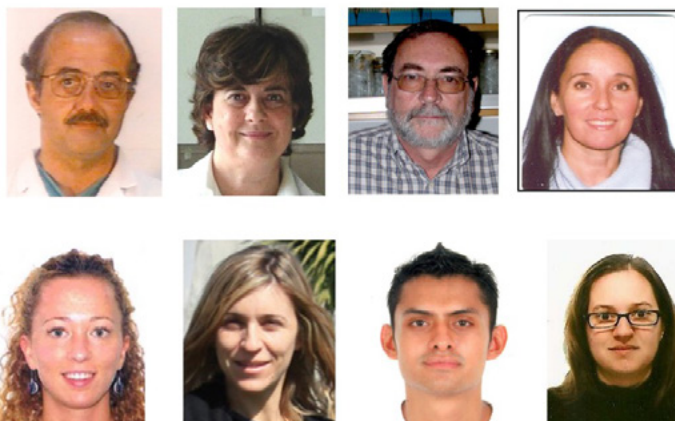




3.4.1 Internal Medicine and Systemic Diseases Group



Publications: 29 | **Q1:**15

COMPOSITION

Francisco Arnalich Fernández.

Investigador "Ad Honorem". IdiPAZ. Catedrático de Área de Medicina UAM. 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. Profesora asociada ciencias de la Salud. Facultad Medicina UAM. Hospital Universitario La Paz
- **Clara Hernández Blanco.** Facultativo Especialista de Área en Medicina Interna. Hospital Universitario La Paz
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- **Carmen Montiel López.** Catedrática de Farmacología y Terapéutica. Facultad de Medicina, UAM. Universidad Autónoma de Madrid
- **Ramón Puchades Rincón de Arellano.** Facultativo Especialista de Área en Medicina Interna. Hospital Universitario La Paz
- **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. Hospital Universitario La Paz
- **Yale Tung Chen.** Facultativo Especialista de Área en Medicina Interna. Hospital Universitario La Paz

STRATEGIC OBJETIVES

- The current lines of research in the Group are multiple and are in constant change and evolution. Some of the most relevant are indicated below, regarding the lines of research

RESEARCH LINES

• **SARS-COV-2 INFECTION: DIFFERENTIAL MANIFESTATIONS AND UPDATED TREATMENT**

Main objective

To study the clinical and microbiological evolution of COVID-19 in the different waves of the pandemic and compare the clinical characteristics between patients who require hospital admission due to their severity with those of those that can be treated on an outpatient basis. - To precise characterization of the behavior of COVID-19 currently, and provide clues about the most appropriate measures to take once social distancing measures can be relaxed without putting the population at risk. most vulnerable population

• **THROMBOEMBOLIC DISEASE. PREVENTION, DIAGNOSIS AND TREATMENT**

Main objectives:

Improve the diagnosis, treatment, prognosis and monitoring of patients with VTE.
Improve VTE prevention (Thromboprophylaxis).
Transmit our knowledge to Hospital and Primary Care professionals.
Spread knowledge of VTE to patients themselves and to society in general.

• **SYSTEMIC AUTOIMMUNE DISEASES: MECHANISMS, DIAGNOSIS AND CURRENT TREATMENTS.**

The research of this group focuses on four main areas.

Systemic lupus erythematosus, antiphospholipid syndrome and systemic sclerosis
Sjögren's syndrome, autoimmune manifestations of hepatitis C virus infection and biological therapies
Systemic vasculitis
Autoinflammatory diseases

• **HEART FAILURE. MECHANISMS, DIAGNOSIS, AND TREATMENT UPDATE:**

The The mechanisms of Coronary Microvascular Dysfunction (CMD) Leading to Preheart Failure with Preserved Ejection Fraction (HFpEF) aims to people with suspected cardiac ischemia but without obstructive coronary artery disease to understand better understand the associated risks of heart damage and early mortality, as well as potential targets for HFpEF treatment and prevention.

• **VASCULAR RISK AND INFLAMMATION: PREVENTION, DIAGNOSIS AND TREATMENT:**

In atherosclerosis, there is a hardening of the arteries and an accumulation of fat and cholesterol that prevents good blood flow. Despite these characteristics, during the first years of the disease, atherosclerosis may not show symptoms in the patient and, therefore, it is vitally important to identify new risk factors capable of predicting the evolution of the disease in people who do not yet manifest. clinical sequelae.



3.4 Large System Pathologies Area

- **CLINICAL ULTRASOUND IN INTERNAL MEDICINE:** clinical ultrasound as another complementary tool for the internist (which helps him solve the specific problem for which the patient consults, what they call second level ultrasound, more exhaustive and usually performed by radiologists).
 Main objectives:
 Improve the clinical history and physical examination from this global and comprehensive approach.
 Promote the targeted use of clinical ultrasound in the consultation (point of care) to document the clinical diagnosis, making it more decisive and more effective
- **DIGITAL MEDICINE**
 Digital Health Research is to investigate, develop and innovate in the use of Information and Communications Technologies (ICT) in Health, with the aim of improving the health and well-being of people.
 To carry out this activity, the Unit is currently organized into 4 areas: Interoperability and Information Systems, Platforms and Devices, Clinical Validation and Evaluation
 Lines of study framed in basic research projects:
 - Study of the pathophysiological role of nicotinic $\alpha 7$ and dup- $\alpha 7$ 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

- **Fernández Capitán MC.** Tromboembolismo pulmonar subsegmentario. Prevalencia, características, evolución y pronóstico[disertación]. Madrid: UAM: 2023(15/06/2023). Director: Rodríguez Cobo A.

Publications

- **Abanades CS, Mozo AN, Hernan GB, Troncoso JA, Blanco JJR.** Macitentan for the treatment of refractory digital ulcers in patients with connective tissue diseases. *Cureus*. 2023; 15(4): e38303. Article. IF: 1.0; Q3
- **Álvarez-Troncoso J, López-Caballero L, Robles-Marhuend A, Sota-Abánades C, Ríos-Blanco JJ.** Influence of vaccination and immunosuppressive treatments on the coronavirus disease 2019 outcomes in patients with systemic autoimmune diseases. *Eur J Intern Med*. 2023; 108: 114-6. Letter. IF: 5.9; Q1
- **Álvarez-Troncoso J, Molina SC, Robles-Marhuenda A, Martínez-Robles E, Ríos-Blanco JJ.**

Therapeutic challenges and cardiovascular risk in patients with HMGR-associated immune-mediated necrotizing myopathy (HMGR-IMNM) secondary to statins. *Eur J Intern Med*. 2023; 114: 143-5. Letter. IF: 5.9; Q1

- **Becattini C, Giustozzi M, Portillo J, Fernández-Capitán C, Lobo JL, Peris ML, Font C, Grange C, Weinberg I, Monreal M.** Acute venous thromboembolism in patients with brain cancer: clinical course. *Res Pract Thromb Haemost*. 2023; 7(6): e102172. Article. IF: 3.4; Q2
- **Carpio C, Qasem A, Buño A, Borobia AM, Arnalich F, Rey V, Lázaro T, Mariscal P, Laorden D, Salgueiro G, Moreno A, Peiró C, Lorenzo O, Álvarez-Sala R.** Krebs von den Lungen-6 (KL-6) Levels in Post-COVID Follow-up: Differences according to the severity of COVID-19. *J Clin Med*. 2023; 12(19): 6299. Article. IF: 3.0; Q1
- **Casas-Rojo JM, Antón-Santos JM, Millán-Núñez-Cortés J, Gómez-Huelgas R, Ramos-Rincón JM, Rubio-Rivas M, Corrales-González MA, Fernández-Medra-Martínez MR, Beato-Pérez JL, Arna-**

- lich-Fernández F, Gállego-Lezaun C, Pérez-Martínez P, Molinos-Castro S, Tung-Chen Y, Madrazo M, Méndez-Bailón M, Monge-Monge D, García-García GM, García-Fenoll R, Gilabert N, Fuerte-Martínez R, Contreras-Sánchez M, Rhyman N, Peris-García J, Lumbreras-Bermejo C.** Mortality reduction in older COVID-19-patients hospitalized in Spain during the second pandemic wave from the SEMI-COVID-19 Registry. *Sci Rep-Uk*. 2023; 13(1): 17731. Article. IF: 3.8; Q1
- **Casas-Rojo JM, Ventura PS, Santos JMA, de Latierro AO, Arévalo-Lorido JC, Mauri M, Rubio-Rivas M, González-Vega R, Giner-Galvan V, Perpiñá BO, Fonseca-Aizpuru E, Muiño A, Del Corral-Beamonte E, Gómez-Huelgas R, Arnalich-Fernández F, Barrio ML, Sancho-Lloret A, Lorite IR, Loureiro-Amigo J, Pintos-Martínez S, García-Sardón E, Montañó-Martínez A, Rojano-Rivero MG, Ramos-Rincón JM, López-Escobar A.** Improving prediction of COVID-19 mortality using machine learning in the Spanish SEMI-COVID-19 registry. *Intern Emerg Med*. 2023; 18(6): 1711-22. Article. IF: 3.2; Q1
- **Cepeda JG, Esteves AL, Marín-Baselga R, Tung-Chen Y.** The role of lung ultrasonography in the SARS-CoV-2 vaccines and variants era: a case report. *Med Ultrason*. 2023; 25(2): 237-8. Letter. IF: 1.8; Q3
- **de la Calle GM, Reyne AG, Lora-Tamayo J, Míguez AM, Arnalich-Fernández F, Pérez JLB, Núñez JAV, Martínez MAC, Rivera NA, García EO, Moreno BS, Castro SJF, Rhyman N, Fontan PMP, Piles L, Caleyá JFL, Villarejo MEF, Jiménez-García N, Boixeda R, Noya AG, Gutiérrez AG, Oterino JAM, Huelgas RG, Santos JMA, Bermejo CL.** Impact of days elapsed from the onset of symptoms to hospitalization in COVID-19 in-hospital mortality: Time matters. *Rev Clin Esp*. 2023; 223(5): 281-97. Article. IF: 2.3; Q2
- **Fanlo P, Gracia-Tello BD, Aizpuru EF, Álvarez-Troncoso J, González A, Prieto-González S, Freire M, Argibay AB, Pallarés L, Todoli**

- JA, Pérez M, Buján-Rivas S, Ibáñez B.** Efficacy and safety of anakinra plus standard of care for patients with severe COVID-19: A randomized phase 2/3 clinical trial. *JAMA Netw Open*. 2023; 6(4): e237243. Article. IF: 10.5; D1
- **Gil-Rodrigo A, Tung-Chen Y, Llamas-Fuentes R.** Reply to "Comparative analysis of chest radiography and lung ultrasound to predict intra-hospital prognosis of patients admitted for acute SARS-CoV-2 pneumonia (COVID-19)". *Med Clin (Barc)*. 2023; 161(7): 314-5. Letter. IF: 2.6; Q1
- **Gutiérrez-Rojas A, Tung-Chen Y, Hernández-Montero E, Eisenhofer A, Diego I.** Point-of-care ultrasound diagnosis of gastric outlet obstruction syndrome. *J Med Ultrasound*. 2023; 31(1): 48-50. Article. IF: 0.9; Q4
- **López CN, de Abreu JMG, Pérez-Blanco V, Buckley RD, Gómez MPR, Díaz-Menéndez M.** Effectiveness of the BNT162b2 mRNA Covid-19 vaccine in Spanish healthcare workers. *Enferm Infecc Microb Cl*. 2023; 41(1): 33-5. Article. IF: 2.6; Q3
- **Marín-Baselga R, Sanz-Ortega C, Platero-Dueñas L, Sorriguieta-Torre R, Palma-Milla S, Tung-Chen Y.** Nutritional assessment by ultrasound of the rectus femoris and preperitoneal adipose tissue as predictors of hospitalized patient complications. *Rev Clin Esp*. 2023; 223(10): 640-6. Article. IF: 2.3; Q2
- **Martínez-Sanz J, Díaz-Álvarez J, Rosas M, Ron R, Iribarren JA, Bernal E, Gutiérrez F, Sancho AR, Cabello N, Olalla J, Moreno S, Serrano-Villar S.** Expanding HIV clinical monitoring: the role of CD4, CD8, and CD4/CD8 ratio in predicting non-AIDS events. *Ebiomedicine*. 2023; 95: 104773. Article. IF: 9.7; D1
- **Mathews RP, Panicker MR, Hareendranathan AR, Chen YT, Jaremkó JL, Buchanan B, Narayan KV, Kesavadas C, Mathews G.** Unsupervised multi-latent space rl framework for video summarization in ultrasound imaging. *IEEE J Biomed Health*. 2023; 27(1): 227-38. Article. IF: 6.7; D1
- **Montero-Pérez-Barquero M, Escobar-Cervantes C, Dávila-Ramos MF, Suárez-Pedreira I, Pérez-Silvestre J, Ceresuela-Eito LM, Muela-Molinero A, Quesada-Simón MA, Formiga**



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 - Sultan LR, Haertter A, Al-Hasani M, Demiris G, Cary TW, Tung-Chen Y, Sehgal CM. Can artificial intelligence aid diagnosis by teleguided point-of-care ultrasound? a pilot study for evaluating a novel computer algorithm for covid-19 diagnosis using lung ultrasound. *AI (Basel).* 2023; 4(4): 875-87. Article. Not indexed
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Research projects

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- Arnalich Fernández F. Estudio de disfunción ventricular precoz en pacientes con esclerodermia. Glaxosmithkline S.A. 2011-Ongoing. *Managment centre: FIBHULP*
- Escribano Subías MP. Hacia una clasificación ómica en la hipertensión arterial pulmonar (P121/01690). ISCIII. 2022-2024. *Managment centre: UCM*