**Research Assistant/Postdoctoral Research Fellowship in Computational Vascular Mechanobiology (1 year)**

**Project Description:**

The aim of the project is to advance the development of a mechanobiological model of vascular tissue adaptation in response to medical device implantation, such as intravascular stenting. The project aims to expand our existing expertise to advance a mechanobiology model of in-stent restenosis with a view to developing a preclinical tool for stent design optimisation. Experiments designed and run in-house will be used to inform and validate the model. The researcher will work closely with other members of a multidisciplinary team including PIs, clinicians, postdoctoral research fellows and postgraduate researchers in the Trinity Centre for Bioengineering and in collaborating institutions including the Technical University Eindhoven.

**Required Qualifications:**

The candidate should have a MSc or PhD in, bioengineering, mechanical or structural engineering, computer science or a related discipline with specific expertise in tissue modelling using finite element modelling and/or agent based modelling approaches. Strong computer programming skills (e.g. Python, C++, Matlab, etc.) would be a key advantage. Postdoctoral candidates should have a strong publication record and a demonstrated ability to mentor PhD students.

**The Lally Lab:**

Caitríona Lally is a Professor in the School of Engineering in Trinity College Dublin and PI within the Trinity Centre for Bioengineering (TCBE). Prof. Lally leads a multidisciplinary research group where the aim is to develop an innovative means of diagnosing and treating cardiovascular diseases through the integration of arterial biomechanics and vascular biology (http://www.mee.tcd.ie/biomaterials/People/CLally).

The successful applicant will work within a multidisciplinary project team including PIs, postdoctoral research fellows and postgraduate researchers in the Trinity Centre for Bioengineering (TCBE; http://www.tcd.ie/bioengineering/) in Trinity College Dublin.

**Start date:**

May 2018 (preferred); position will remain open until suitable candidate is found.

**Application process:**

Please e-mail your CV (including the names and contact details of 3 referees) to lallyca@tcd.ie with the subject heading “Research Assistant/Postdoctoral Researcher in Vascular Mechanobiology”