



Research Fellow in new Super-Resolution Microscopy Modalities (Ref. R51581)

College of Engineering, Mathematics and Physical Sciences

The College wishes to recruit a Research Fellow to join the Laboratory for Biophysics and Biophotonics to support the work of Prof. Christian Soeller. This post is available from mid-February 2016 for 3 years. The project will develop and implement novel fluorescence super-resolution microscopy techniques to enable the nanometre scale investigation of biological samples.

We are targeting to combine a new mode of confocal microscopy with single molecule super-resolution localisation microscopy (SMLM). The goal is to flexibly change between conventional confocal and SMLM acquisition and to implement a novel super-resolution mode that enables imaging with high contrast in optically thicker samples (>10 μm thickness). In doing so we want to implement the advantages of the confocal approach but without paying the price in the light budget that the application of spinning disk to SMLM typically entails.

We are constructing a custom setup to implement this new modality and have already all major components in place. The setup will be controlled with our own software building on our published codebase. We are looking for a researcher who will focus on optical design and implementation but is also happy to read and write some code (the main language is Python), who ideally has at least some programming experience and is keen to learn.

The post will include optical design, optical implementation and computer programming. Applications include several areas of cell biology and the use as a healthcare technology to screen pathology samples for nanoscale biomarkers. All biological applications are strongly supported by colleagues from Biosciences and the Medical School.

We are looking for a motivated Biophysics (or related area) graduate who wants to work with cutting edge optical approaches in modern biophysics and cell biology. Familiarity with high-resolution fluorescence microscopy and optical design and alignment is desirable, image analysis and computer programming (e.g. in Python) experience would be a plus. Demonstrated experience with basic optical design and recording of single molecule fluorescence or other high-resolution fluorescence imaging would be advantageous. The successful applicant will join a vibrant interdisciplinary team that uses quantitative methods to understand living systems supported by colleagues from Physics, Biology, Medicine and Mathematics.

The successful applicant will be able to develop research objectives, projects and proposals; identify sources of research funding and contribute to the process of securing funds and make presentations at conferences and other events.

The successful applicant will be a nationally recognised authority in microscopy, fluorescence imaging or a closely related area and possess sufficient specialist knowledge in the discipline to develop research programmes and methodologies. The successful applicant will also be able to work collaboratively, supervise the work of others and act as team leader as required.

The starting salary will be from £33,574 up to £37,768 on Grade F, depending on qualifications and experience.

For further information please contact Prof. Christian Soeller, c.soeller@exeter.ac.uk or telephone (+44 (0)1392 726608).

For more information and to apply online please go to our website.

The closing date for completed applications is **Thursday 11th February 2016**.

The department is proud to have a Bronze Athena SWAN award in recognition of their commitment to providing equality of opportunity and advancing the representation of women in STEM/M subjects. All of the University of Exeter's STEM/M departments hold an Athena SWAN award.

The University of Exeter is an equal opportunity employer which is 'Positive about Disabled People'. Whilst all applicants will be judged on merit alone, we particularly welcome applications from groups currently underrepresented in the workforce.

Apply Link

https://jobs.exeter.ac.uk/hrpr_webrecruitment/wrd/run/ETREC107GF.open?VACANCY_ID=861953Dwx1&WVID=3817591jNg&LANG=USA