

SENIOR RESEARCH ASSOCIATE

Musculoskeletal Bioengineering

(Full-time, Fixed-term to 31st July 2023)

Job Ref: REQ220269

As part of the University's ongoing commitment to redeployment, please note that this vacancy may be withdrawn at any stage of the recruitment process if a suitable redeployee is identified.

Internationally recognised for its contribution to the study of sport, exercise and health, the School has wide-ranging expertise, encompassing such diverse areas as biomechanics, medicine, molecular and cellular biology, nutrition, pedagogy, psychology, physiology, sociology, economics and sport management.

The School has an active and ambitious plan to grow capacity and influence through developments as part of the National Centre for Sport and Exercise Medicine, Loughborough in London, and StemLab.

The School is extremely proud to hold an Athena SWAN Silver Award, recognising the commitment and work of the School in addressing issues of equality in Science, and to improving career progression for female academics.

The School is committed to ensuring that female students and staff are able to achieve their full potential, and provides a flexible and open working culture to enable staff to maintain a work-life balance.

We support our Athena SWAN initiatives by investing in:

- Bespoke leadership programmes to encourage and build confidence in women to take leadership roles.
- Working lunches, where needed, to enable meetings to be held between 10.00am and 4.00pm (as per our Silver Action Plan).
- Monthly coffee mornings which provide opportunities for networking and develop a sense of community within the School.
- Extra Mile Awards which recognise the 'above and beyond' contributions of staff from all job families and research students.

We also welcome applications from those staff who are looking to work part-time.

Further information about Athena SWAN and the School's commitment to upholding the Silver Award can be found at: <http://www.lboro.ac.uk/departments/ssehs/about/athena-swan/>

Research

Research within the School is characterised by excellence and breadth, and its quality was recognised by the 2014 Research Excellence Framework audit. A broad range of social and natural sciences contribute to the School's research activity which is organised within three overlapping themes:

- **Sport performance**, which aims to understand and enhance sport and exercise performance across the ability range by investigating the factors influencing, and methods for improving, human performance in sport and exercise;
- **Lifestyle for health and well-being**, which aims to improve human health and wellbeing throughout the lifespan by considering the social, behavioural and biological determinants and consequences of human lifestyles with specific emphases on physical activity, nutrition and chronic disease; and
- **Participation in sport and exercise**, which aims to analyse the sociological, economic, psychological, political, organisational and behavioural factors which inhibit and facilitate community participation in sport and exercise.

The School's research themes articulate in particular with the Sport and Exercise Beacon and the Health and Wellbeing Global Challenge which are key elements of the University's CALIBRE (Collective Ambition at Loughborough for Building Research Excellence) framework.

Further information about the School's research themes can be found at:

<http://www.lboro.ac.uk/departments/ssehs/research/> and about the University's CALIBRE framework at: <http://www.lboro.ac.uk/research/calibre/>

Job Description

Over a number of years, the Research Group led by Prof. Mark Lewis has developed approaches for the manufacture of bioengineered 3D musculoskeletal tissues with applications towards modelling exercise, injury, disease and other interventions relating to this tissue. The group currently has numerous ongoing projects including those modelling neuromuscular disease, musculoskeletal injury and regeneration. This specific post will provide support to Professor Mark Lewis, assisting with the management and supervision of research activities within this remit, as well as contributing towards the development of future research activities.

Job Family & Grade: Specialist & Supporting Academic (Research) Grade 7

Job Purpose: To provide support to Professor Mark Lewis, assisting with the management and supervision of research in the area of bioengineered, fully functional, integrated musculoskeletal tissues.

Job Duties:

Research

- To pursue a programme of research, with overall leadership from Professor Mark Lewis.
- To develop research objectives, projects and proposals in line with the research priorities of Professor Mark Lewis under his overall stewardship.
- To take an active role in developing new research initiatives and submitting grants. To make a major contribution towards publishing the outcomes of research in outlets of international standing.
- To identify sources of funding and to write and develop grant applications, under the stewardship of Professor Mark Lewis, to secure external research funding.
- To supervise and manage research projects and junior researchers, including Research Associates, Doctoral Researchers, MSc project students and UG project students working as part of Professor Lewis' research group.
- To contribute to appropriate learning and teaching in support of Professor Mark Lewis, to include supervising and marking research projects.
- To collaborate in research initiatives with colleagues in and beyond the School.
- To attend appropriate academic and professional conferences when appropriate

Other

- To engage in training programmes in the University which are consistent with the needs and aspirations of the individual and the School.
- To undertake such other duties as may be reasonably requested and that are commensurate with the nature and grade of the post.

Points to Note:

The purpose of this job description is to indicate the general level of duties and responsibility of the post. The detailed duties may vary from time to time without changing the general character or level of responsibility entailed.

Special Conditions:

Required to work outside of standard hours to meet the demands of *in vitro* biology.

All staff have a statutory responsibility to take reasonable care of themselves, others and the environment and to prevent harm by their acts or omissions. All staff are therefore required to adhere to the University's Health, Safety and Environmental Policy & Procedures.

All staff should hold a duty and commitment to observing the University's Equality, Diversity & Inclusion policy and procedures at all times. Duties must be carried out in accordance with relevant Equality & Diversity legislation and University policies/procedures.

Successful completion of probation will be dependent on attendance at the University's mandatory courses which include Respecting Diversity and, where appropriate, Recruitment and Selection.

Organisational Responsibility:

Reports to: Mark Lewis, Professor of Musculoskeletal Biology
Responsible for: Research group members as directed by Professor Mark Lewis

Person Specification

Your application will be reviewed against the essential and desirable criteria listed below. Applicants are strongly advised to explicitly state and evidence how they meet each of the essential (and desirable) criteria in their application. Stages of assessment are as follows:

- 1 – Application
- 2 – Test/Assessment Centre/Presentation
- 3 – Interview

Essential Criteria

Area	Criteria	Stage
Experience	Previous post-doctoral experience working in the area of cell and molecular biology.	1,3
	To have in-depth, working knowledge of human physiology, with specific knowledge of the musculoskeletal system.	1,3
	Experience in the preparation of high-quality documentations for example ethical submissions, presentations and/or grant applications.	1,3
	Ability to develop analytical assays at the molecular and cellular level	1,3
	Track record of publishing research papers for publication in peer reviewed journals	1,3
	Experience leading a team of researchers or managing a research project.	1,3
Skills and abilities	Ability to manage data sets with standard statistical procedures	1,3
	Ability to mentor and supervise others	1,3
	Work with their own initiative to prioritise work and meet deadlines	3
	Possess complex high level analytical and problem solving skills	1,3
	Project management skills	1,3
	Concern for thoroughness and accuracy	1,3
	Write in a logical coherent manner	1,3
	Cell Culture	1,3
	Molecular Biology	1,3
	Excellent communication skills	1,3
Qualifications	PhD in area of cell biology, biochemistry, human physiology, bioengineering or related topic	1
Training	A willingness to undertake further training as appropriate and to adopt new procedures and techniques as and when required	1,3
Other	Commitment to observing the University's Equal opportunities policy at all times, with responsibility for ensuring the compliance of others	1,3

Desirable Criteria

Area	Criteria	Stage
Experience	Experience of costing projects	1,3
	Experience of working with cell types including skeletal muscle, neurons, fibroblasts, endothelial cells.	1,3
	Experience working with primary cells	1,3
	Experience using stem cells	1,3
	Experience in 3D bioengineering of human relevant tissues	1,3

Conditions of Service

The post is offered on a full-time, fixed-term contract to 31st July 2023, within the Specialist & Supporting Academic (Research) job family at Grade 7 (£42,149 per annum); duration of post is linked to tenure of Professor Mark Lewis as Dean of School.

The appointment will be subject to the University's normal Terms and Conditions of Employment for staff employed on Grade 6 and above, details of which can be found [here](#).

The University is committed to enabling staff to maintain a healthy work-home balance and has a number of family-friendly policies which are available at <http://www.lboro.ac.uk/services/hr/a-z/family-leave-policy-and-procedure---page.html>.

We also offer an on-campus nursery with subsidised places, subsidised places at local holiday clubs and a childcare voucher scheme (further details are available at: <http://www.lboro.ac.uk/services/hr/a-z/childcare-information---page.html>

In addition, the University is supportive, wherever possible, of flexible working arrangements. We also strive to create a culture that supports equality and celebrates diversity throughout the campus. The University holds a Bronze Athena SWAN award which recognises the importance of support for women at all stages of their academic career. For further information on Athena SWAN see <http://www.lboro.ac.uk/services/hr/athena-swan/>