

# Postdoctoral Fellow

Postdoctoral Fellowships  
Hamburg, Germany

We (EMBL Hamburg) in collaboration with The Francis Crick Institute, London, Imperial College Hospital London (co-PI's), EMBL Heidelberg and EMBL EBI have been awarded a grant by the UK Medical Research Council "A Nanopathology Platform for Prediction and Early Detection of Disease in Kidney Transplant Rejection". As part of this project we are utilising our high throughput X-ray tomography (HiTT) workflow to image kidney biopsy samples at cellular/subcellular resolution. The 3D X-ray data will feed into a multimodal analysis pipeline seeking to combine multi-dimensional information at a variety of resolutions and via the application of machine learning methods classify the cells by clinical, molecular and ultrastructural features of immune-mediated transplant rejection.

As part of this project there is an opportunity for a 3 year postdoctoral position at EMBL Hamburg to develop the X-ray imaging (HiTT) aspects of the multimodal workflow. The successful candidate will work within the X-ray imaging team at EMBL Hamburg developing the X-ray imaging of the kidney samples provided by collaborators at Imperial College London, UK. As part of the project there will be close interactions with collaborators from The Francis Crick Institute, London, Imperial College, London, EMBL Heidelberg and EMBL EBI with travel between sites both expected and encouraged.

## Your role

As part of the multimodal project "A Nanopathology Platform for Prediction and Early Detection of Disease in Kidney Transplant Rejection" a postdoctoral position is available in Liz Duke's team at EMBL Hamburg to contribute to the development of high throughput X-ray tomography techniques applied to kidney tissue samples.

## You have

- A PhD in an area broadly relevant to tissue imaging in biology
- An aptitude for methods development at the interdisciplinary physics:biology boundary
- An affinity for collaborative multidisciplinary work
- A good command of spoken and written English as the working language at EMBL is English

## You might also have

- Detailed knowledge and understanding of biological X-ray imaging particularly in relation to its application to soft biological tissue.
- Synchrotron experience and/or experience of phase contrast X-ray imaging techniques
- Tissue sample handling and preparation techniques including in one or more of the following areas: X-ray imaging, electron microscopy, light microscopy.
- Detailed knowledge and understanding of the requirements associated with (human) tissue handling
- Computer programming and software development for data analysis
- Experience in 3D Image segmentation

## Why join us

EMBL is an inclusive, equal opportunity employer offering attractive conditions and benefits appropriate to an international research organisation with a very collegial and family friendly working environment. The remuneration package comprises from a competitive salary, a comprehensive pension scheme, medical,

educational and other social benefits, as well as financial support for relocation and installation, including your family and the availability of an excellent child care facility on campus.

EMBL has a large thriving community of bioinformaticians, working in close collaboration with experimental scientists and with strong links to other local scientists and institutions.

What else you need to know

We are Europe's flagship research laboratory for the life sciences – an intergovernmental organisation performing scientific research in disciplines including molecular biology, physics, chemistry and computer science. We are an international, innovative and interdisciplinary laboratory with approximately 2000 employees from many nations, operating across six sites, in Heidelberg (HQ), Barcelona, Hinxton near Cambridge, Hamburg, Grenoble and Rome.

Our mission is to offer vital services in training scientists, students and visitors at all levels; to develop new instruments and methods in the life sciences and actively engage in technology transfer activities, and to integrate European life science research.

Please note that appointments on fixed term contracts can be renewed, depending on circumstances at the time of the review.

**EMBL is a signatory of DORA.** Find out how we implement best practices in research assessment in our recruitment processes [here](#).

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