



QUEEN'S UNIVERSITY BELFAST

*Title of studentship	Next-generation materials for skin protection products
Value / what is covered?	Fully-funded 100% of UK/EU tuition fees paid, an annual stipend for UK residents only (living expenses), and an additional supplement of £2,000, currently totalling £16,777
Awarding body	DfE Studentship with Eakin R&D
Number of studentships	1
*Summary descriptive text / Example of research project	<p>Currently-employed medical devices are associated with many problems, including infection, tissue trauma, poor drainage and blockage. This interdisciplinary and commercially-relevant project will develop new materials with modified surface chemistries to address these issues and enhance the ease-of-use of medical device technologies using a combination of strategies.</p> <p>These will involve: Tuning the surface chemistry of polymeric materials. Development of laboratory models to characterise performance of the developed materials. Characterisation and evaluation of surface physicochemical properties.</p> <p>This project brings together strands of innovative cross-disciplinary science in chemistry, materials science, engineering and microbiology to address a complex unmet need. The resulting next-generation biomaterials for skin protection products are anticipated to reduce treatment costs and improve patient outcomes.</p>
*Supervisor(s)	Professor Colin McCoy and Dr. Nicola Irwin (School of Pharmacy) and Dr. Richard O'Shaughnessy and Dr. Hannah Little (Eakin R&D)
*Eligibility / residence Status	UK/EU only
Country	Northern Ireland
*Start date and duration	1 October 2019 Funding covers a three-year full-time PhD.
*Faculty	MHLS
*Research centre /	Pharmacy

School	
Subject area	Pharmacy, biomaterials, materials science
Candidate requirements / Key skills required for the post	Applicants should have a 1st or 2.1 honours degree (or equivalent) in a relevant subject. Relevant subjects include Pharmacy, Molecular Biology, Pharmaceutical Sciences, Biochemistry, Biological/Biomedical Sciences, Chemistry, Engineering or a closely related discipline. Students who have a 2.2 honours degree and a Master's degree may also be considered, but the School reserves the right to shortlist for interview only those applicants who have demonstrated high academic attainment to date.
*Deadline for applications	8 May 2019
*How to apply / contacts	Postgraduate Research applicants for Pharmacy who are interested in applying for a fully funded DFE studentship must have applied to Queen's, via the Direct Applications Portal, and submitted all required supporting documents by the closing date, which will be announced later in the Academic year. https://dap.qub.ac.uk/portal/user/u_login.php
Relevant links / more information	http://www.qub.ac.uk/schools/SchoolofPharmacy/Research/PostgraduatePositions/ http://www.qub.ac.uk/schools/SchoolofPharmacy/Research/
Keywords for search filters	Biomaterials, polymer, materials science, surface modification, surface chemistry.
Training provided through the research project	This integrated PhD programme will include significant industrial placements, thereby providing the student with first-hand experience of the development and commercialisation pathway of novel medical devices. They will benefit from both technical-based research activities within the academic setting in addition to access to more specialist industrial testing procedures, equipment and materials from their placements with the partner. Specific training will be provided in industry-standard processes and techniques including polymer synthesis, formulation, materials characterisation, microscopy, and spectroscopic techniques, including UV-visible and infrared spectroscopy. Additionally, presentation, writing and interpersonal skills will be developed.
Expected impact activities	Attendance at conferences, publication of scientific papers and assisting in the development of new technologies for commercialisation are anticipated to generate significant societal and economic impact in the UK and globally.