CANDIDATE BRIEF
Research Fellow in Wear and Corrosion in Hip Prostheses, Faculty of Engineering

Salary: Grade 7 (£32,548 – £38,833 p.a.)
Reference: ENGME1113
Closing date: 14 November 2017

Fixed-term until 31st March 2018
Research Fellow in Wear and Corrosion in Hip Prostheses
Institute of Functional Surfaces, School of Mechanical Engineering

Are you an ambitious researcher looking for your next challenge? Do you have a background in biotribology? Do you want to further your career in one of the UK’s leading research intensive Universities?

You will join a vibrant research institute (Institute of Functional Surfaces) and be part of a project working on the assessment of wear and corrosion within hip prostheses using techniques such as advanced surface analysis. You will work with a diverse group of researchers, academics and clinicians to develop and improve hip prostheses, leading to enhanced surgical outcomes for patients. The project (Life Long Joints) is funded by the EU and information can be found at https://lifelongjoints.eu/

Holding a PhD (or close to completion) and a first degree in a relevant engineering or physical sciences discipline, you will have a strong background in engineering science and experience of wear and corrosion experimental research including advanced surface analysis techniques.

What does the role entail?

As a Research Fellow your main duties will include:

- Generating and pursue independent and original research ideas in the assessment of wear and corrosion within hip prostheses;
- Developing methodologies for assessing damage using advanced surface analysis and other quantitative techniques including the assessment of wear;
- Working in collaboration with other members of the group in LLJ (Life Long Joints) to develop methodologies and characterisation of wear debris;
- Characterising very thin tribofilms that form on the surfaces of the hip joint components;
- Collaborating with other members of the group, including biologists and computational modellers to inform the development of methods to simulate wear and corrosion;
- Evaluating methods and techniques used and results obtained by other researchers and to relate such evaluations appropriately to your own work;
- Attending and preparing reports for regular meetings with other members of the group to report progress, agree future work and exchange data/experience;
- Managing aspects of the project and co-ordinating work with other internal and external collaborators;
- Preparing written papers and presentations to disseminate the research findings to both the academic and clinical communities and to the wider public at both a national and international level;
- Working effectively and positively as a team player on a broad range of activities and related projects within the Institute to help achieve the broader strategic development of the aims and objectives of the Institute;
- Identifying other research project opportunities and directions as they arise;
- Collaborating with other researchers in the IFS (Institute of Functional Surfaces) group in related medical engineering projects;
- Upholding and enhancing the internationally excellent reputation of the Institute and creating an independent network of contacts by building collaborations with other academics, external stakeholders and users such as clinicians;
- Assisting in the training and supervision of undergraduate and postgraduate students where appropriate;
- Maintaining your own continuing professional development.

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 be expecting to obtain one in the near future) and a first degree in a relevant engineering or physical sciences discipline;
- A strong background in engineering science;
- Experience of wear and corrosion experimental research including advanced surface analysis techniques;
- Experience of biotribology;
- Evidence of having developed independent research skills including experience of project management;
- Proven ability to design, execute and write up experimental work independently;
• Good time management and organisational skills and the ability to prioritise and document work effectively in order to meet deadlines;
• Good data management, analytical and computer skills, with a positive approach to problem solving and issue resolution;
• Excellent written and verbal communication skills including evidence of having presented and/or published work at a high academic level;
• Good interpersonal skills, with the ability to work as part of a multidisciplinary team involving engineers, clinicians and biological personnel;
• Willingness to work flexibly, where necessary, to fulfil the needs of the research project, including travel within the UK and internationally;
• Commitment to own continuous professional development.

You may also have:
• Experience of operating hip simulators and of hip joint experimental research;
• Experience of computational methods for modelling lubrication;
• Experience of biological related 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.

Contact information

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

Anne Neville, Director of Institute of Functional Surfaces
Tel: +44 (0)113 343 6812
Email: f.r.slade@leeds.ac.uk

Additional information

Faculty and School Information
Further information is available on the research and teaching activities of the Faculty of Engineering and the School of Mechanical Engineering.
A diverse workforce
The Faculty of Engineering is proud to have been awarded the Athena Swan 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's 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.