

**Job Description**

<b>Job Title:</b>	Research Associate
<b>Department/Division/Faculty:</b>	Department of Life Sciences, Faculty of Natural Sciences
<b>Campus location:</b>	South Kensington Campus
<b>Job Family/Level:</b>	Research, Research Associate
<b>Responsible to:</b>	Dr Jose Jimenez, Senior Lecturer in Synthetic Biology
<b>Key Working Relationships (internal):</b>	Research Associates and Technicians within the Department and in Dr Jimenez's and Prof. Baldwin's groups
<b>Contract type:</b>	Full-time, fixed term until 31 <sup>st</sup> May 2024

**Purpose of the Post**

The post holder will join a team integrating AI approaches with Synthetic Biology for the expression and optimisation of biosynthetic pathways in non-model organisms. The post is within the group of Dr Jose Jimenez at the South Kensington Campus of Imperial College London.

We have established automated DNA assembly, which provides a modular framework for the automated building of microbial operons. This project seeks to integrate this synthetic biology platform with AI approaches to navigate the biological design space of surfactants and siderophores identified in marine microorganisms. These activities will be conducted in collaboration with the Baldwin Lab, led by Professor Geoff Baldwin in the Department of Life Sciences at Imperial College London. This work will feed into the broader project SECRETed, which is sponsored by the EU H2020 programme. The post holder will be highly motivated, with good teamwork skills and a knowledge of both computational and coding approaches alongside well-developed laboratory skills.

**The Department of Life Sciences**

[The Department of Life Sciences](#) (DoLS) at Imperial College London, headed by Professor Anne Dell, embraces the full breadth of modern life sciences activity. It is one of the largest life sciences groups in Europe, with approximately 100 academic staff, 180+ research fellows and post-doctoral researchers, 50+ technical services staff, 40+ professional services staff, 200+ PhD students, 200+ Masters students and 800+ UG students. The Department's research and teaching activities are funded by a wide variety of research councils, charities and industries bodies, with the value of current external research grants totalling more than £100 million.

DoLS is located on 2 campuses at South Kensington and Silwood Park. Research activity is organised into 12 themes; in addition, staff are integrated into a number of multidisciplinary, cross-departmental research centres. We run 2 undergraduate degrees (Biology and Biochemistry/Biotechnology), and 16 Masters courses.

We proudly hold an [Athena SWAN](#) Bronze Award and strive to provide a working environment where all our staff feel fully supported to flourish and excel. We are committed to promoting the wide range of [Family Friendly policies](#) and associated initiatives offered by the College.

The [DoLS Newsletters](#) provide a useful insight into the activities and life in our department. Further information about Life Sciences Athena SWAN can be accessed via our [website](#).

**Key Responsibilities**

- To take initiative in the planning of research
- To programme and develop automation protocols required the collection and analysis of data

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- To ensure the validity and reliability of data at all times
- To maintain accurate and complete records of all findings
- To write reports for submission to research sponsors
- To prepare material for presentation in oral and poster formats
- To draft publications and prepare them for submission to refereed journals
- To take responsibility for organising resources and effective decision making in support of research
- To attend relevant workshops and conferences as necessary
- To develop contacts and research collaborations within the College and the wider community
- To promote the reputation of the Group, the Department and the College

**Other Duties**

- To attend relevant meetings
- To assist with the supervision of research students within the lab
- To undertake any necessary training and/or development  
(<http://www3.imperial.ac.uk/safety/policies/organisationandarrangements>).
- To maintain safe workplace practice and procedures in accordance with the requirements of Health and Safety legislation.
- To maintain an up to date knowledge of relevant statutory Health and Safety legislation and recommendations and attend safety training as required.
- Any other duties commensurate with the grade of the post as directed by line manager / supervisor

\*Candidates who have not yet been officially awarded their PhD will be appointed as Research Assistant within the salary range £36,045 - £39,183 per annum.

**Person Specification**

<b>Requirements</b>	<b>Essential (E)/ Desirable (D)</b>
Candidates/post holders will be expected to demonstrate the following	
<b>Education</b>	
<b>Research Associate:</b> Hold a PhD (or equivalent) in a relevant discipline, which may include synthetic biology, biochemistry, molecular biology, microbiology, biotechnology or systems biology	E
<b>Research Assistant:</b> Near completion of a PhD (or equivalent) in a relevant discipline, which may include synthetic biology, biochemistry, molecular biology, microbiology, biotechnology or systems biology	E
<b>Experience &amp; Knowledge</b>	
Experience in synthetic biology approaches to DNA assembly	E
Experience in general molecular biology	E
Experience of quantitative characterisation of microbial systems	E
Experience in laboratory automation and developing automated protocols	D
Experience in genomics, transcriptomics and bioinformatic analysis	D
Experience of analytical methods in biotechnology (HPLC, MS, NMR, etc.)	D
Coding skills	D
<b>Skills &amp; Abilities</b>	
Capacity to develop the skills required to become an independent researcher	E
Ability to develop quantitative methods, with careful attention to controls	E
Ability to develop and apply new concepts	E
Creative approach to problem-solving	E
Excellent verbal communication skills and the ability to deal with a wide range of people	E

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Excellent written communication skills and the ability to write clearly and succinctly for publication	E
Ability to organise own work with minimal supervision	E
Ability to prioritise own work in response to deadlines	E
Advanced computer skills, including word-processing, spreadsheets, coding	E
Ability to supervise students and motivate others to produce a high standard of work	E
High level analytical capability	E
Ability to communicate complex information clearly	E
Ability to apply relevant models, techniques and methods and develop new ones	E
Ability to assess resource requirements and deploy them effectively	E
Ability to encourage research culture in others	E
Willingness to work as part of a team and to be open-minded and cooperative	E
Commitment to meeting deadlines	E
Commitment to maintaining and enhancing facilities and training others in their use	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
You will be expected to travel occasionally both within the United Kingdom and abroad to conduct research and attend conferences/workshops and other meetings	E

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 is committed to equality of opportunity and to eliminating discrimination. All employees are expected to follow the [7 Imperial Expectations](#) detailed below:

- 1) Champion a positive approach to change and opportunity
- 2) Encourage inclusive participation and eliminate discrimination
- 3) Communicate regularly and effectively within and across teams
- 4) Consider the thoughts and expectations of others
- 5) Deliver positive outcomes
- 6) Develop and grow skills and expertise
- 7) Work in a planned and managed way

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 where their use is shown to be necessary for developing new treatments and making medical advances.*

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*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.*

<http://www.imperial.ac.uk/research-and-innovation/about-imperial-research/research-integrity/animal-research/>

*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.*

**May 2021**