Three year post-doctoral fellow in the area of biofilms

The successful applicant will be based in the UCD Biofilm Laboratory (http://biofilmlab.ucd.ie). The PhD student will join a dynamic multi-disciplinary research team and involves collaboration with the Centre for Bionano Interactions (http://www.ucd.ie/cbni). The project is funded by Science Foundation Ireland (www.sfi.ie). The Principal Investigator is Prof Eoin Casey (https://goo.gl/J9lAO7)

Research Topic

Biofilms are accumulations of microorganisms that adhere to surfaces and to each other within a matrix of self-produced extracellular polymeric substances (EPS). The microorganisms in biofilms display a tolerance to antimicrobials, including disinfectants and antibiotics and are difficult to eradicate. Attention is now shifting to methods for the degradation/dispersion of the biofilm EPS matrix. This project aims to exploit the potential of nanoparticles (NPs) for biofilm control. There is currently a lack of a fundamental understanding of mechanisms associated with biofilm-nanoparticle interactions. A critical challenge concerns the role of the NP-biofilm matrix interactions.

Your Profile

Mandatory

- PhD in microbiology or a closely related discipline
- Experience in fluorescence microscopy
- A record of research, as evidenced by past and recent publications in high quality journals and contributions to international refereed conferences
- Ability to work in multidisciplinary team
- Demonstrated ability to deliver presentations to key stakeholders
- Demonstrated project management skills

Desirable

- Expertise in confocal microscopy
- Expertise in biofilm cultivation and/or characterisation

Applications

To apply for this post-doc position, go to https://www.ucd.ie/hr/jobvacancies/ and enter position 008866. Closing date is January 16th 2017.

References

Zanoni et al (2015) Antifouling activity of enzyme-functionalized silica nanobeads. Biotechnology and Bioengineering'. Biotechnology and Bioengineering, 113 :501-512 https://goo.gl/ZT4Dqc

Cao et al (2016) 'Revealing region-specific biofilm viscoelastic properties by means of a microrheological approach'. npj Biofilms and Microbiomes, www.go.nature.com/2h0UT0J