

## **Funded PhD Opportunity in the School of Nursing and Midwifery at Queen's University Belfast 2020-21**

The School of Nursing and Midwifery, in collaboration with Paxman Coolers Ltd. is delighted to announce an opportunity to apply for a fully funded PhD Studentship.

### **Title: Cryotherapy for the management of chemotherapy induced side effects**

Click here for the proposal document.

Applicants must have at least a 2.1 degree (or equivalent) in a relevant subject area.

The closing date for this application is **5pm, Friday 19 March 2021**

**Interviews are anticipated to take place online, on 19<sup>th</sup> or 20<sup>th</sup> April 2021**

Apply using our online Postgraduate Applications Portal [go.qub.ac.uk/pgapply](https://go.qub.ac.uk/pgapply) and follow the step-by-step instructions on [how to apply](#).

When prompted, applicants should supply a cover letter (max 2 pages long) outlining their suitability for the project, rather than a proposal document.

The full-time studentship is funded by the Northern Ireland Department for the Economy (DfE). Funded studentships may cover maintenance and fees for a maximum of three years, depending on residency status. For further details about eligibility criteria (including academic, citizenship and residency criteria) please click on the DfE Research Eligibility Guidance

Notes: <https://www.nidirect.gov.uk/articles/department-economy-studentships>.

Please also note that this studentship comes with an additional £6000 per year uplift in student stipend.

The University is committed a policy of equal opportunity. Prospective students with a disability or long term condition are encouraged to disclose as early as possible in the application and selection process by contacting [admissions@qub.ac.uk](mailto:admissions@qub.ac.uk). Upon disclosure the University will ensure appropriate reasonable adjustments and additional supports can be put in place for applicants. Reasonable adjustments and additional supports will be determined on an individual basis, in line with the course entry requirements to ensure selection standards are maintained.

## **Cryotherapy for the management of chemotherapy induced side effects**

### **Background:**

Chemotherapy leads to adverse complications such as chemotherapy induced alopecia (CIA), with limited pharmacologic interventions available for preventing this distressing clinical problem. Cryotherapy utilizes the basic principle that cold-induced vasoconstriction can limit the local effects of certain therapies with scalp cooling shown to prevent CIA in some patients receiving certain chemotherapy regimens. There is also some evidence to suggest that cryotherapy delivered via a cryocompression device to the hands and feet can reduce symptoms of chemotherapy-induced peripheral neuropathy (CIPN) (Bandla et al., 2020) which is known to be dose limiting with a detrimental impact on functional ability and wellbeing (Staff et al., 2017). There is a current inequity in the availability of scalp cooling technology throughout the UK, Paxman supply over 98% of the UKs National Health Service, however, no scalp cooling is currently available in Northern Ireland (NI) significantly disadvantaging our patient population with no access to a technology that could limit the distressing clinical problems described above. It is crucial to explore the introduction and implementation of cryotherapy in NI, however, putting this evidence in to practice at the point of care delivery requires an understanding of implementation strategies that work, in what context and how.

**Aim:** Explore patient need for cryotherapy in NI and examine strategies to encourage the implementation.

### **Objectives:**

- Literature review of the effectiveness of cryotherapy for the management of side effects. The review will also collect narrative data on issues relating to implementation.
- Obtain in depth knowledge on cryotherapy technology and equipment via placements with Paxman to ensure adequate understanding to develop study outcome measures ensuring meaningful, actionable data is collected.
- Explore the scale of need for cryotherapy during chemotherapy – initial survey with charities and patients groups, followed up with focus groups exploring themes raised via survey in more detail.
- Understand the
  - barriers and facilitators of introducing cryotherapy to chemotherapy clinics via qualitative interviews with healthcare professionals (HCP) and patients.
  - context - organisational structures that may enable or constrain the introduction of cryotherapy. Co-developing the content for patient pathway, guidelines, patient information.

The student will undertake product and technical training as well as technology training delivery. In addition they will experience the opportunity to work with:

- The University of Huddersfield on the development of ways to enhance scalp cooling. This will include working with applied sciences to develop a topical compound to improve the efficacy of scalp cooling and the design school to develop the future of personalised cooling caps.
- The National University of Singapore of the development and testing of a cryocompression device for CIPN.
- Attend and present findings at international conferences enhancing oral delivery skills and expanding network.

For further information please contact Dr Gillian Prue [g.prue@qub.ac.uk](mailto:g.prue@qub.ac.uk)

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