



Job title	Research Fellow (title will be Research Associate where an appointment is made before PhD is completed)	Job family and level	Research Level 4 (appointment will be Level 4 career training grade when an appointment is made before PhD has been completed)
School/ Department	Life Sciences	Location	Cell Signalling Research Group

Purpose of role

The role will provide support to an ongoing MRC project grant that aims to characterise novel fluorescently-labelled antagonists for the P2Y2R receptor. These fluorescent tools will be used in conjunction with bioluminescence resonance energy transfer (BRET), confocal imaging and downstream signalling assays. Physiologically relevant alternative transcripts of the P2Y2R and point mutations of residues implicated in ligand binding, expression and downstream signalling will also be investigated.

	Main responsibilities (Primary accountabilities and responsibilities expected to fulfil the role)	% time per year
1	<p>Develop and carry out studies directed at determining the pharmacological properties of P2Y2 receptors using BRET approaches to study ligand binding, signalling and protein-protein interactions. The postholder should have an excellent working knowledge of GPCR pharmacology and be able to conduct laboratory experiments with a good level of independence.</p> <p>Investigate the effect of different pharmacological agents on these receptors and undertake detailed analysis of the experimental data obtained using curve fitting and statistical analysis.</p> <p>The postholder should have a good background in basic molecular pharmacology, molecular biology and cell biology techniques and be able to supervise new staff and project students in related projects. The postholder will have previous experience of BRET based approaches and quantitative downstream signalling assays to study membrane proteins or receptors.</p>	70%
2	Report experimental results to the main supervisors and participate in collaborative meetings and research with other members of the team. The Postholder will also be expected to prepare draft manuscripts for publication.	10%
3	Participation in discussions of research projects and present and communicate findings to the scientific community via published papers, oral	10%

	communications and poster presentations (at both national and international meetings).	
4	In addition to the research project, you will be expected to be a reliable team member by supporting some aspects of general day-to-day activities to ensure a smooth-running of the laboratory.	10%

This job description may be subject to revision following discussion with the person appointed and forms part of the contract of employment.

Person specification

	Essential	Desirable
Skills	<ul style="list-style-type: none"> ▪ Possess good written and oral communication skills. ▪ Good record keeping of data. ▪ Good ability to prioritize, set and meet deadlines in relation to experimental protocols, analysis and interpretation of data. ▪ Ability to plan, assemble relevant data and write scientific papers and abstracts for scientific conferences. ▪ Ability to work independently and as part of a team. 	
Knowledge and experience	<ul style="list-style-type: none"> ▪ Good working knowledge of receptor pharmacology, data analysis and intracellular signalling cascades. ▪ A proven track record of research with evidence of publications and communications. ▪ Previous research experience of the molecular pharmacological characterisation of G protein coupled receptors m(GPCRs). ▪ Previous experience of bioluminescence resonance energy transfer techniques (BRET). ▪ Good experience of cell culture, transfection techniques and cell-base signalling assays 	<ul style="list-style-type: none"> ▪ Experience in biochemistry and cell biology. ▪ Previous molecular biology experience. ▪ Previous experience of advanced imaging approaches (e.g. super-resolution imaging, fluorescence correlation spectroscopy, photon counting histogram analysis).
Qualifications, certification and training (relevant to role)	<ul style="list-style-type: none"> ▪ PhD (or close to completion) in molecular pharmacology or a relevant subject area. 	<ul style="list-style-type: none"> ▪ Membership of a relevant biological society. E.g. British Pharmacological Society, Biochemical Society.



Expectations and behaviours

The University has developed a clear set of core expectations and behaviours that our people should be demonstrating in their work, and as ambassadors of the University's strategy, vision and values. The following are essential to the role:

- Valuing people** Is friendly, engaging and receptive, putting others at ease. Actively listens to others and goes out of way to ensure people feel valued, developed and supported.
- Taking ownership** Is clear on what needs to be done encouraging others to take ownership. Takes action when required, being mindful of important aspects such as Health & Safety, Equality, Diversity & Inclusion, and other considerations.
- Forward thinking** Drives the development, sharing and implementation of new ideas and improvements to support strategic objectives. Engages others in the improvement process.
- Professional pride** Is professional in approach and style, setting an example to others; strives to demonstrate excellence through development of self, others and effective working practices.
- Always inclusive** Builds effective working relationships, recognising and including the contribution of others; promotes inclusion and inclusive practices within own work area.

Key relationships with others



