

Marie Skłodowska Curie Action –Postdoctoral Fellowship 2025
(MSCA-PF-2025)

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Department /Institute /Centre	Name	Dept. de Inteligencia Artificial (DIA)
	Address	Campus de Montegancedo (Boadilla del Monte)
	Province	Madrid
Research Area		Information Science and Engineering (ENG) Life Sciences (LIF) Mathematics (MAT)
Brief description of the Centre/Research Group		Laboratorio de Inteligencia Artificial (LIA-UPM) www.lia.upm.es is an interdisciplinary research group in UPM formed by researchers and professors working in Systems and Synthetic Biology, DNA Computing, and Artificial Intelligence applied in biomedicine and microbiology. www.lia.upm.es
Project description		<p>We offer one research position to collaborate in an European research project:</p> <p>Project T3SS: “Placing the T3SS effector-network paradigm within a systems level understanding of <i>in vivo</i> infection”. Funded by Wellcome Trust. Ends on May 2027.</p> <p>This research project is in collaboration with Gady Frankel group from Imperial College (London, UK) and Jyoti S. Choudhary from Institute of Cancer Research (London, UK).</p> <p>The main goal of the project includes exploring the bacterial “effector network” paradigm (effectors are bacterial proteins injected in an infected host), constructing computational models to predict infection outcomes, and studying signal transduction from effector injection into intestinal epithelial cells to immune responses. We (LIA group) are developing AI models (graph neural networks, graph transformers) to extract knowledge from the network of effectors that interact with the proteins of the infected host.</p> <p>Our previous results in this research line have been published in Science journal: https://www.science.org/doi/10.1126/science.abc9531</p>
Applications: documents to be submitted and deadlines		<p>CV, letter of motivation, letter of references.</p> <p>Deadline: April 30, 2025.</p> <p>Email: arpaton@fi.upm.es (Alfonso Rodríguez-Patón)</p>