

Investigating cholesterol modulation of the mu-opioid receptor function using molecular pharmacology and computer modeling and simulation

Lead supervisor: Professor Carmen Domene, Department of Chemistry
University of Bath, email C.Domene@bath.ac.uk

Co-supervisors: Professor Eamonn Kelly (University of Bristol), Professor Ian Williams (University of Bath)

This project is one of a number that are in competition for funding from the [South West Biosciences Doctoral Training Partnership \(SWBio DTP\)](#) which is a [BBSRC](#)-funded PhD training programme in the biosciences, delivered by a consortium comprising the Universities of Bath, Bristol, Cardiff and Exeter, along with the Rothamsted Research Institute. The partnership has a strong track record in advancing knowledge through high quality research and teaching, in collaboration with industry and government.

Studentships are available for entry in September/October 2019.

All SWBio DTP projects will be supervised by an interdisciplinary team of academic staff and follow a structured 4-year PhD model, combining traditional project-focussed studies with a taught first year which includes directed rotation projects.

Project description

The membrane lipid cholesterol can interact directly with opioid receptors, which are G protein-coupled receptors of immense physiological and clinical importance. In this project, advanced computational methods and cell signalling techniques will be used to ask the questions: "How does cholesterol interact with opioid receptors and how does this interaction affect opioid receptor signalling?"

Funding

Studentships provide funding for a stipend at the standard UKRI rate (currently £14,777 per annum, 2018/19 rate), research and training costs and UK/EU tuition fees for 4 years.

UK and EU applicants who have been residing in the UK since September 2016 will be eligible for a full award; a limited number of studentships may be available to EU applicants who do not meet the residency requirement. Applicants who are classed as Overseas for tuition fee purposes are not eligible for funding.

Applications

Applicants must have obtained, or be about to obtain, a First or Upper Second Class UK Honours degree, or the equivalent qualifications gained outside the UK, in an appropriate area of science or technology.

Applications should be submitted on the [University of Bath's online application form for a PhD in Biosciences](#). Please ensure that you quote the supervisor's name and project title in the 'Your research interests' section. You may apply for more than one project if you wish but you should submit a separate personal statement relevant to each one.

The deadline for the receipt of applications is Monday 3 December 2018.