



Job Description

Management Unit	UCD Research
Unit	Conway Institute
Post Title	Research Technical Scientist - Advanced Atomic Force Microscopy
Project	Nanoremedies
Post Duration	2 years
Reports to	Suzi Jarvis
HR Reference No.	004751
HR Administrator	Mark Leonard

Position Summary

This position plays a key role in a new interdisciplinary programme of research called Nanoremedies, which brings together a team of scientists working in the fields of nanomechanics, biomaterials, regenerative medicine and systems biology to understand molecular mechanisms of mechanotransduction in cells and their relationship to functional adaptation and pathological conditions within the human body.

This position focuses on the application of a highly sensitive bespoke atomic force microscope to improve our understanding of conformational transitions of individual mechanochemically sensitive proteins under a defined strain. Applying the same high resolution AFM to the mechanical characterization of synthesized protein and peptide structures will help the team to tailor peptide based biomaterial assemblies for use as functional scaffolds.

By co-ordinating, developing and expanding the role of advanced atomic force microscopy in the research programme the technical scientist will be involved in many aspects of the programme and is expected to help in facilitating collaborative research between multiple research teams.

The applications of the research are likely to be important to the medical device industry, and the technical scientist is thus expected to help identify potential applications arising from the basic research programme and work closely with industrial partners during the course of the project.

The technical scientist will be responsible for the maintenance of a bespoke ultra-high resolution AFM, and will work with collaborators from within and outside the University and from a wide spectrum of different areas of science.

Salary: €37,000 - €42,000 per annum

Appointment on the above range will commensurate with qualifications and experience

Principal Duties and Responsibilities

- Perform the planned research of Nanoremedies which requires high-resolution atomic force microscopy
- Further integrate high-resolution atomic force microscopy into the research plans of Nanoremedies as the research develops
- Support and train other AFM users
- Mentor and assist, as appropriate, the research graduate students in Nanoremedies
- Engage in the dissemination of the results of the research
- Ensure the effective utilisation of the microscope on a day to day basis
- Maintain and upgrade equipment & software

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 Nanoscience
- Extensive experience of atomic force microscopy
- An interest in nanoscale approaches to bioengineering
- A demonstrated commitment to research and its dissemination via publication and presentation
- Experience of bespoke microscope design and development
- Excellent Communication Skills (Oral, Written and Presentation)
- A demonstrated ability to work well with other people as part of a scientific collaboration
- Excellent Organisational and Administrative skills including a proven ability to work to deadlines

Desirable

- An interest in the commercialisation of university research
- Experience of applying liquid AFM to biological systems

Further Information for Candidates

Supplementary information

The University:	http://www.ucd.ie/aboutucd.htm
Management Unit:	http://www.ucd.ie/research/
Unit:	http://www.ucd.ie/research/ourresearch/researchinstitutes/conway/
Nanoscale Function Group:	www.nanofunction.org

Relocation Expenses

- Will not apply
- Will be applied in accordance with the UCD policy
<http://www.ucd.ie/hr/policies/#d.en.31150>

Informal Enquiries ONLY to:

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