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| **\*Title of studentship** | **Self-Navigating Nanocarriers for Intracellular Protein Delivery** |
| **Value / what is covered?** | Self-funding |
| **Awarding body** |  |
| **Number of studentships** | 1 |
| **\*Summary descriptive text / Example of research project** | Protein-based therapeutics have shown remarkable success in modulating extracellular targets; however, effective intracellular delivery remains a key challenge in biotherapeutics. Current intracellular protein delivery strategies rely on endocytic mechanisms, resulting in endosomal entrapment and protein degradation. The current project will engineer novel self-navigating nanocapsules, enabling effective cytoplasmic protein delivery and sub-organelles targeting following endocytosis-independent cellular uptake. This elegant and straightforward protein delivery approach to intracellular targets could open the door to novel treatment opportunities in many relevant disorders, including cancer, metabolic and neurodegenerative diseases. |
| **\*Supervisor(s)** | Dr Wafa Al-Jamal |
| **\*Eligibility / residence Status** | UK/EU/overseas students |
| **Country** | Northern Ireland |
| **\*Start date and duration** | Anytime |
| **\*Faculty** | MHLS |
| **\*Research centre / School** | Pharmacy |
| **Subject area** | Biopharmaceuticals 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, 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** | Applications accepted all year round |
| **\*How to apply / contacts** | Postgraduate Research applicants for Pharmacy who are interested in applying for a self-funded 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://pure.qub.ac.uk/portal/en/persons/wafa-aljamal](http://pure.qub.ac.uk/portal/en/persons/wafa-aljamal(d931b6ec-d950-47da-bfb2-d2a6fd7a6aa7).html)  <http://www.qub.ac.uk/schools/SchoolofPharmacy/Research/PostgraduatePositions/>  <http://www.qub.ac.uk/schools/SchoolofPharmacy/Research/> |
| **Keywords for search filters** | Biologics, protein delivery, nanomedicine, intracellular delivery |
| **Training provided through the research project** | This project will provide a unique opportunity for excellent students to work in a stimulating multidisciplinary team. The candidate will be designing and characterising novel nanocarriers for efficient intracellular protein delivery. The successful candidate will be a highly motivated, hard-working graduate with excellent communication and organisational skills. |
| **Expected impact activities** | The project will offer innovative approaches for biologics delivery. The PhD student will be encouraged to engage in a variety of impact activities, disseminate the research project findings through publications in relevant peer-reviewed journals, present the results of the study at conferences (in-person and/or online), and make them accessible to general public through broader channels, such as social media and popular science outlets. |