UNIVERSITY OF LEEDS

CANDIDATE BRIEF

Research Fellow in Regenerative Musculoskeletal Tissue Scaffolds, Faculty of Biological Sciences

Salary: Grade 7 (£33,199 – £39,609 p.a.) Due to funding limitations, it is unlikely an appointment will be made above £33,199 p.a.

Reference: FBSBM1127

Closing date: 25 August 2019

Role available from: 01 September 2019

Fixed-term for 2 years

Research Fellow in Regenerative Musculoskeletal Tissue Scaffolds, School of Biomedical Sciences, Faculty of Bilogical Sciences

Are you an ambitious researcher looking for your next challenge? Do you have an established background in biomedical sciences with an interest in biomedical engineering? Do you want to further your career in one of the UKs leading research intensive Universities?

This project is part of a £4M EPSRC Programme Grant on Optimising Knee therapies. The aim of the programme is to develop preclinical testing methods, for early-stage treatments for knee osteoarthritis so their performance can be optimised. In the UK, one third of people aged over 45 have sought treatment for osteoarthritis. The knee is the most common site for osteoarthritis and there is a major unmet clinical need, for effective earlier stage interventions that delay or prevent the requirement for total knee replacement surgery. Such treatments involve replacement of diseased or damaged tissues in the knee joint, such as the anterior cruciate ligament, the meniscus or a small region of cartilage and underlying bone with a regenerative device such as and acellular biological scaffold.

The aim of this project is to further develop and apply processes for the decellularisation of allogeneic and xenogeneic tissue scaffolds (osteochondral, ligament, meniscus, bone) for use in experimental testing and to collaborate with engineers working in the programme in the analysis of tissues post-experimental testing to assess changes in tissue structure and composition.

You will have a PhD or be close to competition in a biomedical science/ bioengineering or a closely allied discipline, with experience of tissue decellularisation related to musculoskeletal tissues, histological techniques and biochemical analysis of tissue composition, and have a proactive approach to working in a multidisciplinary team with engineers, biologists and clinicians.

What does the role entail?

As a Research Fellow your main duties will include:



- Designing, planning and conducting a programme of investigation, in consultation with Dr Hazel Fermor;
- Generating independent and original research ideas and methods in tissue decellularisation and characterisation processes with an aim to extend the knee therapy programme research portfolio;
- Making a significant contribution to the dissemination of research results by publication in leading peer-reviewed journals, and by presentation at national and international meetings;
- Working independently and as part of a larger team of researchers , both internally and externally to develop new research links and collaborations and engage in knowledge transfer activities where appropriate;
- Contributing to the supervision of junior researchers and PhD students and acting as a mentor to less experienced colleagues;
- Evaluating methods and techniques used and results obtained by other researchers and relating such evaluations to your own research;
- To contribute to, and to encourage, a safe working environment.

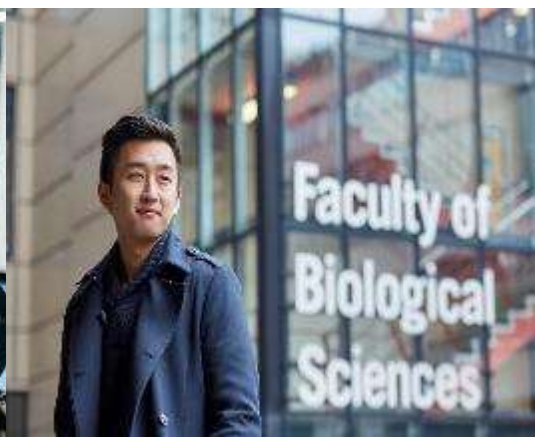
These duties provide a framework for the role and should not be regarded as a definitive list. Other reasonable duties may be required consistent with the grade of the post.

What will you bring to the role?

As a Research Fellow you will have:

- A PhD (or near to completion - meaning after the student has handed in the initial version of their thesis) in a biomedical science/ bioengineering or a closely allied discipline;
- Experience in decellularisation of musculoskeletal tissues;
- Experience in histological and immunohistochemical analysis of hard and soft tissues;
- Experience in biochemical assays of tissue components including collagen, glycosaminoglycans, fat and nucleic acids;
- Experience in tissue dissection;
- Experience in receiving, documenting and tracking through to disposal, human tissue samples in accordance with the Human Tissue Act;





- Experience in cell culture techniques and in vitro assays of biocompatibility;
- Experience of working in a multidisciplinary team comprising biologists, engineers and clinicians;
- Strong analytical skills, with the ability to work accurately and carefully, designing, executing and writing up research independently;
- A developing track record of peer reviewed publications in international journals;
- Excellent communication skills, both written and verbal and the ability to communicate your research at national and international conferences;
- The ability to work well both independently and as part of a team;
- Strong initiative and a pro-active approach, with excellent organisational, planning and self-management skills, including the ability to prioritise workloads to meet deadlines/demand and deliver high quality under pressure;
- A strong commitment to your own continuous professional development.

You may also have:

- Experience in scanning and transmission electron microscopy of tissue samples;
- Experience in multiphoton microscopy of tissue samples;
- Experience in differential scanning calorimetry of tissue samples;
- Evidence of pursuing external funding to support research.

How to apply

You can apply for this role online; more guidance can be found on our How to Apply information page. Applications should be submitted by **23.59** (UK time) on the advertised closing date.

Your application should include:

- A supporting statement providing evidence to support each requirement listed on the 'What will you bring to the role' section of the Candidate Brief (no more than two sides of A4, minimum font size 11);
- An academic curriculum vitae, including a list of your publications.



Contact information

To explore the post further or for any queries you may have, please contact:

Dr Hazel Fermor, Lecturer in Musculoskeletal Regenerative Medicine
Biomedical Sciences
Tel: +44 (0)113 343 5619
Email: h.l.fermor@leeds.ac.uk

Additional information

Find out more about the Faculty of Biological Sciences and the School of Biomedical Sciences

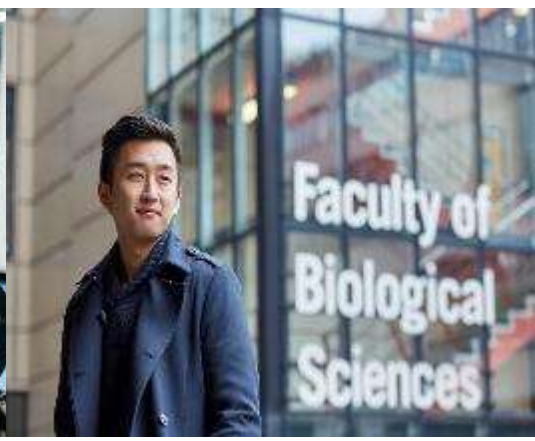
Find out more about Athena Swan in the Faculty of Biological Sciences.

Working at Leeds
Find out more about the benefits of working at the University and what it is like to live and work in the Leeds area on our Working at Leeds information page.

A diverse workforce
The Faculty of Biological Sciences is proud to have been awarded the Athena SWAN Bronze Award from the Equality Challenge Unit, the national body that promotes equality in the higher education sector. Our equality and inclusion webpage provides more information.

Candidates with disabilities
Information for candidates with disabilities, impairments or health conditions, including requesting alternative formats, can be found on our Accessibility information page or by getting in touch with us at disclosure@leeds.ac.uk.





Criminal record information

Rehabilitation of Offenders Act 1974

A criminal record check is not required for this position. However, all applicants will be required to declare if they have any ‘unspent’ criminal offences, including those pending.

Any offer of appointment will be in accordance with our Criminal Records policy. You can find out more about required checks and declarations in our Criminal Records information page.