DBMR Research Conference

Langhans Hörsaal Pathologie
Murtenstrasse 31, 3008 Bern

Date February 5, 2018, 5 pm – 6 pm

Title Molecular Danger Management after Polytrauma

Speaker Prof. Dr. med. Markus Huber-Lang,
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Prof. Dr. med. Markus Huber-Lang is the Director and Chairman of the Institute of Clinical and Experimental Trauma-Immunology (ITI) at the University Hospital Ulm. He is also the current President of the European Shock Society.

Markus Huber-Lang went to medical school at the University of Freiburg and Stony Brook University New York and graduated at the Dept. of Physiology, University of Freiburg working on kidney electrophysiology. He spent a few years at the Dept. of Pathology, University of Michigan, USA with Prof. Peter Ward, focusing on the pathophysiology of acute lung injury and sepsis. Then he went to Ulm University where he was trained and worked as a general surgeon and trauma surgeon. Side by side to his clinical duties he became the leader of an Emmy Noether Excellence research group and afterwards of the DFG-funded Clinical Research Unit CRU 200 addressing the inflammatory response after trauma. After his habilitation on neutrophil dysfunction during sepsis he was appointed as full professor for Trauma-Immunology in 2010. Currently, he is the vice-spokesperson of the Collaborative Research Center CRC 1149 with the overall topic: danger response after trauma. The ultimate aim of his institute is to develop a reliable immune- and organ monitoring and to design an efficient immune control besides surgical damage control for polytraumatized and critically ill patients to improve the outcome and quality of life.

Abstract
Polytrauma as life-threatening multiple injury to various tissues affects a vast number of people worldwide at any time from birth to death. After trauma, damaged tissue is recognized by the innate immune system including the coagulation and complement cascade. Endogenous and exogenous danger signals are then translated in a cellular response, clinically manifested as systemic inflammatory response syndrome (SIRS). An uncontrolled SIRS, the presence of hemorrhagic shock, a compromised immune system, extended operations or hospital-acquired infections can alone or in combination result in organ barrier breakdown, often leading to multiple organ failure (MOF) and death. Novel immune and specific organ monitoring as well as underlying mechanisms will be presented in experimental and clinical polytrauma and correlated to the inflammatory response and clinical outcome. Furthermore, first promising immune modulating approaches will be introduced. Overall, clinical trauma management inclusive imaging on all levels requires early recognition and pathophysiological understanding of the molecular danger reaction and deduced effective individualised therapeutic strategies.

Prof. Dr. med. Markus Huber-Lang has been invited by Prof. Dr. Robert Rieben, Cardiovascular Research, DBMR, University of Bern.

March 5, 2018
"Pan-cancer driver discovery in more than 2,500 whole cancer genomes”
Prof. Jakob Skou Pedersen, Department of Molecular Medicine (MOMA), Aarhus University Hospital, Aarhus, Denmark

The DBMR Research Conference takes place from 5 pm – 6 pm and will be followed by an apéro.

Everybody is welcome!