



## Job Description

<b>College/Management Unit</b>	EMPS
<b>School/Unit</b>	School of Mathematical Sciences & Systems Biology Ireland
<b>Post Title &amp; Subject Area (if relevant)</b>	Lecturer
<b>Post Duration</b>	3 years
<b>Reports to</b>	Head of School & Director of SBI
<b>HR Reference No.</b>	004044
<b>HR Administrator</b>	Deirdre Wilmot

### Position Summary

This is a 3-year research and lecturing position with Systems Biology Ireland and the UCD School of Mathematical Sciences.

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 deep understanding of both gene regulatory networks and cytoplasmic signalling networks. SBI are using modern transcriptomics and proteomics technologies to experimentally address these questions. In order to enhance modelling capacities in this area SBI wants to expand its team by a staff member with expertise in using probabilistic and data driven modelling approaches to analyse biological systems.

The UCD School of Mathematical Sciences has broad research interests and this appointment will complement existing strengths in the Claude Shannon Institute, the UCD Meteorology and Climate Centre and the Statistics research group as well as the on-going activity the School already has in Mathematical Biology and Computational Science.

The appointment will be at Assistant Lecturer / College Lecturer level depending on experience.

**Salary: €35,355 - €81,452**

Appointment on scale will be made commensurate with qualification and experience.

### Principal Duties and Responsibilities

- The postholder will be based in SBI and will have a research focused role.
- The postholder will be a lecturer in the School of Mathematical Sciences with duties as directed by the Head of School.
- The appointee will be expected to participate in ongoing SBI programmes (reverse engineering of signalling networks and gene regulatory networks, cell fate decisions) and contribute to SBI's overall research goals, but will have substantial freedom to develop a research programme in systems biology.
- The postholder will be expected to contribute to the development of the School's statistical and computational teaching programme in the biological sciences. and
- The appointee will be responsible for statistical analysis needed for mathematical modelling

and data analysis within the SBI team. The appointee will work in a highly interdisciplinary environment and contribute to a world class research programme.

- While the emphasis of this post is on theoretical modelling, the postholder will have a strong interest and experience in collaborating with biological scientists
- Supervise dissertations at both undergraduate and postgraduate level and carry out administrative and other duties as deemed necessary by the Head of School or his 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 PhD in Statistics or Applied Mathematics before commencement of contract.
- Primary research experience in the use of probabilistic, statistical or data driven approaches to the modelling of biological systems.
- A record of scientific contributions to the field, such as publications and conference contributions.
- A strong ability to work in and actively contribute to an interdisciplinary research environment.
- Proven experience of successful third level teaching.
- Excellent interpersonal and communication skills, and a strong collaborative spirit.
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#### Desirable

- Experience in establishing and managing meaningful and productive partner relationships across boundaries between scientific disciplines and cultures, and academia and industry
- Good IT skills.

## Further Information for Candidates

### Supplementary information

The University:	<a href="http://www.ucd.ie/aboutucd.htm">http://www.ucd.ie/aboutucd.htm</a>
The College/Management Unit:	
The School/Programme Office/Unit:	<a href="http://www.ucd.ie/sbi">http://www.ucd.ie/sbi</a> <a href="http://mathsci.ucd.ie">http://mathsci.ucd.ie</a>
Other (Please specify):	

### 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:

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**Particular to this position**

Conditions specific to this post (if any):

- n/a