

Nuclear Medicine

Group leader

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Researchers

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- Stefaneli Mormandi, Patricia (FGS)
- Torres Quintana, Maria Paula (FGS)
- Velasco Nuño, Mónica (FGS)



DESCRIPTION

Current research encompasses molecular imaging in cancer as well as neurodegenerative and cardiovascular diseases, leveraging advancements in radiomics and artificial intelligence. Additionally, it includes the application of radioligand therapy in cancer treatment. Fundamentally, our research utilises SPECT-CT, PET-CT, and radiolabeled tracers to characterise pathophysiological processes and enhance disease diagnosis, staging, prognostication, and therapy.

MAIN LINES OF RESEARCH

- Molecular Imaging in Cancer (Camacho Martí, M. Del Valle; Fernández León, Alejandro)
- Brain Imaging in Neurodegenerative Disorders (Camacho Martí, M. Del Valle)
- Cardiovascular Inflammation: (Fernández León, Alejandro; Velasco Nuño, Monica)
- Cardiac Amyloidosis: (Flotats Giralt, Albert; Velasco Nuño, Monica)
- Artificial Intelligence in Image Reading: (Flotats Giralt, Albert; Velasco Nuño, Monica)

SCIENTIFIC CHALLENGES

- Innovative Technologies in Diagnosis and Therapy.
- Molecular Imaging of Diseases.
- Integration of Artificial Intelligence Tools in Research and Clinical Practice.

ACTIVE & AWARDED GRANTS

- Camacho Martí, M. Del Valle. Estudio pseudoexperimental sobre el efecto de la inflamación asociada a la obesidad sobre el sistema nervioso central y la enfermedad de Alzheimer. PI19/01512. Instituto de Salud Carlos III (ISCIII). Duration: 2020-2024. 232.320,00 €
- Fernández León, Alejandro. Impacto de la Inflamación en la Progresión de la Aterosclerosis Carotídea y el Riesgo de Ictus (estudio INCREASE). PI22/01659. Duration: 2023-2025. 141.570,00 €
- Flotats Giralt, Albert & Carrio Gasset, Ignasi. Erasmus+ cooperation for multidisciplinary training in radioligand therapies for healthcare professionals. Erasmus+. Unión Europea. Duration: 2022-2024. 36.170,00 €

DOCTORAL THESES DEFENDED

- López Mora, Diego Alfonso. Estudio comparativo de la tomografía por emisión de positrones/tomografía computarizada digital respecto a la tomografía por emisión de positrones/tomografía computarizada analógica en pacientes oncológicos y no oncológicos. 23/04/2024. Universitat Autònoma de Barcelona. Supervisors: Fernández León, Alejandro; Camacho Martí, M. del Valle; Alijotas Reig, Jaume. <https://hdl.handle.net/10803/691719>.

SCIENTIFIC PRODUCTION

- Holgado A, León X, Llansana A, Valero C, Casasayas M, Fernández A, Quer M. Warthin's Tumour as a Parotid Gland Incidentaloma Identified by PET-CT Scan in a Large Series of Cases. Indian Journal of Otolaryngology and Head & Neck Surgery. 2024; 76(4). DOI:10.1007/s12070-024-04592-0. PMID:39130264. IF:0,054 (Q4/10D). Document type: Article.
- Morcillo AO, Zsadanyi SE, Arriola JE, Carmona M, Montal V, Pegueroles J, Aranha MR, Vaque L, Padilla C, Benejam B, Videla L, Barroeta I, Fernández S, Altuna M, Gimenez S, Gonzalez S, Bargallo N, Ribas L, Arranz J, Torres S, Iulita MF,

- Belbin O, Camacho V, Alcolea D, Lleó A, Fortea J, Bejanin A. Characterization of white matter hyperintensities in Down syndrome. *Alzheimers & Dementia*. 2024; 20(9). DOI:10.1002/alz.14146. PMID:39087352. IF:13,000 (Q1/1D). Document type: Article.
- Pané A, Videla L, Calvet A, Viaplana J, Vaqué L, Ibarzabal A, Rozalem M, Pegueroles J, Moize V, Vidal J, Ortega E, Barroeta I, Camacho V, Chiva G, Fortea J, Jiménez A. Hypothalamic Inflammation Improves Through Bariatric Surgery, and Hypothalamic Volume Predicts Short-Term Weight Loss Response in Adults With or Without Type 2 Diabetes. *DIABETES CARE*. 2024; 47(7). DOI:10.2337/dc23-2213. PMID:38713908. IF:14,800 (Q1/1D). Document type: Article.
- Pardessus Otero A, Rafecas-Codern A, Porcel JM, Serra-Mitjà P, Ferreiro L, Botana-Rial M, Ramos-Hernández C, Brenes JM, Canales L, Camacho V, Romero-Romero B, Trujillo JC, Martínez E, Cases E, Barba A, Majem M, Güell E, Pajares V. Malignant Pleural Effusion: A Multidisciplinary Approach. *Open Respiratory Archives*. 2024; 6(4):100349. DOI:10.1016/j.opresp.2024.100349. PMID:39091982. Document type: Article.
- Stockbauer A, Beyer L, Huber M, Kreuzer A, Palleis C, Katzdobler S, Rauchmann BS, Morbelli S, Chincarini A, Bruffaerts R, Vandenberghe R, Kramberger MG, Trost M, Garibotto V, Nicastro N, Lathuilière A, Lemstra AW, van Berckel BNM, Pilotto A, Padovani A, Ochoa-Figueroa MA, Davidsson A, Camacho V, Peira E, Bauckneht M, Pardini M, Sambuceti G, Aarsland D, Nobili F, Gross M, Vöglein J, Perneczky R, Pogarell O, Buerger K, Franzmeier N, Danek A, Levin J, Höglinger GU, Bartenstein P, Cumming P, Rominger A, Brendel M. Metabolic network alterations as a supportive biomarker in dementia with Lewy bodies with preserved dopamine transmission. *Eur J Nucl Med Mol Imaging*. 2024; 51(4):1023-1034. DOI:10.1007/s00259-023-06493-w. PMID:37971501. IF:8,600 (Q1/1D). Document type: Article.