



RCSI



Irish Blood
Transfusion Service
Seirbhís Fuilaidriúcháin na hÉireann

RCSI DEVELOPING HEALTHCARE LEADERS WHO MAKE A DIFFERENCE WORLDWIDE

Title:	Postdoctoral Fellow, Senior Postdoctoral Fellow, Research Fellow
Department:	School of Pharmacy and Biomolecular Sciences
Tenure:	Specified purpose contract for 2 years
Location:	123 St Stephen's Green, Dublin 2
Reporting to:	Dr. Ingmar Schoen, Prof. James O'Donnell
Salary:	€40'000-€60'000 p.a., depending on expertise, yearly increases
Proposed Start Date:	02.01.2023

RCSI University of Medicine and Health Sciences is a private, not-for-profit university 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. Currently, it operates the largest Medical School in Ireland and provides undergraduate education in Physiotherapy, Pharmacy, Advanced Therapeutic Technologies, 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. As part of its strategic plan, RCSI is home of the **Irish Centre for Vascular Biology (ICVB)**, an integrated network of research groups across Irish Universities and Hospitals. The level and breadth of expertise in vascular biology at RCSI is unmatched in Ireland, competitive on an international level, and bundled in active multidisciplinary collaborations.

To leverage their strengths in vascular research to enhance clinical services, RCSI and the **Irish Blood Transfusion Service (IBTS)** have recently agreed to work towards a strategic partnership. The IBTS is a Statutory Body responsible for the national supply of blood and blood products for humans. Its 600 employees work in areas of service, diagnostics and research in 8 Centres across Ireland, including the National Blood Centre located on St. James's Hospital Campus in Dublin. The IBTS collects and processes approximately 140,000 donations per year. An initial programme seeding the **collaboration between RCSI and IBTS** will conduct biomedical research over two years. The aim is to generate new knowledge on processes occurring in stored blood products that determine their functionality, with the overarching goal to work towards improved transfusion therapies for major haemorrhage.

For this RCSI-IBTS research programme, we are looking for **two highly motivated postdoctoral researchers** to work on two separate but synergistic projects. One of these will be co-led by Dr Ingmar Schoen in RCSI and Dr Allison Waters in the IBTS. This project will investigate novel mechanisms to facilitate cold storage of platelets for use in the context of massive bleeding. The second project will be co-led by Prof James O'Donnell in RCSI and Prof Tor Hervig in the IBTS and will examine how ABO blood group impacts major bleeding risk and treatment.

Position/Project 1:

The postdoctoral researcher will investigate how the functionality of platelets in platelet concentrates changes during storage. The emphasis lies on elucidating how different storage conditions (temperature, additive solutions) affect platelet internal structure and clustering of surface receptors which are known to lead to platelet clearance upon transfusion. The researcher will use advanced (super-resolution) microscopy and image analysis methods, biophysical assays, as well as standard platelet function tests and biochemical assays for the characterisation and mechanistic investigation of these processes. The [Mechanovascular Biology and Microscopy](#) laboratory led by Dr Ingmar Schoen is renowned for its innovative approaches to study the haemostatic functions of platelets.

Position/Project 2:

The postdoctoral researcher will investigate the expression of ABO(H) blood group antigens on platelet donations. The emphasis lies on functional implications of ABO(H) expression for platelet function, coagulation, and clearance rates. The researcher will perform quantitative and qualitative glycosylation analyses, measure plasma levels of relevant coagulation factors, and study the capacity of platelets to support coagulation or platelet-vessel wall interactions. The [Haemostasis Research laboratory](#) led by Prof. O'Donnell is internationally recognised for its basic research related to different aspects of vascular biology in relation to clinical bleeding and thrombosis.

These projects are interdisciplinary and bridge the fields of platelet biology, glycobiology, coagulation factor biology, biophysics, microscopy, mechanobiology, haematology, and cardiovascular diseases. It is expected that the successful candidates have a strong background in one or more of these fields and are willing to cross the borders between disciplines. In our labs, we want to create and foster a friendly, supportive, and productive atmosphere to perform innovative research. An open communication and everyone's commitment to this goal are very important to us. If you are motivated to join the effort, we are looking forward to your application.

Both researchers will be primarily based in RCSI's St Stephen's Green campus but will move back and forth between RCSI and the National Blood Centre for both projects. RCSI and IBTS are



committed to provide their researchers with the supports and developmental opportunities to enable them to continuously grow and support their overall career development. The ICVB specifically offers unique networking opportunities for researchers and clinicians of all career stages.

Specifically, the duties of the post are:

- To conduct experiments, including: sample preparation, flow cytometry, affinity chromatography, ELISA, SDS PAGE, Western Blot, fluorescence stainings, fluorescence (super-resolution) microscopy, light transmission aggregometry, whole blood flow chamber assays
- To develop data analysis procedures for the extraction of quantitative information.
- To contribute to the management of the project, including: literature recherche, experimental planning, overcoming technical problems.
- To lead the dissemination of results in forms of writing manuscript drafts, oral/poster presentations at international conferences.

Qualifications:

- Required: PhD in the natural sciences, biotechnology or bioengineering

Knowledge & Experience – (Essential):

- proven ability to lead scientific projects (first author publications)
- open and effective communication skills

Knowledge & Experience (Desirable):

- 3-10 years of postdoctoral experience

Skills & Competencies:

- **Communication Skills:** Proven ability to communicate complex ideas. Be able to communicate with a high level of initiative, tact, diplomacy and confidentiality.
- **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
- **I.T. skills:** Knowledge of MS Office suite.

- **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.
- **Motivated:** Display a 'can-do' attitude, be committed to ICVB and its development; demonstrate enthusiasm and passion for the role.

Application Process

Please apply online no later than 5pm on the closing date with your CV and a Covering Letter explaining your specific interest in and suitability for these posts.

Informal Enquiries can be directed to Dr Ingmar Schoen (ingmarschoen@rcsi.ie)

Please click [here](#) to read our Recruitment and Selection Policy for Researchers.

Please 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.

Similar vacancies that arise in the next 6 months may be filled from the pool of applicants that apply for this position.

Employees are required to undertake 6 months service in their current role before applying for other internal opportunities, unless agreed in advance by the SMT representative.

RCSI is proud to be an equal opportunity employer and welcome applications from all suitably qualified persons regardless of their gender, civil status, family status, sexual orientation, religion, age, disability or race.

If you have any particular requirements for your interview, please notify the Human Resources Department at your earliest convenience.