



Position Title	PhD Studentship - Smart Inverse Piezoelectric Biomaterials for Cardiac Organoid Engineering
Project Abstract	<p>Electro-conductive biomaterials are an emerging topic in the field of tissue engineering with current solutions today in biosensors, neural implants, drug delivery devices, and tissue engineered scaffolds. The Monaghan Lab have developed a number hybrid polymeric materials based on poly(3,4-ethylenedioxythiophene:poly(styrenesulfonate) (PEDOT:PSS), polypyrrole (PPy), among others, that are biocompatible, exhibit tunable electrical and mechanical properties and are relatively straightforward to produce. These materials have been shaped in 2D, and in 3D through a number of additive manufacturing processes (lyophilisation, melt electrospinning writing) with novel crosslinking agents to attain aqueous stable 3D porous structures.</p> <p>The overall objective of this project is to investigate, modify and employ electroconductive materials to achieve inverse piezoelectric transduction for tissue engineering applications.</p>
Experience	The PhD position is funded for 4 years, including a monthly stipend and materials and travel budget. Applicants should hold a minimum of an honours bachelor's degree at 2:1 level or equivalent in a relevant subject such as Bioengineering/Physics/Bioscience.
Funding	The studentship will cover fees up to €5,500 pa and a stipend of €18,500 pa
Location	TCD
Closing Date	Friday 29 th June 2018
For more information contact	Dr. Michael Monaghan; monaghmi@tcd.ie ; +353 1896 8582; www.monaghanlab.com

AMBER,
CRANN Institute,
Trinity College Dublin,
Dublin 2, Ireland

T + 353 (0) 1 8963030
W ambercentre.ie
twitter @ambercentre

