Structured Curriculum for MD and PhD students
University Medicine Rostock

Participants’ Camp WS 2014

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9th Proteome Forum – 2014

3rd - 4th of December, 2014
Wednesday, 3rd December 2014

Session I: Stem Cell and Cardiac Regeneration/Molecular Disease Mechanisms
(Chair: Kwabena Opuni)

10:00-12:00  Laboratory Tour
             Frauke Hausburg, Cardiac Stem Cell Translation Office

12:00-13:00  Lunch break

13:00-13:05  Welcome Address
13:05-13:50  Prof. Dr. Robert David, Reference and Translation Center for Cardiac Stem Cell Therapy
             Stem Cell derived Cardiac pacemaker Constructs
13:50-14:35  Dr. Arash Yavari, The Wellcome Trust Center for Human Genetics, Oxford University
             PRKAG2 – insights into heart rate regulation
14:35-15:00  Marcus Wolfien, Reference and Translation Center for Cardiac Stem Cell Therapy
             Next Generation Sequencing Data Analysis of Stem Cell Derived Cardiomyocyte Cell Types
15:00-15:25  Praveen Vasudevan, Reference and Translation Center for Cardiac Stem Cell Therapy
             Strategies for increased survival and integration of transplanted cells for cardiac regeneration and biological pacemaker implantation
15:25-15:50  Sarah Zaatreh, Department of Orthopedics
             In-vitro analysis of bacterial colonization and proliferation of human osteoblasts on magnesium surfaces.
15:50-16:15  Martin Jacobs, Proteome Center Rostock
             Proteome Analysis of Biochemical Pathways and Inflammatory Processes in Traumatized, Ischemic and Healthy Muscle Tissue by UPLC-ESI-IMS- Mass Spectrometry

16:15-17:00  Coffee Break

17:00-18:00  Prof. Dr. Peter Højrup, University of Southern Denmark
             Mysteries in proteomics and protein structural analysis? Keep your eyes open - always question your results and be prepared for unusual observations
18:00-19:00  Dr. Günter Böhm, Director of Applications, CTC Analytics AG, Zwingen, Switzerland
             Automated sample preparation for ´omics applications

19:00-22:00  Dinner, "Zum Alten Fritz", Warnowufer 65, 18057 Rostock

Seminar room 125/126, Schillingallee 70, University Medicine, Rostock
### Thursday, 4th December 2014

**Session II: Stem Cell and Cardiac Regeneration/Structural Proteomics**  
(Chair: Frauke Hausburg)

<table>
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<tr>
<th>Time</th>
<th>Event</th>
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| 9:00-10:30    | **Laboratory Tour**  
**Dr. Cornelia Koy**, Proteome Center Rostock |
| 10:45-11:10   | **Yelena Yefremova**, Proteome Center Rostock  
Probing Protein Solution Structure by nanoESI-MS |
| 11:10-11:35   | **K.F.M. Opuni**, Proteome Center Rostock  
Characterization of Protein Complexes by Native Mass Spectrometry |
| 11:35-12:00   | **Hasan AL-Bony**, Institute of Immunology  
Analysis of humoral immune responses to frame shift proteins in renal cancer |
| 12:00-13:00   | **Lunch break** |
| 13:00-13:45   | **Prof. Dr. Michael Glocker**, Proteome Center Rostock  
Mass spectrometric characterization of limited proteolysis activity in plasma samples from Rheumatoid Arthritis patients |
| 13:45-14:10   | **Frauke Hausburg**, Reference and Translation Center for Cardiac Stem Cell Therapy  
Non-viral introduction of micro-RNA into bone marrow derived CD133+ stem cells |
| 14:10-14:35   | **Paula Müller**, Reference and Translation Center for Cardiac Stem Cell Therapy  
Reprogramming of bone marrow derived human stem cells into cardiomyocytes using microRNA |
| 14:35-15:00   | **Natalia Voronina**, Reference and Translation Center for Cardiac Stem Cell Therapy  
Non-viral targeted delivery of miRNAs for promoted angiogenesis |
| 15:00-16:00   | **Coffee break** |
| 16:00-16:45   | **Prof. Dr. Armin. Geyer**, Philipps-Universität Marburg  
Constriction of peptides for the construction of antibody epitopes |
| 16:45-17:00   | **Closing remarks** |
| 19:00-22:00   | **Dinner**, "Restaurant Hopfenkeller", Kröpeliner Straße 18, 18055 Rostock |

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**Seminar room 125/126, Schillingallee 70, University Medicine, Rostock**
Location on Campus:


1st floor, Microbiology Seminar room 125/126