# PGR Studentship Information Template 2021 entry

* Please complete the template with as much information as possible.
* \*fields are essential.
* If you have information that does not have a label, please create a new row in the table for it.

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| **\*Title of studentship** | Personalised Medicine for Breast and Ovarian Cancer |
| **Value / what is covered?**  |  |
| **Awarding body** |  |
| **Number of studentships** |  |
| **\*Summary descriptive text / Example of research project**  | One in two people will develop cancer in their lifetime and it is a leading cause of death. While significant progress has been made in the treatment of some cancers, there still remain some forms of the disease with limited treatment options and poor outcome.Our research approach focuses on the integration of in vitro, in vivo, bioinformatics and pathology approaches to identify key pathways underpinning poor outcome and uses detailed knowledge of this biology to identify appropriate targeted treatment options, personalising therapy in areas of unmet clinical need such as Triple Negative Breast Cancer (TNBC) and ovarian cancer.While TNBC only accounts for 15-20% of all breast cancer cases, it associated with high rates of relapse and a dipropionate high number of deaths. Using gene expression from patient samples we have identified a number of key genes and pathways that we believe are playing a key role in TNBC. We now want to study these in more detail to elucidate their potential role in disease progression and/or response to treatment. These genes may be to as diagnostic and/or prognostic biomarkers as well as targets for the development of novel treatment strategies.In addition, our research focuses on improving current treatment options using a number of strategies. This includes the development of predictive biomarkers to identify patients most likely to gain clinical benefit as well as harnessing pharmaceutical strategies, such as nanoparticle drug delivery systems in collaboration with Prof Helen McCarthy, to maximise clinical benefit and minimise off target toxicity. |
| **\*Supervisor(s)** | Dr Niamh Buckley and Prof Helen McCarthy |
| **\*Eligibility / residence Status** |  |
| **Country** | Northern Ireland |
| **\*Start date and duration**  | 1st October 20213yrs |
| **\*Faculty** | MHLS |
| **\*Research centre / School** | School of Pharmacy |
| **Subject area** | Cancer, biomarkers, targeted treatment, drug development |
| **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** |  |
| **\*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/><http://go.qub.ac.uk/NiamhBuckley>Twitter : @DRNiamhBuckley |
| **Keywords for search filters** | Breast Cancer, biomarkers, personalised medicine |
| **Training provided through the research project** | Research Skills: the supervisors will ensure excellent training in physiochemical, bioinformatics, in vitro and in vivo techniques providing the student with a broad spectrum of knowledge and expertise. The supervisors will ensure the student is aware of the translational relevance of the project and its potential impact on patient care,Record keeping & monitoring: Monthly meetings with the student will take place with electronic records. Students must also complete a 3-month initial review and annual progress review to proceed to years 2 & 3. The annual progress review involves written work, presentation and/or mini *viva*. |
| **Expected impact activities** | Breast cancer is the most common cancer in women in the UK. There is a significant unmet clinical need to understand the biology driving the disease in order to tailor treatment to the individual – maximising outcome and reducing unnecessary side effects. |