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School of Pharmacy PhD Project 2017 / 2018

Continuous Pharmaceutical Manufacture of Lipid-based Nano-particulate Drug Delivery Systems

Professor G Andrews, Professor D Jones, Professor C Scott and Professor S Bell

It is recognised at the top level of scientific policy, that making early investment in new, innovative and optimised pharmaceutical manufacturing technologies is urgently required. Pharmaceutical manufacturing processes must produce robust drug delivery platforms whilst also being capable of operating at full production scale and sufficiently high throughput. Currently the manufacturing processes for nanoparticles are sub-optimal and suffer from a number of significant disadvantages leading to overly complex production driving the cost of treatment up, and chance of successful product manufacture down. For example, this has resulted in the shortage of effective cancer therapies and sub-optimal treatment for patients.

The proposed PhD programme brings together leading academic groups combining expertise in nanoparticle drug delivery systems, Raman spectrocopy and pharmaceutical engineering to address this problem. This collaboration builds upon the complementary expertise in each of the respective groups to develop end to end continuous processing for nano-particle drug delivery platforms. The novelty of this proposal lies in the unique fusion of disparate areas of research to develop an integrated and systemic approach that could result in a paradigm shift in the manufacture of nano-particle delivery platforms.

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How to Apply
Postgraduate applications should be made using Queen's University Direct Applications Portal. Please note that there are two application processes: one for admission to the university and another for postgraduate awards.

Further Information
Additional information for prospective postgraduate students can be found on the School of Pharmacy website and the Queen's Postgraduate website.

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