



Astropharmacy: Space travel the next frontier for pharmacists

Code: 20/37

Company: University of Nottingham

Location: Nottingham, United Kingdom

Company Description:

The School of Pharmacy at the University of Nottingham is ranked 7th in the world in the new 2020 QS World Rankings for the subject area 'Pharmacy and Pharmacology.'

The School of Pharmacy is also committed to providing an inclusive environment for all staff and students to enable them to achieve their potential and be the best they can be. The school provides high quality of training in diverse areas of research ranging from pharmacy practice to medicinal chemistry and pharmaceutical technology.

The school trains pharmacists of the future and are recognised for research in the design and use of drugs and medicine. A pioneering, multidisciplinary and collaborative approach is used to deliver sustainable solutions to global healthcare challenges. The school recently established a research cluster 'Astropharmacy and Astromedicine,' which addresses effective medical and pharmaceutical care delivery to space pioneers and explorers.

Some of the areas that are currently addressed within the cluster include life support technologies for sending people to Mars, assurance of medicines quality and safety when manufactured remotely and understanding the health and medicine safety issues around space travel.

Project Description:

Potential space travellers such as engineers or tourists, could have a variety of medical conditions, resulting in the use of several medicines. Pharmacists are crucial in reducing medication problems.

Studies have shown that how the body absorbs and process drugs is significantly altered in space flight. For a drug with a narrow safety margin such as digoxin and warfarin, significant changes in blood concentration could be fatal.

With the advent of the space tourism and commercialisation, profits to be had from increasing their number, a full investigation of the risks to health from an altered pharmaceutical intervention, and realisation and acceptance of the liabilities and professional responsibilities has to be made.

Pharmacists play a crucial role in medicines management. However, today there is a lack of consideration of the pharmacy workforce's role in space travel. This project will use qualitative research to provide foundational data by exploring the perspectives of stakeholders (pharmacists, doctors, academics, space industry experts) towards the role of astropharmacy in space travel.

Data will be collected using focus group discussions (FGDs) and individual interviews (IDIs) facilitated by a semi-structured topics guide. All FGDs and IDIs will be audio recorded and transcribed verbatim. The FGDs and IDIs will be conducted in person/telephone or video conference. The estimated number of participants FGDs 10 or IDIs 20. For transparency and rigour, the prepared transcripts will be thematically analysed using an iterative process with two researchers. NVivo 11 software will be used to facilitate data management. The data acquired in will inform the development of the pharmacy workforce in space travel.

Applicant Specification:

- Postgraduate or undergraduate student with a pharmacy background or interest in the pharmacy field.

Minimum Requirements:

- Data collection such as focus group discussions and individual interviews will be conducted in English. Applicant needs to be confident and fluent in spoken and written English.

Preferred Additional Requirements:

- An understanding of the pharmacist's role.
- An interest in space medicine. Understanding and/or experience with qualitative research methods.

Further details:

8 weeks' position with a start date in early July 2020 (to be agreed with the successful candidate) and completion before 20 September for the Showcase the following week. Hours of work are 34 per week with pay rate of £8.72 per hour (plus holiday pay). For further information please email the project supervisor, Dr Li Shean Toh (lishean.toh@nottingham.ac.uk)

Closing Date for Applications: 5pm Tuesday 23 June

Applications should be made through the online form attaching a CV, before the closing date. Please note that uncompleted forms will make your application ineligible. They will be checked for eligibility and forwarded to the Project Supervisor. Applications sent directly to the project supervisor will not be accepted.

