

3.7.8 Research in Endometriosis

Publications: 16 | Q1: 4

COMPOSITION

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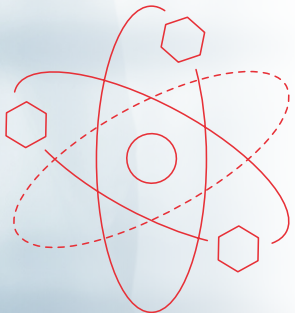
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STRATEGIC OBJETIVES

- 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.
- The strategies proposed to achieve these objectives are as follows: Participation in the FIBHULP "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".
- 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 Malmo (Stockholm)).

3 Research areas and groups



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 These

- **García Pineda V.** Implicaciones clínicas de la implementación de la biopsia selectiva del ganglio centinela en el manejo quirúrgico del cáncer de endometrio[dissertation]. Madrid: Universidad Autónoma de Madrid: (13/06/2024). Director: Hernández Gutiérrez MA, Zapardiel Gutiérrez I.
- **Alonso Espías M.** Estudio de los factores asociados al manejo integral del cáncer de cuello uterino precoz y su influencia en los resultados oncológicos[dissertation]. Madrid: Universidad Autónoma de Madrid: (10/11/2024). Director: Zapardiel Gutiérrez I, Hernández Gutiérrez MA.
- **Cristóbal Quevedo I.** Estudio comparativo de la tasa de bilateralidad en cuanto a la técnica del ganglio centinela en el cáncer de endometrio:

verde de indocianina como trazador único versus verde de indocianina junto a radiotrazador [dissertation]. Madrid: Universidad Autónoma de Madrid: (05/04/2024). Director: Zapardiel Gutiérrez I, Hernández Gutiérrez MA.

Final Degree Theses

- **Comanescu RT.** Factores predictores de éxito reproductivo en pacientes diagnosticadas de endometriosis sometidas a ciclos de fecundación in vitro o de preservación fertilidad[dissertation]. Madrid: Universidad Autónoma de Madrid: (26/06/2024). Director: Hernández Gutiérrez MA, Iniesta S.
- **Díaz Alonso G.** Análisis de calidad de vida y disfunción sexual en mujeres premenopáusicas tratadas de cáncer de ovario[dissertation].

Madrid: Universidad Autónoma de Madrid: (26/06/2024). Director: Diestro Tejada MD, Spagnolo E.

- **Gala D.** Factores moleculares implicados en la transformación maligna de la endometriosis ovárica[dissertation]. Madrid: Universidad Autónoma de Madrid: (16/05/2024). Director: Spagnolo E, Tenorio J.
- **Iglesias Martín J.** Incidencia de adenomiosis en pacientes hysterectomizadas por patología benigna en el Hospital Universitario La Paz. Correlación con hallazgos clínicos[dissertation]. Madrid: Universidad Autónoma de Madrid: (26/06/2024). Director: Hernández Gutiérrez MA, Lopez A.

Publications

- **Alonso-Espías M, Gorostidi M, García-Pineda V, Gracia M, Diestro MD, Siegrist J, Zapardiel I, Hernández A.** Survival Impact of Sentinel Lymph Node Biopsy in Patients with Early-Stage Cervical Cancer. *Reprod Sci.* 2024; 31(10): 3066-73. Article. IF: 2.5; Q2
- **Bazán AA, Yebes A, Álvarez-Maestro M, Díez J, Samblás M, Piñeiro LM.** Conservative management of high-grade renal trauma. *Actas Urol Esp.* 2024; 48(7): 521-5. Article. IF: 1.2; Q3
- **Cameán MM, Marin IJ, Mendez JIS, Álvarez CM, Alegre FB, Boado EM, Spagnolo E, Zapardiel I, Gutiérrez AH.** Survival in pregnancy-associated breast cancer patients compared to non-pregnant controls. *Reprod Biol Endocrin.* 2024; 22(1): 34. Article. IF: 4.7; Q1
- **Carrión DM, Baekelandt L, Socarras MR, Brinkman WM, de Oliveira TR, Pini G, de Vries AH, Bujoreanu CE, Silvestri T, Skolarikos A, Petrutl B, Veneziano D, Greco F, Álvarez-Maestro M, Sánchez-Salas R, Tourinho-Barbosa RR, Liatsikos E, Somanis B, Rivas JG, Zondervan PJ.** Development of the European Laparoscopic Intermediate Urological Skills LUSs2 Curriculum: A Delphi Consensus from the European School of Urology. *Eur Urol Open Sci.* 2024; 69: 22-50. Article. IF:

4.5; Q1

- **Chico-Sordo L, Ruiz-Martínez T, Toribio M, González-Martín R, Spagnolo E, Domínguez F, Hernández A, García-Velasco JA.** Identification of miR-30c-5p microRNA in Serum as a Candidate Biomarker to Diagnose Endometriosis. *Int J Mol Sci.* 2024; 25(3): 1853. Article. IF: 4.9; Q1
- **Del Forno S, Raspollini A, Doglioli M, Andreotti A, Spagnolo E, Lenzi J, Borghese G, Raimondo D, Arena A, Rodríguez E, Hernández A, Govoni F, Seracchioli R.** Painful sexual intercourse, quality of life and sexual function in patients with endometriosis: not just deep dyspareunia. *Arch Gynecol Obstet.* 2024; 310(4): 2091-100. Article. IF: 2.5; Q2
- **Gurrero-Ramos F, Álvarez-Maestro M, Marín AP, Escrig JLD, Faba OR.** Multidisciplinary consensus document on the current treatment of bacille Calmette-Guérin-unresponsive non-muscle invasive bladder tumor. *Actas Urol Esp.* 2024; 48(4): 262-72. Article. IF: 1.2; Q3
- **Kallidonis P, Spinos T, Zondervan P, Nyirády P, Backhaus MR, Micali S, Hruby S, Álvarez-Maestro M, Tatanis V, Liatsikos E, Gözen AS.** Predictive Value of the Mayo Adhesive Probability (MAP) Score in Laparoscopic Partial Nephrectomies: A Systematic Review from the EAU Section of Uro-Technology (ESUT). *Cancers (Basel).* 2024; 16(8): 1455. Review. IF: 4.4; Q2
- **Maldonado-Barrueco A, Almazán-Garate E, Armijo-Suárez O, Iniesta-Pérez S, Sanz-González C, Falces-Romero I, Álvarez-López C, Cacho-Calvo J, Quiles-Melero I.** Utility of culture and molecular methods using Allplex™ Bacterial Vaginosis Plus Assay (Seegene®) as a tool for endometriosis, infertility and recurrent pregnancy loss diagnosis. *Diagn Micr Infect Dis.* 2024; 110(3): 116437. Article. IF: 1.8; Q2
- **Mendiola M, Heredia-Soto V, Ruz-Caracuel I, Baillo A, Ramon-Patino JL, Berjon A, Escudero EJ, Pelaez-García A, Hernández A, Felio J, Hardisson D, Redondo A.** Performance of the Idylla microsatellite instability test in endometrial cancer. *Mol Cell Probe.* 2024; 77:

3 Research areas and groups

101976. Article. IF: 3.0; Q2
- **Rodríguez Faba O, Fernández Gomez J M, Guerrero-Ramos F, Álvarez-Maestro M, Ledo Cepero M J, Unda Urzaiz M, Martínez-Pineiro L, Cozar Olmo J M, Redorta J Palou, Álvarez-Ossorio J L.** Consensus document on the implications of standardization of BCG supply in the management of patients with non-muscle-invasive bladder cancer. *Actas Urol Esp (Engl Ed)*. 2024; 48(10): 718-31. Article. Not Indexed
 - **Segovia MG, Quevedo IC, Gutiérrez IZ, Gutiérrez AH.** Growing teratoma syndrome: diagnostic challenges and outcomes. *Arch Gynecol Obstet*. 2024; 310(3): 1729-32. Article. IF: 2.5; Q2
 - **Sierra A, Etcheverry B, Álvarez-Maestro M, López JM, Fiol M, Torrecilla C, Vigués F, Martínez C, Carbonell E, Martínez-Pérez S, Alcaraz A, Luque MP, Musquera M.** Management of deceased and living kidney donor with lithiasis: a multicenter retrospective study on behalf of the renal transplant group of the Spanish urological association. *J Nephrol*. 2024; 37(6): 1621-30. Article. IF: 2.6; Q2
 - **Subiela JD, Krajewski W, González-Padilla DA, Laszkiewicz J, Taborda J, Aumatell J, Encinas MS, Basile G, Moschini M, Caño-Velasco J, Pérez EL, Duran PD, Galliolig A, Tukiendorf A, D'Andrea J, Teoh JYC, Céspedes AS, Pichler R, Afferi L, Del Giudice F, Rivas JG, Albisinni S, Soria F, Ploussard G, Mertens LS, Rajwa P, Laukhtinaj E, Pradere J, Tully K, Guerrero-Ramos F, Rodríguez-Faba O, Álvarez-Maestro M, Domínguez-Escrig JL, Szydelko T, Dos Santos VG, Cidre MAJ, Revilla FJB.** Unlocking the Potential of Adequate Bacillus Calmette-Guérin Immunotherapy in Very-high-risk Non-muscle-invasive Bladder Carcinoma: A Multicenter Analysis of Oncological Outcomes and Risk Dynamics. *Eur Urol Oncol*. 2024; 7(6): 1367-75. Article. IF: 9.3; D1
 - **Valcárcel ML, Los Arcos MB, Molina MF, Belmonte IC, Santana VD, Borau PG, Ibiza JF, Maestro MA, Sargos P, Campos FL, Couñago F.** Is trimodal therapy the current standard for

muscle-invasive bladder cancer?. *Actas Urol Esp*. 2024; 48(5): 345-55. Article. IF: 1.2; Q3

- **Wong CHM, Ko ICH, Leung DKW, Liu K, Zhao HD, Álvarez-Maestro M, Pes MDL, de la Rosette J, Teoh JYC.** Impact of Pre-Operative Ureteroscopy on Bladder Recurrence Following Nephroureterectomy for UTUC. *Cancers (Basel)*. 2024; 16(15): 2683. Article. IF: 4.4; Q2

Research projects

- **Hernández Gutiérrez A, Spagnolo E.** Estudio para la implementación de la tecnología ómica en la identificación de marcadores asociados a transformación maligna de la endometriosis ovárica (PI23/00752). ISCIII. 2024-2026. **Management centre:** FIBHULP
- **Hernández Gutiérrez A, Spagnolo E.** Monalisa smile. European Erasmus Project (KA220-VET-A25CC5B7). EU. 2022-2024. **Management centre:** UAM
- **Hernández Gutiérrez A, Spagnolo E.** Proyecto de Innovación Docente INNOVA 2024/2025. Uso formativo de tecnología 3D e inteligencia artificial en pacientes con endometriosis con afectación intestinal. 2024-2025. **Management centre:** UAM
- **Hernández Gutiérrez A.** Dinamización de Ciencia Disruptiva en Predictores de Enfermedades Tumorales Infecciosas y Hereditarias como base de la Medicina Personalizada (FORT23/00006). ISCIII. 2022-2024. **Management centre:** FIBHULP
- **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

- **Spagnolo E.** Contratos de intensificación (INT24/00022). ISCIII. 2024-2026. **Management centre:** FIBHULP

Clinical trials

- **Álvarez Maestro M.** Estudio clínico de fase 2b para evaluar la eficacia y seguridad de tar-200 en combinación con cetrelimab, tar-200 solo o cetrelimab solo en participantes con cáncer de vejiga no músculo-invasivo (cnmni) de alto riesgo que no responde a la terapia del baci. **Type/Phase:** IIb **Sponsored by:** Janssen Cilag International Nv **Signature date:** 17/01/2024
- **Álvarez Maestro M.** Estudio fase 3, abierto, multicéntrico, aleatorizado para evaluar la eficacia y seguridad de tar-200 en combinación con cetrelimab frente al bacilo de Calmette y Guérin (bcg) intravesical en pacientes con cáncer de vejiga no músculo-invasivo de alto riesgo (hr-nmibc) sin tratamiento previo con el bcg. **Type/Phase:** III **Sponsored by:** Janssen Cilag International Nv; Janssen Inc. **Signature date:** 09/02/2024
- **Álvarez Maestro M.** microbioma y perfil inmune del tumor y de orina como indicadores de la respuesta al tratamiento del cáncer de vejiga no-músculo infiltrante de alto riesgo: modelo de predicción de resistencia al bacilo de calmette-guérin (bcg). **Type/Phase:** OTROS **Sponsored by:** Guard C Consortium **Signature date:** 22/03/2024
- **Álvarez Maestro M.** A phase 3, single-arm, multicenter study to evaluate the efficacy and safety of ugn-103, a novel formulation of ugn-102, for the treatment of patients with low grade (lg) nonmuscle invasive bladder cancer (nmibc) at intermediate risk (ir) of recurrence.

3 Research areas and groups

3.7. Maternal Infant Child and Youth Research

- **Álvarez Maestro M.** Blarwe an observational, multicentre retrospective cohort study to describe the epidemiology, clinical characteristics, treatment patterns and clinical outcomes of bladder cancer patients in Spain - blarwe study. **Type/Phase:** EOM no prospectivo **Sponsored by:** Astrazeneca Farmaceutica Spain S.A. **Signature date:** 16/05/2024
- **Álvarez Maestro M.** A phase 3, single-arm, multicenter study to evaluate the efficacy and safety of ugn-103, a novel formulation of ugn-102, for the treatment of patients with low grade (lg) nonmuscle invasive bladder cancer (nmibc) at intermediate risk (ir) of recurrence. **Type/Phase:** III **Sponsored by:** Urogen Pharma **Signature date:** 06/11/2024
- **Hernández Gutiérrez A.** Carga de la incontinencia fecal en mujeres tras el parto vaginal: una encuesta epidemiológica prospectiva y no intervencionista. **Type/Phase:** OTROS **Sponsored by:** Oasis Diagnostics S.A **Signature date:** 15/11/2024

Patents and trademarks

- **Hernández A, López A, Spagnolo E, authors; FIBHULP, assignees; Brand name: EndoPaz: 018876162.** 2023 May 17, 2023 September 27

