SACHSEN-ANHALT

EUROPÄISCHE UNION
ESF
Europäischer Sozialfonds

ABINEP

MEMoRIAL
Medical Engineering and Engineering Materials

Joined Kickoff Meeting of the **International Graduate Schools ABINEP and MEMoRIAL**

Sep-26, 2017 | Festung Mark, Magdeburg, GER

www.abinep.ovgu.de | www.memorial.ovgu.de | www.europa.sachsen-anhalt.de

09:30–09:45	Welcome by the OVGU Rectorate Prof. Jens Strackeljan and Prof. Monika Brunner-Weinzierl
09:45–09:50	Welcome by the Ministry for Economy, Science and Digitalisation of Saxony-Anhalt Horst Winkelmann
09:50–10:10	**Introduction to MEMoRIAL:** Medical Engineering and Engineering Materials Prof. Thorsten Halle
10:10–10:30	**Introduction to ABINEP:** Analysis, Imaging, and Modelling of Neuronal and Inflammatory Processes Prof. Volkmar Leßmann
COFFEE BREAK I + PHOTO SESSION	

Session 1 – ABINEP: Modules I and II

Chairs: Prof. Constanze Seidenbecher, Prof. Dirk Schlüter, Prof. Volkmar Leßmann, and Prof. Frank Ohl

11:00–11:05	**Introduction to Module I –** *Neuroinflammation: Inflammatory Processes in Neurodegeneration* Prof. Constanze Seidenbecher and Prof. Dirk Schlüter
11:05–11:10	**Sarah Schreier** | *Importance of the Astrocytes Activation in Neuropathological Situations Such as Stroke and Viral Infections*
11:10–11:15	**Rituparna Bhattacharjee** | *Development of New Techniques for Visualisation of Neuroinflammatory Processes During Infections and Autoimmunity Diseases of the Brain*
11:15–11:20	**Timothy French** | *Effect of Peripheric Inflammations on the Homeostasis of the Brain*
11:20–11:25	**Carla Marcia Cangalara Lira** | *Cytoskeleton-Dependent Mechanisms of the Microglia-Matrix-Neuron-Interaction During Neuroinflammatory Processes*
11:25–11:30	**Ayse Malci** | *Neuroplastin-Mediated Effects in the Nerve and Immunity System*
11:30–11:35	**Introduction to Module II –** *Neurophysiology and Computational Modelling of Neuronal Networks* Prof. Frank Ohl
11:35–11:40	**Babak Khodaie** | *Cellular Simulation of the Dopamine/BDNF-Dependent Modulation of the Synaptical Plasticity*
11:40–11:45	**Vivkanandhan Viswanathan** | *Dopamine-Dependent Modulation of Neuronal Switches in the Auditory Cortex and the Striatum*
11:45–11:50	**Ehsan Kakaei** | *Modelling of Dopamine-Induced Neuronal Network Activity – "Learning Conditional Associations: Rich Temporal Context and Involvement of Hippocampus / Medial Temporal Lobe"*
11:50–11:55	**Babak Saber Marouf** | *Simulation of Behaviour-Dependent Network Activity and Dynamics on the Basis of In Vivo and In Vitro Recording*
11:55–12:00	**Evangelia Pollali** | *Modulation of Behaviour-Related Oscillations by Interneuron Networks*
LUNCH BREAK	

Session 2 – MEMoRIAL: Modules I and II

Chairs: Prof. Oliver Speck and Prof. Holm Altenbach

13:00–13:10	**Introduction to Module I (Medical Engineering) –** *Using Prior Knowledge in Medical Imaging* Prof. Oliver Speck
13:10–13:15	**Sebastian Bannasch** | *Model-Based Reconstruction Methods for CT Perfusion Imaging*
13:15–13:20	**Domenico Iuso** | *Use of Prior Knowledge for Interventional C-Arm CT*
13:20–13:25	**Daniel Hellge-Theune** | *Volume-of-Interest Imaging in C-Arm CT*
13:25–13:30	**Samuel Manthey**| *Stent Detection and Enhancement*
13:30–13:35	**Mario Breitkopf** | *Under-Sampled MRI for Percutaneous Intervention*
13:35–13:40	**Chompunuch Sarasaen** | *Model-Based Reconstruction MRI*
13:40–13:45	**Thomas Gerlach** | *RFA with MR-Coils*
13:45–13:50	**Franziska Schulz** | *Augmented 4D Flow*
13:50–14:00	**Introduction to Module II (Materials Science) –** *Materials Processing & Design Involving Microstructure Analysis Meets Mathematical Modelling and Simulation* Prof. Holm Altenbach
14:00–14:05	**Christopher Müller** | *Optimisation of Novel Vanadium-Based High Temperature Materials*
14:05–14:10	**Mahdi Yadegari** | *Cooling Mechanisms and Microstructural Evolution*
14:10–14:15	**Karsten Harnisch** | *In-situ SEM Methods to Improve Implant Materials*
14:15–14:20	**Maria Crackau** (*p.p.* Karsten Harnisch) | *Evaluation of Force Contributions to the Damage Evolution and Failure Analysis of Metallic Arthroplasty Components*
14:20–14:25	**Kathleen Dammler** | *Preparation and Characterisation of Ceramic Foams*
14:25–14:30	**Moharam Haghi Choobar** | *Analysis of Curved Photovoltaic Panels with a Novel Shell Theory and a Global-Local Approach*
14:30–14:35	**Christian Künzel** (*p.p.* Anke Ryll) | *Preparation and Testing of Thermoelectric Materials*
14:35–15:00	Opportunity for Questions and Discussion
COFFEE BREAK II	

Session 3 – ABINEP: Modules III and IV

Chairs: Prof. Andreas Müller and Dr. Tino Zähle

15:30–15:35	**Introduction to Module III –** *Immunosenescence: Infection and Immunity in the Context of Aging* Prof. Andreas Müller
15:35–15:40	**Lisa Osbelt** | *Influence of the Intestinal Microbiome on Infections, Course Disease and Success of Treatment on Cytostatic Drug-Treated Hemic-Oncological Patients*
15:40–15:45	**Aneri Shah** | *Orchestration of Phagocytic Macrophage Activity to Clear Bacterial Infections by Cold Shock Proteins and NF-κB Signalling in Healthy and Immunosuppressed Elderly Patients*
15:45–15:50	**Ann-Kathrin Meinshausen** | *Investigation of Biofilms During Septical Prosthesis Relaxation*
15:50–15:55	**Alexander Pausder** | *Elucidating the Roles of Secretory Immunoglobulins in Asthma Under Homeostatic and Infectious Conditions*
15:55–16:00	**Isabel Bernal** | *Characterisation of Innate Antibacterial T-cell Immunity to Understand Age-Associated Infections with C. difficile*
16:05–16:10	**Introduction to Module IV –** *Human Brain Imaging for Diagnosing Neurocognitive Disorders* Dr. Tino Zähle
16:10–16:15	**Julia Rogge** | *Combination of MEG, EEG, and fMRT (Application: Diagnosis of Pahology of Decision-Making During Psychological Dysfunction)*
16:15–16:20	**Stefan Repplinger** | *Deep Brain Technology (Application: Evaluation of Deep Brain Treatment)*
16:45	OPEN-END BARBECUE