



AO Foundation
Research Fund



PhD Fellowship Position in Disc Biomaterials

Network of Excellence for Functional Biomaterials

Applications are invited from suitably qualified candidates for the position of postgraduate researcher within the Network of Excellence for Functional Biomaterials (NFB) at the National University of Ireland, Galway. The project is funded through the AO Foundation's Collaborative Research Center under the AO Foundation Exploratory Research Programme.

Organisation: NUI Galway has a track record of high-level interdisciplinary research in areas such as vascular biology, cardiothoracic and vascular anaesthesia, acute pain management, infectious disease, cancer biology, biomedical engineering, neuroscience and molecular diagnostics. The Network of Excellence for Functional Biomaterials (NFB) led by Prof. Abhay Pandit is a partnership of scientists, engineers and clinicians, who all share a common vision of developing the next generation of functionalised biomaterials as innovative and successful therapies that provide solutions for current clinical needs. The outputs of the Network are innovative biomaterials based therapeutic strategies for application to a wide variety of human diseases. The University provides a research-friendly social and cultural environment. Galway is also one of the key cities in Europe with a significant presence of the medical device industry sector.

For more information on NFB please refer to www.nfb.ie

Job Description: A postgraduate researcher (PhD) position will be available starting in July. The successful candidate will work on the project which aims to develop a platform delivery technology for intervertebral disc regeneration amongst other clinical applications. The successful candidate will develop, characterize, and optimize a biomaterials-based micro structured construct to mimic a physiological stem cell niche and act as a reservoir system for candidate genes. The successful candidate will evaluate the efficacy of antibody tethered nanostructures for therapeutic delivery of candidate genes of interest involved in the up regulation or down regulation of IVD degeneration. The successful candidate will establish 'Proof of Concept' of both systems for gene transfection in AF cells in an organ culture system. The fellowship will cover fees and a monthly stipend. Fellowship: €16,000 plus fees.

Applicant's Specifications: The ideal candidate would have a Masters or a Bachelor's degree in biomedical sciences or a related subject. A first class honours track record is essential. Experience in one or more of the following would be advantageous but is not essential: extra cellular matrix based biomaterials, stem cells, competitive binding ELISA assays, drug release kinetic assays, molecular biology, protein quantification and immunohistochemical techniques. Candidates must be highly motivated and passionate about developing new products and have **strong** documented oral and interpersonal skills.

Start date: July 2011

To Apply: Applicants are requested to submit a i) covering letter explaining why you wish to pursue a research PhD and why you are specifically interested in this project, ii) full CV including university exam grades, and iii) contact details of three referees to Ms. Tara Cosgrave, Network of Excellence for Functional Biomaterials (NFB) via E-mail: (nfb@nuigalway.ie) quoting "NFB-04-11".

Closing Date for applications is 5.00pm on June 30th