Physical Sciences for Health (Sci-Phy-4-Health) Integrated PhD

Programme

Type of programme: Taught + Research.
Duration of programme: Four years full-time.

Programme details:

Physical Sciences for Health PhD/Masters/MSc (/postgraduate/courses/research/chemistry/physical-sciences-health-phd.aspx)

Overview

In the first year students follow a training programme that provides the necessary theoretical foundations, laboratory and practical skills for cross-disciplinary research at the Biomedical Interface. Six tailor-made taught modules and two mini-projects are combined with training in communication skills, public understanding of science and knowledge transfer. This training is an integral part of the PhD programme and is key preparation for the PhD thesis project. Students additionally receive an MSc for the year 1 studies.

Three-year PhD research project

On successful completion of year 1 the students engage in their individual PhD thesis research projects. Each project involves three elements: physical science and computer science applied to a biomedical challenge. Each project has three supervisors, a physical scientist, a computer scientist and a biomedic, one for each of the three areas. One supervisor is the lead supervisor. The CDT provides both study and pastoral support, through dedicated staff and the peer network. The research and team coherence, actively developed in year one through a variety of group activities, continue to be nurtured in the subsequent years through regular pairings, seminars and other Centre-wide activities.

Integration between disciplines

The focus of Physical Sciences for Health training is on equipping early stage researchers to be interdisciplinary scientists focused on addressing key health challenges. The training programme offers a real integration between the disciplines within the various individual research projects. The complementary research perspectives and skills brought by the participating academics will uniquely enable training to tackle challenging problems that could not otherwise be satisfactorily addressed and resolved. In this way the research and training are at the cutting-edge, leading to understanding and insights not accessible within a single scientific discipline.