

RESEARCH ASSOCIATE

Extracellular Vesicles for Regenerative Aesthetics

Full time (37 hours per week); Fixed-term for 3 years

Job Ref: REQ240265

As part of the University's ongoing commitment to redeployment, please note that this vacancy may be withdrawn at any stage of the recruitment process if a suitable redeployee is identified.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 have held an [Athena Swan Silver Award](#) since 2013, recognising the commitment and work of the School in addressing gender inequalities 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 who are looking to work part-time.

[Research and Innovation](#)

Research and Innovation within the School is characterised by excellence and breadth, and its quality was recognised in the 2021 Research Excellence Framework where Loughborough University ranked top for research power (GPA x volume) in Sport and Exercise Sciences, Leisure and Tourism. Loughborough University has also placed Number 1 in the QS world ranking for sport-related subjects for six consecutive years (2017-2022, every year since the category was introduced). A broad range of social and natural sciences contribute to the School's research and innovation activity which is organised within three overlapping themes:

- **Sport performance**, understanding and supporting the enhancement of athletes' performance in competitive sport;
- **Lifestyle for health and well-being**, encompassing research across several disciplines with the common goal of facilitating healthy living and ageing across the lifespan; and
- **Sport, Business and Society**, exploring how individuals, communities and organisations engage with and facilitate sport and exercise opportunities.

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.

Job Description

Job Family & Grade: Specialist & Supporting Academic (Research) Grade 6

Job Purpose:

The overarching aim of the project is to develop a unique regenerative platform technology applying bioinstructive cell-derived extracellular vesicles (EVs) to promote skin rejuvenation at the molecular level. Research will be conducted in the lab of [Dr Owen Davies](#) and contribute toward the ongoing development of a range of pioneering vesicle therapeutics. This project will advance the group's current research into acellular approaches in regenerative medicine, leveraging this knowledge to design new therapeutic modalities for maintaining skin health and function as we age. This exciting project will enable the applicant to work at the interface of science and commercialisation.

Job Duties:

- To lead an externally funded project on regenerative extracellular vesicle systems.
- To identify, isolate, characterise and apply EVs vesicles.
- To test the efficacy of EV formulations for driving regenerative events in skin.
- To contribute to enterprise activities related to the project and engage in training where necessary.
- To introduce new techniques related to the study of dermal and epidermal cells.
- To be responsible for conducting the practical day-to-day running of the project.
- To formulate detailed plans for the project based on broad guidance from the project team.
- To feed-back to the project team on progress and make recommendations for next steps.
- Write up regular progress reports and present outcomes to all investigators and collaborators.
- Travel to attend meetings and make presentations both within the project partners working group and to external stakeholders.
- To write research papers suitable for publication in high quality academic journals.
- To contribute to the development of intellectual property and maintain confidentiality where necessary.
- To attend and contribute to conferences.
- Contribute ideas for new research and enterprise directions.
- To assist the academic staff in the project team with the supervision of BSc, MSc and PhD project work, and the day-to-day supervision and support of other researchers.
- Engage in training programmes in the University (or elsewhere) that are consistent with the needs and aspirations of the project and those of the School.
- Undertake other duties as may be reasonably requested and that are commensurate with the nature and grade of the post.

Teaching:

There are no specific teaching responsibilities for this position.

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:

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 Equity, Diversity and Inclusion policy and procedures at all times. Duties must be carried out in accordance with relevant Equity, Diversity and Inclusion legislation and University policies/procedures.

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

Organisational Responsibility:

Reports to Dr Owen Davies, Principal Investigator.

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

Area	Criteria	Stage
Experience	Experience of undertaking research in an area of dermal biology/chemistry, bioengineering and/or extracellular vesicle biology	1,3
	Wet laboratory experience with techniques such as cell culture, PCR, ELISA, and mass spectrometry	1,3
	A practical/theoretical understanding of cellular/acellular therapeutics and their translation	1,3
	Knowledge of current state of the art in the cosmeceutical industry	1,3
	Authoring original work for academic journal papers, conference papers or technical reports	1
Skills and abilities	The ability to spend time at partner laboratory (Frankfurt) as required	1,3
	An understanding of intellectual property and science enterprise	1,3
	Evidence of maintaining detailed lab books	1,3
	Excellent written and oral communication skills	1,3
	Self-motivated with the ability to meet deadlines	1,3
	Excellent interpersonal and organisational skills	1,3
	Ability to write project reports and make technical presentations to industrial and academic research groups	1,3
	Knowledge of relevant Health & Safety issues	1,3
Training	Demonstrate evidence of having undertaken further training in areas relevant to the project	1
Qualifications	PhD (or close to completion) in the area of bone biology/bioengineering or a closely related topic	1
Other	Commitment to observing the University's Equity, Diversity and Inclusion policy at all times	3

DESIRABLE

Area	Criteria	Stage
Experience	Experience with Human Tissue Act regulations	1,3
	Practical experience of working with EVs (eg. isolation, characterisation) and using standard methods of EV analysis such as nanoparticle tracking analysis	1,3
	Practical experience of designing assays relevant to skin biology	1,3
	Working in a high-quality academic research environment	1,3
	Experience of teaching and/or supervision of students in relevant areas	1,3
Skills and abilities	Able to work with computer software such as Origin and BioRender	1,3
	Experience in mass spectrometry and omics analysis	1,3
	Experience with assays related to cell migration and ECM turnover	1,3

Qualifications	Postgraduate degree in an aligned subject (eg. Bioengineering, regenerative medicine)	1
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Conditions of Service

This full-time post is offered on a fixed-term contract for 3 years commencing 1st May 2024 (or as soon as possible thereafter) within the *Specialist & Supporting Academic (Research)* job family at Grade 6 (£33,966 per annum); starting salary to be agreed on offer of appointment.

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

The University is committed to enabling staff to maintain a healthy work-home balance and has a number of [family-friendly policies](#).

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: [Childcare Support](#)).

In addition, the University is supportive, wherever possible, of flexible working arrangements. We 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.