THE POST

College:	**College of Medicine & Health**
Post:	**Postdoctoral Research Fellow**
Reference No:	**R67237**
Grade:	**F**
HERA:	**RFEL**
Reporting To:	**Katie Lunnon**
Responsible For:	**N/A**

The above full-time three year post is available from 1st October 2019 in the College of Medicine and Health, although an earlier or later start date can be negotiated for the right candidate.

Job Description

The College wishes to recruit a Postdoctoral Research Fellow to join the Complex Disease Epigenomics Group (see www.epigenomicslab.com for more information). We are a dynamic research team within the College of Medicine and Health researching gene regulation in common disease, with a growing team specifically focussed on understanding genomic mechanisms in dementia. We have been recently funded by Alzheimer's Research UK to investigate inflammatory mechanisms in patients with mild cognitive impairment and to determine if this accelerates conversion to dementia by using RNA-sequencing and miRNA-sequencing in blood samples. The project will use cutting-edge mathematical and bioinformatic approaches to analyse and integrate these data sets.

Main purpose of the job:

The successful applicant, who will be involved in overseeing the day-to-day running of the project, coordinating data generation, analysis, interpretation and dissemination. We are seeking an individual with a strong statistical background, particularly those with experience of fitting regression models, who is a confident programmer with both R and the command line. Although previous experience in genomics or bioinformatics and specifically next generation sequencing data is desirable, this role would also suit a highly motivated candidate with an interest in applying existing strong analytical skills to new data types. We ask within your application that you provide an overview of a key research output, such as a paper, analysis package or dataset that you have significantly contributed to, which is of relevance to the post.

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:

- Managing your research project;
- Generating RNA-sequencing and miRNA-sequencing datasets;
- Managing sample resources and databases;
- Data analysis / bioinformatic analyses;
- Providing statistical and/or bioinformatics advice and support to the wider research team;
- Developing novel approaches to analyse omic data;
- Conducting individual or collaborative research projects;
- Identifying sources of funding and contributing to the process of securing funds, may be required;

- Extending, transforming and applying knowledge acquired from scholarship to research and appropriate external activities;
- Writing up research work for publication;
- Making presentations at national and international conferences and similar events;
- Developing new research techniques and methods;
- 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;
- 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. To support the supervision of undergraduate and postgraduate research students within the group.

3. To act as research team leader including:

- Mentoring colleagues with less experience;
- Coaching and supporting colleagues in developing their research techniques;
- Supervising the work of others, for example students;
- 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.

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 sponsors and at conferences.

5. 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 the project's research resources and ensuring that effective use is made of them;
- Monitoring and reporting on the use of research budgets related to your project;
- Helping to plan and implement commercial and consultancy activities, may be required;
- 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

Competency	Essential	Desirable
Attainments/Qualifications	PhD or equivalent qualification/experience in genomics, bioinformatics, statistics or a related field of study.	Post-doctoral experience in bioinformatics or statistical genetics 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. An interest in dementia	Evidence of research activity and published research. An interest in the role of genomic processes in complex disease.

Prior Experience	Experience of managing research projects. Experience of developing and/or utilising statistical approaches to analyse and interpret genomic data. Experience with key programming skills (e.g. Unix, R, Python) Experience of identifying the most appropriate method to analyse new datasets	Experience of gene expression analysis, especially using RNA sequencing. Bioinformatics experience Experience of C/C++ Experience of using High performance computing clusters . Experience of undergraduate /postgraduate teaching and supervision. Experience of working with large sample cohorts / data-sets with sufficient specialist knowledge in the discipline to develop novel methodologies.
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. Ability to work independently and flexibly	Able to identify sources of funding, generate income, obtain consultancy projects, or build relationships for future activities.
Circumstances		

Informal Enquiries
Before submitting an application you may wish to discuss the post further by contacting Katie Lunnon, Associate Professor of Epigenetics, telephone (01392 406742) or email k.lunnon@exeter.ac.uk.

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.