

## THE POST

**College/Service:** College of Engineering, Mathematics and Physical Sciences

**Post:** Industrial Postdoctoral Research Fellow – TREE

**Reference No:** P61708

**Grade:** F

**Reporting To:** Professor John Terry

The above post is one of three available for 36 months from June 2018 to work in the Translational Research Exchange @ Exeter based in the Living Systems Institute.

Interviews are expected to be held on Wednesday 9 May 2018.

### **Job Description**

The Translational Research Exchange @ Exeter (TREE) was established in 2016 using Wellcome Trust Institutional Strategic Support Funding. We are now beginning a new phase of growth focussed around partnership development with industry. To facilitate this, we seek to recruit three Industrial Postdoctoral Research Fellowships (up to 1.0FTE), with a focus on collaborative research with industry around the interface of mathematical modelling, data analytics and (bio)medicine.

Working closely with our Industrial Partnership Development Manager (IPDM) and our wider research team, you will develop collaborative research projects and partnerships through working with enterprises ranging from micro-entities and SMEs to large corporations.

We are seeking individuals with experience in collaborative research between industry and university, and knowledge of at least one of the following:

- mathematical and computational modelling
- machine learning, statistics or data analytics
- complex networks
- multi-scale 'omics

with the aim of applying these skills to either disease diagnostics and prognostics, or brain function in health and disease.

Candidates with established and current industrial relationships and projects are strongly encouraged to apply.

### **Main duties and accountabilities:**

1. To undertake research as appropriate to the field of study. The responsibilities may include all or some of the following:
  - Acting as principal investigator on research projects, in particular those with industry and government partners;
  - Developing research objectives, projects and proposals focused on addressing industry challenges;
  - Conducting individual or collaborative research projects, in particular with industry and government partners;
  - Identifying sources of industry and government funding and contributing to the process of securing funds;

- 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, including presenting to experts and non-experts at industry conferences;
  - 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, in particular within industry and government;
  - Developing ideas for application of research outcomes, in particular seeking to address industry challenges and to deliver impact;
  - Deciding on /following research programmes and methodologies, often in collaboration with colleagues and partner organisations, and sometimes subject to the approval of the head of the research programme on fundamental issues.
2. Where appropriate and as agreed with line managers, to contribute to teaching and learning programmes in the School and to supervise research students.
3. 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 and staff within partner organisations;
  - 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.
4. 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 partner organisations, sponsors and at conferences.
5. As determined by the nature of the project and the project deliverables that have been agreed with the industry partner or sponsor, 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;
  - Ensuring delivery of contracted deliverables when working in partnership with external organisations;
  - Where appropriate, to plan and manage own consultancy assignments.

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**

<b>Competency</b>	<b>Essential</b>	<b>Desirable</b>
Attainments/Qualifications	PhD or equivalent qualification/experience in a related field of study.	Be a nationally recognised authority in a relevant subject area.
Skills and Understanding	Possess sufficient specialist knowledge in one or more of:  - mathematical and computational modelling	Record of research output in high quality publications and/or patents.

	<ul style="list-style-type: none"> <li>- machine learning, statistics or data analytics</li> <li>- complex networks</li> <li>- multi-scale 'omics</li> </ul> <p>to develop and innovate research programmes and methodologies that are specifically focussed on addressing an applied research problem with industrial partners.</p>	
Prior Experience	Demonstrable and direct experience of joint working between industry and university to deliver high quality research based collaborations.	<p>Experience of managing research projects and research teams.</p> <p>Experience of reporting to industry.</p>
Behavioural Characteristics	<p>Excellent written and verbal communication skills.</p> <p>Able to communicate complex and conceptual ideas to a range of groups including non subject-experts.</p> <p>Evidence of the ability to collaborate actively within the Institution and externally, with a range of stakeholder and partner organisations, to complete research projects and advance thinking.</p> <p>Able to participate in and develop external networks.</p> <p>Able to balance the pressures of research, administrative demands and competing deadlines.</p> <p>Able to identify sources of funding, generate income, obtain consultancy projects, or build relationships for future activities.</p>	

**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.