



RCSI

RCSI DEVELOPING HEALTHCARE LEADERS WHO MAKE A DIFFERENCE WORLDWIDE

Title:	Postdoctoral Researcher (Preclinical Tumour Biologist and Imaging specialist)
Salary:	Aligned with IUA Research salary scale, up to a maximum starting salary of PD1 Point 5 (€47,854 per annum) depending on experience.
Department:	Physiology and Medical Physics
Tenure:	Specified purpose contract for 18 months
Location:	RCSI St. Stephens Green Campus, Dublin City Centre
Reporting to:	Professor Annette Byrne, Head, RCSI Precision Cancer Medicine Group
Required Start Date:	June 1 st 2024

About RCSI

RCSI is a community of academic, research, clinical and professional staff working collaboratively to lead the world to better health. Here, you will thrive in an innovative and inclusive atmosphere and your personal development and wellbeing will be supported. We invite you to join us to help deliver on our exciting mission “To educate, nurture and discover for the benefit of human health”. We seek candidates whose experience to date has prepared them to contribute to our commitment to the [“Race Equality Action Plan 2021-2024”](#) at RCSI. Our students come from all walks of life and so do we. We hire great people from a wide variety of backgrounds. This makes our university stronger and ensures we hire the best talent.

For each of the last six years, RCSI has been positioned in the Top 300 of universities worldwide in the Times Higher World university Rankings. We are proud to announce that RCSI has ranked first in the world for “Good Health and Well-being” in the [Times Higher Education #SDG](#) Impact Rankings 2023. This reflects our commitment to supporting people of all ages to live healthy lives and our work to promote the concepts of well-being and positive health. Our values of **Respect, Collaboration, Scholarship and Innovation** continue to unite and direct our purpose.

About Our 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. RCSI’s research strategy aims to 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. RCSI is also committed to provide its researchers with the supports and developmental opportunities to enable them to continuously grow and support their overall career development.

The [RCSI Precision Cancer Medicine \(PCM\) Group](#) led by [Professor Annette Byrne](#), is located in the RCSI [Department of Physiology and Medical Physics](#).

The PCM Group focuses on the development of novel precision medicine approaches in the oncology setting and works to elucidate novel predictive biomarkers (genomic, transcriptomic, proteomic, imaging) and to identify new therapeutic targets. The overall goal is to improve patient outcomes with a particular focus on colorectal and brain malignancies. To achieve our objectives, we employ highly disruptive and innovative approaches including multi-modality molecular imaging, state-of-the-art preclinical models and Next Generation Sequencing (NGS) of clinical samples, having access to oncology patient data sets.

Professor Byrne has extensive expertise in coordinating and collaborating in large European research projects funded by the European Union (www.glioresolve.eu; www.colossusproject.eu/; [The EurOPDX consortium - About - EuroPDX](#)), as well as leading several national programmes funded by Science Foundation Ireland (SFI), the Irish Health Research Board (HRB) and others.

Open Position

We are seeking to recruit a post-doctoral tumour biologist (preclinical) to join the PCM Group. The successful appointee will work primarily on a SFI funded programme entitled “**Leveraging chromosomal instability for improved diagnosis and treatment in bevacizumab resistant metastatic colorectal cancer**”, where their main role will be to lead preclinical validation imaging studies.

Project Description

The project builds on previous high impact publications (Nat Commun. 2018 Oct 5;9(1):4112 & J Clin Oncol. 2018 Jul 10;36(20):2052-2060) that have identified a new classification system (based on copy number alterations patterns) to predict patient response to chemotherapy + bevacizumab (BVZ) in RAS mutant metastatic colorectal cancer (mCRC) patients. Overall, we seek to understand why tumours displaying high CIN respond to BVZ and unravel the underlying biology that drives this response.

Job description

The successful candidate will be responsible for the preclinical imaging studies due to start on the project during 2024. Specifically, they will evaluate the impact of BVZ + standard of care chemotherapy on cancer hallmarks across CIN subtypes in preclinical models employing multi-modality imaging studies. Overall, the study will further unravel the underlying biology that drives BVZ response in this disease.

Key tasks

- Design, perform and analyse data from preclinical MRI, CT & BLI studies
- Undertake ex vivo analyses



- Liaise with collaborators in London ([Dr Sadanandam](#), ICR) and Belgium ([Prof Diether Lambrechts](#) (VIB KU-Leuven) to analyse the preclinical study results in the overall context of the project

The candidate will be expected to:

- Organise and troubleshoot practical work independently and using their own initiative
- Support junior members of the PCM Group on a day-to-day basis.
- Communicate results in a professional manner in English
- Travel to collaborator meetings in the UK and Belgium as required.
- Keep excellent records, submit research for publication in peer reviewed journals, and contribute to internal and external reporting as required
- Present research findings at international scientific conferences and meetings
- The PCM Group have multiple ongoing projects and the candidate will be expected to contribute to multiple projects as required, thus providing ample publication opportunities
- Out of hours working will occasionally be required. Time off in lieu will be provided

Qualifications – (Essential)

- A Ph.D. (or submitted Ph.D. thesis) in Tumour Biology or similar discipline

Knowledge, Skills & Experience – (Essential)

- Significant experience working on preclinical cancer models (ideally in colorectal cancer, but other cancer-types will be considered)
- Significant experience in preclinical imaging, including preclinical MRI, CT and BLI.
- Strong research and scientific writing skills.
- Must be a Team Player
- Very strong research skills and a proven track record in publication of good research.
- Excellent interpersonal, communication and presentation skills
- Evidence of leadership / supervision skills (e.g. MSc supervision)
- Attention to detail and thoroughness in work practices and an ability to work to deadlines
- An ability to foster and sustain academic relationships internally and externally
- Interested and motivated to work in an open, dynamic and strongly interdisciplinary team as well as independently
- Excellent organizational, administrative and supervisory skills
- An ability to handle confidential information with discretion
- Have a strong ability to multi-task, meet timelines and work accurately.
- Meticulous attention to detail
- Excellent verbal and written communication skills

Knowledge, Skills & Experience – (Desirable)

- Good knowledge in the field of colorectal cancer
- Experience in immunohistochemistry, cell culture and other key wet lab techniques.



- Bioinformatics skills (e.g. R, Python, programming skills, machine learning) and experience in analysing high-throughput data (e.g. bulk and single cell RNA sequencing).
- Experience analysing and integrating complex datasets (e.g. imaging, omics- and clinical), and working in a multidisciplinary environment of experts in biomedical sciences, transcriptomics, genomics and bioinformatics.

Standard requirements of all positions

- Complying with statutory legislation and Department rules and requirements in furtherance of your own and general staff welfare and safety
- Undergoing programmes of training and development as may be required from time to time
- Representing the best interests of the Department/College at all times
- Facilitating undergraduate and postgraduate programmes
- Ensuring accuracy and consistency of all processes

Employee Benefits

RCSI make sure you have the resources you need to thrive by offering a wide range of benefits in areas including time away, finance, community, health, and well-being and insuring your financial future. Below are some additional benefits available to you as an RCSI employee:

- Minimum of 20 days annual leave, plus an additional 6.5 Privilege days
- Flexible/hybrid working options for colleagues across many roles
- Additional leave options incl. paid maternity leave, paternity/parental leave, study leave
- 7% Employer pension contribution
- Onsite gym €10 per/mth incl. classes and PT sessions
- Childcare support 20% discount at Giraffe
- Free eye test and annual flu vaccination
- TaxSaver commuter tickets and Bike to Work schemes
- A site sustainability team focusing on the environmental initiatives; Green Campus Initiative
- Competitively priced café and restaurant
- Equality, Diversity & Inclusion forums, and network groups
- Employee assistance programme with Spectrum Life
- Learning and Development training programmes incl. LinkedIn Learning for career progression
- Discounted services incl. GP visits, 10% off dental, staff parking, mobile tariffs, Group Scheme discount on numerous brands
- Sports and social club incl. yoga, Pilates, fitness classes, Zumba, running club, social evenings, Summer BBQ
- Ticket Draws for events including; Rugby, Taste of Dublin, Dublin Horse Show, theatre, music & comedy events



Application Process

Please email aliceofarrell@rcsi.com with informal inquiries.

Please apply online at www.rcsi.ie/careers with your covering Letter and CV containing contact details of 2 references no later than 5pm on the closing date (2nd May 2024).

We are all too aware that imposter syndrome and the confidence gap can sometimes stop fantastic candidates putting themselves forward, so please do apply — we'd love to hear from you.

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 maybe filled from the pool of applicants that apply for this position.

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.

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.

