



UNIVERSITY OF LEEDS

CANDIDATE BRIEF

Research Fellow in Microfluidic Medical Devices,
Faculty of Engineering & Physical Sciences



Salary: Grade 7 (£33,797 – £40,322 p.a. pro rata)

Reference: EPSEE1011

Closing date: 5 January 2020

Part time, 50% full time equivalent

Fixed-term for up to 1 year, available from 15 January 2020, to end by 14 January 2021

We will consider flexible working arrangements

Research Fellow in Microfluidic Medical Devices School of Electronic and Electrical Engineering

Do you want to participate to the translation of a research idea in a real commercial solution? Do you want to improve methods for animal research and reduce the use of animals in research? Are you excited about contributing to scientific research in fertility? Are you able to manage a multicentre project, connect with international users and analyse their feedback?

We are looking for a proactive individual to join our multidisciplinary team in Leeds and to validate our new technology with end users and define a commercial product.

Our group is focused on the development of new techniques and devices for improving for diagnosis and treatment of infertility. In our team we couple our knowledge and experience in engineering and entrepreneurship with reproductive science and assistive reproductive technology to propose new solutions to current limitation in animal and human reproduction.

This vacancy is created by an NC3Rs – Medical Research Council (MRC) Business Growth Scheme (BGS) grant awarded to Dr. Pensabene which aims to complete the validation of a microfluidic device for mouse embryo culture, to complete a thorough stakeholder and market analysis in preparation for the commercialization of the technology. You will work on the **BGS project** (From challenge to solution: definition of the characteristics of a new disposable product to improve murine embryos handling and transfer procedures) managing the full project and all the activities.

The manufacturing will be conducted by an external company that will be instructed by you in terms of device characteristics, materials and delivery time. The external validation will be carried out at the Francis Crick Institute and at the University of Oxford and you will coordinate the experiments and analyse the results. A final phase will be dedicated to the definition of the end users' needs and the optimization of the product for commercialization purpose.

Holding a PhD (or close to completion) in Biotechnology, Biomedical Engineering, Material Science, Biology, Physics or related disciplines, you will have a proven laboratory experience and track-record in biotechnology, cell culture and microscopy, together with a proactive, enthusiastic approach to research and innovation.



What does the role entail?

As a Research Fellow, your main duties will include:

- Definition of the manufacturing strategy, the industrial design and material choice in direct contact with the manufacturer;
- Management of devices ordering and preparation for the experimental study;
- Define and carry out the training of end laboratory technicians at the 2 centres;
- Analysis and summary of the research results into high-quality peer-reviewed scientific publications and compiling of technical report;
- Interviewing end users in different animal facilities and biotechnology laboratories worldwide;
- Travel for research meetings with our collaborators and for presenting research results at conferences worldwide;
- Working both independently and also as part of a larger team of researchers, engaging in knowledge-transfer activities where appropriate and feasible;
- Maintaining your own continuing professional development and acting as a mentor to less experienced colleagues as appropriate;
- Contributing to the training of both undergraduate and postgraduate students, including assisting with the supervision of projects in areas relevant to the project.

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 close to completion) Biotechnology, Biomedical Engineering, Material Science, Biology, Physics or related disciplines;
- Experience and a proven track-record in at least one of the following areas with peer-reviewed publications in high-impact-factor journals: biotechnology, microfluidics, fluorescence imaging and spectroscopy, embryology, polymer science;
- Experience in flexibility and multitasking through work on multiple stages of system development;



- Considerable experience in interdisciplinary research and integrated development projects;
- Experience in presenting the research at international conferences and ability to collaborate with partners at other institutions, including preparing materials for dissemination and engagement;
- Experience in team work, supervising students and research interns, with mentoring, leadership and project management skills;
- Demonstrates an understanding of the diverse nature of the University's community and a willingness to work effectively with staff, students and visitors from a wide range of backgrounds;
- A strong commitment to your own continuous professional development.

You may also have:

- Experience of collaborating with clinicians;
- Experience of business plan definition;
- Interest in entrepreneurial projects and translation of concept to market;
- Experience in analytical software (e.g., Python, Matlab, Origin, Nanoscope, NIS-Elements, Metamorph, ImageJ, Qtools, Adobe Photoshop, Adobe illustrator, Adobe Premiere, MSOffice).

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](#).

Contact information

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

[Dr Virginia Pensabene](#), PhD, University Academic Fellow in Electronic and Electrical Engineering

Tel: +44 (0) 771 3371521

Email: V.Pensabene@leeds.ac.uk



Additional information

Faculty and School Information

Further information is available on the research and teaching activities of the [Faculty of Engineering & Physical Sciences](#), and the [School of Electronic and Electrical Engineering](#).

A diverse workforce

The Schools in the Faculty of Engineering & Physical Sciences are proud to have been awarded the Athena SWAN [Bronze](#) or [Silver](#) 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.

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.

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.

