

Structured MD/PhD curriculum: Molecular Mechanisms of Regenerative Processes

Research fields:

Stem cell biology Cardiac regeneration strategies Molecular signatures of diseases Post translational modification analysis Epitope mapping



Organisation:

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Molecular Mechanisms of

Universitätsmedizin

PROTEOME ALLIANCE

5th Participants` Camp

Jniversität

Regenerative Processes

4th June 2013 9:00 - 17:30



Location:

Albert-Einstein-Str. 3a, HS002 18059 Rostock

Speaker of the curriculum committee:

Prof. Dr. Michael O. Glocker Phone: +49 381 494 4930 E-Mail: michael.glocker@med.uni-rostock.de **Cooperation Partners:**

- Graduate Academy of the University of Rostock
- Proteome Alliance e. V.



Albert Einstein Str. 3a, HS002

18059 Rostock

The conference is open to all interested students, MD/PhD students, Postdocs, faculty, and staffs

http://www.med.uni-rostock.de/index.php?id=811

General Information

The Participants' Camp is an event of the structured study path *Molecular Mechanisms of Regenerative Processes* at the University of Rostock.

In this context our junior scientists take the opportunity to present their topics, which are focussed among others on stem cell research and the involvement of genes and proteins in regenerative processes related to human health.

This interdisciplinary and international orientated programme is offered by the University Medicine Rostock and provides qualified young scientists the opportunity to gain an MD degree (*Dr. med. (medicinae*)), or a PhD degree (*Dr. rer. hum. (rerum humanarum)* or *Dr. rer. nat. (rerum naturalium*)) in the field of Life Science.

Med. Biotechnologists with a Master degree and students of the University Medicine (prerequisite: 1. state examination) as well as scientists of the Faculty of Mathematics and Natural Sciences and of the Faculty of Agricultural and Environmental Sciences (prerequisite: Dipl./ Master's degree in Life Science) are most welcome to enrol for our curriculum.

Programme

Time Tuesday; 4th June, 2013

9:00 Prof. M. O. Glocker Welcome and Introduction

Invited Speaker

9:15 Dr. Davor Turkovic

Shotgun proteomics with the Synapt G2-S HDMS system -The benefits of data independent acquisition

Session I: Cardiac regeneration strategies

10:00 **Prof. R. David**

Generation of specific cardiomyocyte subtypes from stem cells

- 10:30 N. Voronina Genetic modification for cardiac angiogenesis using magnetic-nanoparticle based delivery of micro RNAs
- 10:50 **F. Hausburg** Reprogramming of somatic cells into cardiomyocytes

11:10 Coffee Break

Session II: Epitope mapping

11:50 Dr. P. Lorenz

Profiling of the humoral immune response by peptide microarrays.

12:20 K.F.M. Opuni

A Novel method for epitope mapping by affinity mass spectrometry in the fmol range

12:40 M. Al-Majdoub

The *TRIM21* autoantigen epitope: structural and biochemical characterization by affinity mass-spectrometry

13:00 Lunch break

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Session III: External and internal disease dysregulation

14:20 Prof. O. Hakenberg

Molecular changes in bladder cancer and urine-based diagnosis

14:50 G. Mukherjee

Phosphopeptide analysis using ionic liquid matrix MALDI-MS: Examples from bladder cancer samples

15:10 S. Zaatreh

Implant– related infections in total joint arthroplasy: In-vitro analysis of the bacterial colonization and biolim formation

15:30 Coffee Break

Session IV: Molecular signatures of diseases

16:00 Prof. M. O. Glocker

Clinical proteome analysis strategies

16:30 J. Yang

Proteome signatures of Free Flaps - Mass spectrometric and proteome analysis of protein profile changes during Ischemia and Reperfusion

16:50 **A. Hegglin**

Proteomic analysis of skin graft taking– a time course study

17:10 M. Jacobs

Comparison of molecular processes in traumatized and healthy muscle tissue by mass spectrometric proteome analysis

- 17:30 Summary and Farewell
- 18:00 Get-together and BBQ