; 10: 947221. Article. IF: 2.6; Q2
- Jiménez BC, Ferrández SF, Sebastián JD, de Pi-



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paón MS. Influence of full oral feeding acquisition on growth of premature infants. *Front Pediatr.* 2022; 10: 928051. Article. IF: 2.6; Q2

- Rodríguez-López J, Bertolo JD, García-Lara NR, Elorriaga IA, Echevarría LR, Vento M, Parra-Llorca A, Cabañas F, Lozano P, García-Algar O, Martín-Ancel A, Fernández CC, Carrasco EG, Arnal IO, Pellicer A, Huarte NM, Pallas-Alonso CR. Maternal and neonatal prognostic factors for cardiorespiratory events in healthy term neonates during early skin-to-skin contact. *Front Pediatr.* 2022; 10: 907570. Article. IF: 2.6; Q2
- Bravo MC, Sánchez-Salmador R, Moral-Pumarega MT, López-Azorín M, Mosqueda-Peña R, Dorronsoro I, Cabañas F, Pellicer A. Randomized trial on echocardiography-guided ductus arteriosus treatment to reduce necrotizing enterocolitis. *Front Pediatr.* 2022; 9: 807712. Article. IF: 2.6; Q2
- Ortola R, García-Esquinas E, Buño-Soto A, Cabañas-Sánchez V, Martínez-Gómez D, Sotos-Prieto M, Struijk EA, Caballero FF, López-García E, Ba-

negas JR, Rodríguez-Artalejo F. Associations of device-measured sleep, sedentariness and physical activity with growth differentiation factor 15 in older adults. *J Cachexia Sarcopeni.* 2022; 13(2): 1003-12. Article. IF: 8.9; D1

- Martín-Rivada A, Guerra-Cantera S, Campillo-Calatayud A, Andrés-Esteban EM, Holgado MS, Martos-Moreno GA, Pozo J, Guemes M, Soriano-Guillén L, Pellicer A, Ovrig C, Frystyk J, Chowen JA, Barrios V, Argente J. Pappalains and stanniocalcins and their relationship with the peripheral Igf axis in newborns and during development. *J Clin Endocr Metab.* 2022; 107(10): 2912-24. Article. IF: 5.8; Q1
- de la Calle M, Baquero-Artigao F, Rodríguez-Molino P, Cabañas M, Cabrera M, Antolín E, Mellado MJ, Bartha JL. Combined treatment with immunoglobulin and valaciclovir in pregnant women with cytomegalovirus infection and high risk of symptomatic fetal disease. *J Matern-Fetal Neo M.* 2022; 35(16): 3196-200. Article. IF: 1.8; Q4
- Moreno-Sanz B, Montes MT, Manzano S, Espinosa-Martos I, Cárdenas N, Esteban S, Cruz M, Jiménez E, de Pipaón MS. Randomized, double-blind, placebo-controlled study to assess the effect of two probiotics on the preterms' gut microbiota. *J Pediatr Gastr Nutr.* 2022; 74(6): E153-9. Article. IF: 2.9; Q2
- Álvarez-Troncoso J, Ramos-Ruperto L, Fernández-Cidón P, Trigo-Esteban E, Tung-Chen Y, Busca-Arenzana C, Quintana-Díaz M, Buño-Soto A, Arnalich-Fernández F, Fernández-Capitan C. Screening protocol and prevalence of venous thromboembolic disease in hospitalized patients with covid-19. *J Ultras Med.* 2022; 41(7): 1689-98. Article. IF: 2.3; Q2
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- Ramchandani B, Sánchez R, Rey J, Polo L, González A, Lamas MJ, Centella T, Diez J, Aroca A. A Bicentric propensity matched analysis of 158 patients comparing porcine versus bovine stented bioprosthetic valves in pulmonary position. *Korean Circ J.* 2022; 52(8): 623-31. Article. IF: 2.9; Q3
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- Carballo-Casla A, García-Esquinas E, Buño-Soto A, Struijk EA, López-García E, Rodríguez-Artalejo F, Ortola R. Metabolic syndrome and growth differentiation factor 15 in older adults. *Geroscience.* 2022; 44(2): 867-80. Article. IF: 5.6; Q2
- Golombok SG, Rodríguez S, Montes Bueno MT, Mir R, Farina D, Cardetti M, Sola A. Nutrition of the healthy and sick newborn: twelfth clinical consensus of the ibero-american society of neonatology (SIBEN). *Neoreviews.* 2022; (23): 716-37. Article. Not Indexed
- van den Akker CHP, Saenz de Pipaón M, van Goudoever JB. Proteinas y aminoacidos. *World Rev Nutr Diet.* 2022; (122): 80-94. Review. Not Indexed

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• Gómez-Torres N, Sánchez-García L, Castro I, Arroyo R, Cabañas F, González-Sánchez R, López-Azorín M, Moral-Pumarega MT, Escudero-Vieco D, Cabanes-Alonso E, Rodríguez JM, Alba C, Pellicer A. Metataxonomic analysis of milk samples from Sars-CoV-2-positive and Sars-CoV-2-negative women. *Front Nutr.* 2022; 9: 853576. Article. IF: 5; Q2

• Ramchandani B, Sánchez R, Rey J, Polo L, González A, Lamas MJ, Centella T, Diez J, Aroca A. A Bicentric propensity matched analysis of 158 patients comparing porcine versus bovine stented bioprosthetic valves in pulmonary position. *Korean Circ J.* 2022; 52(8): 623-31. Article. IF: 2.9; Q3

• López-Nieva P, Fernández-Navarro P, Cobos-Fernández MA, González-Vasconcellos I, Pérez RS, Aroca A, Fernández-Piqueras J, Santos J. Patterns of differentially expressed circrnas in human thymocytes. *Noncoding RNA.* 2022; 8(2): 26. Article. IF: 4.3; Q2

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• Golombok SG, Rodríguez S, Montes Bueno MT, Mir R, Farina D, Cardetti M, Sola A. Nutrition of the healthy and sick newborn: twelfth clinical consensus of the ibero-american society of neonatology (SIBEN). *Neoreviews.* 2022; (23): 716-37. Article. Not Indexed

• van den Akker CHP, Saenz de Pipaón M, van Goudoever JB. Proteinas y aminoacidos. *World Rev Nutr Diet.* 2022; (122): 80-94. Review. Not Indexed

Research projects

Bravo Laguna MC. Valoración cuantitativa de la repercusión hemodinámica del ductus arterioso persistente y su tratamiento en el recién nacido de bajo peso. Neonatcare S. L. 2008-Ongoing.

Management centre: FIBHULP

Buño Soto A. Actualización y renovación de la actividad investigadora en el servicio de



3 Information Groups by Area

3.7 Maternal Infant Child and Youth Research Area

análisis clínicos del Hospital Universitario La Paz. Various Funders. 2012-Ongoing.

Management centre: FIBHULP

Buño Soto A. Covid-19 severity score predictive model-technological feasibility, clinical acceptance, and potential impact upon patient management. Siemens Healthcare S.L. 2021-Ongoing.

Management centre: FIBHULP

Buño Soto A. Determinación de la variación biológica de magnitudes hematológicas y bioquímicas y de la metabolómica en deportistas de alto rendimiento. Int'L Marketing de Snibe Co. Ltd, Shenzhen New Industries Biomedical Engineering Co. 2022-Ongoing.

Management centre: FIBHULP

Buño Soto A. Estudio en población cognitivamente sana (sin demencia) para la determinación de valores de referencia de una nueva técnica diagnóstica basada en espectroscopia Raman. Raman Health Technologies S. L. 2016-Ongoing.

Management centre: FIBHULP

Buño Soto A. Recogida de muestras en deportistas de alto rendimiento para la evaluación de su variación biológica. FIBHULP. 2016-Ongoing.

Management centre: FIBHULP

Buño Soto A. Validación de un nuevo método para la detección de anticuerpos IGG e IGM anti Sars-Cov-2 en el analizador atellica solution. Siemens HealthCare S. L. 2020-Ongoing.

Management centre: FIBHULP

Cabrera Lafuente M. Protección, promoción y apoyo a la lactancia materna en recién nacidos prematuros, pequeños y enfermos (Neo-IHAN). IHAN-Ministerio de Sanidad-UNICEF. 2020-Ongoing.

Management centre: IHAN

Pellicer Martínez A. Alliance for Family Integrated Care (FICare) Implementation in Neonatal Intensive Care Units (RISEinFAMILY). UE. 2020-2025.

Management centre: FIBHULP

Pellicer Martínez A. Estudio aleatorizado, doble ciego, de tres brazos controlado con placebo, sobre el tratamiento con dobutamina de la insuficiencia hemodinámica en el periodo postnatal inmediato (PI18/01551). ISCIII. 2019-2022.

Management centre: FIBHULP

Pellicer Martínez A. Estudio retrospectivo de pacientes con sospecha de meningitis para identificar meningitis que requieran o no tratamiento mediante un modelo de IA. Neos New Born Solutions S. L. 2020-Ongoing.

Management centre: FIBHULP

Pellicer Martínez A. Online cerebral pressure autoregulation continuous monitoring as a neurobiomarker to guide assessment and intervention to prevent or minimise brain injury in the high-risk preterm infant. Chiesi Foundation Onlus. 2017-Ongoing.

Management centre: FIBHULP

Pellicer Martínez A. Salvaguardando el cerebro de nuestros niños más pequeños. Ensayo clínico por iniciativa del investigador, pragmático, abierto, multinacional, aleatorizado fase III que evalúa el tratamiento basado en la monitorización con espectrometría cercana al infrarrojo versus tratamiento estándar en el niño prematuro. Fundación Mutua Madrileña. 2019-Ongoing.

Management centre: FIBHULP

Sáenz de Pipaón Marcos M. Colonización de gestantes por bacterias multirresistentes y transmisión perinatal en <32 semanas: prevalencia y morbilidad. Fundación de la Sociedad Española de Neonatología. 2019-Ongoing.

Management centre: FIBHULP

Sáenz de Pipaón Marcos M. Desarrollo de fórmulas nutricionales biodisponibles (PID2020-119084RB-C21). Agencia estatal de Investigación. 2021-2024.

Management centre: FUAM

Sáenz de Pipaón Marcos M. Efecto de la suplementación precoz con ácido araquidónico y ácido docosahexanoico en la evolución de las concentraciones plasmáticas y eritrocitarias de DHA en recién nacidos prematuros: ensayo controlado aleatorizado. Nestle España S. A. 2016-Ongoing.

Management centre: FIBHULP

Sáenz de Pipaón Marcos M. Efecto de la suplementación temprana con ácido docosahexanoico y ácido araquidónico sobre la incidencia de displasia broncopulmonar en niños extremadamente prematuros. European Society For Paediatric Gastroenterology, Hepatology and Nutrition. 2020-Ongoing.

Management centre: FIBHULP

Sáenz de Pipaón Marcos M. Fórmulas nutricionales para el control del déficit de ácido docosahexanoico dha y ácido araquínólico aa en niños extremadamente prematuros. Fundación Ramón Areces. 2021-Ongoing.

Management centre: FIBHULP

● Cibers and Retics

Cabañas González F. Research Network for Maternal and Child Health and Development (SAMID)(RD16/0022/0004). ISCIII. (31/12/2022). FIBHULP

Bravo Laguna MC. Perinatal Mental Health and Birth-Related Trauma: Maximising best practice and optimal outcomes (CA18211). EU. (31/12/2024). FIBHULP

Cabañas González F. Primary Care Interventions to Prevent Maternal and Child Chronic

Diseases of Perinatal and Developmental Origin (RICORS)(RD21/0012/0014). ISCIII. (31/12/2024). FIBHULP

● Clinical trials

Ares Segura S. Ensayo de inmunogenicidad y seguridad de una vacuna conjugada antimeningocócica tetravalente en investigación administrada de forma concomitante con las vacunas pediátricas de rutina a niños pequeños y lactantes sanos en europa.

Type: Clinical Trials, phase III. 2022.222.

Sponsored by: Sanofi Pasteur Inc.

Signed date: 06/04/2022

Elorza Fernández MD. Estudio fase 1b, aleatorizado, ciego y de búsqueda de dosis para evaluar el perfil de seguridad y tolerabilidad de la administración de at-100 (rhsp-d: proteína surfactante d humana recombinante) en recién nacidos prematuros con alto riesgo de desarrollo.

Type: Clinical Trials, phase I. 6043.

Sponsored by: Bristish Airways Plc.

Signed date: 18/03/2022

Elorza Fernández MD. Estudio fase 1b, aleatorizado, ciego y de búsqueda de dosis para evaluar el perfil de seguridad y tolerabilidad de la administración de at-100 (rhsp-d: proteína surfactante d humana recombinante) en recién nacidos prematuros con alto riesgo de desarrollo.

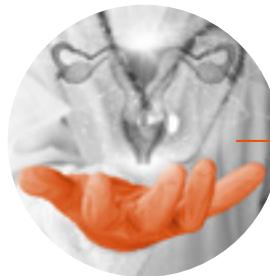
Type: Clinical Trials, phase I. 2022.518.

Sponsored by: Bristish Airways Plc.

Signed date: 04/08/2022

● Patents and trademarks

Segovia Iñigo C, Montes Bueno MT, inventors; Segovia Iñigo C, assignee. Positioning device for neonates (Utility model). U201330102; 2013 January 31.



3.7.2 Molecular Hepatology Group

Publications: 8

Q1: 7

COMPOSITION

Paloma Jara Vega. Emérita Asistencial. Hospital Universitario La Paz

Loreto Hierro Llanillo. Jefe de Servicio Hepatología Pediátrica. Hospital Universitario La Paz

Carmen Camarena Grande. Médico Adjunto de Hepatología Pediátrica. Hospital Universitario La Paz

Ángela de la Vega Bueno. Médico Adjunto de Hepatología Pediátrica. Hospital Universitario La Paz

Lorena Fernández Tomé. Facultativo Especialista en Hepatología y Trasplante Hepática. Hospital Universitario La Paz

Esteban Frauca Remacha. Jefe de Sección de Hepatología Pediátrica. Hospital Universitario La Paz

Maria Dolores Lledin Barbancho. Facultativo Especialista en Hepatología y Trasplante Hepática. Hospital Universitario La Paz

Gema Muñoz Bartolo. Médico Adjunto de Hepatología Pediátrica. Hospital Universitario La Paz

María Ángeles Pajares Tarancón. Investigadora Científica. CSIC

Luiz Stark Aroeira. Investigador Postdoctoral. Hospital Universitario La Paz

David Vicent López. Investigador Senior (Contrato Miguel Servet - I2). Hospital Universitario La Paz



STRATEGIC OBJECTIVE

Our research interest is focused on the study of the molecular mechanisms underlying the most severe paediatric liver disorders, namely cholestasis, which results from the impaired secretion of bile from the liver to the intestine.

As such, it represents a clinical and biochemical syndrome that is produced by a wide variety of disease processes that affect the liver. Individuals with cholestasis manifest jaundice, severe itching, malabsorption of fats and lipid-soluble vitamins and, in many cases, progressive liver damage. These clinical manifestations are due to the accumulation in blood and tissues of substances normally secreted in the bile, such as bilirubin, bile acids, and cholesterol and to the absence of bile from the intestine.

When manifested in early infancy, cholestasis is often life threatening and usually requires liver

transplantation. Extrahepatic biliary atresia (EHBA), Alagille syndrome and progressive familial intrahepatic cholestasis (PFIC) constitute the main paediatric cholestatic disorders. EHBA is an enigmatic disease of unknown aetiology, characterised by a precocious and accelerated obstruction of the biliary tree. Alagille syndrome is associated with mutations in the Jag1 gene and is characterised by a paucity or absence of intrahepatic bile ducts. PFIC encompasses a heterogeneous group of autosomal recessive diseases that exhibit similar clinical features. These diseases are caused by mutations in proteins located in the canalicular membrane of the hepatocyte and in proteins involved in bile secretion, such as the bile salt export pump (BSEP; ABCB11), the phospholipid transport protein MDR3 (ABCB4) and the aminophospholipid translocase FIC1 (ATP8B1). These cholestatic disorders constitute the most common indication for liver transplantation in childhood.



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3.7 Maternal Infant Child and Youth Research Area

RESEARCH LINES

- Molecular basis of paediatric liver diseases.
- Liver Pathobiology.
- Biomarker identification.

RESEARCH ACTIVITY

● Publications

- Baumann U, Karam V, Adam R, Fondevila C, Dhawan A, Sokal E, Jacquemin E, Kelly DA, Grabhorn E, Pawlowska J, D'Antiga L, Vega PJ, Debray D, Polak WG, de Goyet JD, Verkade HJ. Prognosis of children undergoing liver transplantation: a 30-year european study. *Pediatrics*. 2022; 150(4): e2022057424. Article. IF: 8; D1
- de Kleine RH, Lexmond WS, Buescher G, Sturm E, Kelly D, Lohse AW, Lenz D, Jorgensen MH, (Muñoz Bartolo G, Hierro Llanillo L). Severe acute hepatitis and acute liver failure of unknown origin in children: a questionnaire-based study within 34 paediatric liver centres in 22 European countries and Israel, April 2022. *Euro Surveill*. 2022; 27(19): 6-12. Article. IF: 19; D1
- Molera C, Sarishvili T, Nascimento A, Rtskhiladze I, Bartolo GM, Cebran SF, Fernández JV, Cabello BM, Graham RJ, Miller W, Sepulveda B, Kamath BM, Meng H, Lawlor MW. Intrahepatic cholestasis is a clinically significant feature associated with natural history of X-linked myotubular myopathy (XLMTM): A case series and biopsy report. *J Neuromuscul Dis*. 2022; 9(1): 73-82. Article. IF: 3.3; Q2
- Montalva E, Rodríguez-Peralvarez M, Blasi A, Bonanad S, Gavin O, Hierro L, Llado L, Llop E, Pozo-Laderas JC, Colmenero J. Consensus statement on hemostatic management, anticoagulation, and antiplatelet therapy in liver transplantation. *Transplantation*. 2022; 106(6): 1123-31. Review. IF: 6.2; D1
- Platero L, García-Sánchez P, Sainz T, Calvo C, Iglesias I, Esperon F, de la Fuente R, Frauca E, Pérez-Martínez A, Méndez-Echevarría A. Pets for pediatric transplant recipients: To have or not to have. *Front Vet Sci*. 2022; 9: 974665. Article. IF: 3.2; D1

- Sánchez-Zapardiel E, Alos M, Nozal P, González-Muñoz M, Frauca-Remacha E, Gavilán LB, Quiles MJ, Hierro L, López-Granados E. Humoral and cellular immune responses to Pfizer-BioNTech BNT162b2 SARS-CoV-2 vaccine in adolescents with liver transplantation: Single center experience. *Front Immunol*. 2022; 13: 1049188. Article. IF: 7.3; Q1
- Semova I, Levenson AE, Krawczyk J, Bullock K, Gearing ME, Ling AV, Williams KA, Miao J, Adamson SS, Shin DJ, Chahar S, Graham MJ, Crooke RM, Hagey LR, Vicent D, de Ferranti SD, Kidambi S, Clish CB, Biddinger SB. Insulin prevents hypercholesterolemia by suppressing 12 alpha-hydroxylated bile acids. *Circulation*. 2022; 145(13): 969-82. Article. IF: 37.8; D1
- van Beek J, La Fraaij P, Giaquinto C, Shingadia D, Horby P, Indolfi G, Koopmans M, (Muñoz Bartolo G, Hierro Llanillo L). Case numbers of acute hepatitis of unknown aetiology among children in 24 countries up to 18 April 2022 compared to the previous 5 years. *Euro Surveill*. 2022; 27(19): 2-5. Article. IF: 19; D1

● Research projects

Hierro Llanillo L. Desarrollo de métodos de diagnóstico molecular de enfermedades hepáticas infantiles de carácter hereditario. Fundación ACS. 2005-Ongoing.

Management centre: FIBHULP

Hierro Llanillo L. Diagnóstico molecular de enfermedades hepáticas infantiles de carácter hereditario (PI-426). Fundación ACS. 2012-Ongoing.

Management centre: FIBHULP

Hierro Llanillo L. Estableciendo una base de datos como parte de la red europea de referencia en enfermedades rara hepáticas. R-liver. UE. 2019-Ongoing.

Management centre: FIBHULP

Hierro Llanillo L. Tomoxliver: estudio de la disfunción del hepatocito desde un abordaje multidisciplinar (S2017/BMD-3817). CM. 2018-2022.

Management centre: FIBHULP

Hierro Llanillo L. Validación de marcadores genéticos y moleculares para el diagnóstico de atresia biliar (PI20/01496). ISCIII. 2021-2023.

Management centre: FIBHULP

Jara Vega P. Estudio epidemiológico, observacional sobre el riesgo de desarrollo de síndrome linfoproliferativo en pacientes pediátricos trasplantados hepáticos, en el HULP. Roche Farma S. A. 2008-Ongoing.

Management centre: FIBHULP

Jara Vega P. PaEdiatric Transplantation European Registry (PETER PI-4389). UE. 2019-2023.

Management centre: FIBHULP

Olveira A, Hierro Llanillo L. Impact of Wilson's disease on Spanish population: an observational study. Alexión Pharma Spain S.L. 2022-2022.

Management centre: FIBHULP

Romero M, Hierro Llanillo L. Optimization of spleen VCCTE examinations with FibroScan. Echosens. 2022-Ongoing.

Management centre: FIBHULP

Ruiz de Valbuena R, Hierro Llanillo L. A prospective and retrospective cohort study to refine and expand the knowledge on patients with chronic forms of Acid Sphingomyelinase Deficiency (ASMD) (Estudio PIR16183). Sanofi . 2021-Ongoing.

Management centre: FIBHULP

Vicent López D. Caracterización clínica del nuevo factor de riesgo cardiovascular trimetilamina-D-óxido en pacientes diabéticos obesos. Sección de Endocrinología y Nutrición Severo Ochoa. 2015-Ongoing.

Management centre: FIBHULP

Vicent López D. Contrato Miguel Servet Categoría C (CES06/007). ISCIII. 2008-2025.

Management centre: FIBHULP

● Cibers and Retics

Hierro Llanillo L. ERN on Hepatological diseases (RARE-LIVER). EU. (31/12/2023). FIBHULP

Jara Vega P. ERN on Transplantation in children (TransplantChild). EU. (31/12/2023). FIBHULP



3 Information Groups by Area



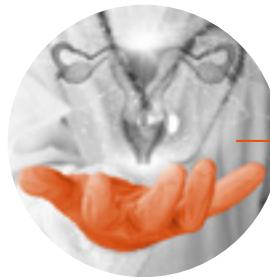
3.7 Maternal Infant Child and Youth Research Area

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3.7.3 Maternal and Fetal Medicine Group

Publications: 25

Q1: 6

COMPOSITION

José Luis Bartha Rasero. Jefe de Servicio de Obstetricia y Ginecología. Hospital Universitario La Paz. Catedrático de Obstetricia y Ginecología. Universidad Autónoma de Madrid

Irene Bartha de las Peñas. Investigador Clínico en Alergia Pediátrica. King's College de Londres and Guy's and St Thomas NHS Foundation Trust

Alejandra Abascal Saiz. Facultativo Especialista de Área en Ginecología y Obstetricia. Hospital Universitario La Paz

Eugenio Antolín Alvarado. Jefe de Sección de Obstetricia y Ginecología. Hospital Universitario La Paz. Profesor asociado. Universidad Autónoma de Madrid

Marta Cortés León. Médico Especialista en Ginecología y Obstetricia. Hospital Universitario La Paz

Marcos Javier Cuerva González. Facultativo Especialista de Área en Ginecología y Obstetricia. Hospital Universitario La Paz

María Amparo Gimeno Sanmartín. Médico Especialista en Ginecología y Obstetricia. Hospital Universitario La Paz

María del Mar González Arlazón. Facultativo Especialista de Área en Ginecología y Obstetricia. Hospital Universitario La Paz

María de la Calle Fernández-Miranda. Jefa de Sección de Tocología de Alto Riesgo y Obstetricia Médica. Hospital Universitario La Paz. Profesora asociada. Universidad Autónoma de Madrid

Beatriz Herrero Ruiz. Médico Adjunto de la Sección de Ecografía y Medicina Fetal. Hospital Universitario La Paz

María de la Cruz González Álvarez. Facultativo Especialista de Área en Ginecología y Obstetricia. Hospital Universitario La Paz

Sara López Magallón. Facultativo Especialista de Área en Ginecología y Obstetricia. Hospital Universitario La Paz

Francisco López Sánchez. Jefe de Sección de Obstetricia y Ginecología. Hospital Universitario La Paz

Fernando Magdaleno Dans. Jefe de Sección de Obstetricia y Ginecología. Hospital Universitario La Paz. Profesor asociado. Universidad Autónoma de Madrid

Maria Elena Martín Boado. Facultativo Especialista de Área en Ginecología y Obstetricia. Hospital Universitario La Paz

Nuria Martínez Sánchez. Facultativo Especialista de Área en Ginecología y Obstetricia. Hospital Universitario La Paz

Marta Luisa Muner Hernando. Facultativo Especialista de Área en Ginecología y Obstetricia. Hospital Universitario La Paz

Inmaculada Orensanz Fernández. Facultativo Especialista de Área en Ginecología y Obstetricia. Hospital Universitario La Paz

Roberto Rodríguez González. Facultativo Especialista de Área en Ginecología y Obstetricia. Hospital Universitario La Paz

Sara Ruiz Martínez. Investigadora Juan Rodés. Hospital Universitario La Paz

Laura Sotillo Mallo. Facultativo Especialista de Área en Ginecología y Obstetricia. Hospital Universitario La Paz

Immaculada Duyos Mateo. Facultativo Especialista de Área en Ginecología y Obstetricia. Hospital Universitario La Paz





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STRATEGIC OBJECTIVE

To evaluate the implication of placental energy metabolism in obstetric conditions.

Finding new biomarkers in gestational diabetes mellitus and macrosomia.

Find new biomarkers of fetal and perinatal neurological damage and establish new prevention strategies.

New biomarkers in poor placentation.

Pathophysiology and new lines of treatment of fetal heart damage in Anti-Ro positive women.

Fetal therapy.

Infectious diseases. Microbiota.

RESEARCH LINES

- Diabetes mellitus, obesity and metabolic syndrome in pregnancy. Energy metabolism in pregnancy.
- Poor placentation.
- Fetal Neurodevelopment.

- Inflammation, autoimmunity and pregnancy.
- Fetal Therapy.
- Infectious diseases. Microbiota.

RESEARCH ACTIVITY

● Doctoral theses

Calvo Alemán M. VIH y gestación. Epidemiología y complicaciones obstétricas en la era TARGA[dissertation]. Madrid: UAM: 2022(04/07/2022).

Directors: Bartha Rasero JL,
Calle Fernández-Miranda M.

● Final Degree Theses

Angulo Martínez C. Patrones de crecimiento en el embarazo gemelar normal y patológico [dissertation]. Madrid: UAM: (13/06/2022).

Director: Bartha Rasero JL.

Vázquez Greciano S. Relación entre ansiedad y depresión con resultados perinatales [dissertation]. Madrid: UAM: (13/06/2022).

Director: Bartha Rasero JL.

Olalla Gómez A. Inducción del parto en gestaciones gemelares con oxitocina versus prostaglandinas (dinoprostona): estudi

orandomizado[dissertation]. Madrid: UAM: (13/06/2022).

Directors: de la Calle Fernández-Miranda M,
González Rodríguez E.

Sánchez-Rico Lucas-Torres B. Parir tras la menopausia. Estudio observacional ambispectivo de cohortes[dissertation]. Madrid: UAM: (13/06/2022).

Director: de la Calle Fernández-Miranda M,
Cuerva González MJ.

● Publications

- Abascal-Saiz A, Duque-Alcorta M, Fioravanti V, Antolín E, Fuente-Luelmo E, Haro M, Ramos-Alvarez MP, Perdomo G, Bartha JL. The relationship between angiogenic factors and energy metabolism in preeclampsia. *Nutrients*. 2022; 14(10): 2172. Article. IF: 5.9; Q1
- Cabrera-Domínguez G, de la Calle M, Carrillo GH, Ruvira S, Rodríguez-Rodríguez P, Arribas SM, Ramiro-Cortijo D. Women during lactation reduce their physical activity and sleep duration compared to pregnancy. *Int J Env Res Pub He*. 2022; 19(18): 11199. Article. IF: 2.468; Q2
- Capanna F, Haydar A, McCarey C, Carri EB, Rasero JB, Tsibizova V, Helmer H, Makatsarya A, Di Renzo GC. Preparing an obstetric unit in the heart of the epidemic strike of COVID-19: quick reorganization tips. *J Matern-Fetal Neo M*. 2022; 35(7): 1412-8. Article. IF: 1.8; Q4
- Cristóbal I, Cuerva MJ, Rol MJ, Cortes M, de la Calle M, Bartha JL. Influence of introducing a maneuverable vacuum extractor cup on maternal hospital stay after instrumental birth. Retrospective cohort study. *Clin Invest Ginecol Obstet*. 2022; 49(4): 100785. Article. IF: 0.1; Q4
- Cuerva MJ, Carbonell M, Palumbo GM, Magallón SL, de la Calle M, Bartha JL. Personal protective equipment during the COVID-19 pandemic and operative time in cesarean section: retrospective cohort study*. *J Matern-Fetal Neo M*. 2022; 35(15): 2976-9. Article. IF: 1.8; Q4
- Cuerva MJ, González SP, de la Fuente JLC, López FJ, Nieto C. Effect of oestriol gel on dyspareunia in postmenopausal women in 2 weeks of treatment: a pilot study. *J Obstet Gynaecol*. 2022; 42(7): 3397-9. Article. IF: 1.3; Q4
- Cuerva MJ, Rodríguez E, López F, Bartha JL. Intrapartum ultrasound in maternal lateral position. A prospective observational Study. *Clin Exp Obstet Gyn*. 2022; 49(9): 197. Article. IF: 0.2; Q4
- de la Calle M, Baquero-Artigao F, Rodríguez-Mollino P, Cabanes M, Cabrera M, Antolín E, Mellado MJ, Bartha JL. Combined treatment with immunoglobulin and valaciclovir in pregnant women with cytomegalovirus infection and high risk of symptomatic fetal disease. *J Matern-Fetal Neo M*. 2022; 35(16): 3196-200. Article. IF: 1.8; Q4
- de la Calle M, Bartha JL, Marín C, Rus JC, Corrales G, Ruvira S, Ramiro-Cortijo D. Maternal obesity in twin pregnancy: the role of nutrition to reduce maternal and fetal complications. *Nutrients*. 2022; 14(7): 1326. Article. IF: 5.9; Q1
- Donepudi R, Antolín E, Molina F, Sananes N, Khalil A, Abbasi N, Sánchez-Durán MA, Hecher K, Fabietti I, Jouannic JM, Ortiz JU, Borrell A, Gielchinski Y, Cortes MS. Practice patterns amongst fetal centers performing intrauterine transfusions (PACT): An international survey study. *Eur J Obstet Gyn R B*. 2022; 274: 171. Article. IF: 2.6; Q3



3 Information Groups by Area



3.7 Maternal Infant Child and Youth Research Area

- García-Patterson A, Balsells M, Bartha JL, Sola I, Corcón R. Current evidence about better perinatal outcomes associated to one step approach in the diagnosis of gestational diabetes mellitus is not of high quality. *J Matern-Fetal Neo M.* 2022; 35(8): 1580-2. Letter. IF: 1.8; Q4
- Gómez AY, Álvarez MDR, Bartha JL. Influence of diet and lifestyle on the development of gestational diabetes mellitus and on perinatal results. *Nutrients.* 2022; 14(14): 2954. Article. IF: 5.9; Q1
- Iniesta S, Esteban S, Armijo O, Lobo S, Manzano S, Espinosa I, Cárdenas N, Bartha JL, Jiménez E. Ligilactobacillus salivarius PS11610 exerts an effect on the microbial and immunological profile of couples suffering unknown infertility. *Am J Reprod Immunol.* 2022; 88(1): e13552. Article. IF: 3.6; Q2
- Kotton CN, Torre-Cisneros J, (de la Calle Fernández-Miranda M). Cytomegalovirus in the transplant setting: Where are we now and what happens next? A report from the International CMV Symposium 2021. *Transpl Infect Dis.* 2022; 24(6): e13977. Review. IF: 2.6; Q3
- Lamuedra A, Gratal P, Calatrava L, Ruiz-Pérez VL, Palencia-Campos A, Portal-Núñez S, Mediiero A, Herrero-Beaumont G, Largo R. Blocking chondrocyte hypertrophy in conditional Evc knockout mice does not modify cartilage damage in osteoarthritis. *Faseb J.* 2022; 36(4): e22258. Article. IF: 4.8; Q1
- Martín-Palumbo G, Alcorta MD, Atanasova VB, Tejeda MTR, Alvarado EA, Bartha JL. Prenatal prediction of very late onset small-for-gestational age newborns in low-risk pregnancies. *J Matern-Fetal Neo M.* 2022; 35(25): 9816-20. Article. IF: 1.8; Q4
- Martín-Palumbo G, Atanasova VB, Tejeda MTR, Alvarado EA, Bartha JL. Third trimester ultrasound estimated fetal weight for increasing prenatal prediction of small-for-gestational age newborns in low-risk pregnant women. *J Matern-Fetal Neo M.* 2022; 35(25): 6721-6. Article. IF: 1.8; Q4
- Navajas R, Ramos-Fernández A, Herraiz I, Galindo A, Bartha JL, Corrales F, Paradela A. Quantitative proteomic analysis of serum-purified exosomes identifies putative pre-eclampsia-associated biomarkers. *Clin Proteomics.* 2022; 19(1): 5. Article. IF: 3.8; Q2
- Ordás P, Rodríguez R, Herrero B, Deirós U, Gómez E, Llurba E, Bartha JL, Antolín E. Longitudinal changes in fetal head biometry and fetoplacental circulation in fetuses with congenital heart defects. *Acta Obstet Gyn Scan.* 2022; 101(9): 987-95. Article. IF: 4.3; Q1
- Peña-Burgos EM, Cuerva MJ, Antolín E, Bartha JL, de la Calle M. Obstetric perinatal and maternal outcomes of monochorionic diamniotic twins following assisted reproductive techniques. Retrospective observational study. *Clin Invest Ginecol Obstet.* 2022; 49(4): 100770. Article. IF: 0.1; Q4
- Ramírez JM, Cabello A, Garijo J, Hernández-Salván J, Herrero B, Jover JM, Vaquero MA, Unda A, Jiménez A, Martínez-Meco L, Nicolás S, Sánchez-Cabezudo F, Álvarez E, Torres J. Beneficia chirugía. A global surgery project focusing on hernia surgery. *Surg-J R Coll Surg E.* 2022; 20(5): 309-13. Article. IF: 2.5; Q2
- Ramos-Ruperto L, Martínez-Sánchez N, Bartha-Rasero JL, Robles-Marhuenda A. Susac syndrome and pregnancy: a relationship to clarify. About two cases and review of the literature. *J Matern-Fetal Neo M.* 2022; 35(1): 181-6. Review. IF: 1.8; Q4
- Rodo C, de la Calle M, Maroto A, Maiz N, Arévalo S, García-Manau P, Mendoza M, Bartha JL, Carreras E. Gestational age-based reference ranges for cervical length and preterm birth prediction in triplet pregnancies: an observational retrospective study. *BMC Pregnancy Childb.* 2022; 22(1): 669. Article. IF: 3.1; Q2
- Romero A, Dongil P, Valencia I, Vallejo S, San Hipólito-Luengo A, Díaz-Araya G, Bartha JL, González-Arlanzón MM, Rivilla F, de la Cuesta F, Sánchez-Ferrer CF, Peiro C. Pharmacological blockade of NLRP3 inflammasome/IL-1 beta-positive loop mitigates endothelial cell senescence and dysfunction. *Aging Dis.* 2022; 13(1): 284-97. Article. IF: 7.4; Q1
- Soveral I, Guirado L, Escobar-Díaz MC, Alcaide MJ, Martínez JM, Rodríguez-Sureda V, Bijens B, Antolín E, Llurba E, Bartha JL, Gómez O, Crispí F. Cord blood cardiovascular biomarkers in left-sided congenital heart disease. *J Clin Med.* 2022; 11(23): 7119. Article. IF: 3.9; Q2

● Research projects

Antolín Alvarado E. Modelos predictivos de daño neurológico y riesgo cardiovascular mediante la integración de técnicas de imagen y biomarcadores en la gestación monocorial. Biología de sistemas (PI19/00904). ISCIII. 2020-2022.

Management centre: FIBHULP

Bartha Rasero JL. Biología de sistemas para la búsqueda de marcadores tempranos de placentación deficiente (PI19/00915). ISCIII. 2020-2022.

Management centre: FIBHULP



Bartha Rasero JL. Implicación de la oxidación mitocondrial de ácidos grasos placentaria en la patogenesís y clínica de la preeclampsia. Laboratorios Farmaceúticos Rovi S. A. 2016-Ongoing.

Management centre: FIBHULP



3 Information Groups by Area



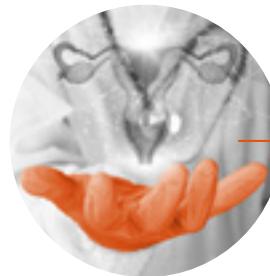
3.7 Maternal Infant Child and Youth Research Area

1 Introduction

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3.7.4

Pediatric Respiratory, Systemic and Neurological Infections & Host Immune Response Group

Publications: 44
Q1: 21**COMPOSITION**

Cristina Calvo Rey. Jefe de Sección del Servicio de Pediatría Hospitalaria, Enfermedades Infecciosas y Tropicales. Hospital Universitario La Paz

María Rosa Albañil Ballesteros. Pediatra Titular. Centro de Salud de Cuzco. Atención Primaria

Sonia Alcolea Ruiz. Investigadora Predoctoral. Hospital Universitario La Paz

María Mercedes Bueno Campaña. Facultativo Especialista de Área en Pediatría. Hospital Fundación de Alcorcón

María Cabrerizo Sanz. Científico titular de OPIs. Instituto de Salud Carlos III

Sara Camarero Serrano. Ayudante de Investigación I+D+I. Instituto de Salud Carlos III

Inmaculada Casas Flecha. Investigador Científico de OPIs. Instituto de Salud Carlos III

Teresa del Rosal Rabes. Médico Adjunto de Pediatría Hospitalaria y Enfermedades Infecciosas y Tropicales. Hospital Universitario La Paz

María Luz García García. Jefe de Servicio de Pediatría. Hospital Universitario Severo Ochoa

Paula García Sánchez. Médico Adjunto en Servicio de Urgencias Pediátricas. Hospital Universitario La Paz

Carlos Grasa Lozano. Contrato Río Hortega. Hospital Universitario La Paz

Jara Hurtado Gallego. Investigadora Postdoctoral. CIBER

María de la Montaña Iglesias Caballero. Técnica Superior Especializada de OPIs. Centro Nacional de Microbiología. Instituto de Salud Carlos III

Ana María Méndez Echeverría. Facultativo Especialista de Área en Pediatría General. Hospital Universitario La Paz

Mar Molinero Calamita. Colaboradora I+D+I. Centro Nacional de Microbiología. Instituto de Salud Carlos III

Juan Francisco Pozo Sánchez. Científico Titular de OPIs. Unidad de Virus Respiratorios y Gripe. Instituto de Salud Carlos III

Clara Udaondo Gascón. Facultativo Especialista en Reumatología Pediátrica. Hospital Universitario La Paz

Maria Cabrerizo



Cristina Calvo



Rosa Albañil



Ana María Méndez Echeverría



Teresa del Rosal



Inmaculada Casas



Clara Udaondo Gascón

STRATEGIC OBJECTIVE

Infectious diseases are the most frequent pathology in childhood. Our group is focused in the study of paediatric infections with special attention to those associated to viruses.

The acute respiratory infections (ARIs) of lower respiratory tract are the most frequent infectious diseases in humans and these suppose at least 4 million of deaths yearly in the world. A

high proportion of these infections are related with viral aetiology and particularly in children. In our country, the viral ARIs are one of the most frequent causes of hospitalization in children less than 2 years old. Using the metagenomics and applying an adapted method designed and developed for ARIs study, we will have achieve an increased knowledge of viral infec-



3 Information Groups by Area



3.7 Maternal Infant Child and Youth Research Area

tions in hospitalized children of all ages, as well as in outpatients. Metagenomics could allow recognizing new viruses and also permits a deeper knowledge of traditional respiratory virus groups. Any new technological tool and its application to respiratory infection will mean an improvement in the diagnosis and monitoring of these types of infections and their immediate use is specified for resolving alerts in public health associated with respiratory viral infections is like the case of MERS-CoV, avian flu, or other influenza pandemics. The pandemic caused by SARS-CoV-2 and the COVID-19 disease in childhood has occupied a large part of the research of our group since its appearance. We are also interested in the study of the immunological response of the infants to the viral infections, and the mechanisms that allow develop recurrent wheezing, or asthma (the most frequent chronic disease in children).

Emerging viral infections have also an important role in the pathology in childhood. Recently picornaviruses, mainly human parechovirus and enterovirus are causing outbreaks and several neurological infections, morbidity and mortality. They were associated with a wide range of pathologies, from febrile syndrome to respiratory, neurological or systemic diseases. In newborns, these infections can be severe, even fatal. Surveillance of these polio-like diseases is a public health concern and it is one of our group objectives.

Finally, to study viral infections in high risk group of children (newborn, chronic lung diseases, immunodeficiencies, oncologic patients, rheumatic diseases...) is also a priority in our group. Emerging areas of research in our group are zoonosis and invasive fungal infections in high risk children.

RESEARCH LINES

- Respiratory viral infections in healthy and high risk children (newborn, chronic lung diseases, immunodeficiencies, oncologic patients...). Torquato virus in immunocompromised children.. Viral metagenomic methods applied to the severe infections of the lower respiratory tract. SARS-CoV-2 infections in children. Applying of new technologies as echography to value risk conditions in viral infections.
- Infections related with locomotor system. Osteoarticular infections. Infections in children with rheumatic diseases. Kawasaki disease.

- Immune response of the children and interleukins profile in infants with respiratory viral infections and correlation with the development of recurrent wheezing in the first years of life. Role of microbiome.
- Detection and characterization of enterovirus (EV) and parechovirus (PeV) systemic and neurological infections in children. Neurological development in children with EV and PeV infections.
- Emerging infections in high risk children: zoonosis and invasive fungal infections.

RESEARCH ACTIVITY

● Doctoral theses

Alcobendas Rueda R. Infecciones osteoarticulares pediátricas. Nuevas opciones terapéuticas. [dissertation]. Madrid: UCM; 2022(03/06/2022).

Director: Calvo Rey C.

Grasa Lozano CD. Enfermedad de Kawasaki en España. Factores de riesgo para el desarrollo de aneurismas coronarios y utilidad de los scores diagnósticos.[dissertation]. Madrid: UAM; 2022(23/05/2022).

Directors: Calvo Rey C,
Fernandez Cooke E.

Sánchez García L. Viejos y nuevos virus respiratorios en neonatología: aproximación

sistemática a su epidemiología e impacto en la salud [dissertation]. Madrid: UAM; 2022(07/02/2022).

Directors: Pellicer Martínez A,
Calvo Rey C.

● Master Theses

Sánchez León R. Genomic surveillance and molecular characterisation of rotaviruses causing acute gastroenteritis.[dissertation]. Madrid: UAM; (01/07/2022).

Directors: Fernández MD,
Calvo Rey C.

● Final Degree Theses

González Pérez J. Community-acquired methicillin-resistant s. aureus infections and

colonization in spanish children[dissertation]. Madrid: UAM; 2022(20/06/2022).

Director: Méndez Echevarría A

● Publications

- Agud M, de Medrano I, Méndez-Echevarría A, Sainz T, Román F, Carrascoso GR, Escosa-García L, Amores CM, Climent FJ, Rodríguez A, de Vilalta MGF, Calvo C. Risk factors for antibiotic-resistant bacteria colonisation in children with chronic complex conditions. *Sci Rep-Uk.* 2022; 12(1): 7223. Article. IF: 4.6; Q2
- Aguilera-Alonso D, Alonso-Cadenas JA, Roguer-Sopena M, Lorusso N, San Miguel LG, Calvo C. Monkeypox virus infections in children in Spain during the first months of the 2022 outbreak. *Lancet Child Adolesc Health.* 2022; 6(11): E22-3. Letter. IF: 3.2; Q2
- Aguilera-Alonso D, Epalza C, Sanz-Santaeufemia FJ, Grasa C, Villanueva-Medina S, Pérez SM, Hernández EC, Urretavizcaya-Martínez M, Pino R, Gómez MN, Orive JP, Zarate AG, Lana PV, Montero RG, González SR, Calvo C, Iglesias-Bouzas MI, Caro-Teller JM, Domínguez-Rodríguez S, Ballesteros A, Mesa J, Cobos-Carrascosa E, Tagarro A, Moraleda C. Antibiotic prescribing in children hospitalized with covid-19 and multisystem inflammatory syndrome in spain: prevalence, trends, and associated factors. *J Pediatric Infect Dis Soc.* 2022; 11(5): 225-8. Article. IF: 3.2; Q2
- Alcobendas RM, Núñez E, Calvo C. Minimally invasive management of pediatric osteoarticular infections. *Front Pediatr.* 2022; 10: 1017035. Edi-



3 Information Groups by Area

3.7 Maternal Infant Child and Youth Research Area

Editorial Material. IF: 2.6; Q2

- Arranz CR, Ballesteros MRA, Vera CG, Alberdi MB, de Gómez MJG. Diagnostic study of pertussis using PCR in primary care clinics. *An Pediatr*. 2022; 97(4): 262-9. Article. IF: 2.1; Q3
- Bergia M, Sánchez-Marcos E, González-Haba B, Hernaiz AI, de Ceano-Vivas M, López-Hortelano MG, García-García ML, Jiménez-García R, Calvo C. Comparative study shows that 1 in 7 Spanish children with COVID-19 symptoms were still experiencing issues after 12 weeks. *Acta Paediatr*. 2022; 111(8): 1573-82. Article. IF: 3.8; Q1
- Cabrerizo M, Hidalgo-Montes I, Méndez-Echevarría A, Rodríguez-Peña R, Ruiz-Carrascoso G, Martínez-Ojinaga E, del Rosal T, Pasterán LG, Fernández-García MD. Severe vaccine-acquired rotavirus infection in an infant with primary intestinal lymphangiectasia. *Pediatr Allerg Immunol*. 2022; 33(8): e13834. Letter. IF: 4.4; D1
- Cerrada-Romero C, Berastegui-Cabrera J, Camacho-Martínez P, Goikoetxea-Aguirre J, Pérez-Palacios P, Santibáñez S, Blanco-Vidal MJ, Valiente

A, Alba J, Rodríguez-Álvarez R, Pascual A, Oteo JA, Cisneros JM, Pachón J, Casas-Flecha I, Cordeiro E, Pozo F, Sánchez-Cespedes J. Excretion and viability of SARS-CoV-2 in feces and its association with the clinical outcome of COVID-19. *Sci Rep*. 2022; 12(1): 7397. Article. IF: 4.6; Q2

- Cuadros EN, Calzada-Hernández J, Clemente D, Martín SG, Silveira LF, Lirola-Cruz MJ, Tagarro A, Lovillo MC, Rueda RMA, López AL, Ariztizuri MS, Calvo C. Position statement of the Spanish Society of Pediatric Rheumatology on infection screening, prophylaxis, and vaccination of pediatric patients with rheumatic diseases and immunosuppressive therapies: Part 1 (screening). *Eur J Pediatr*. 2022; 181(6): 2343-54. Article. IF: 3.6; Q1
- del Cuerpo M, de Audicana JG, Fernández-García MD, Marín P, Esteban M, Español M, Cabrerizo M, Rabella N. Epidemiology of echovirus 30 infections detected in a university hospital in Catalonia, Spain, in 1995-2020. *Microorganisms*. 2022; 10(3): 592. Article. IF: 4.5; Q2
- del Rosal T, Quintana-Ortega C, Deya-Martínez

A, Soler-Palacín P, Goycochea-Valdivia WA, Salomón N, Pérez-Martínez A, Alsina L, Martín-Nalda A, Alonso L, Neth O, Bravo-Gallego LY, González-Granado LI, Mendez-Echevarría A. Impact of cytomegalovirus infection prior to hematopoietic stem cell transplantation in children with inborn errors of immunity. *Eur J Pediatr*. 2022; 181(11): 3889-98. Article. IF: 3.6; Q1

- del Valle R, Ballesteros A, Calvo C, Sainz T, Méndez A, Grasa C, Molina PR, Mellado MJ, Sanz-Santaeufemia FJ, Herrero B, Calleja L, Soriano-Arandes A, Melendo S, Rincón-López E, Hernanz A, Epalza C, García-Baeza C, RuPérez-García E, Berzosa A, Ocaña A, Villarroya-Villalba A, Barrios A, Otheo E, Galán JC, Rodríguez MJ, Mesa JM, Domínguez-Rodríguez S, Moraleda C, Tagarro A. Comparison of pneumonia features in children caused by SARS-CoV-2 and other viral respiratory pathogens. *Pediatr Pulm*. 2022; 57(10): 2374-82. Article. IF: 3.1; Q2
- Flores-Pérez P, Gerig N, Cabrera-López MI, de Unzueta-Roch JL, del Rosal T, Calvo C. Acute bronchiolitis during the COVID-19 pandemic. *Enferm Infect Micr Cl*. 2022; 40(10): 572-5. Article. IF: 2.5; Q4
- García-Boyano M, Baquero-Artigao F, Toro C, Alguacil-Guillén M, Lázaro-Perona F, Calvo C. Mycobacterium mageritense Lymphadenitis in Child. *Emerg Infect Dis*. 2022; 28(3): 752-3. Letter. IF: 11.8; D1
- García-Vidal C, Iglesias-Caballero M, Puerta-Alcalde P, Mas V, Cuesta-Chasco G, García-Pouton N, Varona S, Pozo F, Vázquez-Morón S, Marcos MA, Soriano A, Casas I. Emergence of progressive mutations in Sars-CoV-2 from a hematologic patient with prolonged viral replication. *Front Microbiol*. 2022; 13: 826883. Article. IF: 5.2; Q2
- Gómez CD, Ivanova SM, del Rosal T, Cámará C, Serrano CO, Arenas MEP, Palacios ACM, Ramos CAD. Uncommon cause of hemoptysis in a 15-year-old boy. *Chest*. 2022; 162(4): E161-4. Editorial Material. IF: 9.6; Q1
- Grasa C, Ochoa B, Baquero-Artigao F, San Román S, Galán-Gómez V, del Rosal T, Calvo C, Pérez-Martínez A. Disseminated tuberculosis infection in a CAR T-cell recipient. *Pediatr Blood Cancer*. 2022; 69(7): e29615. Letter. IF: 3.2; Q2
- Grasa CD, Fernández-Cooke E, Domínguez-Rodríguez S, Aracil-Santos J, Tascón AB, Sánchez-Manubens J, Mercader B, Antón J, Núñez E, Villalobos E, Bustillo M, Camacho M, Benavent MO, Giralt G, Naranjo AMB, Rocandio B, Calvo C. Risk scores for Kawasaki disease, a management tool developed by the KAWA-RACE cohort. *Clin Rheumatol*. 2022; 41(12): 3759-68. Article. IF: 3.4; Q3
- Grasa CD, Fernández-Cooke E, Sánchez-Manubens J, Carazo-Gallego B, Aracil-Santos J, Anton J, Lirola MJ, Mercader B, Villalobos E, Bustillo M, Giralt G, Rocandio B, Escribano LM, Domínguez-Rodríguez S, Calvo C. Kawasaki disease in children younger than 6 months of age: characteristics of a Spanish cohort. *Eur J Pediatr*. 2022; 181(2): 589-98. Article. IF: 3.6; Q1
- Gutiérrez-Camus A, Valverde E, del Rosal T, Utrilla C, Ruiz-Carrascoso G, Falces-Romero I, Calvo C, de Pipaón MS. Norovirus-associated white matter injury in a term newborn with seizures. *Pediatr Infect Dis J*. 2022; 41(11): 917-8. Article. IF: 3.6; Q1
- Jacqueline C, Arrojo MD, Moreira PB, Feijoo MAR, Cabrerizo M, Fernández-García MD. Norovirus GI.3[P12] outbreak associated with the drinking water supply in a rural area in Galicia, Spain, 2021. *Microbiol Spectr*. 2022; 10(4): e0104822. Article. IF: 3.7; Q2
- Jiménez D, Martínez-Sanz J, Sainz T, Calvo C, Méndez-Echevarría A, Moreno E, Blázquez-Gamero D, Vizcarra P, Rodríguez M, Jenkins R, Sánchez-Conde M, Ron R, Norman F, Moreno S, Ferrer M, Serrano-Villar S. Differences in saliva ACE2 activity among infected and non-infected adult and pediatric population exposed to SARS-CoV-2. *J Infection*. 2022; 85(1): 86-9. Article. IF: 28.2; D1
- Kissling E, Hooiveld M, Martínez-Baz I, Mazagatos C, William N, Vilcu AM, Kooijman MN, Ilic M, Domegan L, Machado A, de Lusignan S, Lazar M, Meijer A, Brytting M, Casado I, Larrauri A, Murray JK, Behillil S, de Gier B, Mlinaric I, O'Donnell J, Rodrigues AP, Tsang R, Timnea O, de Lange M, Riess M, Castilla J, Pozo F, Hamilton M, Falchi A, Knol MJ, Filipovic SK, Dunford L, Guiomar R, Cogdale J, Cherci C, Jansen T, Enkirch T, Basile L, Connell J, Gómez V, Martin VS, Bacci S, Rose AMC, Celentano LP, Valenciano M. Effectiveness of complete primary vaccination against COVID-19 at primary care and community level during predominant Delta circulation in Europe: multicentre analysis, I-MOVE-COVID-19 and ECDC networks, July to August 2021. *Euro Surveill*. 2022; 27(21): 2101104. Article. IF: 19; D1
- Lang JE, Hornik CP, Elliott C, Silverstein A, Hornek C, Al-Uzri A, Bosheva M, Bradley JS, Borja-

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4 Associated Clinicians





3 Information Groups by Area

3.7 Maternal Infant Child and Youth Research Area

Tabora CFC, Di John D, Echevarría AM, Ericson JE, Friedel D, Gonczi F, Isidro MGD, James LP, Kalocsai K, Koutroulis I, Laki I, Ong-Lim ALT, Nad M, Simon G, Syed S, Szabo E, Benjamin DK, Cohen-Wolkowicz M. Solithromycin in children and adolescents with community-acquired bacterial pneumonia. *Pediatr Infect Dis J.* 2022; 41(7): 556-62. Article. IF: 3.6; Q1

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● Research projects

Bueno Campaña M. Aplicación de la inteligencia artificial en ecografía torácica clínica para el manejo de infecciones respiratorias con sibilancias en menores de 2 años (Premios de Investigación HUFA2022). Fundación Hospital Alcorcón. 2022-2024.

Management centre: HUFA

Bueno Campaña M. Fortalecimiento de la detección temprana de IRAs mediante herramientas innovadoras en zonas rurales de Guatemala en el contexto de COVID-19. (2020/PRYC/001192). Agencia Española de Cooperación Internacional al Desarrollo. 2021-2023.

Management centre: HUFA

Cabrérizo Sanz M. Investigación de las infecciones neurológicas graves en niños causadas por enterovirus emergentes en España: EV-A71 y EV-D68 (PI18/00017). ISCIII. 2018-2023.

Management centre: ISCIII

Calvo Rey C. Colonización por staphylococcus aureus resistente a meticilina en niños sanos de la comunidad (Estudio Cosaco). estudio multicéntrico de ámbito nacional. Fundación SEIP. 2018-Ongoing.

Management centre: FIBHULP

Calvo Rey C. Explorando la epidemiología del Sars-CoV-2 en un entorno de alto riesgo para caracterizar la dinámica de transmisión entre los contactos del hogar, centrándose en el papel de los niños y las mascotas (estudio sanicov): un estudio de cohorte prospectivo. Merck Sharp and Dohme de España S.A. 2020-Ongoing.

Management centre: FIBHULP

Calvo Rey C. Highly efficient technology for clean and safe air: development of advanced air purifiers to inactivate pathogens in aero-



3 Information Groups by Area

3.7 Maternal Infant Child and Youth Research Area

sols. INIA. 2022-Ongoing.

Management centre: FIBHULP

Calvo Rey C. Impacto de la pandemia COVID-19 en las infecciones respiratorias virales, respuesta inmune y microbiota en el primer año de vida incluyendo recién nacidos prematuros (PI21/00377). ISCIII. 2022-Ongoing.

Management centre: FIBHULP

Calvo Rey C. Infecciones en niños con artritis idiopática juvenil. Fundación SEIP. 2017-Ongoing.

Management centre: FIBHULP

Calvo Rey C. Infecciones osteoarticulares en pediatría. Estudio prospectivo multicéntrico. Fundación de la Asociación Española de Pediatría. 2017-Ongoing.

Management centre: FIBHULP

Calvo Rey C. Infecciones respiratorias virales en recién nacidos de muy bajo peso. Fundación Neumomadrid. 2017-Ongoing.

Management centre: FIBHULP

Calvo Rey C. Infecciones virales respiratorias en recién nacidos de muy bajo peso, respuesta inmunológica e implantaciones pronósticas (PI18/00167). ISCIII. 2019-2022.

Management centre: FIBHULP

Casas Flecha I. Enhancing Whole Genome Sequencing (WGS) and/or Reverse Transcription Polymerase Chain Reaction (RT-PCR) national infrastructures and capacities to respond to the Covid-19 pandemic in Spain. EU. 2021-2022.

Management centre: ISCIII

Casas Flecha I. Infección respiratoria aguda en niños tras 2 años de pandemia de SARS-CoV-2: virus y respuesta inmune (PI21/00019). ISCIII. 2022-2024.

Management centre: ISCIII

Casas Flecha I. Integración de la información genómica de SARS-CoV-2 y estudio del comportamiento antigenico de las nuevas variantes y linajes (COVIDSEQ-UNESPA). Unión Española de Entidades Aseguradoras y Reaseguradoras. 2022-2024.

Management centre: ISCIII

del Rosal Rabés T. Aplicación de las técnicas moleculares al estudio etiológico de la neumonía atípica o indeterminada en niños hospitalizados. Fundación de la Asociación Española de Pediatría. 2019-Ongoing.

Management centre: FIBHULP

del Rosal Rabés T. Infecciones por virus respiratorios y células NK en vías respiratorias en niños receptores de trasplante de progenitores hematopoyéticos. Estudio prospectivo. European Society of Pediatric Infectious Diseases. 2017-Ongoing.

Management centre: FIBHULP

del Rosal Rabés T. Torque teno virus (TTV) como potencial marcador de reconstitución inmune y complicaciones en niños sometidos a trasplante alogénico de progenitores hematopoyéticos (TPH). FIBULP. 2022-Ongoing.

Management centre: FIBHULP

García García ML. Influencia de la microbiota y de la respuesta inmune en la gravedad de la bronquiolitis aguda y en el desarrollo posterior de asma. SEPAR. 2021-2023.

Management centre: Fundación Puerta de Hierro

Gianquinto C, Calvo Rey C. SARS-CoV2 variants Evaluation in pregnancy and paediatrics cohorts (VERDI). EU. 2021-Ongoing.

Management centre: PENTA, FIBHULP

Grasa Lozano CD. Capacitación de profesionales sanitarios en el manejo de la infección fungica invasiva en pediatría (GLD21/13382).

Gilead Science S.L. 2022-2023.

Management centre: SEIMC

Grasa Lozano CD. Contrato Rio Hortega (CM19/00015). ISCIII. 2020-2022.

Management centre: FIBHULP

Grasa Lozano CD. Perfect. estudio de infección fungica invasiva en pediatría. Gilead Sciences S.L. 2021-Ongoing.

Management centre: FIBHULP

Méndez Echecarriá AM. Niños inmunodeprimidos y mascotas. ¿Por qué, cómo, cuándo...? Recomendaciones basadas en evidencias para pacientes inmunodeprimidos y sus mascotas. Mapfre. 2021-2022.

Management centre: FIBHULP

Udaondo Gascón C. Banco de imágenes de

capilaroscopias en población pediátrica. Sociedad Española de Reumatología Pediátrica. 2019-Ongoing.

Management centre: FIBHULP

Udaondo Gascón C. Contrato Rio Hortega (CM21/00012). ISCIII. 2022-2023.

Management centre: FIBHULP

● Cibers and Retics

Calvo Rey C. Centro de Investigación Biomédica en Res en Enfermedades Infecciosas (CIBERINFEC) (CB21/13/00025). ISCIII. (31/12/2024). FIBHULP

Casas Flecha I. Red de Laboratorios Españoles de secuenciación Genómica de SARS-CoV-2. (RELECOV). EU. (31/12/2023). ISCIII





3 Information Groups by Area



3.7 Maternal Infant Child and Youth Research Area

● Clinical trials

Calvo Rey C. Ensayo en fase III, aleatorizado, doble ciego para evaluar la seguridad de una vacuna conjugada antineumocócica 20-valente en lactantes sanos.

Type: Clinical Trials, phase III. 2022.346.

Sponsored by: Pfizer, S.L.U.

Signed date: 28/06/2022

Calvo Rey C. Estudio de fase II, aleatorizado, doble ciego, controlado con placebo y de 2 partes, para evaluar pautas de tratamiento de edp-938 en pacientes de 28 días a 24 meses de edad con infección por el virus respiratorio sincitial (vrs).

Type: Clinical Trials, phase II. 2022.355.

Sponsored by: Enanta Pharmaceuticals, Inc.

Signed date: 16/06/2022

Calvo Rey C. Estudio de fase Ila sin enmascaramiento en lactantes con infección de las vías respiratorias bajas por el virus sincitial respiratorio, seguido de una parte con doble enmascaramiento controlada con placebo, para evaluar la seguridad, la tolerabilidad, la farmacocinética y el efecto antivírico de rv521 (reviral 1).

Type: Clinical Trials, phase II. 2022.561.

Sponsored by: Reviarl Ltd.

Signed date: 17/10/2022

Calvo Rey C. Estudio de fase III, doble ciego, aleatorizado y controlado con placebo para evaluar la seguridad, la reactogenicidad y la respuesta inmunitaria de una dosis intramuscular única de la vacuna materna contra el virus respiratorio sincitial (vrs) no potenciada en mujeres embarazadas de alto riesgo de 15 a 49 años y los lactantes nacidos de las madres vacunadas.

Type: Clinical Trials, phase III. Appendix 1 5888.

Sponsored by: Glaxosmithkline, S.A.

Signed date: 03/05/2022

Calvo Rey C. Estudio de fase IIIb, abierto y multicéntrico para evaluar la inmunogenicidad y la seguridad de una dosis de recuerdo y describir la persistencia inmunitaria de la vacuna conjugada menacyw con dosis de recuerdo de 5 y/o 10 años en niños y adolescentes que habían recibido la vacuna conjugada menacyw cuando eran pequeños.

Type: Clinical Trials, phase III. 2023.068.

Sponsored by: Sanofi Aventis S.A.

Signed date: 20/12/2022

Calvo Rey C. Estudio en fase IIb abierto para evaluar la seguridad, tolerabilidad e inmunogenicidad de menabcwy en lactantes sanos de 2 y 6 meses.

Type: Clinical Trials, phase IIb. 2022.327.

Sponsored by: Pfizer, S.L.U.

Signed date: 22/06/2022

Calvo Rey C. Estudio fase III, aleatorizado, doble ciego, controlado con placebo y multicéntrico para demostrar la eficacia de una dosis única de la vacuna materna no adyuvada frente al virus respiratorio sincitial (vrs), administrada por vía im a gestantes de 18 a 49 años de edad, para la prevención de la enfermedad vías respiratorias bajas (evrb) asociada al vrs en sus hijos hasta los 6 meses de edad.

Type: Clinical Trials, phase III. 2022.204.

Sponsored by: Glaxosmithkline, S.A.

Signed date: 04/05/2022

Calvo Rey C. Estudio fase III, aleatorizado, doble ciego, controlado con placebo y multicéntrico para demostrar la eficacia de una dosis única de la vacuna materna no adyuvada frente al virus respiratorio sincitial (vrs), administrada por vía im a gestantes de 18 a 49 años de edad, para la prevención de la enfermedad vías respiratorias bajas (evrb) asociada al vrs en sus hijos hasta los 6 meses de edad.

Type: Clinical Trials, phase III. 2022.328.

Sponsored by: Glaxosmithkline, S.A.

Signed date: 06/07/2022

Calvo Rey C. Inmunogenicidad y seguridad de la vacuna antigripal tetravalente recom-

binante en comparación con la vacuna antigripal tetravalente a base de huevo de dosis estándar en niños de 3 a 8 años.

Type: Clinical Trials, phase III. 2022.654.

Sponsored by: Sanofi Pasteur Inc.

Signed date: 09/12/2022

Calvo Rey C. Un estudio de fase IIIb, multicéntrico, abierto, para evaluar la inmunogenicidad y la seguridad de una dosis de refuerzo y describir la persistencia inmunitaria de la dosis de primovacunación estudio de fase IIIb, abierto y multicéntrico para evaluar la inmunogenicidad y la seguridad de una dosis de recuerdo y describir la persistencia inmunitaria de la vacuna conjugada menacyw con dosis de recuerdo de 5 y/o 10 años en niños y adolescentes que habían recibido la vacuna conjugada menacyw cuando eran pequeños.

Type: Clinical Trials, phase III. 2022.265.

Sponsored by: Sanofi Aventis S.A.

Signed date: 12/05/2022

Udaondo Gascón C. Estudio abierto de dosis múltiples para evaluar la farmacocinética, la seguridad y la tolerabilidad de upadacitinib en pacientes pediátricos con artritis idiopática juvenil de evolución poliarticular.

Type: Clinical Trials, phase III. 2022.542.

Sponsored by: Abbvie Deutschland GmbH.

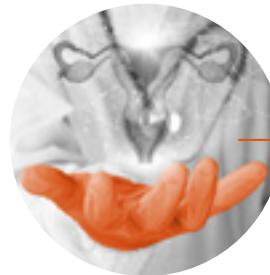
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3 Information Groups by Area



3.7 Maternal Infant Child and Youth Research Area



3.7.5

Pediatric Systemic Infections; HIV, Tuberculosis, Imported and Emergent Diseases Group

Publications: 30
Q1: 13

COMPOSITION

Talía Sainz Costa. Facultativo Especialista de Área en Pediatría. Hospital Universitario La Paz. Profesora Asociada. Universidad Autónoma de Madrid

Jorge Atucha Margolles. Técnico de Laboratorio. FIBHULP

Fernando Baquero Artigao. Facultativo Especialista de Área de Pediatría. Hospital Universitario La Paz. Profesor Colaborador. Universidad Complutense de Madrid

Jorge Bustamante Amador. Investigador Predoctoral. Hospital Universitario La Paz

Francisco José Climent Alcalá. Facultativo Especialista de Área de Pediatría. Unidad de Patología Compleja. Hospital Universitario La Paz. Colaborador docente. Universidad Autónoma de Madrid

Lucía Escolano Taravillo. Investigador Predoctoral. Hospital Universitario La Paz

Luis Escosa García. Facultativo Especialista de Área en Pediatría. Hospital Universitario La Paz

Jaime Delgado Pérez. Investigador Predoctoral. Hospital Universitario La Paz

Miguel García Boyano. Investigador Predoctoral. Hospital Universitario La Paz

Marta García Fernández de Villalta. Facultativo Especialista de Área de Pediatría. Hospital Universitario La Paz. Colaborador Clínico Docente. Universidad Autónoma de Madrid

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Roi Piñeiro Pérez. Jefe Asociado del Servicio de Pediatría. Hospital General de Villalba

Paula Rodríguez Molino. Contrato Rio Hortega. Hospital Universitario La Paz





STRATEGIC OBJECTIVE

Vertically acquired HIV infection in children: Comorbidities, biomarkers, HIV reservoir, new therapeutic approaches.

Epidemiology of Paediatric Tuberculosis in Spain: molecular epidemiology of drug resistant strains, new diagnostic tools and new drugs for TB: Pharmacodynamics in children and TB-drugs Off-label use in paediatrics.

Congenital infections: burden of disease, prompt diagnosis and in-utero and postnatal management, host immune response.

Immunization strategies in children: immune response in high risk patient's vaccine effectiveness and barriers.

Epidemiology of imported and emergent diseases in children: Identification and management of emergent outbreaks. Immuno-pathogenesis, preventive measures and management. Covid-19 in children.

Social Determinants of Health in Pediatrics.

Infection and immunity: microbiome ate the corssroad of immunity and allergy.

Health-care associated Infections. Resistant bacteria and antimicrobial stewardship / Infeccio-nes asociadas con la asistencia sanitaria. Resistencias a antimicrobioanos y programas de optimización de antimicrobianos.

RESEARCH LINES

Vertically acquired HIV infection in children.

- Immuno-pathogenesis: Immune-activation, inflammation and biomarkers.
- Epidemiology, immuno-virological factors.
- Comorbidities, long term follow-up, cardiovascular risk, bone disorders, metabolic abnormalities, neurocognitive impairment, renal dysfunction.
- Antiretroviral treatment: new drugs, resistances, dosage, toxicity in children, simplification strategies.
- HIV eradication: barriers, HIV reservoir, new antiretroviral drugs and other strategies to achieve HIV replication control.
- Gut Microbiota and bacterial traslocation intestinal as modulating factors for inflammation and Immune-activation in HIV-infected children.
- Transition to adult care: barriers, strategies to maintain adherence to care.

Epidemiology of paediatric Tuberculosis (TB)

- Epidemiology of paediatric TB. paediatric cases as as a sentinel for burden of diseases.
- Molecular Epidemiology of paediatric TB: resistant strains.
- Immuno-pathogenesis: New diagnostic tools in special Populations: HIV-infected, ID patients.
- Management of critical situations. Neonatal TB, multidrug resistant and extra-pulmonary TB.

Oomics for the diagnosis of pediatric TB

- New fixed-dosed combinations. Off label drugs in children. Pharmacodynamic and pharmacokinetic.

Congenital infectious diseases

- Congenital Citomegalovirus and Toxoplasma infections: diagnostic barriers, prognostic factors, new therapeutic approaches.

- CHAGAS disease and congenital TB: diagnostic barriers, prognostic factors, pharmacokinetics in newborns and new drugs.

Epidemiology of imported and emergent diseases in children

- Paediatric International Outbreaks: Epidemiology and public health impact: Zika. Ra-bies. Dengue. Chikungunya. Haemorragic fevers, Mers-co.
- Imported diseases in Spain: epidemiology and special populations: adopted, migrant, refugees, travelers and ID children. Tropical and parasitic infections in children.
- COVID-19 disease in children: epidemiology , diagnostic markers, treatment.

Immunization strategies in children, including high risk patients

- Immunization and vaccine response in special populations: immunocompromised children, transplant recipients, chronic patients, HIV-infected, migrants.
- Vaccine immunogenicity: barriers in paediatric populations.
- New challenges in vaccinology.

Microbiome in pediatric infectious diseases

- Microbiome-related biomarkers in food allergy and intolerances.
- Microbiome-related biomarkers in childhood TB and other respiratory infections.
- Social Determinants of Health in Pediatrics.
- The burden of chronic disease in childhood.
- Health-care associated Infections.
- The burden of antimicrobial resistance.
- Antimicrobial stewardship in pediatrics.



3 Information Groups by Area



3.7 Maternal Infant Child and Youth Research Area

RESEARCH ACTIVITY

● Doctoral theses

Carrasco García I. Enfermedad hepática en niños y jóvenes que viven con infección vertical por el Virus de la Inmunodeficiencia Humana (VIH)[dissertation]. Madrid: UCM: 2022(19/07/2022).

Director: Sainz Costa T.

Bustamante Amador J. Parasitosis importadas en Pediatría[dissertation]. Madrid: UAM: 2022(10/10/2027).

Directors: Mellado Peña MJ,
Sainz Costa T.

● Master Theses

Crespo C. Factores de transmisión vertical del VIH en embarazadas de 15 a 24 años. [dissertation]. Madrid: UAM: 2022.

Director: Sainz Costa T.

Jalón Flores G. Incidencia de mujeres embarazadas con VIH en el hospital General del Norte de Guayaquil IEES los Ceibos en el año 2021[dissertation]. Madrid: UAM: 2022.

Director: Sainz Costa T.

● Degree Final Theses

Andrés Blanco L. Efecto de la pandemia COVID19 en el abuso sexual infantil[dissertation]. Madrid: UAM: 2022.

Director: Sainz Costa T.

● Publications

- Agud M, de Medrano I, Méndez-Echevarría A, Sainz T, Román F, Carrascoso GR, Escosa-García L, Amores CM, Climent FJ, Rodríguez A, de Villalta MGF, Calvo C. Risk factors for antibiotic-resistant bacteria colonisation in children with chronic complex conditions. *Sci Rep-Uk*. 2022; 12(1): 7223. Article. IF: 4.6; Q2
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3 Information Groups by Area

3.7 Maternal Infant Child and Youth Research Area

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Research projects

Escosa García L. Estudio de infecciones por bacterias resistentes a carbapenémicos en pediatría. Fundación SEIP. 2022-Ongoing.

Management centre: FIBHULP

Rodríguez Molino P. Contrato Río Hortega (CM21/00174). ISCI. 2022-2024.

Management centre: FIBHULP

Rodríguez Molino P. Estudio de la respuesta vacunal en muestras de sangre seca en población pediátrica (DRIVE study (PI4888)). European Society of Pediatric Infectious Diseases. 2017-Ongoing.

Management centre: FIBHULP

Rodríguez Molino P. Impacto del covid-19 materno en la respuesta inmune de los niños. Fundación de la Asociación Española de Pediatría. 2021-Ongoing.

Management centre: FIBHULP

Sainz Costa T. Aplicación de técnicas ómicas para el diagnóstico de tuberculosis en niños y adolescentes: CHILD-TB OMICS

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Management centre: FIBHULP

Sainz Costa T. Capacitacion de personal sanitario en VIH y ETS en adolescentes (GLD17/0135). Gilead S.A. 2017-ongoing.

Management centre: SEIMC-Gesida

Sainz Costa T. Hígado graso no alcohólico y esteatohepatitis en niños y adolescentes infectados por el VIH (PI17/01283). ISCI. 2018-2022.

Management centre: FIBHULP

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Management centre: FIBHULP

Sainz Costa T. Utilidad de la ecografía torácica en la indicación de ventilación no invasiva en la bronquiolitis aguda del lactante hospitalizado. Estudio de cohorte (PI2525). European Society of Pediatric Infectious Diseases. 2017-Ongoing.

Management centre: FIBHULP

Clinical trials

Baquero Artigao F. Estudio fase II, aleatorizado y parcialmente ciego, para evaluar la seguridad, reactogenicidad e inmunogenicidad de la vacuna antimeningocócica combinada abcwy tras su administración a lactantes sanos.

Type: Clinical Trials, phase II. 5932

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Escosa García L. Estudio para evaluar la aceptabilidad del comprimido de combinación en dosis fija (cdf) de darunavir/cobicistat (drv/cobi) en niños infectados por el virus de la inmunodeficiencia humana de tipo 1 (vih-1) de ≥ 3 años de edad y con un peso entre ≥15 kg y.

Type: Clinical Trials, phase I. 6108. Sponsored by: Janssen Cilag International Nv. Signed date: 06/04/2022

Sainz Costa T. Inmunogenicidad de la vacuna 9-valente contra el virus del papiloma humano (vph) en niños y adolescentes inmunoprimeridos.

Type: Clinical Trials, phase IV. 2022.264. Sponsored by: Sainz Costa, Talía. Signed date: 02/12/2022

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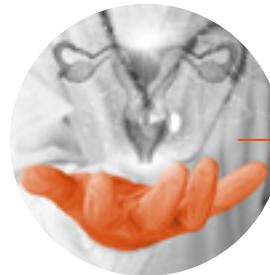
Mellado MJ, Piñeiro R, authors; ASOCIÓN ESPAÑOLA DE PEDIATRÍA (AEPED), assignee. Brand name: PEDIAMÉCUM; ESM 3079824; 2013 June13.



3 Information Groups by Area



3.7 Maternal Infant Child and Youth Research Area



3.7.6

Translational Research In Pediatric Oncology, Hematopoietic Transplantation and Cell Therapy Group

Publications: 19
Q1: 5

COMPOSITION

Antonio Pérez Martínez. Jefe de Servicio de Oncología Pediátrica. Hospital Universitario La Paz

Cristina Aguirre Pórtoles. Investigadora Predoctoral. Project Manager. FIBHULP

Karima Al-Akioi Sanz. Investigadora Predoctoral. FIBHULP

Halin Bareke. Investigadora Postdoctoral. FIBHULP

David Bueno Sánchez. Facultativo Especialista de Área en Pediatría, Oncología y Hematología. Hospital Universitario La Paz

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Alfonso Navarro Zapata. Investigador Predoctoral. Hospital Universitario La Paz

Beatriz Ruz Caracuel. Investigadora Bioinformática. Hospital Universitario La Paz



Pedro María Rubio Aparicio. Facultativo Especialista de Área en Pediatría, Oncología y Hematología. Hospital Universitario La Paz

Sonsoles San Román Pacheco. Facultativo Especialista de Área en Pediatría, Oncología y Hematología. Hospital Universitario La Paz

STRATEGIC OBJECTIVE

Our research program focuses on the molecular and immunological characterization of childhood cancer; the development of cell therapies, primarily through the susceptibility of tumor cells to Natural Killer cells; and the optimization of hematopoietic stem cells transplantation.

RESEARCH LINES

- Analysis of solid/hematological tumors samples to determine their susceptibility to cell therapy, at functional, protein expression and genetic level.
- Cell therapy with activated NK cells in childhood cancer.
- Hematopoietic progenitor transplantation as a platform for cell therapy.
- Cell therapy with memory T lymphocytes as adoptive immunotherapy in transplantation of haematopoietic progenitors.



3 Information Groups by Area



3.7 Maternal Infant Child and Youth Research Area

- Optimization of cell therapy by the generation of an NKG2D antigenic chimeric receptor (NKG2DCAR). Evaluation of its specificity, persistence and activity (in vitro and in vivo) for the treatment of childhood cancer.
- Induction of immunological tolerance in solid organ transplantation through the induction of hematopoietic mixed chimerism by cell therapy.
- Optimization of CAR T cell therapy using nanotechnology and epigenetic regulators.

- Development of academic clinical trials and collaborations with the pharmaceutical industry as a strategy for the development of new therapies more effective and with fewer side effects in childhood cancer.
- Cell therapy with cytokine induced-memory like NK cells for pediatric solid tumors.
- Cell therapy with memory T lymphocytes from COVID-19 convalescent donors as an innovative therapy for COVID-19.

RESEARCH ACTIVITY

● Doctoral theses

Fernández Martín A. Evaluation of CD45RA T Cells redirected with the chimeric antigen receptor NKG2D as a treatment for acute pediatric leukemia[dissertation]. Madrid: UAM: 2022(20/05/2022).

Director: Pérez Martínez A.

● Degree Final Theses

del Val Rey I. Conditioning regimen in pediatric acute lymphoblastic leukemia: total body irradiation, yes or not?[dissertation]. Madrid: UAM: (26/05/2022).

Director: Pérez Martínez A.

Martín Morales I. New therapeutic strategies in high grade central nervous system pediatric tumors[dissertation]. Madrid: UAM: (22/07/2022).

Director: Pérez Martínez A.

● Master Theses

López Peligros MI. Study of accessibility of drugs targeted to the pediatric population in relapse or refractory scenarios[dissertation]. Madrid: Universidad Francisco de Vitoria: (01/09/2022).

Director: Pérez Martínez A.

● Publications

• del Rosal T, Quintana-Ortega C, Deya-Martínez A, Soler-Palacín P, Goycochea-Valdivia WA, Salomón N, Pérez-Martínez A, Alsina L, Martín-Nalda A, Alonso L, Neth O, Bravo-Gallego LY, González-

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- Casado-López E, Rey-García J, Galán-Gómez V, Pozo-Kreilingger JJ, Pérez-Martínez A. VE1 immunohistochemistry to determine BRAFV(600E) mutation in Langerhans-cell histiocytosis. *An Pediatr.* 2022; 97(5): 352-4. Letter. IF: 2.1; Q3
- Astigarraga I, García-Obregón S, Pérez-Martínez A, Gutiérrez-Carrasco I, Santa-María V, Iturrate CRV, Reggióri ML, Carrillo TM, Torrent M. Langerhans cell histiocytosis. Advances in pathogenesis and clinical practice. *An Pediatr.* 2022; 97(2): 130. Article. IF: 2.1; Q3
- Gómez VG, González B, Vasserot I, Mirones I, Pérez-Martínez A. Building a CAR-T cell therapy program in a pediatric hemato-oncology department. Preliminary data. *An Pediatr.* 2022; 97(2): 131-4. Letter. IF: 2.1; Q3

- Fernández A, Pérez-Martínez A, Escudero A, Mirones I, González B, de Paz R, Matamala N, Clares L, Navarro A, Galan V, Martínez-Romera

I, Martínez-López J, Leivas A, Vales-Gómez M, Ferreras C, Fernández L. Infusion of haploididential NKG2D-CAR-TCD45RA- cells in two pediatric patients with advanced relapsed and refractory acute leukemia was safe but achieved no clinical benefits. *Leukemia Lymphoma.* 2022; 63(8): 1970-4. Letter. IF: 2.6; Q3

- Olivas-Mazón R, Bueno D, Sisinni L, Mozo Y, Casado-Abad G, Martínez AP. A retrospective study of treosulfan versus busulfan-based conditioning in pediatric patients. *Eur J Haematol.* 2022; 109(5): 474-82. Article. IF: 3.1; Q3
- Gargallo P, Bautista F, Juan-Ribelles A, Izquierdo E, Soriano A, de Rojas T, Escudero A, Lavarino C, Solano P, Hladun R, Rubio-San-Simón A, Martínez-Romera I, Calabria I, Olaciregui NG, Castañeda-Heredia A, de Álava E, Pérez-Martínez A, Astigarraga I, Patiño-García A, Alonso J, Fernández-Teijeiro A, Canete A, Moreno L. Current status of precision medicine in pediatric oncology in Spain: a consensus report by the Spanish Society of Paediatric Haematology and Oncology (SEHOP). *Clin Transl Oncol.* 2022; 24(5): 809-15. Article. IF: 3.4; Q3
- Ochoa-Fernández B, Galán-Gómez V, Mestre C, González-Vicent M, Pascual A, Alonso L, Regueiro A, Plaza M, Hurtado JMP, Benito A, Fuster JL, Bueno D, Mozo Y, Vicario JL, Balas A, Sisinni L, de Heredia CD, Pérez-Martínez A. Haploididential hematopoietic stem cell transplantation in pediatric and adolescent patients: A study of the Spanish hematopoietic stem cell transplantation group (GETH). *Med Clin-Barcelona.* 2022; 159(9): 411-9. Article. IF: 3.9; Q2
- Martínez-Romera I, Galán-Gómez V, González-Martínez B, García PG, Pacheco SS, Sánchez DC, del Castillo YM, Sánchez DB, Sisinni L, Guerrero AG, Damaso SC, Zapardiel ES, Caracuel BR, Pérez AB, Pérez-Martínez A. CD19+lineage chimerism, an early biomarker after anti-CD19 CAR-T cell therapy in patients previously receiving a hematopoietic stem cell transplantation. *Front Immunol.* 2022; 13: 960412. Article. IF: 7.3; Q1
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- Escudero A, Ferreras C, Rodríguez-Salas N, Corral D, Rodríguez L, Pérez-Martínez A. Cancer predisposing syndrome: a retrospective cohort analysis in a pediatric and multidisciplinary genetic cancer counseling unit. *Int J Clin Oncol.* 2022; 27(5): 992-1000. Article. IF: 3.3; Q3
- Neumann E, Schreeck F, Herberg J, Aigrain EJ, Maitland-van der Zee AH, Pérez-Martínez A, Hawcutt DB, Schaeffeler E, Rane A, de Wildt SN, Schwab M. How paediatric drug development and use could benefit from OMICs: A c4c expert group white paper. *Brit J Clin Pharmacol.* 2022; 88(12): 5017-33. Review. IF: 3.4; Q2



3 Information Groups by Area

3.7 Maternal Infant Child and Youth Research Area

● Research projects

- Rubio-Azpeitia E, Pérez-Corral AM, Dorado-Herrero N, Monsalvo S, Pérez-Balsera G, Fernández-Santos ME, Kwon M, Orbeascoa G, Bastos-Oreiro M, Falero C, Izquierdo CP, Muñoz-Martínez C, Pérez-Martínez A, Díez-Martín JL, Anguita J. Clinical grade production of IL-15 stimulated NK cells for early infusion in adult AML patients undergoing haploidentical stem cell transplantation with post-transplant cyclophosphamide. *Transfusion*. 2022; 62(2): 374-85. Article. IF: 2.9; Q3
- Lapena LM, Caldas MCS, Ramírez C, Basilio MS, Junco PT, Rodríguez-Laguna L, Martínez-González V, Marín-Manzano E, Pérez-Martínez A, López-Gutiérrez JC. Larotrectinib as an effective therapy in congenital infantile fibrosarcoma: report of two cases. *European J Pediatr Surg Rep*. 2022; 10(1): E76-9. Article. IF: 0.6; Q4

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Pérez Martínez A. Análisis genético, transcriptómico y proteómico para identificar antígenos diana de terapia CAR T en leucemia mielomonocítica juvenil. Fundación Cris Contra el Cáncer. 2021-Ongoing.

Management centre: FIBHULP

Minguillon Pedreño J. Desarrollo de una terapia CAR T específica para la enfermedad rara: leucemia mielomonocítica juvenil. Fundación Leucemia y Linfoma. 2022-Ongoing.

Management centre: FIBHULP

Pérez Martínez A. Entrenamiento cognitivo a través del juego tecnológico para mejorar los efectos cognitivos relacionados con el tratamiento del cáncer infantil (winners o super-vivientes). Fundación Juegaterapia. 2022-Ongoing.

Management centre: FIBHULP

Pérez Martínez A. Braintruck: turning car t therapy into iil18 truck as treatment for pediatric central nervous system tumors. Fundación Cris Contra el Cáncer. 2022-Ongoing.

Management centre: FIBHULP

Pérez Martínez A. Memory-like NK cells: a new therapy for ewing sarcoma (MEMO4ewing). Fundación Cris Contra el Cáncer. 2022-Ongoing.

Management centre: FIBHULP

Pérez Martínez A. Implementing magnetic targeting of nano-guided immune cells (IMAGINE). Fight Kids Cancer-European Cancer Foundation. 2021-Ongoing.

Management centre: FIBHULP

Pérez Martínez A. Implementación de una escala pediátrica de valoración de alerta temprana en pacientes pediátricos hospitalizados con patología hematológico y trasplante de progenitores hematopoyéticos como plan de mejora de la calidad y seguridad asistencial. Fundación Aladina. 2020-Ongoing.

Management centre: FIBHULP

Pérez Martínez A. Ensayo clínico en fase t memoria expresando un receptor chimiérico antigenico con especificidad NKG2D en niños, adolescentes y adultos jóvenes con sarcoma avanzado. Fundación Asociación Española Contra el Cáncer. 2019-Ongoing.

Management centre: FIBHULP

Rubio Aparicio PM. Actualización y renovación de la actividad en el servicio de oncología pediátrica del Hospital Universitario La Paz. Varios. 2012-Ongoing.

Management centre: FIBHULP

Pérez Martínez A. Inmunoterapia en neosblastomas pediátricos: tratamiento dirigido a las células tumorales iniciadoras de la metástasis. Fundación Cris Contra el Cáncer. 2019-Ongoing.

Management centre: FIBHULP

Pérez Martínez A. Receptor antigénico químérico NKG2D para el tratamiento de pacientes pediátricos con leucemia aguda y leucemia mielomonocítica juvenil: validación escala clínica y primer estudio de seguridad en pacientes. Fundación Cris Contra el Cáncer. 2019-Ongoing.

Management centre: FIBHULP

Pérez Martínez A. Estudio mediante tecnología de alto rendimiento de la predisposición hereditaria al cáncer infantil. Fundación Cris Contra el Cáncer. 2017-Ongoing.

Management centre: FIBHULP

Pérez Martínez A. Ensayo clínico fase I/II, multicéntrico abierto, de infusión de células NK activadas para el tratamiento de niños, adolescentes y adultos jóvenes con sarcomas. Estudio sankoma. Fundación la Sonrisa de Alex. 2017-Ongoing.

Management centre: FIBHULP

Pérez Martínez A. Unidad de investigación y de terapias avanzadas en hematooncología infantil. Fundación Cris Contra el Cáncer. 2016-Ongoing.



3 Information Groups by Area

3.7 Maternal Infant Child and Youth Research Area

Management centre: FIBHULP

Pérez Martínez A. Inmunoterapia en sarcomas: combinación del anticuerpo anticxcr4 y la terapia celular NK. Fundación la Sonrisa de Alex. 2016-Ongoing.

Management centre: FIBHULP

Pérez Martínez A. Sehop-pencil study personalised medicine for cancer in children in Spain (PMP21/00073). ISCIII. 2022-Ongoing.

Management centre: FIBHULP

Pérez Martínez A. Academic approach using CAR-T in hematological malignancies with unmet medical needs in children and AYA: feasibility, safety and efficacy study (ReALL-CAR-T) (PI22/01226). ISCIII. 2022-Ongoing.

Management centre: FIBHULP

Pérez Martínez A. Immunovacter-CM. Regulation of the inflammatory response and dynamics of immunity in COVID-19 and immunocompromised patients from different risk populations. New therapeutic approaches. Fondo Europeo de Desarrollo Regional. 2022-Ongoing.

Management centre: FIBHULP

Pérez Martínez A. Genetic, transcriptomic and proteomic analysis for the identification of target antigen for CAR T therapy in juvenile myelomonocytic leukemia (CART-JMML). Fundación Cris Contra el Cáncer. 2022-Ongoing.

Management centre: FIBHULP

Cibers and Retics

Pérez Martínez A. RICORS - Terapias avanzadas (RD21/0017/0025). ISCIII. (01/01/2024). FIBHULP

Clinical trials

Bueno Sánchez D. Estudio de fase III, abierto, de un solo grupo y con dosis repetidas, para evaluar la seguridad y tolerabilidad, la

farmacocinética y la actividad antiviral de maribavir para el tratamiento de la infección por el citomegalovirus (cmv) en niños y adolescentes que han recibido un trasplante de células madre hematopoyéticas (hsct) o un trasplante de órgano sólido (tos).

Type: Clinical Trials, phase III. 2022.084.

Sponsored by: Takeda Development Center Americas.

Signed date: 23/05/2022

Bueno Sánchez D. Un estudio de fase III, abierto, de un solo grupo, multicéntrico de ravulizumab junto al mejor tratamiento sintomático en participantes pediátricos (de 1 mes a <18 años) con microangiopatía trombótica (mat) después de un trasplante de células madre hematopoyéticas (tcmh).

Type: Clinical Trials, phase III. ANEXO 2 5653

Sponsored by: Alexion Pharmaceutical Inc.

Signed date: 06/04/2022

Guerra García P. Estudio en fase I/II de la seguridad, tolerabilidad, farmacocinética y eficacia preliminar de relatlimab más nivolumab en participantes pediátricos y adultos jóvenes con linfoma de hodgkin clásico y linfoma no hodgkin recurrentes o resistentes.

Type: Clinical Trials, phase I. 6056.

Sponsored by: Bristol-Myers Squibb International Corporation (Bmsic).

Signed date: 17/05/2022

Guerra García P. Estudio fase 1b, abierto, de un solo brazo de tratamiento con epocritamab en pacientes pediátricos con neoplasias de células b maduras recidivantes/refractarias.

Type: Clinical Trials, phase I. 6059 M20-429

Sponsored by: Abbvie Deutschland Gmbh & Co. Kg.

Signed date: 24/02/2022

Pérez Martínez A. EBMT car-t data collection initiative at spanish car-t sites.

Type: Clinical Trials, phase . 2022.125.

Sponsored by: Ebmt European Society For Blood and Marrow Transplantation.

Signed date: 23/05/2022

Pérez Martínez A. Ensayo clínico fase I/II, multicéntrico, abierto, de infusión de células nk activadas para el tratamiento de niños, adolescentes y adultos jóvenes con sarcomas.

Type: Clinical Trials, phase II. 4917.

Sponsored by: Pérez Martínez, Antonio.

Signed date: 10/10/2022

Pérez Martínez A. Entrenamiento cognitivo a través del juego tecnológico para mejorar los efectos adversos cognitivos relacionados con el tratamiento del cáncer infantil (winners o super-vivientes).

Type: Clinical Trials, phase . 2022.301.

Sponsored by: Pérez Martínez, Antonio.

Signed date: 08/08/2022

Pérez Martínez A. Entrenamiento cognitivo a través del juego tecnológico para mejorar los efectos adversos estudio aleatorizado y abierto para evaluar la eficacia y seguridad del tratamiento de mantenimiento de galin-pepimut-s (gps) en monoterapia, en comparación con el mejor tratamiento disponible seleccionado por el investigador, en sujetos con leucemia mieloide aguda que han alcanzado la remisión completa tras un tratamiento de rescate de segunda línea.

Type: Clinical Trials, phase . 2022.405.

Sponsored by: Pérez Martínez, Antonio.

Signed date: 10/08/2022

Pérez Martínez A. Estudio fase 2 de erdafitinib en pacientes con tumores sólidos avanzados y determinadas alteraciones del gen fgfr.

Type: Clinical Trials, phase III. 6079 42756493CAN2002.

Sponsored by: Janssen Cilag International Nv.

Signed date: 22/02/2022

Rubio Aparicio PM. Estudio de fase 2, aleatorizado, sin enmascaramiento, en el que se evalúa abemaciclib en combinación con

irinotecán y temozolomida en participantes con sarcoma de ewing recidivante o resistente al tratamiento.

Type: Clinical Trials, phase II. 2022.592.

Sponsored by: Eli Lilly Co Uk Ltd.

Signed date: 13/09/2022

Rubio Aparicio PM. Estudio de fase I, abierto, de grupos paralelos para investigar la seguridad, la tolerabilidad, la eficacia y la farmacocinética de olaparib en pacientes pediátricos con tumores sólidos.

Type: Clinical Trials, phase I. 2022.689.

Sponsored by: Astrazeneca Ab.

Signed date: 28/10/2022

Patents and trademarks

Pérez Martínez A, Ferreras Puente C,B, inventors; UAM, FIBHULP, Universidad Miguel Hernández de Elche (UMH), Fundación de la Comunitat Valenciana para la gestión del Instituto de Investigación Sanitaria y Biomédica de Alicante (ISABIAL), assignees. Memory T cells as adoptive cell therapy for viral infections. EP20382850.4 (EP3974029), PCT/EP2021/076516; 2020 September 25.

Mayán Santos M, Acea Nebril B, Varela Eirín M, Rodríguez-Candela Mateos M, Díaz Carballa CC, Fonseca Capdevila E, Barrio LC, Escudero López A, inventors; Fundación Professor Novoa Santos- Instituto de Investigación Biomédica de A Coruña (INIBIC), assignees. Composición para el tratamiento de los efectos secundarios de la radioterapia y/o quimioterapia. PCT/ES2020/070269; 2020 April 27

Vela Cuencia M, González Navarro P, Valentín Quiroga J, Escudero López A, Pérez Martínez A, Fernández Casanova L, inventors; FIBHULP, CNIO, assignees. Anti-CXCR4 antibody combined with activated and expanded natural killer cells for cancer immunotherapy. 62/642,313 US Provisional Application, IB2019/052042; 2018 March 13



3 Information Groups by Area



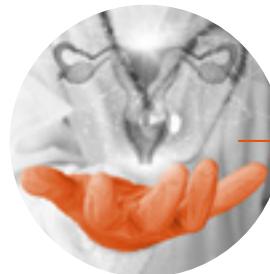
3.7 Maternal Infant Child and Youth Research Area

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3.7.7

Congenital Malformations and Transplantation Group

Publications: 15

Q1: 2

COMPOSITION

Francisco Hernández Oliveros. Facultativo Especialista de Área en Cirugía Pediátrica. Hospital Universitario La Paz

Ane Miren Andrés Moreno. Facultativo Especialista de Área en Cirugía Pediátrica. Hospital Universitario La Paz. Pediatrífica Profesor Asociado. Universidad Autónoma de Madrid

Sara Cabezuelo Ballesteros. Facultativo Especialista de Área en Anestesiología. Hospital Universitario La Paz

Carlos Delgado Miguel. Facultativo Especialista de Área en Cirugía Pediátrica. FIBHULP

María Nieves Moreno. Facultativo Especialista de Área en Oftalmología. Hospital Universitario La Paz

Susana Naval Martín. Facultativo Especialista de Área en Oftalmología. Hospital Universitario La Paz

Jesús Peralta Calvo. Facultativo Especialista de Área en Oftalmología Infantil. Hospital Universitario La Paz

Javier Serradilla Rodríguez. Médico Interno Residente en Cirugía Pediátrica. Hospital Universitario La Paz

STRATEGIC OBJECTIVE

Paediatric surgical specialities are extremely complex due to the wide spectrum of diseases included in their scope. Many of the problems are related to rare diseases and their treatment frequently requires complex procedures. Clinical care of paediatric surgical patients is a long-term task that requires a wide knowledge of the pathology and multidisciplinary committees. Surgical corrections usually consist of multi-step procedures, some of them in the neonatal period while others might be required in young adults.



This line is therefore characterized by an unusually large spectrum since it encompasses the study of the cellular and molecular mechanisms leading to malformations, the biology of the malformed fetus and embryo, the prenatal chances for intervention on the malformations, and the postnatal operative and perioperative surgical and anesthetic management, including complex procedures as transplantation.

RESEARCH LINES

- Anesthesia, pain management and perioperative intensive care: To develop new procedures for improving safety and efficacy in anesthetic procedures, and to investigate the multiple problems of pain management and anesthesia support.
- Vascular anomalies: To investigate genetic and molecular mechanisms involved in the pathogenesis of vascular anomalies, and to evaluate new treatments.
- Congenital malformations: To gain knowledge on the cellular and molecular mecha-



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nisms of malformations using animal models, organ and cell cultures and eventually genetically engineered animals.

- Cardiovascular surgery: To assess different organ perfusion devices and to develop new strategies for graft perfusion.
- Oftalmologic pathology: To investigate genetic and molecular mechanisms involved in the pathogenesis of ocular malformations and ocular rare diseases.

RESEARCH ACTIVITY

● Publications

- Delgado-Miguel C, Camps JI. Robotic soave pull-through procedure for Hirschsprung's disease in children under 12-months: long-term outcomes. *Pediatr Surg Int.* 2022; 38(1): 51-7. Article. IF: 1.8; Q3
- Delgado-Miguel C, García A, Delgado B, Muñoz-Serrano A, Miguel-Ferrero M, Camps J I, López-Santamaría M, Martínez L. Incidental appendectomy in surgical treatment of ileocolic intussusception in children. Is it safe to perform? *Cir Pediatr.* 2022; 35(4): 165-71-. Article. Not Indexed
- Delgado-Miguel C, García A, Muñoz-Serrano AJ, López-Pereira P, Martínez-Urrutia MJ, Martínez L. The role of neutrophil-to-lymphocyte ratio as a predictor of testicular torsion in children. *J Pediatr Urol.* 2022; 18(5): 697. Article. IF: 2; Q3
- Delgado-Miguel C, Miguel-Ferrero M, Muñoz-Serrano A, Díaz M, López-Gutiérrez JC, de la Torre C. The use of acellular dermal matrix (integra single layer) for the correction of malformative chest wall deformities: first case series reported. *Surg J (N Y)*. 2022; 8(3): E187-91. Article. IF: 0.9; Q4
- Delgado-Miguel C, Muñoz-Serrano A, Amestoy V, Rivas S, Lobato R, López-Pereira P, Urrutia MJM. Buried penis surgical treatment in children: Dorsal dartos flap VS. Fascia fixation. A retrospective cohort study. *J Pediatr Urol.* 2022; 18(2): 185. Article. IF: 2; Q3
- Delgado-Miguel C, Muñoz-Serrano A, Amestoy V, Rivas S, Lobato R, Martínez-Urrutia MJ, López-Pereira P. Artificial urinary sphincter in congenital neuropathic bladder: Very long-term outcomes. *Int J Urol.* 2022; 29(7): 692-7. Article. IF: 2.6; Q3
- Delgado-Miguel C, Muñoz-Serrano A, Morati-

Transplantation: To investigate new strategies for graft tolerance/avoidance of rejection and to analyze the impact of donation after circulatory death with normothermic reperfusion in pediatric transplantation. Additionally, the management of the conditions leading to organ failure would be included in our topics, like intestinal rehabilitation (intestinal transplantation), liver tumours (liver transplantation) and severe uropathies (renal transplantation).

Pediatr Surg Int. 2022; 38(10): 1501-6. Article. IF: 1.8; Q3

- van Amstel P, El Ghazzaoui A, Hall NJ, Wester T, Morini F, van der Lee JH, Singer G, Pierro A, Zani A, Gorter RR, (Martínez Martínez L, Delgado Miguel C). Paediatric appendicitis: international study of management in the COVID-19 pandemic. *Brit J Surg.* 2022; 109(11): 1044-8. Article. IF: 9.6; D1
- Velayos M, Alonso M, Delgado-Miguel C, Estefanía-Fernández K, Muñoz-Serrano AJ, Santamaría MVL, Reinoso-Barbero F, de la Torre CA. Percutaneous cryoanalgesia: a new strategy for pain management in pectus excavatum surgery. *Eur J Pediatr Surg.* 2022; 32(1): 73-9. Article. IF: 1.8; Q3
- Velayos M, Estefanía-Fernández K, Muñoz-Serrano A J, Delgado-Miguel C, Sarmiento Caldas M C, Moratilla L, Beato Merino M J, Triana P, López-Gutiérrez J C. Diffuse hepatocutaneous hemangiomatosis: an unusual presentation. *Cir Pediatr.* 2022; 35(2): 99-101. Article. Not Indexed

● Research projects

Delgado Miguel C. Trasplante capilar de unidades foliculares en ratas sprague dawley con alopecia cicatricial secundaria a quemaduras. FIBHULP. 2022-Ongoing.

Management centre: FIBHULP

Hernández Oliveros F. Papel protector del hígado frente al rechazo en el trasplante multivisceral. FIBHULP. 2022-Ongoing.

Management centre: FIBHULP

Hernández Oliveros F. Prevención del rechazo mediante transferencia adoptiva de linfocitos T regulatorios en un modelo experimental de trasplante intestinal (PI21/01332). ISCIII. 2022-2024.

Management centre:

Hernández Oliveros F. Programa clínico-experimental de donación pediátrica en asistencia controlada (). Fundación Mutua Madrileña. 2019-Ongoing.

Management centre: FIBHULP

Hernández Oliveros F. Trasplantapp: la primera red de comunicación para niños y adolescentes trasplantados (). Fundación Mutual Médica. 2020-Ongoing.

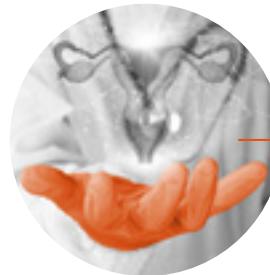
Management centre: FIBHULP

Hernández Oliveros F. TrasplantAPP: la primera red de comunicación para niños y adolescentes trasplantados. Fundación Mapfre. 2020-Ongoing.

Management centre: FIBHULP

● Patents and trademarks

Hernández Oliveros F, Nana Gómez Mayoral N, Raya González L, Guijarro Fernández E, authors; FIBHULP, HePA, U-TAD, Guijarro Fernández E, assignees. Trademark name:VTR Virtual Transplant Reality; CM18.000.131;2018 December 14.

**3.7.8****Research in Endometriosis Group**

Publications: 20

Q1: 8

COMPOSITION

Alicia Hernández Gutiérrez. Facultativo Especialista de Área en Ginecología y Obstetricia. Unidad de Ginecología Oncológica. Hospital Universitario La Paz. Profesor Asociado. Universidad Autónoma de Madrid

Pedro N. Barri Soldevilla. Director del Departamento de Obstetricia, Ginecología y Reproducción Humana. Fundación Dexeus Mujer

Covadonga Álvarez López. Facultativo Especialista de Área en Ginecología y Obstetricia. Hospital Universitario La Paz

Mario Álvarez Maestro. Facultativo Especialista de Área en Urología. Hospital Universitario La Paz

Martina Aida Angelés Fitó. Ginecóloga especialista en Oncología. Institut Universitaire Du Cancer de Toulouse

Ónica María Armijo Suárez. Facultativo Especialista de Área en Ginecología y Obstetricia. Unidad de Reproducción Asistida. Hospital Universitario La Paz

Maria Carbonel López. Facultativo Especialista de Área en Ginecología y Obstetricia. Hospital Universitario La Paz

Myriam García Segovia. Médico Adjunto en Ginecología. Hospital Universitario La Paz

Juan Antonio García Velasco. Director Médico. VI - RMA

Silvia Iniesta Pérez. Ginecóloga especialista en Reproducción. Hospital Ruber Internacional

Alejandra Martínez Rodríguez-Marín. Subdirector del Departamento de Oncología Quirúrgica. Institut Universitaire Du Cancer de Toulouse

Ana López Carrasco. Facultativo Especialista de Área en Ginecología y Obstetricia. Hospital Universitario La Paz

Blanca Martínez Serrano. Facultativo Especialista de Área en Anestesiología. Hospital Universitario La Paz

Cristina Redondo Guisasola. Facultativo Especialista de Área en Ginecología y Obstetricia. Hospital Universitario La Paz

Violeta Romero Camacho. Facultativo Especialista de Área en Ginecología y Obstetricia. Hospital Universitario La Paz

Patricia Isabel Salas Bolívar. Facultativo Especialista de Área en Ginecología y Obstetricia. Hospital Universitario La Paz

Emanuela Spagnolo. Facultativo Especialista de Área en Ginecología y Obstetricia. Hospital Universitario La Paz

**STRATEGIC OBJECTIVE**

Endometriosis is a debilitating gynaecological disease, responsible of pain and infertility with consequent worsening of women's quality of life. The prevalence is estimated on 10% of the fertile age women, with an impact on quality of life and reproductive health. Despite its high prevalence and the great scientific activity generated around this disease, we are facing a problem whose etiology remains unknown. Although it is a chronic illness, which begins to cause symptoms very early in a large number of cases, there is still no predictive marker of the disease, no method of early diagnosis, or any way to modify its clinical course, which is highly variable, producing great uncertainty in affected women. Despite of great advances have been made in the treatment of the disease from a global perspective that included women's fertility and pain control, there is still no etiological treatment or any form of cure.

The endometriosis research group is committed to the following objectives in the next 5 years: to develop a scientific project for FIS 2023, to encourage young researchers, to organize a Master's Degree in Laparoscopy and Endometriosis, to increase the number of final degree projects and final master's projects, to improve the training of gynecological specialty trainee and promote internships abroad, to write publications of the results of our ongoing projects (mainly FIS 2020), to design a website for the HULP- Endometriosis group and to announce monthly workshops of patients with doctors and professionals from the Endometriosis Unit. We also set ourselves the challenge of recognizing the Endometriosis Unit-CSUR (National reference Unit) and promoting gender equality in research and innovation.



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The strategies proposed to achieve these objectives are as follows: Participation in the Fl-BHULP "Mentor Program", to promote collaboration between senior researcher and junior researcher to carry out research projects, congresses communication, to enable specialist trainee and junior gynecologists to perform the "Winner Project", (an educational program for Endoscopic Gynecological Surgery with 3 levels of progression), to encourage collaboration with providers in the endoscopic sector such as Storz, Olympus and Striker. In addition, we have support from IdiPaz Biostatistics and IdiPAZ Biobank (PT20 / 00004) integrated into the National Network of Biobanks of Spain, technical assistance from the HULP Computer and

Bioengineering Service, as well as active collaboration with national associations of patients and announcement of events in "La Paz Informa".

Moreover, the Endometriosis Unit of Hospital La Paz has numerous strategic alliances, at the national level (Hospital Clínic of Barcelona, Hospital General of Valencia, Clínica Dexeus Barcelona) and also internationally (Oncopole -Oncology Institute of Toulouse (France), University Hospital of Bologna (Italy), University Hospital of Liège (Belgium), University Hospital of Siena (Italy), University Hospital of Malmö (Stockholm)).

RESEARCH LINES

- Investigation of immunological and molecular factors involved in the pathogenesis of endometriosis.
- Investigation of biomarkers to predict the risk of endometriosis malignant transformation. Our objective is to identify a panel of immune system markers and specific genetic mutations to predict endometriosis patients at increased risk of developing ovarian cancer and to identify factors that allow the use of immunotherapy in this type of cancer. In both pathologies (endometriosis and ovarian cancer), the dysfunction of the immune system favours the progression of the disease. In February 2021, the Endometriosis Group received a Health Research Fund by Health Research Institut Carlos III for the project: "Molecular and immunological factors with predictive value in endometriosis associated ovarian cancer".
- Research of new non-hormonal drugs to control symptoms and disease progression.
- Clinical research and new technologies: the advantages of Fluorescence Guided Surgery

(FGS). In our operating rooms (Hospital Maternal, HULP) we use modern technology that allows real-time visualization of certain anatomical structures and helps the surgeon to reduce intraoperative stress and improve performance. Recently, the intraoperative use of indocyanine green (ICG) has shown advantages in intestinal surgery for endometriosis. ICG is a dye that is injected intravenously and rapidly reaches the blood vessels of the abdominal organs and allows the emission of fluorescence in the spectral range of the infrared ray. In this way, the vascularization of the colorectal anastomosis can be assessed after bowel resection in patients with endometriosis. We are currently investigating the use of a macromolecule linked to ICG that allows the dye to remain longer in vascularized tissues (rectum), and with a single injection at the start of surgery. This technique is also useful for delimiting endometriotic nodules before removing them.

- Clinical research focusing on the early diagnosis of endometriosis in adolescent patients (European Multicentre Project: Erasmus Project).

RESEARCH ACTIVITY

● Doctoral theses

Álvarez-Maestre M. Niveles de Tromboxano A2 en la deficiencia androgénica adquirida tras el tratamiento antitumoral de pacientes con cáncer de próstata[dissertation]. Madrid: UAM: 2022(01/04/2022).

Directors: Ferrer Parra M,
Rodríguez de Bethencourt Codés F

Fernández Prada S. Programación de ciclos FIV-ICSI en protocolo antagonista con estrógenos o anticonceptivos orales en fase lútea previa. Comparación de resultados frente a no tratamiento Programación de ciclos FIV-ICSI en protocolo antagonista con estróge-

nos o anticonceptivos orales en fase lútea previa. Comparación de resultados frente a no tratamiento [dissertation]. Madrid: UAM: 2022(15/12/2022).

Directors: Armijo Suárez OM,
Hernández Gutiérrez MA.

Gortázar de las Casas S. Síndrome de resección anterior baja en pacientes intervenidas de endometriosis profunda[dissertation]. Madrid: UAM: 2022(18/10/2022).

Directors: Pascual Migueláñez I,
Hernández Gutiérrez MA.

Spagnolo E. Endometriosis intestinal y complicaciones postoperatorias: el papel de la

cirugía guiada por fluorescencia [dissertation]. Madrid: UAM: 2022(31/05/2022).

Directors: Hernández Gutiérrez MA,
Pascual Migueláñez I.

● Publications

- Ordas P, Spagnolo E, Fernández LGL, Tejeda MDD, Lafuente P, Salas P, Carrasco AL, Carbonell M, Hernández A. Comparison of surgical and obstetric outcomes in women with uterine leiomyomas after laparoscopic vs. abdominal myomectomy: A single-center cohort study. *Front Surg.* 2022; 9: 997078. Article. IF: 1.8; Q3
- Spagnolo E, Quevedo IC, de las Casas SG, Carrasco AL, López MC, Migueláñez IP, Gutiérrez AH. Surgeons' workload assessment during indocyanine-assisted deep endometriosis surgery using the surgery task load index: The impact of the learning curve. *Front Surg.* 2022; 9: 982922. Article. IF: 1.8; Q3
- de las Casas SG, Migueláñez IP, Spagnolo E, Álvarez-Gallego M, Carrasco AL, López MC, Gutiérrez AH. Quality of life and low anterior resection syndrome before and after deep endometriosis surgery. *Langenbeck Arch Surg.* 2022; 407(8): 3671-9. Article. IF: 2.3; Q2
- Spagnolo E, Mari-Alexandre J, Di Saverio S, Gilabert-Estelles J, Agababyan C, García-Casarrubios P, López A, González-Canto E, Pascual I, Hernández A. Feasibility and safety of transvaginal specimen extraction in deep endometriosis colorectal resectional surgery and analysis of risk factors for postoperative complications. *Tech Coloproctol.* 2022; 26(4): 261-70. Article. IF: 3.3; Q1



3 Information Groups by Area



3.7 Maternal Infant Child and Youth Research Area

- de las Casas SG, Spagnolo E, López A, Gregorio LY, Hernández A, Pascual I. Laparoscopic ileoceleal resection with intracorporeal anastomosis for bowel endometriosis-a video vignette. *Colorectal Dis.* 2022; 24(5): 667-8. Letter. IF: 3.4; Q1
- Hernández A, Muñoz E, Ramiro-Cortijo D, Spagnolo E, López A, Sanz A, Redondo C, Salas P, Cristóbal I. Quality of life in women after deep endometriosis surgery: comparison with spanish standardized values. *J Clin Med.* 2022; 11(20): 6192. Article. IF: 3.9; Q2
- Hernández A, Sanz A, Spagnolo E, Carbonell M, Rodríguez E, López A, Raganato R, del Forno S, Ramiro-Cortijo D. Evaluation of women's age and ultrasonographic features to choose surgical treatment for endometriosis associated with ovarian cancer. *J Clin Med.* 2022; 11(9): 2414. Article. IF: 3.9; Q2
- Ángeles MA, Hernández A, Pérez-Benavente A, Cabarrou B, Spagnolo E, Rychlik A, Daboussi A, Migliorelli F, Betrián S, Ferron G, Gil-Moreno A, Guyon J, Martínez A. The effect of major postoperative complications on recurrence and long-term survival after cytoreductive surgery for ovarian cancer. *Gynecol Oncol.* 2022; 166(1): 8-17. Article. IF: 4.7; Q1
- Heredia-Soto V, Escudero J, Miguel M, Ruiz P, Gallego A, Berjón A, Hernández A, Martínez-Díez M, Zheng SY, Tang A, Hardisson D, Feliú J, Redondo A, Mendiola M. Antitumoral effect of plocabulin in high grade serous ovarian carcinoma cell line models. *Front Oncol.* 2022; 12: 862321. Article. IF: 4.7; Q2
- Betrián S, Ángeles MA, Moreno AG, Cabarrou B, Deslandres M, Ferrón G, Mery E, Floquet A, Guyón F, Pérez-Benavente A, Spagnolo E, Rychlik A, Gladieff L, Gutiérrez AH, Martínez A. Survival impact of histological response to neoadjuvant chemotherapy according to number of cycles in patients with advanced ovarian cancer. *Int J Gynecol Cancer.* 2022; 32(8): 967-74. Article. IF: 4.8; Q1
- Gallego A, Mendiola M, Hernando B, Berjón A, Cádiz A, Chaves-Urbano B, Heredia-Soto V, Spagnolo E, Gutiérrez AH, Hardisson D, Macintyre G, Redondo A, García MJ. Prognostic markers of inflammation in endometrioid and clear cell ovarian cancer. *Int J Gynecol Cancer.* 2022; 32(8): 1009-16. Article. IF: 4.8; Q1
- Ramón-Patiño JL, Ruz-Caracuel I, Heredia-Soto V, de la Calle LEG, Zagidullin B, Wang YY, Berjón A, López-Janeiro A, Miguel M, Escudero J, Gallego A, Castelo B, Yébenes L, Hernández A, Feliú J, Pelaez-García A, Tang J, Hardisson D, Mendiola M, Redondo A. Prognosis stratification tools in early-stage endometrial cancer: could we improve their accuracy? *Cancers (Basel).* 2022; 14(4): 912. Article. IF: 5.2; Q2
- Castellano E, Samba C, Esteso G, Simpson L, Vendrame E, García-Cuesta EM, López-Cobo S, Álvarez-Maestro M, Lináres A, Leibar A, Ranagath T, Reyburn HT, Martínez-Pineiro L, Blish C, Valés-Gómez M. CyTOF analysis identifies unusual immune cells in urine of BCG-treated bladder cancer patients. *Front Immunol.* 2022; 13: 970931. Article. IF: 7.3; Q1
- Hernández A, de Zulueta PR, Spagnolo E, Soguero C, Cristóbal I, Pascual I, López A, Ramiro-Cortijo D. Deep Learning to measure the intensity of indocyanine green in endometriosis surgeries with intestinal resection. *J Pers Med.* 2022; 12(6): 982. Article. Not Indexed
- Brandao P, Pellicer A, Mesequer M, Remohi J, Garrido N, García-Velasco JA. COVID-19 mRNA vaccines have no effect on endometrial receptivity after euploid embryo transfer. *Reprod Biomed Online.* 2022; 45(4): 688-695. Article. IF: 4; Q1
- Rodríguez-Rodrero S, Morales-Sánchez P, Tejedor JR, Coca-Pelaz A, Mangas C, Penarroja A, Fernández-Vega I, Fernández-Fernández L, Álvarez-López CM, Fernández AF, Álvarez MA, Astudillo A, Alarcón PP, Ragnarsson C, Alonso AC, Rivas HET, Tapia JPR, Tornero SN, Pedroche-Just Y, Zapata RMR, Rodríguez-García AM, Abo A, Balbin M, Menéndez E, Delgado E, Fraga MF. Classification of follicular-patterned thyroid lesions using a minimal set of epigenetic biomarkers. *Eur J Endocrinol.* 2022; 187(3): 335-47. Article. IF: 5.8; Q1
- Toribio-Vázquez C, Rivas JG, Yebesa A, Carrión DM, Barradod MY, Álvarez-Maestro M, Piñeiro LM. New strategies for decision making in prostate cancer. The role of oncotypedx. *Actas Urol Esp.* 2022; 46(7): 385-6. Editorial Material. IF: 1.1; Q4
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- Spagnolo E, Zapardiel I, Gorostidi M. Role of fluorescence imaging for intraoperative intestinal assessment in gynecological surgery: a systematic review. *Minim Invasiv Ther.* 2022; 31(7): 992-9. Review. IF: 1.7; Q3

- Palacios MNC, Pineda VG, Segovia MG, Tejeda MDD, Gutiérrez AH, Gutiérrez IZ. Utility of indocyanine green as a single tracer for sentinel node biopsy in endometrial cancer. *J Obstet Gynaecol Res.* 2022; 48(1): 222-9. Article. IF: 1.6; Q4

● Clinical trials

Álvarez López C. Análisis de las propiedades psicométricas de un cuestionario de calidad de vida específico para mujeres con sangrado menstrual abundante (sma).

Type: No EPA. PI-5191.

Sponsored by: Hologic Iberia S.L.

Signed date: 28/03/2022

Álvarez López C. Análisis de las propiedades psicométricas de un cuestionario de calidad de vida específico para mujeres con sangrado menstrual abundante (sma).

Type: No EPA. PI-5191.

Sponsored by: Hologic Iberia S.L.

Signed date: 13/09/2022

● Research projects

Hernández Gutiérrez A. Factores inmunológicos en la transformación maligna de la endometriosis. FIBHULP. 2018-Ongoing.

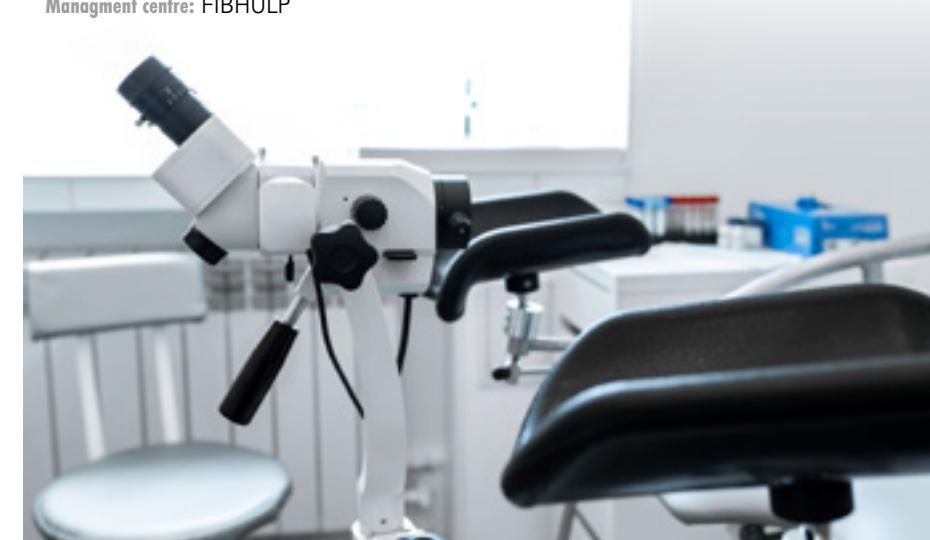
Management centre: FIBHULP

Hernández Gutiérrez A. Identificación de factores inmunológicos y moleculares con valor pronóstico en cáncer de ovario asociado a endometriosis e implicados en el potencial de malignización de la endometriosis (PI20/01368). FIBHULP. 2021-2023.

Management centre: FIBHULP

Hernández Gutiérrez A. Implementación de técnicas basadas en "deep learning" para medir la intensidad del verde de indocianina en la cirugía de la endometriosis con resección intestinal. FIBHULP. 2022-Ongoing.

Management centre: FIBHULP





3 Information Groups by Area



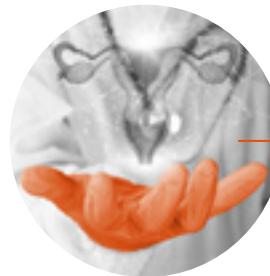
3.7 Maternal Infant Child and Youth Research Area

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3.7.9 Research on Comprehensive Care for Transplanted Children and Adolescents Group*

COMPOSITION

Maria Jesús Pascau González-Garzón.

Nursing supervisor. Hospital Universitario La Paz

Luz Yadira Bravo Gallego. Medical Advisor.

FIBHULP

Maria Teresa Álvarez Gómez. Supervisora de Enfermería de Hospitalización Pediátrica. Hospital Universitario La Paz

Almudena Alonso Márquez. Supervisora de Enfermería Unidad de Hospitalización Pediátrica. Hospital Universitario La Paz

Mercedes Hermosilla Minguez. Supervisora de Enfer-

mería de Unidad Pediátrica. Hospital Universitario La Paz

Carlos Martín Saborido. Vocal Asesor. Ministerio de Sanidad y Consumo

Paloma Martínez Campos. Enfermera pediátrica en

unidad de Reanimación y Anestesia Infantil. FIBHULP

Miriam Muñoz Berges. Enfermera Especialista en Pe-
diatría en Nefrología Infantil. Hospital Universitario La Paz

Antonia Polo Lucero. Enfermera Especialista en Pedia-
tría. Hospital Universitario La Paz

Guillermo Manuel Sibón Sancho. Enfermero. FIBHULP

STRATEGIC OBJECTIVE

Paediatric Solid Organ Transplantation (SOT) and Haematopoietic Stem Cell Transplantation (HSCT) have dramatically changed the life expectancy of many children by providing treatment to them, who would otherwise have not survived. Worldwide, nearly 150,000 SOT and 80,000 HSCT are performed annually. Paediatric transplantation constitutes about 10% of the total for SOT and 20% of the total for HSCT. Between 2012 and 2016, 7,741 SOT and 14,717 HSCT were performed on children in the European Union (EU), and the number of PTs performed worldwide continues to increase.

Paediatric SOT & HSCT replaces end-stage disease with a more sustainable chronic disease state, which enables youth to reach adulthood.³ However, although transplantation can improve personal health outcomes, it can also be associated with long-term side effects that require continuous monitoring and care. Post-transplant follow-up care aims to prevent rejection and transplant-related complications, so that each person can achieve a life expectancy and quality of life (QoL) similar to healthy peers.

The “Research on comprehensive care for transplanted children and adolescents” group arises from the need to cover gaps in knowledge about the comprehensive care of children and adolescents who receive transplants in the paediatric age.

The group will be focus on the research of three specific topics:

1. Transition and transfer of adolescents and young adults (AYAs) living with a transplant to adult clinics: clinical and psychosocial impact. Transition is a gradual, multifaceted, active, and purposeful process involving many important steps and key checkpoints. The process comprises three phases: (1) transition planning and preparation, (2) transfer of care, and (3) integration into adult health care. Each of these phases has unique barriers to success and opportunities for improvement.
2. Quality of life (QoL) in paediatric transplant setting: patient reported outcomes and experience measures (PROMs and PREMs).
3. Innovation in health education of transplanted children and adolescents and their parents/caregivers/family: evaluation of programs and validation of tools and questionnaires.

RESEARCH LINES

- Transition and transfer of adolescent and young adult paediatric transplant recipients to adult care: clinical and psychosocial impact.
- Quality of life in paediatric transplantation: outcome measures and patient/family reported experiences (PROMs and PREMs).

- Innovation in health education for transplanted children and adolescents and their parents/caregivers/family: evaluation of programmes and validation of tools and questionnaires.

*Group recently created, December 2022



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3.8 Multidisciplinary Research in Healthy Aging Area

Under Construction



1 Introduction

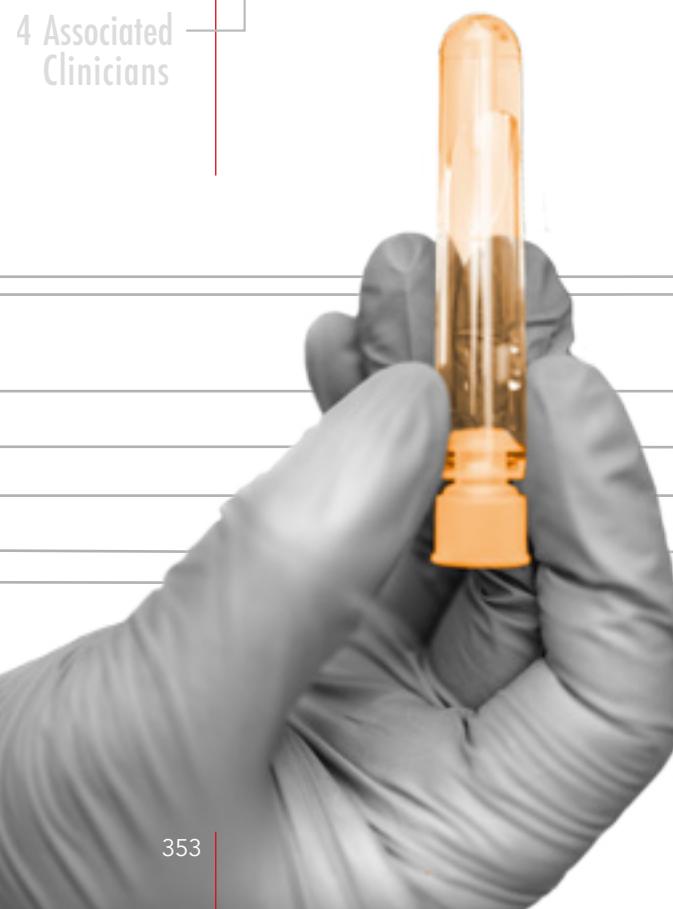
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- 4.1 Biostatistic Group
- 4.2 Clinical Analysis Service Group
- 4.3 Endocrinology and Nutrition Group
- 4.4 Nutrinvest Group
- 4.5 Orthopedic Surgery and Traumatology Group
- 4.6 Radiotherapy Oncology Group
- 4.7 Urology Group

**Group Leader****Mariana Díaz Almirón****Composition****Itsaso Losantos García****RESEARCH ACTIVITY****Publications**

- Bustamante J, Sainz T, Ara-Montojo MF, Almirón MD, Subirats M, Vega DM, Mellado MJ, López-Hortelano MG. Screening for parasites in migrant children. *Travel Med Infect Di.* 2022; 47: 102287. Article. IF: 12; Q1
- Cabrera-Lafuente M, Alonso-Díaz C, Pumarega MTM, Díaz-Almirón M, Haike LN, Mastrapur R, Pallás-Alonso C. Breastfeeding practices in neonatal wards in Spain. *Neo-BFHI international survey. An Pediatr.* 2022; 96(4): 300-8. Article. IF: 2.1; Q3
- Fernández-Fournier M, Kerguelen A, de Rivera FJR, Lacruz L, Jimeno S, Losantos I, Hernández-Maraver D, Puertas I, Tallón-Barranco A, Viejo A, García AF, Díez-Tejedor E. Therapeutic plasma exchange for myasthenia gravis, Guillain-Barre syndrome, and other immune-mediated neurological diseases, over a 40-year experience. *Expert Rev Neurother.* 2022; 22(10): 897-903. Article. IF: 4.3; Q2
- Hernández-Breijo B, Parodis I, Novella-Navarro M, Martínez-Feito A, Navarro-Compán V, Díaz-Almirón M, Pascual-Salcedo D, Balsa A, Plasencia-Rodríguez C. Low serum BAFF concentration is associated with response to TNF inhibitors in seropositive patients with rheumatoid arthritis. *J Clin Med.* 2022; 11(17): 5207. Article. IF: 3.9; Q2

RESEARCH AREAS

- Surgery, transplantation and health technology

- Lahoz C, Salinero-Fort MA, Cárdenas J, Rodríguez-Artalejo F, Díaz-Almirón M, Vich-Pérez P, Andrés-Rebollo FJS, Vicente I, Mostaza JM. HDL-cholesterol concentration and risk of SARS-CoV-2 infection in people over 75 years of age: a cohort with half a million participants from the Community of Madrid. *Clin Investig Arterioscler.* 2022; 34(3): 113-9. Article. IF: 1.6; Q3
- Mir-Ihara P, Narváez-Fernández E, Domínguez-Ortega J, Entrala A, Barranco P, Luna-Porta JA, Romero D, Villamañan E, Losantos-García I, Quirce S. Safety of biological therapy in elderly patients with severe asthma. *J Asthma.* 2022; 59(11): 2218-22. Article. IF: 1.9; Q4
- Mostaza JM, Salinero-Fort MA, Cardenas-Valladolid J, Rodríguez-Artalejo F, Díaz-Almirón M, Vich-Pérez P, San Andrés-Rebollo FJ, Vicente I, Lahoz C. Factors associated with mortality due to SARS-CoV-2 in the population over 75 years of age in the Community of Madrid. *Rev Clin Esp.* 2022; 222(8): 468-78. Article. IF: 2.9; Q2
- Mostaza JM, Salinero-Fort MA, Cardenes-Valladolid J, Rodríguez-Artalejo F, Díaz-Almirón M, Vich-Pérez P, San Andrés-Rebollo FJ, Vicente I, Lahoz C. Pre-infection HDL-cholesterol levels and mortality among elderly patients infected with SARS-CoV-2. *Atherosclerosis.* 2022; 341: 13-9. Article. IF: 5.3; Q2

- Novella-Navarra M, Benavent D, Ruiz-Esquide V, Tornero C, Díaz-Almirón M, Chacur CA, Peiteado D, Villalba A, Sammartí R, Plasencia-Rodríguez C, Balsa A. Predictive model to identify multiple failure to biological therapy in patients with rheumatoid arthritis. *Ther Adv Musculoskelet Dis.* 2022; 14: 1759720X221124028. Article. IF: 4.2; Q2
- Tornero C, Navarro-Compán V, Buno A, Heath KE, Díaz-Almirón M, Balsa A, Tenorio JA, Quer J, Aguado P. Biochemical algorithm to identify individuals with ALPL variants among subjects with persistent hypophosphatasæmia. *Orphanet J Rare Dis.* 2022; 17(1): 98. Article. IF: 3.7; Q2
- Udaondo C, Cámaras C, Berenguel LM, Rueda RA, Gómez CM, Longo CM, Díaz-Delgado B, Falces-Romero I, Almirón MD, Ochando J, Méndez-Echevarría A, Camba AR, Calvo C. Humoral and cellular immune response to mRNA SARS-CoV-2 BNT162b2 vaccine in adolescents with rheumatic diseases. *Pediatr Rheumatol.* 2022; 20(1): 64. Article. IF: 2.5; Q2
- Udaondo C, Cuadros EN, Murias S, Remesal A, Alcobendas R, Guerrero C, Guillén-Martín S, Escruedo M, Aleo E, Alonso D, Tagarro A, de Santiago E, Camacho-Lovillo M, Diaz F, Arenas D, Camacho P, Lirola MJ, Almirón MD, Calvo C. Are infections



in children with juvenile idiopathic arthritis more frequent than in healthy children? A prospective multicenter observational study. *Front Pediatr.* 2022; 10: 917731. Article. IF: 2.6; Q2

Research projects

Díaz Almirón M. Plataforma bioestadística. Fundación de la Sociedad Española de Alergología e Inmunología Clínica. 2017-Ongoing.

Management centre: FIBHULP

Patents and trademarks

Íbáñez de Cáceres I, de Castro Carpeño J, Jiménez Hernández J, Rodríguez Antolín C, Vera Puente O, Rosas Alonso R, Pernía Arias O, Losantos García I, inventors; FIBHULP, assignee. Method for determining the response to treatment of a patient affected by non-small cell lung carcinoma (NSCLC). EP19382614.6 (Publication Number pending); 2019 July 19.

**Group Leader****Belén Fernández Puntero**

Publications: 7

Q1: 1

Composition

Maria Patricia Sanz de Pedro
 Ana Laila Qasem Moreno
 Noelia Seco Moro
 Jose Manuel Iturzaeta Sánchez
 Mercedes Rodriguez Gutierrez
 Ruben Gomez Rioja

RESEARCH AREAS

- Large system pathology

RESEARCH ACTIVITY**● Publications**

- Caballero, A; Gómez-Rioja, R; Ventura, M; Llopis, MA; Bauca, JM; Gómez-Gómez, C; Marzana, I; Ibarz, M. Evaluation of 18 quality indicators from the external quality assurance preanalytical programme of the Spanish Society of Laboratory Medicine (SEQC(ML)). *Adv Lab Med.* 2022; 3(2): 175-87. Article. IF: 1; Q4
- Campillo CR, de Pedro MPS, Barceló SA, Rubio MAB, Soto AB, Rioja RG. Differences in glomerular filtration rate estimated with the new eGFRcr CKD EPI age and sex 2021 vs. the eGFRcr CKD EPI 2009 formula. *Adv Lab Med.* 2022; 3(3): 313-4. Letter. IF: 1; Q4
- Martínez-Milla J, Acena A, Pello A, López-Castillo M, Gaebelt HP, González-Lorenzo O, Tarin

- N, Cristóbal C, Blanco-Colio LM, Martín-Ventura JL, Huelmos A, Kallmeyer A, Alonso J, Gutiérrez-Landaluce C, Bescos LL, Egido J, Mahillo-Fernández I, Lorenzo O, González-Casaus ML, Tuñón J. NT-proBNP levels influence the prognostic value of mineral metabolism biomarkers in coronary artery disease. *J Clin Med.* 2022; 11(14): 4153. Article. IF: 3.9; Q2
- Miranda-Martínez A, Sufrate-Vergara B, Fernández-Puntero B, Alcaide-Martín MJ, Buño-Soto A, Serrano-Olmedo JJ. ANN-based discernment of septic and inflammatory synovial fluid: A novel method using viscosity data from a QCR sensor. *Sensors-Basel.* 2022; 22(23): 9413. Article. IF: 3.9; Q2
 - Parro IM, Sánchez DO, Moreno RG, Rioja RG, Martínez RF, Álvarez-Escola C. Bilateral inferior petrosal sinus sampling in the diagnosis of ACTH-dependent Cushing's syndrome: experience in a tertiary hospital. *Adv Lab Med.* 2022; 3(3): 282-7. Article. IF: 1; Q4
 - Rioja, RG; Ventura, M; Llopis, MA; Bauca, JM; Garralda, AC; Ibarz, M; Martínez, D; Gómez, C; Gómez-Pablos, PS; del Pino, IG; Delgado, J; Puente, JJ; Marzana, I. External quality assessment of serum indices: Spanish SEQC-ML program. *Clin Chem Lab Med.* 2022; 60(1): 66-73. Article. IF: 6.8; Q1
 - Soveral I, Guirado L, Escobar-Díaz MC, Alcaide MJ, Martínez JM, Rodríguez-Sureda V, Bijnens B, Antolín E, Llurba E, Bartha JL, Gómez O, Crispí F. Cord blood cardiovascular biomarkers in left-sided congenital heart disease. *J Clin Med.* 2022; 11(23): 7119. Article. IF: 3.9; Q2

**● Research projects**

Sanz de Pedro MP. Eficiencia de la implementación de un algoritmo de alta resolución basado en el uso de biomarcadores séricos para la detección de fibrosis hepática asociada a la enfermedad del hígado graso secundaria a la disfunción metabólica. FIBHULP. 2022-Ongoing.

Management centre: FIBHULP



Publications: 26

Q1: 4

4.3 Endocrinology and Nutrition Group

Group Leader

Maria Cristina Álvarez Escolá

Composition

Beatriz Barquiel Alcalá
Rosa María García Moreno
Elena García Pérez de Sevilla
Noemí González Pérez de Villar

Natalia Hilman Gadea
Beatriz Lecumberri Santamaría
Arturo Lisbona Catalán
Patricia Martín Rojas Marcos
Laura Mola Reyes
Oscar Moreno Domínguez
Paola Parra Ramírez
Miriam Zapatero Larrauri



RESEARCH AREAS

- Surgery, transplantation and health technology

RESEARCH ACTIVITY

● Doctoral theses

Arcos Castellanos L. Efecto del consumo habitual de un caldo ibérico enriquecido con fructoligosacáridos sobre el contenido de masa grasa corporal y diferentes marcadores hormonales relacionados con la obesidad [dissertation]. Madrid: UAM; 2022(10/06/2022).

Director: Palma Milla S.

● Publications

Araujo-Castro M, Centeno RG, Lázaro CR, Ramírez PP, Giménez PG, Rojas-Marcos PM, Fernández-

dez-Ladreda MT, Hualpa JCP, Núñez MS, López-García MC, Lamas C, Escola CA, Gutiérrez MC, Carrera CB, Novoa PD, Gallego NV, Hanzu F, Marazuela M, Porta MM, Ojeda CM, Muriel IGG, Escobar-Morreale HF, Valderrabano P. Predictive model of pheochromocytoma based on the imaging features of the adrenal tumours. *Sci Rep-Uk*. 2022; 12(1): -2671. Article. IF: 4,6; Q2

• Araujo-Castro M, Fano MP, Boillos MG, Peris BP, Pascual-Corralles E, Cano AMG, Ramírez PP, Rojas-Marcos PM, Ruiz-Sánchez JG, Delgado AV, Hoyos EG, Ferreira R, Sanz IG, Guardiola PD, Gonzalez JJG, Perdomo CM, Morales M, Hanzu FA. Evolution of the cardiometabolic profile of primary hyperaldosteronism patients treated with adrenalectomy and with mineralocorticoid receptor antagonists: results from the SPAIN-

ALDO Registry. *Endocrine*. 2022; 76(3): 687-696. Article. IF: 3,7; Q3

• Araujo-Castro M, Fano MP, Boillos MG, Peris BP, Pascual-Corralles E, Cano AMG, Ramírez PP, Rojas-Marcos PM, Ruiz-Sánchez JG, Delgado AV, Hoyos EG, Ferreira R, Sanz IG, Sala MR, San Millán RB, Cesar MJP, Guardiola PD, Gonzalez JJG, Perdomo CM, Miguelez LM, Centeno RG, Percovich JC, Roman AR, Giménez PG, Lázaro CR, Morales-Ruiz M, Hanzu FA. Predictive model of hypertension resolution after adrenalectomy in primary aldosteronism: the SPAIN-ALDO score. *J Hypertens*. 2022; 40(12): 2486-2493. Article. IF: 4,9; Q2

• Araujo-Castro M, Fano MP, Boillos MG, Peris BP, Pascual-Corralles E, Cano AMG, Ramírez PP, Rojas-Marcos PM, Ruiz-Sánchez JG, Delgado

AV, Hoyos EG, Ferreira R, Sanz IG, Sala MR, San Millán RB, Cesar MJP, Guardiola PD, Gonzalez JJG, Perdomo CM, Miguelez LM, Centeno RG, Percovich JC, Roman AR, Giménez PG, Lázaro CR, Morales-Ruiz M, Hanzu FA. Adrenal venous sampling in primary aldosteronism: Experience of a Spanish multicentric study (Results from the SPAIN-ALDO Register). *Endocrine*. 2022; 78(2): 363-372. Article. IF: 3,7; Q3

• Araujo-Castro M, Ojeda CM, Centeno RG, López-García MC, Lamas C, Hanzu FA, Mora M, Tous MD, Gomez PRD, Ramirez PP, Alvarez-Escola C, Carrera CB, San Millán RB, Recasens M, Valdes N, Giménez PG, Novoa PD, Vicente A, Manjón L, Sanz IG, Michalopoulou T, Calatayud M. Glycemic disorders in patients with pheochromocytomas and sympathetic paragangliomas.



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- Endocr-Relat Cancer. 2022; 29(12): 645-655. Article. IF: 3,9; Q2
- Araujo-Castro M, Rojas-Marcos PM, Ramirez PP. Familial forms and molecular profile of primary hyperaldosteronism. Hipertens Riesgo Vasc. 2022; 39(4): 167-173. Review. IF: 0,6; Q4
 - Araujo-Castro M, Parra-Ramirez P. Diagnosis of primary hyperaldosteronism. Med Clin-Barcelo-na. 2022; 158(9): 424-430. Article. IF: 3,9; Q2
 - Arcos Castellanos Lucia, López Plaza Bricia, Morato Martínez Marina, Valero Perez Marllyn, Palma Milla Samara, Gomez Candela Carmen. Regular consumption of a functional broth enriched with FOS increases the levels of hormones related to satiety in healthy people. A randomized, controlled clinical trial. Nutr Hosp. 2022; 39(3): 629-637-. Article. IF: 1,2; Q4
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 - Burgos R, García-Almeida JM, Matia-Martin P, Palma S, Sanz-Paris A, Zugasti A, Alfaro-Martínez JJ, Fullana AA, Contiente AC, Chinchetru MJ, Malpartida KG, Diaz-Faes AG, Gonzalez-Sánchez V, López ML, Ortega AJM, Roldan JO, Moreno CS, Llanos JPS. Malnutrition management of hospitalized patients with diabetes/hyperglycemia and concurrent pathologies (general issues). Nutr Hosp. 2022; 39(1): 1-8. Review. IF: 1,2; Q4
 - Cuerda C, López IS, Martínez CG, Viveros MM, Velasco C, Penafiel VC, Jimenez MM, Gonzalo I, Gonzalez-Sánchez V, Carrasco AR, Guardiola PD, Foncillas CM, Sampedro-Núñez MA, Martínez

- MM, Galicia I, Mostoles NM, Martínez-Barbeito MB, Reyes LM, Aguilera CN, Arrip L, García DD, Delgado MH, Cancer-Minchart E, García MP, Pelegrina-Cortes B, Roldan JO, Maichle S, Bahena BM, Vazquez NG, Atienza E, Rodriguez IH, Galbarte AA, Morales A, Zanuy MAV, Matia-Martin P, Knott C, Rotaecche AA, Ortiz A, Montes MPG, Ortiz MR, Aguado MR, Milla SP, Alvarez TM, Martínez ES, de Codesal MR, Bellver BO, Aceituno S, Perez-Sadaba FJ, Alvarez-Hernández J. Covid-19 Impact of COVID-19 in nutritional and functional status of survivors admitted in intensive care units during the first outbreak. Preliminary results of the NUTRICVID study. Clin Nutr. 2022; 41(12): 2934-2939. Article. IF: 6,3; Q1
- García-Moreno RM, Benítez-Valderrama P, Barquiel B, Perez-de-Villar NG, Hillman N, Pablos DL, Herranz L. Efficacy of continuous glucose monitoring on maternal and neonatal outcomes in gestational diabetes mellitus: a systematic review and meta-analysis of randomized clinical trials. Diabetic Med. 2022; 39(1): -e14703. Review. IF: 3,5; Q3
 - García-Moreno Rosa Maria, Cos-Blanco Ana Isabel, Calvo-Vinuela Isabel, Zapatero-Larrauri Miriam, Herranz Lucrecia. Change in levothyroxine requirements after bariatric surgery in patients with hypothyroidism.. Endocr Regul. 2022; 56(2): 81-86-. Article. IF: Not Indexed
 - Gil J, Marques-Pamies M, Sampedro M, Webb SM, Serra G, Salinas I, Blanco A, Valassi E, Carrato C, Pico A, García-Martínez A, Martel-Duguech L, Sardon T, Simo-Servat A, Biagiotti B, Villabona C, Camara R, Fajardo-Montanana C, Alvarez-Escola C, Lamas C, Alvarez CV, Bernabeu I, Marzuela M, Jorda M, Puig-Domingo M. Data mining analyses for precision medicine in acromegaly: a proof of concept. Sci Rep-Uk. 2022; 12(1): -8979. Article. IF: 4,6; Q2
 - López CP, Parra P, Rojas-Marcos PM, Mena SC, Alvarez-Escola C. Intrasellar epidermoid cyst. A case report. Endocrinol Diabetes Nutr. 2022; 69(3): 227-229. Editorial Material. IF: 1,9; Q4
 - Males-Maldonado D, Reyes LM, Gonzalez AM, Grande AG, Iglesias SG. Diabetes mellitus secondary to IgG4-related disease. Endocrinol Diabetes Nutr. 2022; 69(2): 151-152. Letter. IF: 1,9; Q4
 - Palma S, Malpartida KG, Burgos R, García-Almeida JM, Matia-Martin P, Sanz-Paris A, Zugasti A, Alfaro-Martínez JJ, Fullana AA, Calanas-Contiente A, Chinchetru MJ, Diaz-Faes AG, Gonzalez-Sánchez V, López ML, Ortega AJM, Roldan JO, Llanos JPS, Moreno CS. Malnutrition management of hospitalized patients with diabetes/hyperglycemia and hip fracture. Nutr Hosp. 2022; 39(1): 9-14. Review. IF: 1,2; Q4
 - Wanden-Berghe C, Martín CC, Hernández JA, Pelaez RB, Martín PM, Compes CC. The NADY-SENPE Home Enteral Nutrition Registry in Spain: years 2018 and 2019. Nutr Hosp. 2022; 39(1): 223-229. Article. IF: 1,2; Q4

- Zugasti A, Chinchetru MJ, Burgos R, García-Almeida JM, Matia-Martin P, Palma S, Sanz-Paris A, Alfaro-Martínez JJ, Fullana AA, Calanas-Contiente A, Malpartida KG, Gonzalez-Sánchez V, López ML, Ortega AJM, Roldan JO, Moreno CS, Llanos JPS, Diaz-Faes AG. Malnutrition management of hospitalized patients with diabetes/hyperglycemia in the perioperative setting. Nutr Hosp. 2022; 39(1): 31-39. Review. IF: 1,2; Q4
- Parro IM, Sánchez DO, Moreno RG, Rioja RG, Martínez RF, Alvarez-Escola C. Bilateral inferior petrosal sinus sampling in the diagnosis of ACTH-dependent Cushing's syndrome: experience in a tertiary hospital. Adv Lab Med. 2022; 3(3): 282-287. Article. IF: 1; Q4
- Perez- López C, Zamarron A, Isla A, Alvarez-Escola C. Is the current WHO classification of pituitary adenomas practical?. Endocrinol Diabetes Nutr. 2022; 69(3): 234-235. Letter. IF: 1,9; Q4
- Quiros-Fernández R, López-Plaza B, Bermejo LM, Milla SP, Zangara A, Candela CG. Oral Supplement Containing Hydroxytyrosol and Punicalagin Improves Dyslipidemia in an Adult Population without Co-Adjuvant Treatment: A Randomized, Double-Blind, Controlled and Crossover Trial. Nutrients. 2022; 14(9): -1879. Article. IF: 5,9; Q1
- Ramirez PP, Rojas-Marcos PM, Fano MP, Boillos MG, Pascual-Corrales E, García-Cano A, Ruiz-Sánchez JG, Vicente A, Gomez-Hoyos E, Ferreira R, Sanz IG, Recasens M, Peris BP, San Millan RB, Cesar MJP, Guardiola PD, Gonzalez JJJ, Perdomo C, Manjon L, García-Centeno R, Percovich JC, Roman AR, Gimeno PG, Lazaro CR, Morales M, Hanzu F, Araujo-Castro M. Differences in the presentation and evolution of primary aldosteronism in elderly (≥ 65 years) and young patients (< 65 years). Endocr Connect. 2022; 11(6): -e220169. Article. IF: 2,9; Q3
- Santamaría BL. Is it possible to come out from a black hole? An insight from ECE 2022. Eur J Endocrinol. 2022; 187(6): L5-L6. Letter. IF: 5,8; Q1
- Sanz-Paris A, Fullana AA, Burgos R, García-Almeida JM, Matia-Martin P, Palma S, Zugasti A, Alfaro-Martínez JJ, Calanas-Contiente A, Chinchetru MJ, Malpartida KG, Diaz-Faes AG, Gonzalez-Sánchez V, López ML, Ortega AJM, Roldan JO, Llanos JPS, Moreno CS. Malnutrition management of hospitalized patients with diabetes/hyperglycemia and hip fracture. Nutr Hosp. 2022; 39(1): 9-14. Review. IF: 1,2; Q4

Research projects

González Pérez de Villar N. Investigación en calidad: mejora continua en la gestión y organización de procesos asistenciales y de investigación de la unidad de diabetes del Hospital La Paz. Lilly S.A. 2022-.

Management centre: FIBHULP

Clinical trials

Hillman Gadea N. Ensayo en fase III, aleatorizado, con enmascaramiento doble, comparativo con placebo y multicéntrico para evaluar la eficacia y la seguridad de diamyd® en la conservación del funcionamiento de las células β endógenas en adolescentes y adultos con un diagnóstico reciente de diabetes de tipo 1 que presentan el haplotipo genético hla dr3-dq.

Type: Clinical Trials, phase III.

Sponsored by: Diamyd Therapeutics AB.

Signed date: 20/09/2022

Martin Rojas-Marcos P. Observacional con medicamento, para evaluar y documentar con monitorización continua de glucosa (mcg) la aparición de hipoglucemias en pacientes con diabetes mellitus tipo 2 (dm2) tratados con glargina-100 en el ámbito de la atención primaria.

Type: estudios EPA-LA.

Sponsored by: Sanofi Aventis S.A.

Signed date: 16/02/2022



Group Leader
Bricia López Plaza

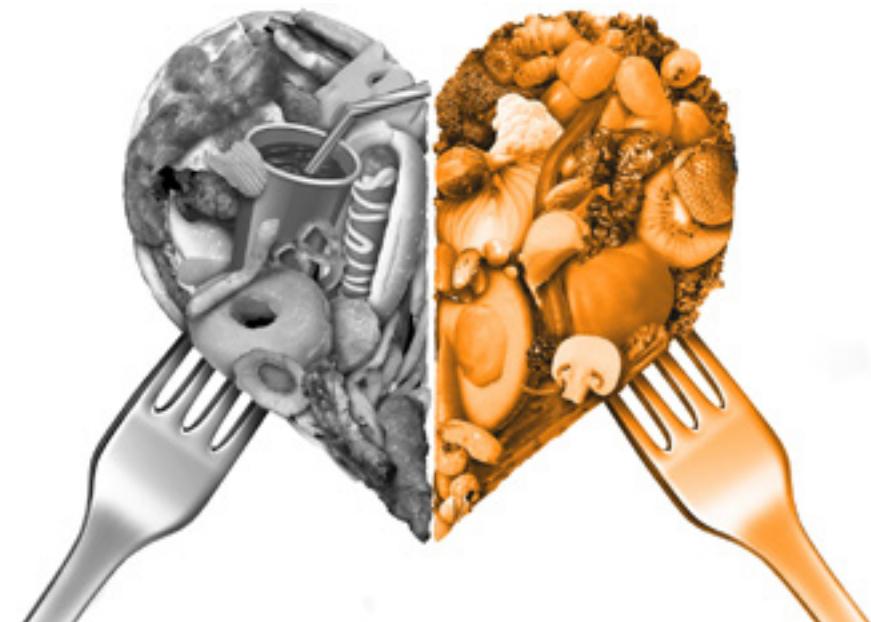
4.4 Nutrinvest Group

Publications: 17

Q1: 3

Composition

Samara Palma Milla
Laura Mola Reyes
Rosa María García Moreno
Marlyn Valero Pérez
Natalia García Vázquez
Lucía Arcos Castellanos



RESEARCH AREAS

- Surgery, transplantation and health technology

RESEARCH ACTIVITY

● Publications

- Arcos Castellanos L, López Plaza B, Morato Martínez M, Valero Perez M, Palma Milla S, Gomez Candela C. Regular consumption of a functional broth enriched with FOS increases the levels of hormones related to satiety in healthy people. A randomized, controlled clinical trial. *Nutr Hosp.* 2022; 39(3): 629-37. Article. IF: 1.2; Q4
- Burgos Peláez R, García Almeida JM, Matia Martín P, Palma Milla S, Sanz París A, Zugasti Murillo A, Alfaro Martínez JJ, Artero-Fullana A, Calanás Contíne A, Chinchetrú MJ, González-Díaz Faes A, González-Sánchez V, Laínez López M, Martínez Ortega AJ, Oliva Roldán J, Serrano-Moreno C, Suárez Llanos JP. GLUCECONTROL 2.0. Annex 1. *Nutr Hosp.* 2022; 39(Spec No4): 55-66. Article. IF: 1.2; Q4
- Burgos R, García-Almeida JM, Matía-Martín P, Palma S, Sanz-París A, Zugasti A, Alfaro-Martínez JJ, Fullana AA, Contíne AC, Chinchetrú MJ, Malpartida KG, Díaz-Faes AG, González-Sánchez V, López ML, Ortega AJM, Roldán JO, Moreno CS, Llanos JPS. Malnutrition management of hospitalized patients with diabetes/hyperglycemia and concurrent pathologies (general issues). *Nutr Hosp.* 2022; 39: 1-8. Review. IF: 1.2; Q4
- Burgos R, Llanos JPS, García-Almeida JM, Matía-Martín P, Palma S, Sanz-París A, Zugasti A, Fullana AA, Calanás-Contíne A, Chinchetrú MJ, Malpartida KG, Díaz-Faes AG, González-Sánchez V, López ML, Roldán JO, Moreno CS, Ortega AJM, Alfaro-Martínez JJ. Malnutrition management of hospitalized patients with diabetes/hyperglycemia and cancer cachexia. *Nutr Hosp.* 2022; 39: 40-6. Review. IF: 1.2; Q4
- Cuerda C, López IS, Martínez CG, Viveros MM, Velasco C, Peñafiel VC, Jiménez MM, Gonzalo I, González-Sánchez V, Carrasco AR, Guardiola PD, Foncillas CM, Sampedro-Núñez MA, Martínez MM, Galicia I, Mostoles NM, Martínez-Barbeito MB, Reyes LM, Aguilera CN, Arhip L, García DD, Delgado MH, Cáncer-Minchart E, García MP, Pelegrina-Cortés B, Roldán JO, Maichle S, Bahena BM, Vázquez NG, Atienza E, Rodríguez IH, Galbarte AA, Morales A, Zanuy MAV, Matía-Martín P, Knott C, Rotaeche AA, Ortiz A, Montes MPG, Ortiz MR, Aguado MR, Milla SP, Álvarez TM, Martínez ES, de Codesal MR, Bellver BQ, Aceituno S, Pérez-Sadaba FJ, Álvarez-Hernández J. Covid-19 Impact of COVID-19 in nutritional and functional status of survivors admitted in intensive care units during the first outbreak. Preliminary results of the NUTRICOVID study. *Clin Nutr.* 2022; 41(12): 2934-9. Article. IF: 6.3; Q1
- García-Almeida JM, López ML, Burgos R, Matía-Martín P, Palma S, Sanz-París A, Zugasti A, Alfaro-Martínez JJ, Fullana AA, Chinchetrú MJ, Malpartida KG, Díaz-Faes AG, González-Sánchez V, Ortega AJM, Roldán JO, Moreno CS, Llanos JPS, Calanás-Contíne A. Malnutrition management of hospitalized patients with diabetes/hyperglycemia and sarcopenia. *Nutr Hosp.* 2022; 39: 15-22. Review. IF: 1.2; Q4
- García-Moreno RM, Benítez-Valderrama P, Barquiel B, Hillman N, Herranz L, Pérez-de-Villar NG. Predictors of postpartum glucose metabolism disorders in women with gestational diabetes mellitus. *Diabetes Metab Syndr.* 2022; 16(10): 102629. Article. IF: 10; D1



4 Associated Clinicians

1 Introduction

2 Executive Summary

3 Information Groups by Area

4 Associated Clinicians

- García-Moreno RM, Benítez-Valderrama P, Barquiel B, Pérez-de-Villar NG, Hillman N, Pablos DL, Herranz L. Efficacy of continuous glucose monitoring on maternal and neonatal outcomes in gestational diabetes mellitus: a systematic review and meta-analysis of randomized clinical trials. *Diabetic Med.* 2022; 39(1): e14703. Review. IF: 3.5; Q3
- García-Moreno RM, Cos-Blanco AI, Calvo-Vinuela I, Zapatero-Larrauri M, Herranz L. Change in levothyroxine requirements after bariatric surgery in patients with hypothyroidism. *Endocr Regul.* 2022; 56(2): 81-6.. Article. Not Indexed
- Jiménez Ortega AI, López-Plaza B, Ortega RM, Lozano Estevan MC, Martínez García RM. Nutritional problems in celiac patients. Difficulties in achieving an adequate nutritional status. *Nutr Hosp.* 2022; 39(Spec No3): 60-4. Article. IF: 1.2; Q4
- López-Plaza B, Loria-Kohen V, González-Rodríguez LG, Fernández-Cruz E. Diet and lifestyle in cancer prevention. *Nutr Hosp.* 2022; 39(Spec No3): 74-7. Review. IF: 1.2; Q4
- Matía-Martín P, González-Sánchez V, Burgos R, García-Almeida JM, Palma S, Sanz-París A, Zugasti A, Alfaro-Martínez JJ, Fullana AA, Calanas-Continent A, Chinchetru MJ, Malpartida KG, Díaz-Faes AG, López ML, Moreno CS, Ortega AJM, Llanos JPS, Roldán JO. Malnutrition management of hospitalized patients with diabetes/hyperglycemia and liver cirrhosis. *Nutr Hosp.* 2022; 39: 47-54. Review. IF: 1.2; Q4
- Palma S, Malpartida KG, Burgos R, García-Almeida JM, Matía-Martín P, Sanz-París A, Zugasti A, Alfaro-Martínez JJ, Fullana AA, Calanas-Continent A, Chinchetru MJ, Díaz-Faes AG, González-Sánchez V, López ML, Roldán JO, Moreno CS, Llanos JPS, Ortega AJM. Malnutrition management of hospitalized patients with diabetes/hyperglycemia in the perioperative setting. *Nutr Hosp.* 2022; 39: 31-9. Review. IF: 1.2; Q4
- Quirós-Fernández R, López-Plaza B, Bermejo LM, Milla SP, Zangara A, Candela CG. Oral supplement containing hydroxytyrosol and punicalagin improves dyslipidemia in an adult population without co-adjuvant treatment: A randomized, double-blind, controlled and crossover trial. *Nutrients.* 2022; 14(9): 1879. Article. IF: 5.9; Q1
- Sanz-París A, Fullana AA, Burgos R, García-Almeida JM, Matía-Martín P, Palma S, Zugasti A, Alfaro-Martínez JJ, Calanas-Continent A,

- Chinchetru MJ, Malpartida KG, Díaz-Faes AG, González-Sánchez V, López ML, Ortega AJM, Roldán JO, Llanos JPS, Moreno CS. Malnutrition management of hospitalized patients with diabetes/hyperglycemia and hip fracture. *Nutr Hosp.* 2022; 39: 9-14. Review. IF: 1.2; Q4
- Wanden-Berghe C, Martín CC, Hernández JA, Peláez RB, Martín PM, Compes CC. The NADYASENPE home enteral nutrition registry in Spain: years 2018 and 2019. *Nutr Hosp.* 2022; 39(1): 223-9. Article. IF: 1.2; Q4
 - Zugasti A, Chinchetru MJ, Burgos R, García-Almeida JM, Matía-Martín P, Palma S, Sanz-París A, Alfaro-Martínez JJ, Fullana AA, Calanas-Continent A, Malpartida KG, González-Sánchez V, López ML, Ortega AJM, Roldán JO, Moreno CS, Llanos JPS, Díaz-Faes AG. Malnutrition management of hospitalized patients with diabetes/hyperglycemia and heart failure. *Nutr Hosp.* 2022; 39: 23-30. Review. IF: 1.2; Q4

Research projects

López Plaza B. Prospectivas de la actividad investigadora de la unidad de nutrición clínica y dietética. Abbott Laboratories S.A. 2008-Ongoing.

Management centre: FIBHULP

López Plaza B. Satisfood: desarrollo y validación de alimentos saciantes mediante la integración de las señales pre y postigestivas. Creaciones Aromáticas Industriales S.A. 2017-Ongoing.

Management centre: FIBHULP

López Plaza B. Ensayo clínico para evaluar el efecto del consumo de dos microalgas unicelulares sobre biomarcadores del síndrome metabólico en sujetos con sobrepeso/obesidad y el perfil lipídico alterado. Anfaco-Cecopesca. 2018-Ongoing.

Management centre: FIBHULP

López Plaza B. Puesta en marcha del ensayo clínico Estudio clínico-nutricional para evaluar las propiedades de una dieta suple-

mentada con alimentos de alto contenido proteico sobre marcadores de salud muscular-esquelética de un colectivo de personas mayores institucionalizadas frágiles con riesgo de sufrir sordera. Delafruit, S.L.U. (Go Fruselva). 2019-Ongoing.

Management centre: FIBHULP

López Plaza B. Plataforma de nutrición y alimentación. Abbott Laboratories S.A. 2019-Ongoing.

Management centre: FIBHULP

López Plaza B. Puesta en marcha del Ensayo clínico para evaluar el efecto de una cepa probiótica sobre los síntomas de la intolerancia a la lactosa. Biopolis S.L. 2020-Ongoing.

Management centre: FIBHULP

López Plaza B. Puesta en marcha del ensayo clínico para evaluar el índice glucémico de un suplemento nutricional oral (SNO) hipercalórico/hiperproteico enriquecido en calcio, vitamina d y dha en población adulta sana. Fundación Eurecat. 2021-Ongoing.

Management centre: FIBHULP

Palma Milla S. Estudio observacional para el conocimiento de los factores de riesgo asociados al cáncer de mama en mujeres de reciente diagnóstico de la enfermedad en la Comunidad de Madrid. Abbott Laboratories S.A. 2017-Ongoing.

Management centre: FIBHULP

Palma Milla S. Efecto del consumo habitual de una dieta completa hipoproteína y hipercaótica parcialmente hidrolizada rica en omega 3 y fibra soluble sobre el estado nutricional y la función gastrointestinal de pacientes desnutridos sometidos a cirugía pancreática oncológica. Fundación de la Sociedad Española de Endocrinología y Nutrición. 2022-Ongoing.

Management centre: FIBHULP

Clinical trials

López Plaza B. Ensayo clínico para evaluar el efecto del consumo habitual de un microorganismo con actividad probiótica sobre la mejoría de síntomas en personas con alteraciones astrointestinales transitorias leves no asociadas a enfermedad.

Type: EECC, phase I. Código Identificativo: 6010 BIOPOLIS.

Sponsored by: Hyris SRL

Signed date: 31/03/2022

Palma Milla S. Estudio clínico longitudinal prospectivo para evaluar el efecto del consumo de un suplemento nutricional oral (sno) hipoproteína/hipercalórico enriquecido en calcio, vitamina d y dha específico para pacientes diabéticos sobre la adherencia y tolerancia g.

Type: Producto Alimenticio. 6092.

Sponsored by: Laboratoires Grand Fontaine, S.L.

Signed date: 26/05/2022

Palma Milla S. Efecto del consumo habitual del dmb sobre la percepción olfatógustativa y el estado nutricional de pacientes oncológicos en tratamiento con quimioterapia y/o radioterapia que presentan desnutrición moderada (clinmir).

Type: Producto Alimenticio. 2022.050.

Sponsored by: Medicinal Gardens S.L.

Signed date: 14/07/2022

Palma Milla S. Efecto del consumo habitual del dmb sobre la percepción olfatógustativa y el estado nutricional de pacientes oncológicos en tratamiento con quimioterapia y/o radioterapia que presentan desnutrición moderada (clinmir).

Type: Producto Alimenticio. 2022.634.

Sponsored by: Medicinal Gardens S.L.

Signed date: 17/10/2022



4.5 Orthopedic Surgery and Traumatology Group

Publications: 17

Q1: 1

Group Leader

Francisco Javier Sánchez Pérez-Grueso

Composition

Irene Barrientos Ruiz
 Juan Cabello Blanco
 Rafael Carbonell Escobar
 Nicomedes Fernández-Baillo
 Gaspar González Morán
 Luis Rodrigo Merino Rueda.
 Eduardo Ortiz Cruz

Manuel Peleteiro Pensado
 Mar Pérez Martín-Buitrago
 Francisco Javier Pizones Arce
 Jose Miguel Sánchez Márquez
 Eloy Dario Tabeayo Alvarez
 Alfonso Vaquero Picado
 Juan Ignacio Viñuales García

RESEARCH AREAS

- Surgery, transplantation and health technology

RESEARCH ACTIVITY

Publications

Blay JY, Palmerini E, Bolland J, Aguiar S, Angel M, Araya B, Badilla R, Bernabeu D, Campos F, Caro-Sánchez CHS, Montoya AC, Casavilca-Zambrano S, Castro-Olidén V, Chacón M, Clara-Altamirano MA, Collini P, Genoroso RC, Costa FD, Cuellar M, Tos APD, Malagón HRD, Donati DM, Dufresne A, Eriksson M, Farias-Loza M, Frezza AM, Frisoni T, Garcia-Ortega DY, Gerderblom H, Gouin F, Gómez-Mateo MC, Gronchi A, Haro J, Hindi N, Huanca L, Jiménez N, Karanian M, Kasper B,

Lopes A, David BBL, López-Pousa A, Lutter G, Maki RG, Martínez-Said H, Martínez-Tlahuel JL, Mello CA, Pérez JMM, Moura DS, Nakagawa SA, Nascimento AG, Ortiz-Cruz EJ, Patel S, Pfluger Y, Provenzano S, Righi A, Rodriguez A, Santos TG, Scotlandi K, Silva MLG, Soule T, Stacchiotti S, Valverde CM, Waisberg F, Estrada EZ, Martín-Broto J. SELNET clinical practice guidelines for bone sarcoma. *Crit Rev Oncol Hemat.* 2022; 174: 103685. Review. IF: 6.2; Q1

Bourghli A, Boissiere L, Cawley D, Larrieu D, Pi-

zones J, Alanay A, Pellise F, Kleinstuck F, Obeid I. Domino connector is an efficient tool to improve lumbar lordosis correction angle after pedicle subtraction osteotomy for adult spinal deformity. *Eur Spine J.* 2022; 31(9): 2408-14. Article. IF: 2.8; Q2

Cruz-Castellanos P, Ortiz-Cruz E, Sánchez-Méndez JI, Tapia M, Moreira R, Redondo A. The impact of the first wave of the COVID-19 pandemic on oncological patients in a tertiary hospital. *Rev Esp Patol.* 2022; 55(2): 77-84. Article. Not Indexed



- Haddad S, Vila-Casademunt A, Yilgor C, Núñez-Pereira S, Ramírez M, Pizones J, Alanay A, Kleinstuck F, Obeid I, Pérez-Grueso FJS, Pellise F. Combined anterior-posterior versus all-posterior approaches for adult spinal deformity correction: a matched control study. *Eur Spine J.* 2022; 31(7): 1754-64. Article. IF: 2.8; Q2
- Kieser DC, Yuksel S, Boissiere L, Yilgor C, Cawley DT, Hayashi K, Alanay A, Kleinstueck FS, Pellise F, Pérez-Grueso FJS, Jean-Marc V, Bourghli A, Acaroglu ER, Obeid I. Impact of radiologic variables



4 Associated Clinicians

1 Introduction

2 Executive Summary

3 Information Groups by Area

4 Associated Clinicians

on item responses of ODI, SRS22 and SF-36. in adult spinal deformity patients: differential item functioning (DIF) analysis results from a multicenter database. *Eur Spine J.* 2022; 31(5): 1166-73. Article. IF: 2.8; Q2

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Research projects

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Management centre: FIBHULP

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Management centre: FIBHULP

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Management centre: FIBHULP



4.6 Radiotherapy Oncology Group

Publications: -

Q1: -

Group Leader**Rosa Morera López****Composition**Elisabet González Del Portillo
Isabel Rodríguez Rodríguez

Ana Castaño Cantos

Luis Glaría

Ane Escribano

Inmaculada Navarro Domenech

Beatriz Debén Méndez

Marta Rodríguez Roldán

Belén Belinchón Olmedo

Aurea Manso de Lema

Lara Miralles

Isabel Garrido Botella

Víctor Duque

Macarena Teja Ubach

Mercedes González Cantero

RESEARCH AREAS

- Cancer and human molecular genetics

RESEARCH ACTIVITY**● Publications**

- Cruz-Castellanos P, Ortiz-Cruz E, Sánchez-Méndez JI, Tapia M, Morera R, Redondo A. The impact of the first wave of the COVID-19 pandemic on oncological patients in a tertiary hospital. Rev Esp Patol. 2022; 55(2): 77-84. Not Indexed
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Management centre: FIBHULP

● Patents and trademarks

Glaría Enríquez A, Mañas Rueda A, Velázquez Soto R, inventors; FIBHULP, assignee. Isolation and immobilization device for test animals. P201031519, PCT/ES2011/070709; 2010 October 14.





Group Leader

Luis Martínez-Piñeiro Lorenzo

Composition

Alfredo Aguilera Bazán
Sergio Alonso y Gregorio
José María Alonso Dorrego
Mario Álvarez Maestro

Publications: 29

Q1: 9

4.7 Urology Group

José Ramón Cansino Alcaide

Cristina de Castro Guerin

Mercedes Ferrer Parra

Eugenia García Fernández

Maria Justa García-Matres y Cortés

Juan Gómez Rivas

Estefanía Esperanza Linares Espinos

Pedro López Pereira

José Antonio Moreno Valle

José Ramón Pérez-Carral García

Fermín Rodríguez de Bethancourt Codés

Ángel Tabernero Gómez

Esau Fernández Pascual

José Miguel Gómez de Vicente

Asier Leivar Tamayo

Diego Carrión Monsalve

Ana García Belda



RESEARCH AREAS

- Large system pathology

RESEARCH ACTIVITY

Doctoral theses

Álvarez Maestro M. Niveles de Tromboxano A2 en la deficiencia androgénica adquirida tras el tratamiento antitumoral de pacientes con cáncer de próstata [dissertation]. Madrid: UAM; 2022(01/04/2022).

Director: Ferrer Parra M.

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4 Associated Clinicians

1 Introduction

2 Executive Summary

3 Information Groups by Area

4 Associated Clinicians

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Management centre: UAM

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Management centre: FIBHULP

López Pereira P. Utilización de constructos de mucosa urotelial autóloga obtenidos mediante ingeniería tisular para la realización uretroplastias reconstructivas en un modelo experimental de hipospadias proximal en conejos. Fundación para la Investigación en Urología. 2016-Ongoing.

Management centre: FIBHULP

Martínez-Piñeiro Lorenzo L. Polish Spanish uro-onco scientific forum exchange 2018. ICP Group. 2018-Ongoing.

Management centre: FIBHULP

● Cibers and Retics

López Pereira P. Red Europea de enfermedades urológicas raras. (e UROGEN). EU. (31/12/2021). FIBHULP

● Clinical trials

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Type: Clinical Trials, phase III. 2022.183.

Sponsored by: Urogen Pharma.

Signed date: 13/09/2022.

2022

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Scientific Report



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