



Trinity College Dublin

Coláiste na Tríonóide, Baile Átha Cliath

The University of Dublin

European Research Council Funded Postdoctoral Researcher Position in 3D Bioprinting and Tissue Engineering at Trinity College Dublin

Positions: Postdoctoral Research Fellow

Project Title: Articular cartilage regeneration through the recruitment of endogenous progenitor cells into extracellular matrix derived scaffolds anchored by 3D printed polymeric supports

Project Description: Osteoarthritis (OA), the most common form of arthritis, is a serious disease of the joints affecting nearly 10% of the population worldwide. The onset of OA has been associated with defects to articular cartilage that lines the bones of synovial joints. Current strategies to treat articular cartilage defects are ineffective and/or prohibitively expensive. The aim of this project is to develop a new medicinal product for articular cartilage regeneration that recruits endogenous bone marrow derived stem cells into an extracellular matrix derived scaffold anchored to the subchondral bone by 3D printed polymeric supports.

The ideal applicant will have a PhD in Biomaterials or Tissue Engineering. Experience in 3D printing / bioprinting, mesenchymal stem cells, scaffolds and/or animal models of musculoskeletal injury would be highly desirable.

The Kelly Lab: Dr Daniel Kelly is the Professor of Tissue Engineering and Director of the Centre for Bioengineering (<https://www.tcd.ie/bioengineering/>) in Trinity College Dublin. He is also the leader of the biomaterials platform in AMBER (<http://ambercentre.ie/people/prof-daniel-kelly>), 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 Bioengineering.

Start Date: December 2017 (preferred).

Application process: Please e-mail your CV (including the names of 3 referees) to Daniel Kelly (kellyd9@tcd.ie).