Job Description

College/Management Unit	Physical Sciences and Engineering
School/Unit	Physics & Systems Biology Ireland
Post Title & Subject Area (if relevant)	Lecturer
Post Duration	3 years
Reports to	Head of School & Director of SBI
HR Reference No.	004045
HR Administrator	Colette O'Hea

Position Summary

Purpose:
The post-holder will be based in SBI and will have a research focussed role. This is a shared appointment with the School of Physics and will involve some teaching duties. We are looking for an outstanding scientist who wants to work in a highly interdisciplinary environment and can engage different disciplines to build a world class research programme.

The successful candidate will be qualified to PhD level or equivalent in Physics and will be expected to give lectures in general areas of Physics. The successful candidate must be willing to develop, prepare and deliver courses, including project work and tutorials to underpin lectures. The candidate may also have teaching duties related to specialist graduate level courses.
The successful candidate will also be expected to perform research resulting in quality peer reviewed publications. It is envisaged that the candidate will actively
(co-) supervise graduate students at both M.Sc. and Ph.D. level and pursue independent funding from both national and international bodies.

Systems Biology Ireland (SBI; http://www.ucd.ie/sbi/) focuses on elucidating the design principles of signal transduction networks in mammalian cells and applying this knowledge to important questions in biology and biomedicine, such as cell fate decisions (differentiation, proliferation and apoptosis), and disease relevant functional behaviour, such as cell migration. A main aim of SBI's research is to develop and apply computational models that open new avenues for understanding and treatment of human diseases. Particular areas of interest are stem cell differentiation and the control of stem cell fate decisions. This will require a deeper understanding of inherently stochastic processes, such as transcriptional control on the single cell level. In order to enhance our mathematical modelling capacities in this area, we want to expand our team by a staff member with expertise of modelling stochastic biological processes.

Salary: €35,355 - €81,452 per annum

Appointment will be made commensurate with qualification and experience.

Principal Duties and Responsibilities

The successful candidate will be expected to:

- Deliver undergraduate and graduate lecture courses and tutorials.
- Develop new courses to support the teaching mission of the School.
- Actively participate in curriculum development, teaching & learning courses to enhance teaching and other relevant continuing professional development activity.

- The post-holder will be expected to participate in ongoing SBI programmes (transcriptional control, stem cell differentiation) and contribute to SBI's overall research goals, but will have substantial freedom to develop an own research programme in systems biology.
- Demonstrate research leadership through peer reviewed publications and successful (co-) supervision of MSc and PhD students.
- Demonstrate research management skills through obtaining significant levels of funding for research.
- Establish, over time, a significant national and international profile as evidenced by participation in international research collaborations, invitations to give talks, conference organising committees etc.
- Actively contribute to the day-to-day and committee activities of the School of Physics.
- Actively participate in Open Days, Publicity and Outreach Activities.
- While the emphasis of this post is on theoretical modelling, the post-holder will have a strong interest and experience in collaborating with biologists.

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

Candidates should have:

- Will have a PhD or equivalent in Physics, Biophysics or a related area.
- Primary research experience in the stochastic modelling of biological and physico-chemical systems.
- Demonstrated ability for working within a team structure.
- A record of scientific contributions to the field, including quality, peer reviewed publications and conference contributions, commensurate with career stage.
- Lecturing/teaching experience.
- A strong ability to work in and actively contribute to an interdisciplinary research environment.
- Excellent interpersonal and communication skills with proficiency in English, and a strong collaborative spirit.

Desirable

- Experience in establishing and managing meaningful and productive partner relationships across boundaries between scientific disciplines and cultures, and academia and industry
- Previous success in obtaining a competitive Postdoctoral Fellowship or research award.
- Post- doctoral research experience

Further Information for Candidates

Supplementary information

The University:	http://ww.ucd.ie/aboutucd.htm
The School/Programme Office/Unit:	http://www.ucd.ie/sbi

Relocation Expenses

∅ Will not apply

☐ 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 & Boris Kholodenko
Title:	Profs
Email address:	systemsbiology@ucd.ie

Particular to this position

Conditions specific to this post (if any):

- n/a