

Postdoctoral position in cardiovascular medical device design

Position: Postdoctoral Research Fellow

Project Title: Development of a novel device to treat chronic totally occluded arteries

Project Description: The goal of the project is to develop a medical device to aid with opening up the lumen of a chronic totally occluded artery. Primarily, the intended use of the device will be within the peripheral vasculature, and specifically the device will be designed to treat lower limb vascular disease in the first instance. The project will utilise an iterative *design* and *test* feedback loop to develop the device. The testing phase will initially consist of bench top models and mechanical durability testing, subsequently advancing to pre-clinical models as the design progresses through the design cycle. The design cycle of this project stretches from defining the user needs to verifying the design outputs meet the design inputs during the pre-clinical model phase.

Essential Requirements:

- Postgraduate Mechanical or Biomedical engineering degree (or industry equivalent)
- Strong working knowledge of 3D CAD software (preferably Solidworks)
- Strong biomedical materials and solid mechanics knowledge

Salary: Negotiable

Project Duration: 12-24 months

Start Date: February 2016

Note: This project is funded by Enterprise Ireland's innovation partnership fund – the collaborating company is Clearstream/Bard PV. The candidate would be expected to form a close alliance with the partner company as the project progresses.

Contact – Dr Bruce Murphy. Please e-mail your CV to Bruce Murphy (bruce.murphy@tcd.ie).

Closing Date for CV's: 25th of January 2016