UNIVERSIDAD POLITÉCNICA DE MADRID

Expression of Interest – UPM Supervisor

Marie Skłodowska Curie Action –Postdoctoral Fellowship 2024 (MSCA-PF-2024)

Contact Person/Scientist in charge	**Name**	María A.
	Surname	Ayllón
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Department /Institute /Centre	**Name**	Centro de Biotecnología y Genómica de Plantas (CBGP)-Universidad Politécnica de Madrid (UPM)
	Address	Campus de Montegancedo, Carretera M40, Km 38, 28223, Pozuelo de Alarcón
	Province	Madrid (Spain)
Research Area		Life Sciences (LIF)
Brief description of the Centre/Research Group		The CBGP is a joint research institute of the UPM and the INIA/CSIC. Since 2017 CBGP is a Severo Ochoa Center of Excellence and has been recently awarded for the period 2022-2025. The strategic objectives are the generation of fundamental knowledge on the genetic and molecular bases of key biological and physiological processes of plants and plant-interacting organisms, and on genomics of plants and plant-interacting organisms. The CBGP has attracted many talented scientists since its foundation, including tenure-track positions, ERC Starting Grants researchers, Comunidad de Madrid Atracción de Talento Fellows, and Beatriz de Galindo and Ramon y Cajal scientists. The group "Virus-Fungus-Plant Interaction" led by Dr. María A. Ayllón, expert in plant and fungal viruses, includes an assistant professor specialist in fungi; a technician that gives support to the rest of the group members but also works in an independent project searching for biological control agents; a postdoctoral researcher working with mycoviruses with different type of genomes to determine the requirements for mycoviral replication; a postdoctoral researcher developing biotechnological tools based in mycoviruses to control fungal pathogens; a PhD student working in the interaction at molecular level of mycoviruses-fungus-plant; and, currently, three master or undergraduate students, with bioinformatics and biotechnological skills. Website: https://www.cbgp.upm.es/index.php/es/el-cbgp/maria-angeles-ayllon

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Project description	The Marie S. Curie researcher will work on the molecular characterization of mycoviruses infecting plant pathogenic fungi, to understand the evolutional history of mycoviruses with their fungal hosts, the requirements of different mycoviral life cycle steps, the interaction at molecular level with its fungal host, and the molecular mechanisms involved in the plant response to infection by fungi previously infected with mycoviruses. For that purposes we will use mycoviral reverse genetic systems or natural mycoviruses. The specific project will be discussed with before the application to determine the most outstanding subject at that moment based in the expertise of the candidate. This includes several lines of research within the recipient group. The long term research goal of our "Virus-Fungus-Plant Interaction" group is to understand the molecular mechanisms of the interaction of mycoviruses with plant pathogenic fungi, and the effects of this interaction on fungus pathogenicity and virulence in plants. For this, we seek to understand the diversity and evolution of mycoviruses, which will lead to explore different life-styles in terms of virus-fungus interactions. Ultimately, our research may provide biological and biotechnological tools based in natural or synthetic mycoviruses for the biocontrol of plant pathogenic fungi. The main model system studied is the necrotrophic ascomycete fungus Botrytis cinerea and its different mycoviruses.
Applications: documents to be submitted and deadlines	CV, letter of motivation, letter of references **Deadline: 2024 April 30th**