Research Fellow in Tomographic Image-based Dynamic Whole Organ Modelling, - Ref:1873982

Working for University College London joint supervised at ESRF

UCL Department/Division	Department of Mechanical Engineering
Location of position	London, with stays at ESRF
Grade	7
Hours	Full Time
Salary (inc. London allowance)	£36,028 - £43,533 per annum

Duties and Responsibilities

UCL is seeking to appoint a Research Fellow to be part of an international, interdisciplinary Chan Zuckerberg Initiative funded project to develop a new tomography imaging modality using the world's brightest synchrotron, ESRF-EBS, to scan whole human bodies with 1um local resolution. You will work with the bio-modelling, bio-Imaging, and AI groups at UCL, together with Medics in Germany, and X-ray physicists in France. The overall project goal is to develop novel techniques to help better understand human physiology and how diseases such as Covid-19 injure our organs and other soft and hard tissue.

Your goal will be to perform computational simulations of dynamic biological processes including blood flow and joint biomechanics (validated via in situ digital volume correlation). You will also work with other researchers to help optimise the reconstruction and segmentation algorithms.

The position is available immediately until 30 June 2023 with a possible 4 year extension after this date.

Fig. Modelling flow and dynamics using HiP-CT segmented whole organ / joint imaging

Key Requirements

You will have a PhD qualification awarded for research and extensive knowledge and expertise in computational modelling, ideally with experience in image-based modelling, x-ray (or other modality) image reconstruction and analysis. Your expertise should be at a level appropriate for the conduct of research and publishing new knowledge in leading international research journals. You will need to show a high level of initiative and an ability to work collaboratively and independently. You should have good team-working skills and a strong command of English. Ideally, you would have a proven track record in image-based modelling and analysis and large data handling.

Further Details and How to Apply

The full advertisement and job description are at: *http://bit.ly/HiP-CT-PDRA02*.

If you wish to discuss the post informally, please contact Professor Peter Lee at email address: peter.lee@ucl.ac.uk.

If you have any queries regarding the application process, please contact Mr Varun Lobo-Senior Staffing and Resources Officer via mecheng.hr@ucl.ac.uk.

Closing Date: 24 Jan 2021