



01.02.2018

Master research project in receptor and cardiomyocyte biology
University of Greifswald

A master project dedicated to study receptor-mediated mechanical response in cardiomyocyte physiology is now available at the University of Greifswald.

We are looking for a highly motivated Master student in biology, biochemistry, biophysics, bioengineering or a related field to undertake their thesis in understanding the role of a family of receptors involved in cell-to-cell communication and their impact on cardiomyocyte physiology.

The student will work in an interdisciplinary team of international scientists at the interface of biology, engineering and physics at the Innovation Center of Humoral Immune Response in Cardiovascular Disorders (ZIK-HIKE), University of Greifswald, Germany. ZIK-HIKE is an interdisciplinary institute and a joint project of the faculty of natural sciences and the faculty of medicine at the University of Greifswald. Here, the laboratory of Biomechanics headed by Dr. Oliver Otto focuses on studying the mechanical properties of cells. We explore fundamentally relevant biological questions developing and applying state-of-the-art biophysical and nanotechnological methods.

The project aims to investigate the involvement of a family of protein receptors involved in cell-to-cell communication and understand their role in modulating the differentiation, dynamic behaviour, mechanical properties and overall physiological state of cardiomyocytes derived from pluripotent stem cells. To this end, the student will make use of our cell culture facilities to differentiate cardiac progenitor cells into cardiomyocytes. The student will also be introduced to video and fluorescence microscopy techniques to evaluate changes in cardiomyocyte contractility, expression of cellular markers and cytoskeletal organization.

More information can be found at www.biomech-hgw.org. Funds for a part-time student job (Wissenschaftliche Hilfskraft) are available to cover living expenses if applicable.

Please submit your application containing a cover letter and CV to Dr. Oliver Otto via e-mail (oliver.otto@uni-greifswald.de).