



Job Description

College/Management Unit	UCD College of Health Science
School/Unit	UCD School of Medicine & Medical Science / Systems Biology Ireland
Post Title & Subject Area (if relevant)	Professor of Translational Systems Biology
Post Duration	Permanent
Grade	Professor
Reports to	Head of School / Director of Systems Biology Ireland
HR Reference No.	005461
HR Administrator	Adrian Woods

Position Summary

Background to the Role

Systems Biology Ireland (SBI, <http://www.ucd.ie/sbi/>) is a Science Foundation Ireland-funded Centre for Science, Engineering & Technology (CSET), which was established in 2009 under the leadership of Professor Walter Kolch and Professor Boris Kholodenko. SBI focuses on elucidating basic principles of the design and function of biological signal transduction networks with the aim to design new therapeutic approaches to cancer, degenerative and inflammatory diseases based on a systems level, mechanistic understanding of biomolecular 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.

The research programme has network analysis as fundamental research base from which we are developing translational research for biomedical applications. Currently, the main biomedical application areas for SBI's research are cancer, inflammatory diseases and the improvement of mesenchymal stem cells (MSCs) for tissue repair purposes. In the cancer and inflammatory disease areas SBI is focusing on growth factor and hypoxia signalling, the identification of novel drug targets, the rational prediction of synergistic target combinations, and the exploitation of physiological apoptosis signalling for therapy.

Role and Remit of the Chair

For these efforts to be effective and eventually to have clinical impact, SBI is committed to strengthen the links to translational and medical research. This objective is aligned with the UCD School of Medicine & Medical Science's (SMMS) priority of translational research. Therefore, we are seeking to appoint a Chair in Translational Systems Biology to work at the interface between systems biology and medicine in order to harness the fundamental understanding that arises from molecular mechanistic and cell biological research for medical applications. The area of work should complement and extend the current research programme in cancer, inflammation and MSC biology by providing a topic that can link these areas, such as angiogenesis, endothelial cell biology, or molecular immunology / inflammation signalling. A willingness to work with mathematical and computational scientists, biologists, medical and clinical researchers as well as a strong translational orientation are essential.

The Chair will have an academic appointment to the UCD School of Medicine & Medical Sciences (SMMS) and will have both a research and educational role. The appointee will be based in SBI within a new purpose built research building, which links the UCD Health Science Centre with the UCD Conway Institute. The role is initially research focussed with a view to introducing systems biology approaches into medicine teaching programmes and proactively forge links between SBI and SMMS research programmes. A main research role of the Chair will be to establish a productive dialogue between systems biology and medical research. The appointee will have substantial freedom to shape the role and contents of the research programme, but is expected to have a profile in the following

areas:

- An outstanding scientist who enjoys working in a highly interdisciplinary environment and can engage different disciplines to build a world class research programme at the interface between biology and medicine in the areas of cancer, inflammation and MSC biology by providing a topic that can link these areas, such as angiogenesis, endothelial cell biology, or molecular immunology / inflammation signalling.
- While the emphasis of this post is on experimental research, the appointee will have a strong interest in collaborating with mathematical, computational and medical colleagues and proven experience in translational research.
- The appointee will deploy state-of-the-art technologies, for instance different types of – omics technologies, flow cytometry or imaging methods, to address major questions in the field.
- The appointee will have a strong interest and background in the exploration of drug effects and drug development in a translational research setting.
- The appointee will proactively participate in collaborations with industry partners; experience in working with industry will be an advantage.

The appointee will be expected to actively participate in the SMMS teaching programmes including the Medicine (MB BCh BAO) and Biomedical Health & Life Science (BSc) degree programmes. The area of teaching will be dependent on the appointee's background and skills but is likely to be in physiology, pathology or other biomedical sciences. Although the post is initially weighted towards research, in accordance with the School's academic workload model, the appointee will be expected to co-ordinate modules within the SMMS degree programmes.

Funding

The position is permanent, but the funding for the Chair is initially through a grant from Servier for three years as part of a collaboration with SBI. Pending a positive review this external funding may be extended for another two years. This funding is available for the salary of the Chair and supporting research activities, e.g. salaries, consumables, at the discretion of the Chair subject to prevailing UCD HR policies. After that the position will be long-term supported by the UCD School of Medicine & Medical Science (SMMS). This post includes an attractive start-up package, including funding for post-doctoral fellows and research staff. It is expected that the successful candidate will be able to secure additional external peer-reviewed research funding which will continue to support the research group costs.

2010 Salary scale: €113,064 – €145,592 p.a.

2011 Salary scale: €102,244 – €131,357* p.a.

**Subject to all new entrants to public sector as of 01 January 2011*

Appointment will be made on scale and in accordance with the Department of Finance guidelines

Principal Duties and Responsibilities

It is expected that the post holder will initially have a research focus and in this respect will have substantial freedom to shape the research agenda. Principal duties and responsibilities will include the following areas:

Teaching

- Instruct and supervise students of the University in undergraduate and graduate programmes up to and including PhD level, and in programmes of other university bodies to which the School may contribute
- Undertake a leadership role in teaching and learning
- Engage in programme and curriculum design and review, preparation and delivery of lectures and tutorials and in the examination and assessment of students
- Design and implement a range of appropriate methods of teaching and assessment
- Supervise research projects carried out by undergraduate and graduate students to Doctoral level
- Provide academic counselling and advice to students

Research

- Engage actively in research and scholarly activity and undertake and publish high quality research and scholarship
- Lead, promote and engage in the development of interdisciplinary research initiatives and translational projects
- Supervise and manage student research projects
- Disseminate the results of research through publication in international peer-reviewed academic journals and by other appropriate means
- Engage actively in initiatives to successfully attract research funding
- Provide leadership by coordinating and managing the day-to-day research activities of research groups and the interactions with collaborating partners

General

- Participate in and show leadership in the academic administration of the School and appropriate University bodies
- Carry out such specific roles and functions in the School and other University bodies as may be reasonably requested
- Act as a member of such appropriate committees as may be reasonably required
- Engage in appropriate training programmes in the University
- Promote the development of the School and the University
- Maintain the highest professional standards enhancing school and University performance
- Contribute to the academic life of the School, College and University and to the wider educational community
- Undertake other such duties as directed by the Head of School in line with the contract of employment or commensurate with the nature and grade of the post
- Additional duties may be required from time to time as requested by the SBI Director, the Head, UCD SMMS or their nominee

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

- A doctoral degree awarded by a recognised University
- Significant post-doctoral experience in academia or similarly complex environments
- An excellent track record and international reputation in biology, biomedicine, translational research or systems biology discipline, ideally combinations thereof
- An excellent publication record
- Track record in obtaining grant funding
- Minimum of 5 years experience in a Principal Investigator's role in charge of complex interdisciplinary projects and/or teams in dynamic research or R&D environments
- A commitment to graduate research and teaching as evidenced by successful supervision to completion of doctoral students
- Excellent project management skills on all levels from "shop floor" management to the design and implementation of strategic plans
- A strong and proven ability to work in and shape an interdisciplinary research environment
- Proven experience in establishing and managing meaningful and productive partner relationships across boundaries between scientific disciplines and cultures, and academia and industry
- Excellent people-management skills: the ability to manage individuals and teams in a positive and proactive way; strong negotiation and conflict resolution skills
- Excellent communication and presentation skills across all communication channels (oral, written, presentation etc.)

Desirable

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| <ul style="list-style-type: none">• Experience of industry collaborations• Experience in EU projects or similar large interdisciplinary consortia |
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Further Information for Candidates**Supplementary information**

The University:	http://www.ucd.ie/
UCD College of Science:	http://www.ucd.ie/chs/
UCD School of Medicine & Medical Science	http://www.ucd.ie/medicine/
Other (Please specify):	http://www.ucd.ie/sbi/

Relocation Expenses

Will be applied in accordance with the UCD policy
<http://www.ucd.ie/hr/html/manual/remvexp.pdf>

Informal Enquiries ONLY to:

Name:	Walter Kolch
Title:	Professor
Email address:	walter.kolch@ucd.ie
Telephone:	N/A

Particular to this position

Conditions specific to this post (if any):

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| <ul style="list-style-type: none">• n/a |
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