

Research Role Profile

Job Title:	Research Fellow A
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Responsible to:	Head of research group, or principal investigator
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Responsible for:	Not applicable
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Job Summary and Purpose:
To undertake research in accordance with the specified research project(s) under the supervision of the principal investigator.

Main Responsibilities/Activities
<p>To undertake a range of research activities within a specified research area, assuming responsibility for specific areas of projects and making use of new research techniques and methods, in consultation with the research award holder or supervisor. This may include fieldwork, interviews, laboratory experimentation, critical evaluation and interpretation, computer-based data analysis and evaluation or library research.</p> <p>Using initiative and creativity to identify areas for research develop new research methods and extend the research portfolio. Analysing and interpreting results of own research. Write up results and prepare papers for submission to appropriate journals and conferences, and other outputs as required and/or appropriate. Attend appropriate conferences for the purpose of disseminating research results of personal development. The post holder may also contribute to writing bids for research grants and will contribute to collaborative decision making with colleagues in areas of research.</p> <p>Continually to update knowledge and develop skills, and translate knowledge of advances in the area into research activity.</p> <p>To plan and manage own research activity in collaboration with others. To carry out administrative tasks associated with specified research funding, for example risk assessment of research activities, organisation of project meetings and documentation. Implementation of procedures required to ensure accurate and timely formal reporting and financial control.</p> <p>To contribute to teaching in the Faculty by carrying out student supervision and/or demonstrating within the post holder's area of expertise and under the direct guidance of a member of departmental academic staff, as appropriate.</p> <p>The post holder may occasionally be required to supervise more junior research staff.</p>

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Person Specification

The post holder must have:

A doctoral degree in a relevant discipline (although individuals who have almost completed a doctoral degree may be appointed). Consideration may also be given to individuals who do not hold a doctoral degree but have required skills based on a number of years experience in specified / relevant fields

The post holder will have authority over some aspects of project work and must be capable of providing academic judgement, offering original and creative thoughts and be able to interpret and analyse results.

Relationships and Contacts

Direct responsibility to the principal investigator or academic supervisor. The post holder may be asked to serve on a relevant Faculty committee. There may be additional reporting and liaison responsibilities to external funding bodies or sponsors. The post holder may work on original research tasks with colleagues in other institutions.

Special Requirements

To be available to participate in fieldwork as required by the specified research project

All staff are expected to:

- Positively support equality of opportunity and equity of treatment to colleagues and students in accordance with the University of Surrey Equal Opportunities policy.
- Help maintain a safe working environment by:
 - Attending training in Health and Safety requirements as necessary, both on appointment and as changes in duties and techniques demand
 - Following local codes of safe working practices and the University of Surrey Health and Safety Policy
- Undertake such other duties within the scope of the post as may be requested by your Manager.

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Addendum

This document provides additional information relating to both specific aspects of the post/faculty and any post specific person specification criteria. The information contained within this document should always be read in conjunction with the accompanying generic Role Profile.

Job Title:

Postdoctoral Research Associate: Understanding mitochondrial quality control in the stressed heart

Background Information/Relationships

Understanding mitochondrial quality control in the stressed heart

Applications are invited for the position of a BHF-funded Postdoctoral Research Associate in the laboratory of Dr Ioannis Smyrniyas, University of Surrey. The post-holder will investigate the role of a novel signalling complex in the regulation of mitochondrial quality control pathways in the failing heart by utilizing a range of molecular and cell biological techniques *in vitro*, as well as genetically-engineered disease mouse models *in vivo*.

The successful candidate will join an ambitious BHF-funded research programme aimed at uncovering how cardiomyocytes sense and respond to mitochondrial dysfunction during cardiac stress. This project will dissect, for the first time, the role of the NRF2-KEAP1-PGAM5 signalling complex as a stress-sensitive hub coordinating activation of the mitochondrial stress response, and mitophagy. Working with cutting-edge mitochondrial biology, stress-response signalling, and metabolic profiling techniques, the fellow will investigate how this newly identified regulatory axis determines the balance between mitochondrial repair and clearance, which is an essential determinant of cardiac resilience in disease. This role offers the opportunity to drive a high-impact research direction with direct translational relevance for heart failure therapeutics, within a collaborative network involving the University of Dundee, King's College London, and the Pirbright Institute.

The post-holder will employ a powerful combination of approaches, including primary cardiomyocyte models, advanced mitophagy reporters, state-of-the-art metabolic assays, and a novel *in vivo* ultrasound imaging-guided myocardial infarction induction method. This innovative *in vivo* platform enables precise, minimally invasive generation of cardiac injury and will be central to modelling mitochondrial quality control pathways in heart failure disease.

The fellow will work within a highly collaborative environment involving experts in mitochondrial biology, cardiovascular physiology, metabolomics, and cellular stress signalling. They will gain exceptional experience in designing and executing mechanistic studies, generating sophisticated *in vivo* disease models, integrating multi-omics datasets, and shaping new conceptual frameworks for how quality control pathways interact during cardiac stress.

This position is ideally suited to individuals seeking to build an independent research trajectory in mitochondrial biology, cardiac pathophysiology, or stress-response signalling. The fellow will have the opportunity to write and publish results of research studies in high impact score peer-reviewed journals and report research results at national and international conferences.

This a full-time, fixed-term post for 36 months and is funded by the British Heart Foundation. The successful candidate will be based at the widely recognised for world-class research Faculty of Health and Medical Sciences at the University of Surrey. The Faculty provides an excellent and highly multidisciplinary environment with state-of-the-art equipment and facilities. Our beautiful

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campus in Guildford is located just 30 miles from London with convenient road and rail connections.

For more information and informal enquiries, **please contact Dr Ioannis Smyrnias** (i.smyrnias@surrey.ac.uk).

Person Specification

This section describes the sum total of knowledge, experience & competence required by the post holder that is necessary for standard acceptable performance in carrying out this role. This is in addition to the criteria contained within the accompanying generic Role Profile.

	Essential/ Desirable
PhD in biological sciences	E
Strong expertise in cell, biochemical, and molecular biology	E
Cardiovascular research experience	E
Knowledge and experience of integrative cardiovascular physiology approach in mouse models, including in vivo echocardiography and heart failure models	D
Knowledge/experience of mitochondrial signalling	D
Knowledge and research experience in areas such as cellular stress response and/or cellular quality control	D
Home Office Personal Licence or equivalent	D
Good communication skills (both written and verbal)	E
Successful completion of research projects (published or submitted)	E
Self-motivated, ability to work independently, able to work in a team	E
Commitment to continuing personal and professional development	E
Ability to plan and prioritise workload	E

Key Responsibilities

This document is not designed to be a list of all tasks undertaken but an outline record of any faculty/post specific responsibilities (5 to 8 maximum). This should be read in conjunction with those contained within the accompanying generic Role Profile.

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- Develop and undertake high quality research, consistent with making a full active research contribution in line with Department/School/Faculty research strategy, and contribute to publications arising from this project
- Manage specific pieces of activity to an agreed timeline and within a specific budget, including literature reviews, data collection/analysis, and report writing
- Attend and, as appropriate, present research findings and papers at internal academic meetings and external professional conferences.
- Work as part of a team, collaborating and contributing to others' work in agreement with research integrity principles
- Facilitate collaboration and networking which engages and supports the activities of the group
- To be committed to your own personal career development with support from the PI
- Liaise with the supervisory team for the support and progress of the project
- Undertake any other reasonable duties that may be relevant to the role outline

N.B. The above list is not exhaustive.