

Terminänderung !

Fakultät für
Prozesswissenschaften
Institut für Biotechnologie
FG Angewandte Biochemie

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Vortragsankündigung

Herr PD Dr. Alexander Mosig

Universitätsklinikum Jena

Träger des Tierschutz-Forschungspreises 2017 des
Bundesministeriums für Ernährung und Landwirtschaft

Emulating the Gut-Liver Axis - Organ-on-chip as Translational Tool in Sepsis Research

Datum und Uhrzeit: 17.4.2018, 14.15 – 15.30 Uhr

Ort: Technische Universität Berlin, Institut für Biotechnologie,
Gebäude 17A, Gustav-Meyer-Allee 25, 13355 Berlin

Raum: 325

Sepsis is a life-threatening disease, associated with a severe infection associated and organ dysfunction causing mortality of more than 25–30%, and even 40–50% when septic shock is present. So far, no effective specific anti-sepsis treatments are available and management of sepsis patients relies mainly on early recognition allowing correct therapeutic measures. During disease progression, a disruption of epithelial and endothelial barrier function is a typical pathological change in acute sepsis. Two major mechanisms have to be considered to be responsible for barrier breakdown: Signals generated by the deregulated and overreacting immune system, as well as signals or activities from pathogenic bacteria and fungi directly interacting with epithelial or endothelial cells are assumed to contribute to gut barrier breakdown. Subsequent systemic inflammation leads to the development of acute sepsis and the liver is among the first organs affected. To investigate the underlying molecular and cellular mechanisms of an inflammation-associated organ dysfunction we developed a human gut-liver axis based on a microfluidically perfused organ-on-chip platform. The in vitro gut-liver axis comprises tissue resident as well as circulating immune cells emulating essential components of the human immune system. Current work focusses on the integration of an essential bacterial and fungal microbiome to further emulate commensal/pathogen interaction with the host. In my talk, I will present our gut-liver-on-chip system and its use as tool for disease modelling of human sepsis in the context of a disturbed host - microbiome/pathogen interaction.

Wegbeschreibung zum Fachgebiet Angewandte Biochemie

Anschrift:

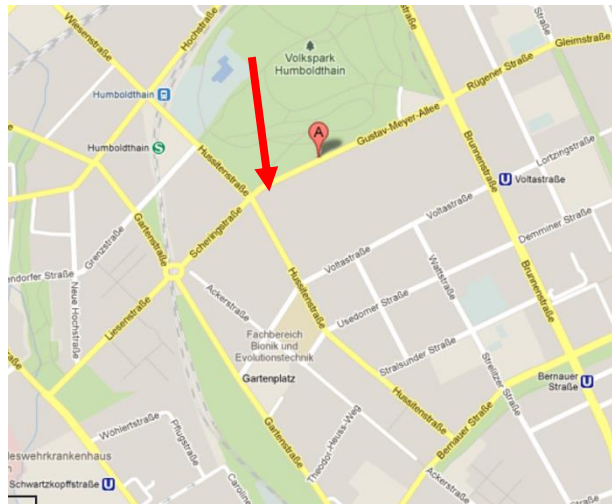
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Fachgebietsleiter: Prof. Dr. Jens Kurreck (Raum 394)

Sekretariat: Frau Anita Wehner (Raum 322, Tel.: 030-314 27581)

Anfahrt:

Öffentliche Verkehrsmittel: S-Humboldthain (auch U-Voltastr. und U-Schwartzkopfstr.)



Hinter dem Pfortner schräg links zu Gebäude 17a, Aufgang 5



Das Fachgebiet befindet sich im 3. und 4. OG. (Sekretariat im 3. OG hinter der Glastür; Wechselsprechanlage gemäß Anleitung verwenden).

Der Vortrag findet in Raum 325 im 3. OG statt.