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Research Associate in Long-Wavelength Oxygenic Photosynthesis

Department/Division/Faculty:	Department of Life Sciences, Faculty of Natural Sciences
Campus/Location:	South Kensington Campus
Job Family/Level:	Research Job Family, Research Associate* (Research salary scale)
Responsible to:	Prof. A. William Rutherford and Dr Andrea Fantuzzi
Key working Relationships (Internal):	Other research staff and students in the team
Key Working Relationships (External):	National and international collaborators, Suppliers & contractors
Contract type:	Full time, fixed term for up to 24 months

Purpose of the Post

A post-doctoral research associate (post doc) post is available funded by a Royal Society grant recently to work on excitation energy transfer and electron transfer the Photosystems and focused on the recently discovered lower energy chlorophyll-f containing variants.

The study will include the following areas and approaches depending on the interests and expertise of the research associate and the state of knowledge: biochemistry, biophysics, molecular bioenergetics, spectroscopy, structural biology (cryo-EM), molecular biology, molecular enzymology, evolutionary considerations, comparative work with other photosystems and other reaction centres.

Key Responsibilities

Research Duties:

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- Perform research within the group that fulfils the grant's objectives
- Actively participate in the Group's research programme
- Take initiatives to plan and perform research that also includes the post doc's own ideas.
- Identify and develop techniques and apparatus for data collection and analysis
- Perform data analysis
- Always ensure the validity and reliability of data

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- Participate in Group research meetings, relevant internal seminars and departmental/college meetings.
- Maintain well-organised, accurate and complete records of experimental work and findings
- Attend relevant workshops and conferences and present findings
- Publish in high quality journals
- Write reports for submission to research sponsors
- Contribute to bids for research grants
- Develop contacts and collaborations within Imperial College and the wider research community
- Provide help and guidance to students (UG, masters, and PhD), staff (technicians, researchers, etc.) and visiting researchers
- Contribute to the smooth running of the Group's laboratories and facilities maintaining cordial interactions with other scientists, technicians and students
- Undertake appropriate administration tasks (procurement of equipment, chemicals etc.)
- Comply with the College, Division, and Unit safety practices and attend courses on safety when appropriate
- Undertake any necessary training and/or development
- Promote the reputation of the Group, the Department and the College. Carry out any other duties as may be deemed reasonable by the Head of Group and Head of Department
- 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

Candidates/post holders will be expected to demonstrate the following:

**Essential (E)/
Desirable (D)**

Education

Hold a PhD in biochemistry, chemistry, biophysics or a closely related discipline, or equivalent research experience. (E)
**Candidates who have not yet been officially awarded their PhD will be appointed as Research Assistant.*

Experience

Practical experience within a research environment. (E)
 Practical experience in microbiology and molecular biology. (D)
 Practical experience in cyanobacterial microbiology and molecular biology. (D)
 Practical experience in biochemical techniques, e.g., isolation, characterisation, enzymology of membrane proteins. (E)
 Practical experience in isolation and characterisation of the membrane protein complexes of bioenergetics. (D)
 Practical experience of biophysical methods, e.g., some of the following: spectroscopy (including kinetic approaches), electrochemical/ (E)

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potentiometric methods, structural approaches (e.g., Cryo-EM)

Practical experience of biophysical methods on the photosystems and/or bioenergetic complexes.

(D)

Practical experience of publications in relevant and refereed journals

(E)

Knowledge

Knowledge of biochemistry, biophysics, bioenergetics or related subject

(E)

Knowledge of research methods and statistical procedures

(E)

Knowledge of molecular bioenergetics of photosynthesis

(D)

Skills & Abilities

Ability to conduct a detailed review of recent literature

(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)

Excellent written communication skills and appropriate 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 and the Internet

(E)

Willingness to work as part of a team, 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 within the United Kingdom and abroad to conduct research and attend conferences

(E)

Willingness to undertake occasional teaching roles within the area of the research project

(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.

[Our values](#) are at the root of everything we do and everyone in our community is expected to demonstrate Imperial:

- Respect

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- Collaboration
- Excellence
- Integrity
- Innovation

Employees are also required to comply with all Imperial policies and regulations.

We are committed to equality of opportunity, to eliminating discrimination and to creating an inclusive working environment for all. We encourage candidates to apply irrespective of age, disability, marriage or civil partnership status, pregnancy or maternity, race, religion and belief, gender reassignment, sex, or sexual orientation. You can read more about our commitment [on our webpages](#).

Imperial 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/>

Imperial 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 our care are treated with full respect, and that all staff involved with this work show due consideration at every level.

September 2026