School of Mechanical, Electrical and Manufacturing Engineering



Research Associate Wellcome Project

Job Ref: REQ250580

As part of the University's ongoing commitment to redeployment, please note that this vacancy may be withdrawn at any stage of the recruitment process if a suitable redeployee is identified.

Project Description

As part of the project "A volatilome-based signature for age-related recovery & resilience" funded by the Wellcome LEAP Dynamic Resilience Program (https://wellcomeleap.org/dr/) the group of Prof. Alexandra Stolzing aims to establish and deploy advanced 3D tissue models and for research on the volatilome signature of aging in cells and humans.

The main tasks focus on wet lab experiments, establishing and operating advanced 3D models under your stewardship, incorporating the unique dimension of volatilome, and biogerontology assays and pathway analysis.

The project involves interactions with colleagues in the Chemistry, Sports Science and Computer Science Departments of Loughborough University and liaison with other investigators working for the programme and well as with some third-party suppliers and collaborators. The role requires timely, effective study management skills and reporting to the Principal Investigator.

Alongside your core tasks, you will be encouraged and supported in establishing collaborative research in ageing research, and to engage in collaborations locally, nationally, and internationally. We are committed to supporting your career development with mentoring and training opportunities to enhance your skills and experience.

We are seeking a highly motivated, results-oriented, self-starter who thrives on increasing levels of responsibility. Applicants should have completed -or be very close to completion of- a PhD in a relevant subject such as 3D in-vitro model systems, microfluidics, tissue engineering, or cellular biology and have interest in applying this knowledge to ageing research. We are open to appointing applicants from other backgrounds with the ability and motivation to acquire the required skills.

Job Description

Job Family and Grade: Specialist and Supporting Academic Grade 6

Job Purpose: Research & Development

Job Duties

The role will include:

- Establishing and operating 3D models of muscle (mimicking sarcopenia) and/or bone (mimicking osteoporosis).
- Provide biological context on the volatile ageing biomarkers measured from these cell models and from human participants.
- Assistance with target development for interventions into the ageing process.
- Design and conduct experiments in line with the above objectives.
- Providing initiative to ensure project goals are met in the face of technical challenges and tight deadlines.
- · Presenting, publishing, and discussing the outcomes of the research.

Teaching

Teaching is not the primary purpose of this post but the Research Associate will be expected to contribute to the supervision of student projects, if appropriate and if requested to do so.

Related Activities and Functions

- Engage in training programmes at the University (e.g. through Staff Development) that are consistent with the candidate's needs and aspirations and those of 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 outlined in the document.

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 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.

Organisational Responsibility

Reports to Prof. Alexandra Stolzing

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 that will be measured at application stage in their supporting statement of their application form. Stages of assessment are as follows:

- 1 Criteria measured at Application
- 2 Criteria measured at Test/Assessment Centre/Presentation
- 3 Criteria measured at Interview

Essential Criteria

Area	Criteria	Stage
Experience	Experience and demonstrable delivery of complex interdisciplinary projects in an industrial or academic environment	1, 3
	Experience of research supervision or research delivery within multi- partner projects	1, 3
	Experience of managing challenging projects to tight deadlines	1, 3
	Previous experience of writing technical reports, and meeting project deadlines	1, 3
Skills and abilities	Ability to collate complex outputs from multidisciplinary research and present at all levels of seniority both internally and externally	1, 3
	Good laboratory and analytical skills	1, 3
	Ability to work independently and as part of a team	1, 3
	Self-motivated	1, 3
	Ability to give presentations	1, 3
	Good IT skills and internet usage	1, 3
	Excellent interpersonal, communication and organisational skills	1, 3
Training	Demonstrate evidence of having undertaken further training	1, 3
Qualifications	PhD (or near completion) in Biology, Tissue Engineering, Regenerative Medicine, or Biological discipline relevant to the role	1, 3
Other	Willingness to work in a Containment Level 2 cell culture laboratory	1, 3
	Willingness to cross disciplinary boundaries	1, 3
	Willingness to travel to academic collaborators' sites	1, 3

Desirable Criteria

Area	Criteria	Stage
Experience	Experience in cell biology techniques and in cell and tissue culture using human cells	1, 3
	Experience particularly in myoblast cell culture	1, 3
	Experience of modifying cells ex vivo	1, 3
	Experience with 3D chip based cell models including bone or skeletal muscle.	1, 3
Skills and abilities	Knowledge of relevant Health & Safety issues including biological safety techniques, practices and sterile procedures	1, 3

Qualifications	PhD in Biology, Cell Biology, Biochemical Engineering, Tissue Engineering, Regenerative Medicine, or other Biological discipline relevant to the role or equivalent experience	1
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Conditions of Service

The position is FULL TIME and FIXED TERM for 12 months. The salary for the post will be within Specialist and Supporting Academic Grade 6 (£35,116 - £42,882 per annum).

The appointment will be subject to the University's Terms and Conditions of Employment for staff grades 6 and above, details of which can be found here.

Our Purpose, Vision, and Values

Our purpose, Vision, Values underpin all that we do and the way we work at Loughborough. The University promotes the values of being **Adventurous**, **Collaborative**, **Creative**, **Authentic** and being **Responsible**. All employers are expected to demonstrate these values in the workplace.

For more information, please refer to our vision and values.