

**Postdoctoral researcher in plant protein biochemistry/
proteomics (University of Birmingham, UK)**



**UNIVERSITY OF
BIRMINGHAM**

Application deadline: 22nd October 2023

Anticipated start date: ASAP/January 2024

Starting salary: £34,980-£44,263



Project description: The Gibbs and Sanchez-Moran labs in the School of Biosciences at the University of Birmingham are looking for a postdoctoral researcher who will work on the BBSRC-funded project “*MEIAD: Investigating roles for meiosis associated degradation during meiotic recombination in plants*”. This project will use complementary genetic, molecular cytogenetic & protein biochemistry approaches to investigate the role of the ubiquitin proteasome system in regulating crossover (CO) determination and homologous recombination during plant meiosis. Working alongside a second postdoctoral researcher with molecular cytogenetics expertise, the project aims to: (1) Functionally characterise the key proteolytic components involved in regulating crossovers (including E3 ubiquitin ligases, associated proteins, and the 26S proteasome), (2) identify their direct meiotic degradation targets, (3) define their synergistic & spatiotemporal activity at chromosome-axes during meiotic progression and CO establishment and (4) investigate how pharmacological and genetic manipulation of MEIAD modulates meiosis. This exciting project will uncover how two cellular processes - recombination & proteasomal degradation - interact to influence genetic inheritance in plants, providing a framework for understanding this critical process that could be targeted for manipulating recombination in diverse species. This knowledge could lead to real agronomic benefit through increasing the capacity for generating genetic variation in economically important crops.

Qualifications: The ideal candidate will have a PhD in the area of molecular plant biology and/or protein biochemistry. Prior demonstration of working with proteins (e.g., Western blotting, immunoprecipitation) is required, and experience of working with *Arabidopsis*, studying post-translational protein modifications, and/or using mass-spec-based proteomics approaches is desirable. Ideally, the candidate will have demonstrated writing ability through previous publication(s) in high-quality journals, though this is not prerequisite. This position is for up to 3 years.

Working environment: The researcher will be based in the Plant Science & Food Security theme within the School of Biosciences. The School of Biosciences hosts >60 research groups working on various aspects of biological sciences. The candidate will have the opportunity to assist with supervision of undergraduate and postgraduate students.

To apply: Formal applications can be made at the following link (<https://www.jobs.ac.uk/job/DCV889/research-fellow>). Informal enquiries can be made to **Daniel Gibbs** (d.gibbs@bham.ac.uk)

Useful links: Faculty webpages (Gibbs: <https://research.birmingham.ac.uk/en/persons/daniel-gibbs>; Sanchez-Moran: <https://research.birmingham.ac.uk/en/persons/eugenio-sanchez-moran>). School of Biosciences (<https://www.birmingham.ac.uk/schools/biosciences/index.aspx>) Information on Birmingham (<https://visitbirmingham.com/>)