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### PhD Project Title:

## **“Investigation of disrupted epigenetic systems in paediatric leukaemia”**

A PhD position is now available in Systems Biology Ireland, University College Dublin, to investigate mechanisms of epigenetic dysregulation in childhood and adolescent leukaemias.

**Location:** Systems Biology Ireland, University College Dublin, Dublin, Republic of Ireland

**Supervisor:** Professor Jonathan Bond

### **Project Background & Description:**

Systems Biology Ireland (SBI, <http://www.ucd.ie/sbi/>) established in 2009 under SFI's CSET initiative, 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 proteomics, genomics, 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, supported by the HEA's PRTL15 programmes sits in the space between the UCD Conway Institute and the Health Sciences Centre (School of Medicine and Medical Sciences). 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. The facility houses a multidisciplinary team of some 50 researchers including bioinformaticians, statisticians, computational scientists and modellers, engineers, biologists, biochemists and physicists.

This PhD student post will be part of an interdisciplinary team working on childhood and adolescent leukaemias. This study is funded by the National Children's Research Centre (NCRC), Crumlin and is part of a new long-term collaboration between Our Lady's Children's Hospital Crumlin (OLCHC) and Systems Biology Ireland, UCD that will aim to use systems biology analysis to improve the treatment of paediatric leukaemias. These diseases frequently have mutations in genes that encode epigenetic regulators, and this project will focus on the investigation of the mechanisms by which these alterations affect normal haematopoietic gene transcription and treatment response.

The student will benefit from the Institute's expertise in molecular and cellular laboratory techniques, bioinformatic analysis and modelling, and from close interaction with the paediatric haematology clinical service at OLCCH. This project will therefore provide a holistic education in the biology of leukaemia and normal haematopoiesis that will provide the student with exposure to a range of scientific disciplines.

**Person Specification:**

We are looking for a highly motivated, passionate PhD candidate with the ability to independently plan and conduct the research project while integrating into an interdisciplinary research environment. Applicants should have, or expect to obtain, a first or upper second class honours Bachelors or Masters degree in Biology or a related discipline. Excellent analytical and communication skills are preferable.

**Stipend & fees:** The successful candidate will receive a tax-free stipend of €18,500 per annum. €6,810 will be made available towards registration fees per annum. The position is funded for three years.

**Application procedure:** Please send a cover letter, CV and accompanying documentation including references to Professor Jonathan Bond. Email address: jonathan.bond@ucd.ie

**Closing date:** Applications should be received by 8<sup>th</sup> June, 2018.

**Web:**

The University: <http://www.ucd.ie/aboutucd.htm>

The School of Medicine and Medical Sciences: <http://www.ucd.ie/medicine/>

Systems Biology Ireland: <http://www.ucd.ie/sbi/>