

Postdoctoral candidate in mechanobiology of vascular smooth muscle

The Cellular Mechanobiology Lab at the University at Buffalo, led by Dr. Yongho Bae, is looking for a postdoctoral candidate to work in mechanobiology of vascular smooth muscle cells (VSMC), conducting research towards discovering and understanding ECM stiffness-mediated mechanosensing processes in cardiovascular biology and disease.

Cardiovascular disease (CVD) is the main cause of death globally.

Arterial stiffness is a significant risk factor of CVD. Evidence suggests that arterial stiffening can drive aberrant migration and proliferation of VSMCs within the vessel wall. Yet, the underlying mechanisms regulating vascular stiffening and the molecular changes within VSMCs associated with the stiffening process remain unclear.

We propose to address this gap in understanding by investigating how changes in arterial stiffness affect VSMC functions and contribute to the progression of CVD.

Experience in the field of Cell Biology and Bioengineering with a focus on the mechanisms how the biomechanical properties of the extracellular matrix (ECM) or tissue regulate cells and contribute to the advance of CVD. Responsibilities include independent development and execution of well-controlled experiments in cell/molecular biology, maintenance and use of genetically altered mice, quantification of vascular injury and atherosclerosis and in vitro mechanism analysis in VSMCs.

Experience in mouse models of atherosclerosis and vascular injury, computational modeling, atomic force microscopy of soft materials and living tissues/cells, and VSMC biology and ECM is preferred. Applicants must have a Ph.D. degree and have demonstrated excellent qualifications in research.

Review of applications will begin Feb. 13, 2017, with position to commence by March or April 2017.

Interested individuals should send a cover letter, detailed CV, a short research/goals statement, and three letter of reference to:

Dr. Bae at yonghoba@buffalo.edu.

<http://medicine.buffalo.edu/content/medicine/faculty/profile.html?ubit=yonghoba>