URJC Research Lines for MSCA Postdoctoral Fellowship 2026

Id	Supervisor	Supervisor's e-mail	Research Area	Research Group	Research Line ***Key Words***
1.	Gisela Orcajo Rincon	gisela.orcajo@urjc.es	Chemistry	Chemical and Environmental Engineering Group (GIQA)	Design, synthesis and characterization of innovative porous coordination materials—primarily MOFs and MOF-based hybrids—for sustainable transformation and valorisation of CO_2, integrating structural, textural and spectroscopic characterization with catalytic and electrochemical testing, aiming to establish structure–property–activity relationships that guide the rational design of next-generation CO_2-conversion catalysts. *Multifunctional materials, nanoporous, MOF, CO2 conversion, heterogeneous catalysis*
2.	Juan Antonio Melero Hernández	juan.melero@urjc.es	Chemistry	Chemical and Environmental Engineering Group. Instituto de Investigación de Tecnologías para la Sostenibilidad de la Universidad Rey Juan Carlos.	Design of innovative catalytic processes for the transformation of biomass-derived molecules into sustainable aviation fuels. *Biogenic wastes; circular bioeconomy; SAFs; catalysts*
3.	Ángela Raquel Fraguas Herráez	angela.fraguas@urjc.es	Environmental Sciences & Geosciences	Research Group in Earth Dynamics and Landscape Evolution of Universidad Rey Juan Carlos (DYNAMYCAL)	Prove the utility of calcareous nannofossils for deciphering the environmental and climatic changes occurred during the Pliensbachian and Toarcian, using quantitative, biometric, and isotopic data from Iberian basins to understand the current response of nannoplankton to the global. *Micro- and calcareous nannofossils; Mesozoic; Biostratigraphy; Carbon cycle; Paleoceanography; Climate change*
4.	Rubén Milla	ruben.milla@urjc.es	Environmental Sciences & Geosciences	ECOEVO (Grupo de investigación de alto rendimiento en Ecología Evolutiva de la Universidad Rey Juan Carlos)	Combination of biogeography, phylogenetic comparative methods, and trait-based ecology to identify the ecological, evolutionary, and cultural factors that influenced plant domestication, with the aim to provide the first quantitative, macroecological understanding of domestication processes, helping uncover the origins of crops and guiding the identification of future candidate species for agriculture. *Biogeography, macroecology, macroevolution, data science*
5.	Tatiana Izquierdo Labraca	tatiana.izquierdo@urjc.es	Environmental Sciences & Geosciences	Research Group in Earth Dynamics and Landscape Evolution of Universidad Rey Juan Carlos	Analysis of microfossil diatoms preserved in coastal stratigraphy to provide high-resolution reconstructions of past seismic and tsunami activity by identifying tsunami deposits, their marine provenance, sediment sources,

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					mode of sedimentation or coseismic uplift and subsidence along the northern Chile subduction zone coast. *Diatoms, earthquakes, tsunamis, subduction zones, sea level, northern Chile*
6.	Alfredo Cuesta Infante	alfredo.cuesta@urjc.es	Information Sciences & Engineering	Advanced Computation, Perception and Optimization	Deep Learning. *Deep learning, Foundation models, synthetic image generation, cyanobacteria.*
7.	Ana Arboleya Arboleya	ana.arboleya@urjc.es	Information Sciences & Engineering	MW-RCOM: Microwave Engineering and Radiocommunication Systems	Design of electromagnetic characterization techniques and systems for antenna measurement and electromagnetic imaging, focusing on the design of portable antenna measurement systems for in-situ characterization, as well as on the development of advanced measurement and post-processing techniques focused on reducing acquisition time, noise reduction, error correction, and related aspects. *Antenna measurement; advanced antenna techniques; unsupervised-learning; portable measurement systems; antenna post-processing techniques;*
8.	Antonio José del Ama Espinosa	antonio.delama@urjc.es	Information Sciences & Engineering	Bioengineering sistems and technologies research group - BeST	Rehabilitation and assistive robotics: design, control and evaluation. Human factors applied to patient-robot interaction. *Neurorehabilitation; robotics; neural plasticity; wearable exoskeletons*
9.	Beatriz Romero Herrero	beatriz.romero@urjc.es	Information Sciences & Engineering	DELFO	Perovskite photovoltaic cells (PSC), degradation of PSC, perovskite memristors. *Perovskite photovoltaic cells degradation impedance spectroscopy*
10.	Cristina Soguero Ruiz	cristina.soguero@urjc.es	Information Sciences & Engineering	Artificial Intelligence for Health	Advanced machine learning methods for irregular, high-dimensional, and temporal clinical data, with an emphasis on interpretable and explainable models, to create predictive and interpretable AI systems that support early detection of critical clinical events. *Machine Learning Explainable AI Time Series Analysis Graph Neural Networks Clinical Data / EHR Predictive Modeling*
11.	Cristina Soguero Ruiz	cristina.soguero@urjc.es	Information Sciences & Engineering	Artificial Intelligence for Health	Development of advanced machine learning methodologies for healthcare data analysis, with particular emphasis on multimodal and longitudinal clinical data, with the aim to

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					design of explainable and trustworthy AI systems capable of handling heterogeneous data sources such as electronic health records, physiological time series, and clinical text *Multimodal Machine Learning; Large Language Models (LLMs); Causal Inference; Digital Patient Twins; Explainable Artificial Intelligence (XAI); Healthcare Data Analytics*
12.	David Martínez Íñigo	david.martinez@urjc.es	Information Sciences & Engineering	DOBLE	Application of mobile technology and wearable devices to the field of ecological momentary assessment and intervention, and AI-based emotional state detection to study interpersonal emotion regulation across diverse social contexts and their implications for psychological well-being. *IA, Context aware computing, Psychological Wellbeing, Ecological Momentary Assessmtent/Intervention*
13.	Eduardo Martinez-de-Rioja	eduardo.martinez@urjc.es	Information Sciences & Engineering	Group of Microwave Engineering and Radiocommunication Systems	Design of advanced antennas and reconfigurable intelligent surfaces to improve connectivity in 5G and 6G networks operating at milimeter-wave frequencies. *Metasurface, reflectarray, reconfigurable intelligent surface (RIS), millimeter waves, 5G, 6G*
14.	Jose Luis Diaz de Tuesta	joseluis.diaz@urjc.es	Information Sciences & Engineering	GIQA: Chemical and Environmental Engineering Group	ElectroFenton for wastewater treatment; 3D printing for carbon-based architectures by SLA; and(or) nanoparticles synthesis. *Carbonization; Activated carbon; Carbon electrodes; Advanced Oxidation Processes; Catalytic Wet Peroxide Oxidation; Nanoparticle composites.*
15.	Lucia Serrano Luján	lucia.serrano@urjc.es	Information Sciences & Engineering	GRAFO	Environmental impact assessment of digital technologies. *Life Cycle Assessment, Green computing, digital technologies.*
16.	Lucía Serrano Luján	lucia.serrano@urjc.es	Information Sciences & Engineering	GRAFO	Optimization of datacenters settlements. *Data center siting, Location optimization, Energy planning, Sustainable deployment.*
17.	Natalia González Benítez	natalia.gonzalez@urjc.es	Life Sciences	BIOTECO-CG (Biotecnology and Microbial Ecology in Global Change)	Microbiology-focused research lines, ranging from soil microbial ecology —plant–microbiome interactions— to biotechnological applications involving bacterial modification for the sustainable production of valuable resources and microbial phylogeny, focusing primarily on lichens as bioindicators of environmental stress.

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					Seeds microbial endophytes, Plant-Microbiome intreaction, microbial functional diversity
18.	Raquel Abalo Delgado	raquel.abalo@urjc.es	Life Sciences	High-Performance Research Group in Physiopathology and Pharmacology of the Digestive System (NeuGut)	Brain-gut axis disorders due to disease, treatments, diets... Adverse effects of anticancer treatments. Nutraceuticals. Cannabinoids. *Brain-gut axis disorders due to disease, treatments, diets... Adverse effects of anticancer treatments. Nutraceuticals. Cannabinoids.*
19.	Tamara Villaverde Hidalgo	tamara.villaverde@urjc.es	Life Sciences	ECOEVO: Ecología Evolutiva	Plant evolution, biogeography, diversification and systematics. *Biodiversity, biogeography, botany, evolution, genomics, systematics.*
20.	Clara Simon de Blas	clara.simon@urjc.es	Mathematics	EffiTimeTranSS	Time series, Social network analysis. *Time Series, DEA, graph theory, social network analysis.*
21.	Belén Arredondo Conchillo	belen.arredondo@urjc.es	Physics	DELFO	Perovskite solar cells and memristors. Fabrication, electrical characterization, and circuital modelling and study of degradation mechanisms. *Perovskite, memristors, solar cell, degradation.*
22.	Carmen Coya Párraga	carmen.coya@urjc.es	Physics	Organic Optoelectronic Group (OOG)	Development and fundamental understanding of hybrid perovskite materials for optoelectronic applications, particularly light-emitting diodes (LEDs), enabling the rational design of more efficient and stable perovskite-based devices. *2D and quasi-2D structures, optoelectronic devices, materials engineering, hybrid perovskites, photoluminescence, X-Ray diffraction.*
23.	Enrique Hernandez Balaguera	enrique.hernandez@urjc.es	Physics	DELFO	Advanced fabrication and characterization of tandem perovskite solar cells; Study of biological synapses through memristors or complex electrochemical systems; New electrochemical energy storage technologies. *Perovskite, photovoltaics, memristors, impedance spectroscopy, transient analysis, fractional calculus.*
24.	Koldo Trapaga Monchet	koldo.trapaga@urjc.es	Social Sciences & Humanity	CINTER (Corte, Imagen, Nobleza y Territorio)	Urban Metabolism and Forest Governance: Mapping Socio-Ecological Resilience and Common-Pool Resources in Early Modern Iberia. *Urban Metabolism, Common-Pool Resources, Forest History, Early Modern Iberia, Socio-Ecological Resilience, GIS.*