



QUEEN'S UNIVERSITY BELFAST

*Title of studentship	Theranostics Targeting Cancer Stem Cells
Value / what is covered?	Fully funded 100% of UK/EU tuition fees paid and an annual stipend for UK residents only (living expenses), currently at £14,777
Awarding body	DFE
Number of studentships	1
*Summary descriptive text / Example of research project	Cancer stem cells (CSCs) are tumour cells that are drug resistant and have self-renewal properties. They are involved in cancer initiation, maintenance, metastasis, and recurrence. Developing efficient treatments can induce a long-lasting clinical response preventing tumour relapse and prolong patients' survival. This studentship focuses on developing novel theranostics that can specifically target and eliminate CSCs. The students will be part of a multidisciplinary team working on nanoparticles formulation and characterizations, besides performing biological testing to assess the activity the developed nanotheranostics against cancer stem cells.
*Supervisor(s)	Dr Wafa Al-Jamal & Professor Colin McCoy
*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 / School	Pharmacy
Subject area	Cancer nanomedicine and drug delivery
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.

*Deadline for applications	7 th January 2019
*How to apply / contacts	<p>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.</p> <p>https://dap.qub.ac.uk/portal/user/u_login.php</p>
Relevant links / more information	<p>http://www.qub.ac.uk/schools/SchoolofPharmacy/Research/PostgraduatePositions/</p> <p>http://www.qub.ac.uk/schools/SchoolofPharmacy/Research/</p> <p>http://pure.qub.ac.uk/portal/en/persons/wafa-aljamal</p>
Keywords for search filters	Theranostics, cancer stem cells, targeting, imaging, nanomedicine
Training provided through the research project	<p>This highly interdisciplinary project combines expertise in nanomedicine formulation, targeting, drug delivery, therapy, and imaging. It will provide a unique opportunity for excellent students to work in a stimulating multidisciplinary team. The candidate will be working on designing novel theranostics targeting cancer stem cells. The developed theranostics will be characterised using a range of spectroscopic techniques. The project will also involve evaluating the nanoparticles activity in relevant <i>in vitro</i> and <i>in vivo</i> models. The successful candidate will be a highly motivated, hard-working graduate with excellent communication and organizational skills.</p>
Expected impact activities	<p>This research aims to develop new theranostics that could image and eliminate cancer stem cells, offering effective approaches to treat cancer.</p>