

UNIVERSITY OF LIVERPOOL
DEPARTMENT OF BIOCHEMISTRY AND SYSTEMS BIOLOGY

Cryo-EM STRUCTURAL BIOLOGY POSTDOCTORAL RESEARCH ASSOCIATE

£38,250 - £40,521 pa

An exciting opportunity has emerged to join the [Molecular Biophysics Group](#) to work on a BBSRC-supported collaborative project between the teams from University of Leeds and Liverpool aimed at answering fundamental questions on enzyme mechanism of quinol-dependent integral membrane nitric oxide reductases, a member of respiratory heme-copper oxidase superfamily. The project builds on our recent 2.2Å cryoEM structure of this enzyme and aims to address a number of ambitious questions through well-informed point mutations and high resolution cryoEM structures. In addition to the isolated enzyme, we also aim to obtain the first structures of CuNiR-qNOR protein-protein complexes in catalytic turnover.

We require an experienced PDRA with experience in several elements of a structural biology project including protein expression and purification of membrane metalloproteins, model building and structure refinement, cryoEM data collection and processing as well as some understanding of the biological systems and enzyme mechanism. The PDRA will be assisted by a full-time technician for producing wild-type and mutant qNOR membrane bound proteins in sufficient quantities for functional and cryoEM studies. The technician would also support in producing AxCuNiR and its mutants following the established protocols in our laboratories.

You should also be able to work in a team and previous experience of working at multiple sites would be an advantage. The PDRA is expected to spend a week per month at Leeds where you would be fully integrated into Muench's group. Excellent verbal and written communication skills are essential. The post is available for 3 years.

Please send your CV with a detailed cover letter explaining your suitability to Dr Stephen Muench (S.P.Muench@leeds.ac.uk), Dr Svetlana Antonyuk (antonyuk@liverpool.ac.uk) and Professor Samar Hasnain (s.s.hasnain@liverpool.ac.uk). The position is available from October 2023.