Postdoctoral Researcher in DNA Damage Signalling
MRC Weatherall Institute of Molecular Medicine, John Radcliffe Hospital, Oxford

Grade 7: £32,817 - £40,322 p.a.

We have a new and exciting opportunity for a highly motivated and enthusiastic Postdoctoral Researcher to join the DNA Damage and Disease lab, headed by Dr Andrew Blackford and funded by Cancer Research UK. The aim of the lab’s research is to understand how DNA double-strand break repair protein complexes are regulated at the molecular level, and to exploit this knowledge for therapeutic benefit.

Like all biological pathways, the cellular DNA damage response is facilitated by a series of protein-protein interactions, but the mechanisms by which DNA repair protein complexes are assembled and regulated by post-translational modifications are still poorly understood. To address this, the postholder will use a novel systematic approach involving a combination of cutting-edge proteomics, CRISPR-Cas9 gene-editing and cell biology techniques to identify functional peptide motifs and post-translational modifications that mediate crucial protein-protein interactions in the DNA damage response. Successful completion of the project will provide new insights into the underlying mechanisms that control DNA repair and will validate an experimental framework that could readily be applied to investigate other biological pathways relevant to human disease.

In this role, you will work in a team of PhD and postdoctoral researchers, collaborating with researchers from across the University of Oxford’s various technology platforms. You will be responsible for developing and testing your own hypotheses, generating high-quality and reproducible data, participate in dissemination activities and aid in manuscript preparation.

The successful candidate will hold a PhD in cell biology, molecular biology or other relevant field (or be close to completion). They will be highly motivated, ambitious, enthusiastic with strong attention to detail, and excellent communication skills. Previous experience in mammalian cell culture, plasmid design and cloning are also essential requirements of the role, while further experience in biochemistry, bioinformatics, proteomics, lentivirus transduction, CRISPR-Cas9 gene-editing, and/or high- or super-resolution microscopy would be advantageous.

All applicants should complete a short application form and upload a CV and supporting statement.

The closing date for applications is 12:00 GMT on Wednesday 11 March 2020.


Informal pre-application enquiries are welcome (andrew.blackford@imm.ox.ac.uk).