

Job Description

Job Title:	Research Associate in Plant-Microbe Interactions
Department/Division/Faculty:	Department of Life Sciences, Faculty of Natural Sciences
Campus/Location:	Silwood Park Campus
Job Family/Level:	Research Job Family, Research Associate* (Research salary scale)
Responsible to:	Thomas Bell
Key Working Relationships (Internal):	Rich Gill (Academic Lead, Silwood Park), Sasha Angell (technician, Silwood Park)
Key Working Relationships (External):	ConcertBio (Paul Rutten, Stacey Vincent)
Contract type:	Full-time, fixed term 18 months
Purpose of the Post	
<p>The primary role will be in planning and executing experiments using hydroponically-grown lettuce and their associated microbes with the aim of identifying microbes that benefit lettuce growth. The post-holder will be expected to coordinate their activities with the lead organisation, ConcertBio.</p>	
Key Responsibilities	
<p>Research Duties:</p> <ul style="list-style-type: none"> • Identify and develop suitable techniques, and apparatus, for the collection and analysis of data • Conduct experiments to determine the role of microbes (particularly bacteria) in the yield of hydroponic lettuce. • Collect relevant data to determine the outcome of the experiments, including collecting samples for omics analyses. • Analyse and interpret the results of the experiments. Run basic bioinformatics pipelines as required. • Prepare manuscripts for publication of results • Advise and assist other staff and students • Taking initiative in the planning of research • Help direct the work of small research teams • Ensure the validity and reliability of data at all times • Maintain accurate and complete records of all findings • Help prepare reports for submission to research funders • Present findings to colleagues and at conferences • Submit publications to refereed journals • Provide guidance to staff and students • Attend relevant workshops and conferences as necessary • Develop contacts and research collaborations within the College and the wider community <p>Other Duties:</p> <ul style="list-style-type: none"> • To undertake any necessary training and/or development • To undertake appropriate administration tasks • To attend relevant meetings 	

Where Imperial or funder conditions necessitate, you will be required to complete timesheets for your work on projects in a timely manner.

Person Specification

Requirements	Essential (E)/ Desirable (D)
Candidates/post holders will be expected to demonstrate the following:	
Education	
Hold a PhD in plant-microbe interactions or related field or a closely related discipline, or equivalent research, industrial or commercial experience <i>*Candidates who have not yet been officially awarded their PhD will be appointed as Research Assistant.</i>	E
Experience	
Broad background in plant-microbe interactions	E
Molecular biology procedures related to tracking microbial populations and plant responses	E
Basic bioinformatics related to processing of next-gen sequencing data	E
Handling of microbial cultures	E
Advanced bioinformatics and coding skills	D
Growth of plants under hydroponic conditions	D
Knowledge	
Understanding of plant-microbe interactions and their relevance in agricultural systems	E
Practical and theoretical knowledge of microbial community dynamics	E
Understanding of plant responses to pathogens	E
Knowledge of soil-less agriculture technologies	D
Skills & Abilities	
Proven experience conducting experiments with plants and microbes	E
Experience with next-generation sequencing methods	E
Bioinformatics skills in the analysis of microbial datasets	E
Experience of statistical analysis and data visualisation using R or similar software for summarising complex datasets	E
Good communication and networking skills to work in an interdisciplinary project	D
Other	
Willingness to work as part of a team and to be open-minded and cooperative	E
Flexible attitude towards work	E
Discipline and regard for confidentiality and security at all times	E
Willingness to undertake any necessary training for the role	E
Willingness to travel both within the United Kingdom and abroad to conduct research and attend conferences	E
Willingness to work out of normal working hours (including weekends) if the requirements of the project demand	E

Further Information

Please note that job descriptions cannot be exhaustive, and the post-holder may be required to undertake other duties, which are broadly in line with the above key responsibilities.

Imperial College London

Imperial College is committed to equality of opportunity and to eliminating discrimination. All employees are expected to follow the [Imperial Values & Behaviours framework](#). Our values are:

- Respect
- Collaboration
- Excellence
- Integrity
- Innovation

Employees are also required to comply with all College policies and regulations paying special attention to: Confidentiality, Conflict of Interest, Data Protection, Equal Opportunities, Financial Regulations, Health and Safety, Information Technology, Smoking, Private Engagements and Register of Interests. They must also undertake specific training and assume responsibility for safety relevant to specific roles, as set out on the [College Website Health and Safety Structure and Responsibilities](#) page.

The College is a proud signatory to the San-Francisco Declaration on Research Assessment (DORA), which means that in hiring and promotion decisions, we evaluate applicants on the quality of their work, not the journal impact factor where it is published. For more information, see <https://www.imperial.ac.uk/research-and-innovation/about-imperial-research/research-evaluation/>

The College believes that the use of animals in research is vital to improve human and animal health and welfare. Animals may only be used in research programmes which are ultimately aimed towards finding new treatments and making scientific and medical advances, and where there are no satisfactory or reasonably practical alternatives to their use. Imperial is committed to ensuring that, in cases where this research is deemed essential, all animals in the College's care are treated with full respect, and that all staff involved with this work show due consideration at every level. [Find out more about animal research at Imperial.](#)

We are committed to equality of opportunity, to eliminating discrimination and to creating an inclusive working environment for all. We therefore encourage candidates to apply irrespective of age, disability, marriage or civil partnership status, pregnancy or maternity, race, religion and belief, gender identity, sex, or sexual orientation. We are an [Athena SWAN Silver Award](#) winner, a [Disability Confident Leader](#) and a [Stonewall Diversity Champion](#).

July 2023