

THE POST

College:	CEMPS
Post:	Postdoctoral Research Fellow
Reference No:	P62097
Grade:	F
Reporting To:	Dr Alex Corbett

The above full time post is available from 1 June 2018 – 31 May 2020 in the College of Engineering, Mathematics and Physical Sciences.

Job Description

Main purpose of the job: The construction and operation of a fast-scanning multi-photon fluorescence microscope for biomedical imaging.

Main duties and accountabilities:

1. **Research:** To undertake research as appropriate to the field of study. The responsibilities may include all or some of the following:

Project specific research skills:

- Contributing to the design and construction of a fast-scanning optical microscope.
- Using software tools (MATLAB, ZEMAX) to model and optimise the optical performance.
- Develop custom control software scripts (LabView) to implement closed loop control of active optical microscope components.
- Acquiring three-dimensional data sets of biological specimens.
- Writing custom software scripts and implementing freeware code to automate the analysis of the acquired data sets.

General research skills:

- Conducting individual or collaborative research projects;
- Extending, transforming and applying knowledge acquired from scholarship to research and appropriate external activities;
- Writing or contributing to publications or disseminating research findings using media appropriate to the discipline;
- Making presentations at conferences or exhibiting work in other appropriate events;
- Assessing, interpreting and evaluating outcomes of research;
- Developing new concepts and ideas to extend intellectual understanding;
- Resolving problems of meeting research objectives and deadlines;
- Developing ideas for generating income and promoting research area;
- Developing ideas for application of research outcomes;
- Identifying sources of funding and contributing to the process of securing funds;
- Deciding on /following research programmes and methodologies, often in collaboration with colleagues and sometimes subject to the approval of the head of the research programme on fundamental issues.

2. **Communication:** To routinely communicate complex and conceptual ideas to those with limited knowledge as well as to peers using high level skills and a range of media and to present the results of scientific research to sponsors and at conferences.
3. **Project management:** As determined by the nature of the project and at the direction of the PI, to plan, co-ordinate and implement research programme activity including:
 - Managing the use of research resources and ensuring that effective use is made of them;
 - Monitoring and reporting on the use of research budgets;
 - Helping to plan and implement commercial and consultancy activities;
 - Where appropriate, to plan and manage own consultancy assignments.
4. **Mentoring:** To act as research team leader including:
 - Mentoring colleagues with less experience and advising on their professional development;
 - Coaching and supporting colleagues in developing their research techniques;
 - Supervising the work of others, for example in research teams or projects;
 - Developing productive working relationships with other members of staff;
 - Co-ordinating the work of colleagues to ensure equitable access to resources and facilities;
 - Dealing with standard problems and help colleagues to resolve their concerns about progress in research.
5. **Teaching:** (optional) Contribute to teaching and learning programmes in the School and to supervise undergraduate and postgraduate research students.

This job description summarises the main duties and accountabilities of the post and is not comprehensive: the post-holder may be required to undertake other duties of similar level and responsibility. Please visit the Human Resources website to view the Research Fellow role profiles.

Person Specification

Competency	Essential	Desirable
Attainments/Qualifications	PhD or equivalent qualification/experience in a related field of study.	Be a nationally recognised authority in the subject area.
Skills and Understanding	Possess sufficient specialist knowledge in the discipline to develop/follow research programmes and methodologies. Record of research output in high quality publications.	Experience of working with active optical systems
Prior Experience	Experience of managing research projects and working within research teams.	Record of publication in high impact journals
Behavioural Characteristics	Excellent written and verbal communication skills. Able to communicate complex and conceptual ideas to a range of groups. Evidence of the ability to collaborate actively within the Institution and externally to complete research projects and advance thinking. Able to participate in and develop external networks. Able to balance the pressures of research, administrative demands and competing deadlines.	Actively seeking opportunities to develop a career in research

Terms & Conditions

Our Terms and Conditions of Employment can be viewed [here](#).

Further Information

Please see our [website](#) for further information on working at the University of Exeter.