



Trinity College Dublin
Coláiste na Tríonóide, Baile Átha Cliath
The University of Dublin



Postdoctoral Researcher in 3D Bioprinting and Tissue Engineering

Position: Postdoctoral Research Fellow

Project Title: The development of novel additive biomanufacturing strategies to tissue engineer hybrid implants for synovial joint regeneration

Project Description: The successful applicant will join a multidisciplinary team that is exploring the use of emerging 3D bioprinting strategies for Tissue Engineering and the development of next generation medical devices. The overall goal of the project is to develop a new class of 3D bioprinted biological implant that will regenerate, rather than replace, diseased joints. This will be realised by integrating developments in the 3D printing of metals, biodegradable polymers and cell-laden bioinks to develop hybrid biological devices, using dedicated bioprinting and additive manufacturing laboratories based in Trinity College Dublin. The successful applicant will specifically focus on integrating 3D printed metal implants with tissue engineered articular cartilage to develop hybrid implants for resurfacing the hip joint. The overall project is a collaboration between the Advanced Materials and Bioengineering Research (AMBER) centre, DePuy Ireland Unlimited Company and Johnson & Johnson Services, Inc.

For more information please contact Prof. Daniel Kelly (kellyd9@tcd.ie).

Applicant criteria: The ideal applicant will have a PhD in biomaterials, tissue engineering, 3D printing or a related subject. Previous experience in 3D (bio)printing, hydrogels, tissue engineering, cell culture, biochemical analysis, mechanical testing, histology techniques would be highly advantageous. Excellent written and oral communication skills are essential.

Start Date: From January 2021 onwards; position will remain open until it is filled.

How to apply: CVs with the names and contact details of three referees should be submitted *via* email to Prof. Daniel Kelly (kellyd9@tcd.ie).

The Kelly Lab: Dr Daniel Kelly is the Professor of Tissue Engineering at Trinity College Dublin. He is also the co-lead of the 'Materials for Health' platform in AMBER, the Science Foundation Ireland funded materials science centre based in Trinity College Dublin. He is a past recipient of a Science Foundation Ireland President of Ireland Young Researcher Award, a Fulbright Visiting Scholar grant (at the Department of Biomedical Engineering in Columbia University, New York) and three European Research Council awards (Starter grant 2010; Consolidator grant 2015; Proof of Concept 2017). His lab focuses on developing novel tissue engineering and 3D bioprinting strategies to regenerate damaged and diseased musculoskeletal tissues. The successful applicant will join a dynamic, multidisciplinary lab consisting of 20 postdoctoral researchers and PhD students based in the Trinity Centre for Biomedical Engineering. More information can be found here: <https://www.tcd.ie/biomedicalengineering/regenerative/kellylab/>

About the Advanced Materials and Bioengineering Research Centre (AMBER): AMBER is a Science Foundation Ireland funded centre that provides a partnership between leading researchers in materials science and industry. More information can be found at <http://ambercentre.ie/>

The AMBER research centre, as a community of researchers, welcomes its responsibility to provide equal opportunities for all. We are actively seeking diversity in our research teams and particularly encourage applications from underrepresented groups.

About the Trinity Centre for Biomedical Engineering (TCBE): TCBE is a key research centre in Trinity College combining fundamental research with translation to clinical practice. TCBE provides a structure to bring bioengineers, basic scientists and clinicians together to focus on important clinical needs and has four key research themes: Medical Devices & Advanced Drug Delivery, Neural Engineering, Biomechanics & Mechanobiology, Tissue Engineering & Regenerative Medicine. The project work will be carried out in our state-of-the-art facilities located in the Trinity Biomedical Sciences Institute.