



College Management Unit:	UCD College of Health and Agricultural Sciences
School Unit:	UCD School of Medicine/Systems Biology Ireland
Post Title & Subject Area (if relevant):	UCD Post-doctoral Research Fellow Level 2
Project:	Using cyber-physical network modelling to tackle RAS-driven cancers
Post Duration:	Temporary 1 year
Line Manager:	Dr. Oleksii Rukhlenko
Competition Ref. N°:	018638
HR Administrator:	Natalia McDonagh

Position Summary:

University College Dublin (UCD) invites applications for a Postdoctoral Research Fellow position for a project focused on drug resistance in KRAS-mutant pancreatic cancer.

This position is part of the Research Ireland funded project (SFI-IRC PATHWAY award), which aims to obtain network-level understanding of oncogenic transformation in pancreatic cancer and find drug treatments that reverse this transformation. This is a multidisciplinary project integrating mechanistic modelling, machine learning, network science and wet-lab molecular cell biology to obtain holistic understanding of oncogenic transformation mechanisms. The experimental component performed by successful applicant in Systems Biology Ireland UCD will involve validating computational predictions in the lab using different cell-based assays.

The successful candidate will be responsible for conducting cellular and molecular biology experiments as part of a collaborative team. A strong background in cellular and molecular biology is essential. Proficiency in techniques such as Western blotting, proliferation, colony formation, soft agar and migration assays is required. Experience in working with organoids is an advantage. The ideal candidate will be self-driven, collaborative, and comfortable working across disciplinary boundaries.

The team will be part of the Kholodenko/Rukhlenko Group at Systems Biology Ireland (SBI, <http://www.ucd.ie/sbi/>), a research centre based on the UCD Belfield Campus. SBI was established in 2009 and has successfully developed an integrated mathematical/computational modelling and experimental research programme focusing on the design of new therapeutic approaches to cancer, based on a systems level, mechanistic understanding of cellular signal transduction networks.

This is a research focused role, where you will conduct a specified programme of research supported by research training and development under the supervision and direction of a Principal Investigator.

The primary purpose of the role is to further develop your research skills and competences, including the processes of publication in peer-reviewed academic publications, the development of funding proposals, the mentorship of graduate students along with the opportunity to develop your skills in research led teaching.

Principal Duties and Responsibilities:

- Conduct a specified programme of research and scholarship under the supervision and direction of your Principal Investigator.
- Engage in appropriate training and professional development opportunities as required by your Principal Investigator, your School or Institute, or the University.
- Support your Principal Investigator and research group in the design and development of the research programme.

- Support if required, the development of proposals for research funding.
- Engage in the dissemination of the results of the research in which you are engaged as directed by and with the support of and under the supervision of your Principal Investigator.
- Engage in the wider research and scholarly activities of your research group, School and Institute.
- Take responsibility as requested for day-to-day advice and support of graduate research students associated with your research group.
- Mentor and assist, as appropriate and as directed, the research graduate students in your group, School and Institute.
- Carry out administrative and management work associated with your programme of research.

Salary Range: €53,770 - €58,479 Per Annum

Appointment on the above range will be dependent on qualifications and experience

Details on eligibility to compete and pension information is available at

<https://www.ucd.ie/hr/resourcing/eligibilitytocompete/>

UCD is committed to creating an inclusive environment where diversity is celebrated and everyone is afforded equality of opportunity. We welcome applications from everyone, including those who identify with any of the protected characteristics that are set out in our Equality, Diversity and Inclusion policy. Learn more about Diversity at <https://www.ucd.ie/workatucd/diversity/>

Reasonable accommodations will be provided to any applicant during the interview process who discloses they have a disability or are neurodiverse.

Selection Criteria

Selection criteria outline the qualifications, skills, knowledge and/or experience that the successful candidate would need to demonstrate for successful discharge of the responsibilities of the post. Applications will be assessed on the basis of how well candidates satisfy these criteria.

Mandatory:

- PhD in Molecular Biology, Cell Biology, or other relevant discipline.
- **2** years postdoctoral research experience.
- PhD in Molecular Biology, Cell Biology, or other relevant discipline.
- Proven experience and hands-on skills in handling cellular systems and assaying different biological functions, such as proliferation, colony formation, apoptosis migration and others.
- Experience in Western Blot.
- Experience in cell transfection, siRNA knockdowns and other molecular biology techniques for the modulation of gene expression.
- Demonstrated understanding of operational requirements for a successful research project and managing resources.
- Knowledge and application of the principles underpinning successful grant application.
- Ability to identify and fulfil the academic writing requirements for target publications.
- Proven record of working with team members and PhD students to help build their research skill and knowledge and to support and guide their professional development.
- Generates new ideas and links and builds upon existing ideas to generate unique concepts and solutions.
- Candidates must demonstrate an awareness of equality, diversity and inclusion agenda.

The PD2 post is intended for researchers that have completed PD1. As with the PD1, if you have already completed your PD2 stage in UCD or will soon complete a PD2, or your total Postdoctoral experience, inclusive of the duration of the advertised post, would exceed 6 years, you should not apply and should refer to Research Fellow posts instead.

Desirable:

- Experience in working with cancer organoids.
- Experience of closely working with bioinformaticians or mathematical modellers.
- Knowledge of cancer biology and cancer signalling.
- Demonstrated understanding of the value of academic and commercial information e.g. non-disclosure agreements.
- Knowledge of IP processes and knows how to protect findings.

Supplementary information:

The University:	https://www.ucd.ie/
UCD Strategy 2030: Breaking Boundaries	https://strategy.ucd.ie/
The College/Management Unit:	https://www.ucd.ie/chas/
The School/Programme Office/Unit:	https://www.ucd.ie/medicine/
Equality Diversity and Inclusion at UCD:	https://www.ucd.ie/workatucd/diversity/
Other:	https://www.ucd.ie/sbi/

UCD offers a comprehensive **Research Careers Framework** in line with the Advisory Science Council Report '*Towards a Framework for Researcher Careers*'. This model provides a structured and supportive **Career and Skills Development** system designed to ensure that Post-docs in UCD are able to plan their careers and prepare for future opportunities in academia, industry or the public sector. For more information, please [click here](#)

Informal Enquiries ONLY to:

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