



RCSI

RCSI DEVELOPING HEALTHCARE LEADERS WHO MAKE A DIFFERENCE WORLDWIDE

Title:	PhD Student
Department:	Department of Pharmaceutical and Medical Chemistry
Tenure:	4 years
Location:	123 St Stephens Green
Reporting to:	Dr. Marco Monopoli
Salary:	18,000 Euro per year
Deadline for application	Friday, 9 th of December

Proposed Start Date:

The **Royal College of Surgeons in Ireland** (RCSI) is a private, self-financing, not-for-profit medical and surgical college headquartered in Dublin (Ireland) with global reach through its overseas medical universities and health care centres in the Middle East, the Far East and Africa. Since its foundation in 1784, it has played a leadership role in Irish surgical and medical education. Currently, it operates the largest Medical School in Ireland and provides undergraduate education in Physiotherapy, Pharmacy, and Nursing. In addition to Surgery, it also provides postgraduate training and education in Radiology, Dentistry, Nursing & Midwifery, Sports and Exercise Medicine, Healthcare Management and Leadership, and has an Institute of Research.

RCSI recognises that excellence in research is critical to the quality of its educational activities, its credibility, and, overall, to its mission to enhance human health. Recently, RCSI has implemented a new research strategy that will build upon its strength in translational biomedical and clinical research to deliver transformational, high impact changes in health care. Targeting both Irish national and EU funding, along with increased collaboration with industry, is a major part of the RCSI research strategy. Forging increased collaboration between RCSI PIs and industry is of critical importance to achieving success in this area.

We are offering a position for a four years PhD project in the Department of Pharmaceutical and Medical Chemistry of the Royal College of Surgeons in Ireland in the field of Bio-Nanotechnology starting on January 2017.

The project seeks to find a highly motivated student to carry out a study focused in obtaining a complete understanding of the mechanisms of interaction between nanomaterials and living systems essential for Nanomedicine, Nanotoxicology applications and to evaluate their



RCSI

Environmental Impact. The candidate will be developing a novel type of nanomaterial for drug delivery and targeting and will assess their capacity of targeting while being biocompatible.

The research project is highly multidisciplinary and it is interested in development and assessment of smart nanoparticles for applications in nanomedicine where the student will develop knowledge in physical chemistry, proteomics and cellular biology.

The successful PhD student will be trained in:

- Nanoparticle synthesis, surface functionalization and characterisation with several techniques.
- Biomolecular corona characterisation with a particular focus in the interaction with biomolecules from the surrounding environment and cells.

Eligibility Criteria:

- High honours degree in Chemistry, Biology, Physics or related areas with a classification of 2.1 or above.
- Strong interest in a research career.
- Capacity of applying a multidisciplinary approach in research and thinking.
- Understanding of fundamentals in Proteomics, Physical Chemistry and Cellular Biology.
- For candidates who do not speak English as their first language: a high standard of written and spoken English is required. IELTS or equivalent English language test scores (for both written and spoken English) are accepted e.g. TOEFL, Cambridge, etc. An IELTS score of 7.0 is desirable, but scores > 6.5 are acceptable.

Knowledge & Experience – (Essential):

- Basic understanding of physical chemistry, nanoparticle surface functionalisation, proteomics and cellular biology.
- Having at least six months of laboratory experience.

Skills & Competencies:

List any skills that would be useful, for example

- **Communication Skills:** Proven ability to communicate complex ideas both verbally and written
- **Project Management Skills:** Ability to ensure that project plans are communicated and that all timelines are met
- **Self-starter with the ability to work as part of a team:** Ability to operate effectively as part of a team – is cordial, tolerant and willing to help others, is co-operative and patient; shares work and information; establishes rapport, can influence and develop effective networks





RCSI

- **I.T. skills:** Knowledge of MS Office suite and of searching for peer reviewed publications.
- **Conscientious:** Have a pro-active approach to work, anticipating and resolving problems in advance; have keen attention to detail - from anticipating and addressing issues in advance to understanding requests and delivering quality work with minimal errors.
- **Flexibility:** Can operate flexibly within a busy environment; can shift focus when required.
- **Customer Focus:** Have strong customer service skills. Be able to communicate with a high level of initiative, tact, diplomacy and confidentiality.
- **Motivated:** Display a 'can-do' attitude, be committed to RCSI ORI and its development; demonstrate enthusiasm and passion for the role.

Application Process

Interested candidate should send the below documentation as separate PDF files to marcomonopoli@rcsi.ie by Friday the 9th of December at 5pm GMT/6pm CET.

- Curriculum vitae inclusive of contact details of previous supervisors (max 3 pages);
- Statement of interest and motivation in doing the PhD in this research field along with the description of your research skills, experience and publications (max 3 page);
- 1 page of research project (desirable);
- Recommendation letter(s) of your previous supervisors (desirable).

Informal Enquiries can be directed to Dr Marco Monopoli on marcomonopoli@rcsi.ie.

Note: this Job Description may be subject to change to reflect the evolving requirements of the Department and RCSI in developing healthcare leaders who make a difference worldwide.

RCSI is an equal opportunities employer



HR EXCELLENCE IN RESEARCH