Universität Rostock

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Universität Rostock
welisa
DFG-Graduiertenkolleg 1505/2

Closure Symposium RTG *welisa*
July 2 – 4, 2017

2. July 2017		
17:30 Registration		
18:30	**Eröffnung** durch die Sprecherin des Graduiertenkollegs Prof. Dr. Ursula van Rienen **Grußworte** des Dekans der Interdiziplinären Fakultät Prof. Dr. Rüdiger Köhling	
18:45	Cathodic Voltage-Controlled Electrical Stimulation for Orthopedic Infection Control	Prof. Dr. Mark Ehrensberger University at Buffalo
19:30	**Welcome reception**	**At Gutmannsdörfer**

Location: Strandhotel Hübner, Warnemünde, Seestraße 12

Welisa – Research Training Group

www.welisa.uni-rostock.de

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Closure Symposium RTG *welisa*
Monday 3. July 2017

3. July 2017	**Electrostimulatve implants for bone growth and regeneration** **Chair: Wolfram Mittelmeier / Rainer Bader / Bernd Kreikemeyer**	
10:15	New Research Aspects and Innovative Treatment Approaches in Implant associated Bone Infections	Prof. Dr. Reinhard Schnettler University of Gießen
10:45	Electric Double Layer – a Long Electrostatic Journey	Dr. Ekaterina Gongadze Rothamsted Research, UK
11:15	Study of the Piezo-Electric Effect in Bone by High-Resolution Synchrotron Diffraction	Regine Willumeit-Römer Helmholz Zentrum, Geesthacht
11:45	Influence of Electrical Fields on Osteogenic Differentiation	Dipl.-Biol. Josefine Ziebart University Medicine Rostock
12:00	Effects of Electrical Stimulation on the Chondrogenic Differentiation Potential of Human BM-MSCs and Chondrocytes	MSc Bettina Hiemer University Medicine Rostock
12:15	Effects of Electrical Stimulation using Alternating Current on Staphylococcal Growth and Biofilm Formation	MSc Thomas Dauben University Medicine Rostock
12:30	**LUNCH**	

Afternoon	**Cell adhesion formation and growth** **Chair: Jan Gimsa / Barbara Nebe**	
14:00	Interactions of Cells, Bacteria and Molecules with Self-Assembled Titanium Nanostructures	Prof. Dr. Ales Iglic University of Ljubljana
14:30	Atomic Force Microscopy combined with Optical Tweezers - A Versatile Force Tool to Investigate Cell Mechanics and Single Molecules Interactions	Dr. Torsten Müller JPK Berlin
15:00	Comparing the Initial Adhesion of Prokaryotic and Eukaryotic Cells	Dipl.-Biochem. Philipp Wysotzki University of Rostock
15:15	Optimization of *in vitro* Culturing Systems for Bone Cells-Influence of pH and Mechanical Stimulation	Dipl.-Biol. Anne-Marie Galow University of Rostock
15:30	Combined Setup for Defined Electrical Stimulation of Neuronal Networks	Dipl.-Biol. Denise Franz University of Rostock
15:45	**COFFEE**	
16:00	Thin Organic Coatings Determining the Physicochemical Surface Properties of Biomaterials	PD Dr. Rainer Müller University of Regensburg
16:30	Cell Physiological Phenomena on Geometrically Structured Biomaterial Surfaces	Dr. Susanne Stählke University Medicine Rostock
16:45	Caveolae-Mediated Phagocytosis of Biomaterial Surface Structures by Osteoblasts	Dr. Caroline Mörke Kiel University
17:00	**POSTER SESSION**	
20:00	**DINNER**	

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Closure Symposium RTG *welisa*
Tuesday 4. July 2017

4. July 2017	Electrostimulative implants for auditory and deep brain stimulation Chair: Ursula van Rienen	
9:30	Network Based Brain Stimulation	Dr. Andreas Horn Charite Berlin
10:00	Adaptive Estimation of the Neural Activation during Deep Brain Stimulation	Dr. Christian Schmidt University of Rostock
10:15	Effects of Deep Brain Stimulation in the 6-Hydroxydopamin-Induced Hemiparkinson Model of the Rat	Dr. Kathrin Badstübner University Medicine Rostock
10:30	**COFFEE**	
11:00	Introduction and Clinical Challenges in Cochlear Implantation	Prof. Dr. Robert Mlynski University Medicine Rostock
11:30	In-vitro Measurements and in-silico Studies of a Physical Model for Determination of Electrical Properties of Biological Tissues	MSc Mirjana Holst University of Rostock
11:45	Qualitative Effect of Tissue Heterogeneity on the Transmembrane Potential of Type-1 Spiral Ganglion Neurons: A Simulation Study	MSc Kiran Sriperumbudur University of Rostock
12:15	Challenges in Modeling Nerve Electrode Interactions of Neuronal Implants	Dr. Revathi Appali University of Rostock
12:30	**Closing remarks**	

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