



**UNIVERSITY OF LEEDS**

## **CANDIDATE BRIEF**

**Research Fellow in Plant Molecular Biology or Cryo-Electron Microscopy, Faculty of Biological Sciences**



**Salary: Grade 7 (£33,797 – £40,322 p.a.)**

**Reference: FBSBY1119**

**Fixed-term for 3 years**

# Research Fellow in Plant Molecular Biology or Cryo-Electron Microscopy

## School of Biology

**Are you an ambitious researcher looking for your next challenge? Do you have an established background in either Plant Molecular Biology or Cryo-Electron Microscopy? Do you want to further your career in one of the UKs leading research intensive Universities?**

We are looking for a motivated postdoctoral researcher to join a new, BBSRC-funded project that is a collaboration between the groups of [Professor Brendan Davies](#) (Plant Science), [Dr. Juan Fontana](#) (Structural Biology) and [Dr. Julie Aspden](#) (Translation and RNA biology).

Regulating gene expression to produce the appropriate level of each protein, in response to an ever-changing environment, is a particular challenge for sessile organisms such as plants. This project aims to understand a novel form of regulation, which acts at the translational level. We will look at evolutionarily conserved short upstream open reading frames (CPuORFs) that have the ability to conditionally control the translation of downstream open reading frames, so that the protein product is only made in certain circumstances. We have identified three CPuORFs that respond to environmental signals. This novel form of regulation has the potential to be used in research, synthetic biology and agriculture. In this project we will use biochemical, genetic, transgenic and structural biology approaches to study the interaction between the CPuORF-encoded nascent peptide and the ribosome, with the aim of understanding the mechanism through which translation is conditionally promoted or inhibited. In the longer term, by understanding how this form of regulation works, we could design switches capable of responding to specific applied chemicals/conditions in the field.

Due to the interdisciplinary nature of the project, it would be an ideal opportunity for a postdoctoral scientist with a strong background in molecular biology (especially plant molecular biology and/or regulation of translation) to gain expertise in the use of cryo-EM to study structural biology. Alternatively, a postdoctoral scientist with a strong background in cryo-EM/structural biology could use this project to enhance their skills in molecular biology. You would join a strong and experienced team, so would be well supported as you develop new skills.



## 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 Brendan Davies](#), [Dr. Juan Fontana](#) and [Dr. Julie Aspden](#);
- To generate and pursue independent and original research ideas in line with the project aims and objectives;
- 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;
- Contributing to, and encouraging, 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 close to completion) in molecular biology or cryo-electron microscopy or a closely allied discipline;
- Experience either in molecular biology, especially in the regulation of translation and/or transcription, or in structural biology using cryo-electron microscopy;
- 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;
- 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:

- Evidence of pursuing external funding to support research.

## 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:

**[Brendan Davies](#), Professor of Plant Development**

Tel: +44 (0)113 343 3123

Email: [b.h.davies@leeds.ac.uk](mailto:b.h.davies@leeds.ac.uk)



## Additional information

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 was reawarded a Bronze award in 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.

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

Find out more about our Research and associated facilities.

<https://biologicalsciences.leeds.ac.uk/research-innovation>

### 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.

### A diverse workforce

The Faculty of Biological Sciences is proud to have been awarded the Athena SWAN Bronze Award from the Equality Challenge Unit, the national body that promotes equality in the higher education sector. Our equality and inclusion webpage provides more information.

### 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.

