

Research Associate

Department	Biomedical Engineering (www.strath.ac.uk/engineering/biomedicalengineering/)		
Faculty	Faculty of Engineering (www.strath.ac.uk/engineering/)		
Staff Category	Research	Reference No	264563
Reports To	HoD through Dr Helen Mulvana	Grade:	7
Salary Range:	£32817	Contract Type:	Fixed Term (24 months)
FTE	1	Closing Date	06/12/2019

Job Advert

The department of Biomedical Engineering seeks to recruit a Research Associate to join a leading group to contribute to an established Cancer Research UK funded project run jointly between the University of Strathclyde and NHS Greater Glasgow and Clyde. Using magneto-motive ultrasound, our group seeks to establish a new imaging approach for the staging of colorectal cancer, with the potential to change the treatment for future patients with this common and life changing disease.

You will join the Department of Biomedical Engineering under the supervision of Dr Helen Mulvana (University of Strathclyde). The project also involves close collaboration with Ms Susan Moug (Consultant Surgeon, NHS Greater Glasgow and Clyde) and co-Investigators at the University of Edinburgh and the University of Lund, Sweden. This is an exciting opportunity for an engineer / physicist with previous experience in ultrasound to work on a truly multidisciplinary challenge. To make a strong contribution to this largely experimental role, previous experience or knowledge of ultrasound imaging and image processing and an interest in elasticity estimation, ultrasound contrast agents, nanoparticles for medicine and / or magnetic fields will be an advantage. The successful candidate will also be expected to contribute to the formulation and submission of research publications and research proposals as well as to help manage and direct this challenging project as opportunities allow.

To be considered for the role, you will be educated to a minimum of PhD level in an appropriate discipline, or have significant relevant experience in addition to a relevant degree. You will have sufficient breadth or depth of knowledge in ultrasound imaging and image processing and a developing ability to conduct individual research work, to disseminate results and to prepare research proposals. You will have an ability to plan and organise your own workload effectively and an ability to work within a team environment. You will have excellent interpersonal and communication skills, with the ability to listen, engage and persuade, and to present complex information in an accessible way to a range of audiences.

Whilst not essential for the role, applications are welcomed from candidates with: relevant work experience, membership of relevant Chartered/professional bodies (including the Higher Education Academy), experience of relevant student supervision and teaching activities, and/or experience of knowledge exchange related activities.

Job Description

Brief Outline of Job:

To undertake a specific research project/s under the general guidance of a research leader; to establish a personal research portfolio and plan research proposals, with assistance from senior colleagues as required; to engage where required in relevant teaching, professional and knowledge exchange activities; and input to administrative activities.

Main Activities/Responsibilities:

1. Take a leading role in the acquisition, integration, set up and maintenance of experimental apparatus for magneto-motive ultrasound.

2.	Set up theoretical models and analysis strategies in support of developing a novel approach to magneto-motive transient elastography.
3.	Document research output including analysis and interpretation of all data, maintaining records and databases, drafting technical / progress reports and papers as appropriate. Undertake any other duties of equivalent standing as assigned by the Head of School and/or PI.
4.	Take a leading role in the planning and conduct of assigned research individually or jointly in accordance with the project deliverables and project / group research strategy.
5.	Establish and maintain your research profile and reputation and that of the Research Group, including establishing and sustaining a track record of independent and joint publications of international quality in high profile / quality refereed journals, enhancing the research impact in terms of economic / societal benefit, and gathering indicators of esteem.
6.	Survey the research literature and environment, understand the research challenges associated with the project & subject area, & develop/implement a suitable research strategy and Keep up to date with current knowledge and recent advances in the field.
7.	Present work at international and national conferences, at internal and external seminars, colloquia and workshops to develop and enhance our research profile. Take a leading role in the identification of potential funding sources and assist in the development of proposals to secure funding from internal and external bodies to support future research.
8.	Be responsible for safety management related to the organisation and running of Laboratory and/or Experimental techniques, equipment and processes as appropriate.
9.	Take a leading role in developing and maintaining collaborations with colleagues across the research group / School / College / University and wider community, including academic and industrial partners and leading team and group meetings / seminars / workshops and Department research activities to enhance the wider knowledge, outputs and culture of the Department.
10.	Take the lead in the organisation, supervision, mentoring and training of undergraduate and / or postgraduate students and less experienced members of the project team to ensure their effective development. Perform administrative tasks related to the activities of the research group and School, including in relation to budgets and expenditure.

Person Specification

Educational and/or Professional Qualifications

(E=Essential, i.e. a candidate must meet all essential criteria to be considered for selection, D=Desirable)

E1 Good honours degree and PhD (or equivalent professional experience) in an appropriate discipline subject area.

D1 Membership of relevant Chartered/professional bodies (including Higher Education Academy).

Experience

E2 Specialist theoretical or applied practical knowledge of ultrasound.

E3 Knowledge of specialist IT software (eg. Matlab, Comsol Multiphysics) as appropriate

E4 Demonstrable track record in experimental work

E5 Experience of scientific writing

E6 A track record of presentation and publication of research results in quality journals/conferences

E7 Ability to demonstrate a degree of independence in the design & analysis of experiments & drafting of papers.

D2 Sufficient depth of relevant research experience, normally including sufficient postdoctoral experience in a related field, appropriate to an early career researcher

Job Related Skills and Achievements

E8 Demonstrated interest in the application of engineering and physics to address medical challenges

E9 Research creativity and strong cross-discipline collaborative ability as appropriate

E10 Problem solving skills including a flexible and pragmatic approach

D3 Previous experience or knowledge of magnetism, microbubble contrast agents, basic physiology, cancer biology

Personal Attributes

E11 Self-motivation, initiative and independent thought/working

E12 Excellent interpersonal skills including team working and a collegiate approach

E13 Excellent interpersonal and communication skills, with the ability to listen, engage and persuade, and to present complex information in an accessible way to a range of audiences.

E14 Ability to plan and organise own workload effectively.

E15 Ability to work within a team environment.

Application Procedure

Applicants are required to complete an application form including the name of three referees who will be contacted before interview without further permission, unless you indicate that you would prefer otherwise. Applicants should also submit a Curriculum Vitae and a covering letter detailing the knowledge, skills and experience you think make you the right candidate for the job. Applicants should also complete the Equal Opportunities Monitoring Form.

Other Information

Further information on the application process and working at Strathclyde can be found on our website (<http://www.strath.ac.uk/hr/workforus>).

Informal enquiries about the post can be directed to Dr Helen Mulvana, Senior Lecturer (Helen.mulvana@strath.ac.uk).

Conditions of Employment

Conditions of employment relating to the Research staff category can be found at: [Conditions of Employment](#).

Rewards and Benefits

Our staff have access to a wide range of outstanding benefits that include financial rewards, family friendly and wellbeing benefits and career development opportunities, details of which can be found [here](#).

Probation

Where applicable, the successful applicant will be required to serve a 9 month probationary period.

Pension

The successful applicant will be eligible to join the Universities' Superannuation Scheme. Further information regarding this scheme is available from [Payroll and Pensions](#).

Interviews

Formal interviews for this post will be held on 18/12/2019.

Equality and Diversity

We value diversity and welcome applications from all sections of the community.

The University currently holds a Bronze Athena SWAN award, recognising our commitment to advancing women's careers in science, technology, engineering, maths and medicine (STEMM) employment in academia.

University Values

The University's Values capture what we're all about: who we are, what we believe in and what we stand for. [Our Values](#) have been derived from how we act and how we expect to be treated as part of Strathclyde.

