



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 1
Project:	Understanding and exploiting dysregulated mitochondrial metabolism and epigenetics for the therapy of MYCN-driven neuroblastoma
Post Duration:	Temporary, 24 months
Line Manager:	Dr Melinda Halasz, Principal Investigator
Competition Ref. N^o:	018463
HR Administrator:	Aline Burgos

Position Summary:

University College Dublin is recruiting a Postdoctoral Research Fellow to work on a lab-based childhood cancer research project at Systems Biology Ireland funded by the Children's Health Foundation under the Research Ireland Frontiers for the Future programme.

The project focuses on understanding mitochondrial regulation of epigenetics in neuroblastoma, one of the deadliest childhood cancers; and exploit this molecular understanding to identify less toxic and more effective treatment approaches for the highly aggressive forms of this disease. New drug combinations will then be evaluated in pre-clinical zebrafish xenograft models. The successful applicant will be part of the Halasz Lab (<https://www.ucd.ie/sbi/team/groups/halaszgroup/>) that is based at Systems Biology Ireland, and which has close collaborations with computational researchers and paediatric oncologists at Children's Health Ireland at Crumlin.

To be successful in the role, the fellow should be self-motivated, with strong expertise in cancer biology, biochemistry, and molecular biology; the fellow should be competent in cell culture and have a broad repertoire of technical skills and methods used for the analysis of signalling networks, mitochondrial metabolism, and/or epigenetic modifications. Familiarity with MS-based proteomics and/or metabolomics and/or RNA-Seq, ATAC-Seq is preferable. Experience working with zebrafish is a plus.

The fellow will be expected to work closely with computational researchers and should be self-motivated and able to independently develop and execute project-related aims.

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.

Systems Biology Ireland (SBI, www.ucd.ie/sbi), established in 2009, has successfully developed an integrated mathematical modelling and experimental research programme focusing on the design of new diagnostic and therapeutic approaches to diseases, primarily cancer, based on a systems level, mechanistic understanding of cellular signal transduction networks.

To accomplish these goals, SBI uses mathematical and computational modelling approaches in combination with cutting edge experimental technologies in genomics, transcriptomics, proteomics, advanced microscopy, and flow cytometry as well as cell biology and molecular biology methods. SBI's expertise, particularly in the area of modelling in systems pharmacology and therapeutics, strategically position it at the crossroads between biology and medicine. The purpose-built SBI facility sits in the space between the UCD Conway Institute and the Health Sciences Centre (UCD Charles Institute of Dermatology and School of Medicine). It is physically linked to both buildings, providing access to existing technology platforms, educational and conference facilities and ideally placed to train allied healthcare professionals.

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.
- 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.
- Mentor and assist, as appropriate and as directed, the research graduate students in your group, School and Institute.
- Carry out administrative work associated with your programme of research.

Fixed Salary: €45,847 Per Annum

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 cancer biology, biochemistry, molecular cell biology or other related experimental discipline.
- Proven expertise in cell culture and a broad repertoire of technical skills and methods in biochemistry, molecular and cell biology.
- Proven expertise in proteomics OR transcriptomics OR epigenetics OR metabolomics.
- Ability to work independently and collaboratively to accomplish research goals.
- A demonstrated commitment to research and publications
- An understanding of the operational requirements for a successful research project
- Evidence of research activity (publications, conference presentations, awards) and future scholarly output (working papers, research proposals, and ability to outline a research project).
- Excellent Communication Skills (Oral, Written, Presentation etc).

- Excellent Organisational and Administrative skills including a proven ability to work to deadlines.
- Candidates must demonstrate an awareness of equality, diversity and inclusion agenda.

The PD1 position is intended for early-stage researchers, either just after completion of a PhD or for someone entering a new area for the first time. If you have already completed your PD1 stage in UCD or will soon complete a PD1, or you are an external applicant whose total Postdoctoral experience, inclusive of the duration of the advertised post, would exceed 4 years, you should not apply and should refer to PD2 posts instead.

Desirable:

- Cancer research experience.
- Expertise in working with zebrafish.
- Experience in working with computational researchers (i.e., bioinformatician, biostatistician etc.).
- Experience in setting own research agenda.

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/phpss/
Equality Diversity and Inclusion at UCD:	https://www.ucd.ie/workatucd/diversity/
Other:	This Project is fully funded by the Children's Health Foundation (CHF, https://www.childrenshealth.ie/) and managed by Science Foundation Ireland (SFI, https://www.sfi.ie/).

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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