



UNIVERSITY OF LEEDS

## CANDIDATE BRIEF

Research Fellow in Single-Enzyme Biophysics, Faculty of Biological Sciences



**Salary: Grade 7 (£33,199 – £39,609 p.a.)**

Due to funding limitations it is unlikely an appointment will be made above £33,199 p.a.

**Reference: FBSBM1100**

**Closing date: 15 November 2018**

**Fixed-term for 2 years (external funding)**

## Research Fellow in Single-Enzyme Biophysics, School of Biomedical Sciences.

**Are you an ambitious researcher looking for your next challenge? Do you have an established background in single enzyme biophysics? Do you want to further your career in one of the UKs leading research intensive Universities?**

You are invited to join an interdisciplinary [BBSRC](#)-funded project working on aiming to study the proton-pumping mechanism of mitochondrial complex I. Complex I (NADH-ubiquinone oxidoreductase) plays a crucial role in cellular bioenergetics. Complex I is a known source of radical oxygen species (ROS) and its malfunctions have important consequences for (human) health and aging. Structural information from both crystallography and electron cryo-microscopy (cryo-EM) has been used to formulate several models on the proton-pumping mechanism of complex I, but none of them have been experimentally verified. We have recently developed a single-enzyme methodology for proton pumping enzymes and in this project you will use this methodology to study the proton-pumping mechanism of complex I.

This BBSRC-funded project is a collaboration between the University of Leeds and the [MRC Mitochondrial Biology Unit](#) in Cambridge. You will be based in a multidisciplinary biophysics research team supervised by [Professor Lars Jeuken](#) and will work in collaboration with [Professor Judy Hirst](#) and her team in Cambridge.

You should have, or be close to completing a PhD in a relevant subject area (e.g. chemistry, biochemistry, physics). With a background in bioinorganic chemistry, single-enzyme biophysics or membrane proteins you should be able to work effectively both independently and within a multidisciplinary team.

The University of Leeds and the Faculty of Biological Sciences are committed to providing equal opportunities for all and offer a range of family friendly policies. The University is a charter member of Athena SWAN (the national body that promotes gender equality in higher education), and the Faculty of Biological Sciences gained a Bronze award in 2014 and submitted an application for a Silver award in April 2017. We are proud to be an inclusive Faculty that values all staff, and are happy to consider job share applications and requests for flexible working arrangements from our employees. Our Athena SWAN webpage provides more information. <http://www.fbs.leeds.ac.uk/equality-and-diversity/athena-swan/>



## What does the role entail?

As a Research Fellow, your main duties will include:

- Designing, planning and conducting a programme of investigation, in consultation with Professor Lars Jeuken;
- Generating independent and original research ideas and methods in the fields of bioenergetics and single-enzyme biophysics with an aim to extend the research portfolios of the Jeuken group at the University of Leeds and the MRC Mitochondrial Biology Unit in Cambridge;
- Being responsible for ensuring good day-to-day progress of the project, while maintaining familiarity with the scientific literature pertaining to it;
- Providing brief written monthly reports describing progress and future work and contributing to reports required by the funding body (BBSRC);
- Attending meetings (at Leeds and Cambridge) to discuss the project as necessary;
- Making a significant contribution to the dissemination of research results by publication in leading peer-reviewed journals, and by presentation at national and international meetings;
- Working independently and as part of a larger team of researchers, both internally and externally to develop new research links and collaborations and engage in knowledge transfer activities where appropriate;
- Contributing to the supervision of junior researchers and PhD students and acting as a mentor to less experienced colleagues;
- Evaluating methods and techniques used and results obtained by other researchers and relating such evaluations to your own research;
- To contribute to, and to encourage, a safe working environment.

These duties provide a framework for the role and should not be regarded as a definitive list. Other reasonable duties may be required consistent with the grade of the post.

## What will you bring to the role?

As a Research Fellow, you will have:

- A PhD (or be close to completion) in Chemistry, Biochemistry, Biophysics or a closely allied discipline;



- Experience in single-enzyme biophysics or membrane proteins and bioenergetics;
- Strong analytical skills, with the ability to work accurately and carefully, designing, executing and writing up research independently;
- A developing track record of peer reviewed publications in international journals;
- Excellent communication skills, both written and verbal and the ability to communicate your research at national and international conferences;
- The ability to work well both independently and as part of a team;
- A strong initiative and a pro-active approach, with excellent organisational, planning and self-management skills, including the ability to prioritise workloads to meet deadlines/demand and deliver high quality under pressure;
- A strong commitment to your own continuous professional development.

You may also have:

- Experience in MatLab;
- Experience in automated microscopy analysis (e.g. with ImageJ).

## How to apply

You can apply for this role online; more guidance can be found on our [How to Apply](#) information page. Applications should be submitted by **23.59** (UK time) on the advertised closing date.

Your application should include:

- A supporting statement providing evidence to support each requirement listed on the 'What will you bring to the role' section of the Candidate Brief (no more than two sides of A4, minimum font size 11);
- An academic curriculum vitae, including a list of your publications.

## Contact information

To explore the post further or for any queries you may have, please contact:

[Professor Lars Jeuken, Professor of Molecular Biophysics](#)

Tel: +44 (0)113 343 3829



Email: [l.j.c.jeuken@leeds.ac.uk](mailto:l.j.c.jeuken@leeds.ac.uk)

## Additional information

Find out more about the [Faculty of Biological Sciences](#) and the [School of Biomedical Sciences](#).

### Working at Leeds

Find out more about the benefits of working at the University and what it is like to live and work in the Leeds area on our [Working at Leeds](#) information page.

### Candidates with disabilities

Information for candidates with disabilities, impairments or health conditions, including requesting alternative formats, can be found on our [Accessibility](#) information page or by getting in touch with us at [disclosure@leeds.ac.uk](mailto:disclosure@leeds.ac.uk).

## Criminal record information

### Rehabilitation of Offenders Act 1974

A criminal record check is not required for this position. However, all applicants will be required to declare if they have any 'unspent' criminal offences, including those pending.

Any offer of appointment will be in accordance with our Criminal Records policy. You can find out more about required checks and declarations in our [Criminal Records](#) information page.

