

DBMR Research Conference

Langhans Auditorium, Pathology
Murtenstrasse 31, 3008 Bern

Date: Monday, May 1, 2023, 5 pm – 6 pm

Title: Immune-Mediated Mesothelial Cell Recruitment in Serosal Repair

Speaker: Recipient of the Johanna Dürmüller-Bol DBMR Research Award 2021

Dr. med. Dr. sc. nat. Joel Zindel, Systems Biomedicine of Cellular Development and Signaling in Health and Disease, DBMR, University of Bern

Bio: MD at University of Bern 2011. Residency in general, and visceral, and transplantation surgery, Inselspital (Prof. Dr. Daniel Candinas) 2012-2017. Board certification (FMH) in Surgery 2018. Clinical Research Fellowship Visceral Surgery and Medicine (Supervisors: Prof. Dr. Daniel Candinas, Prof. Dr. Deborah Keogh-Stroka, Co-Advisor: Prof. Dr. Andrew J. Macpherson) 2017-2018. Research Fellowship in Calgary, Canada (Supervisor: Prof. Dr. Paul Kubes) 2018-2020. PhD in Immunology 2021. Since 2022 Staff Surgeon and Junior Group Leader Visceral Surgery and Medicine, Inselspital Bern and University of Bern.

Abstract: Abdominal surgeries can save lives as they allow surgeons to remove malignant tumors or to fight abdominal infections. However, abdominal surgeries can also lead to a fibrotic complication called peritoneal adhesions. Adhesions are internal scars that cause significant suffering and health costs. Until date, adhesions cannot be cured. Adhesion formation relies on myofibroblasts that are derived from surrounding mesothelial (serous) membranes. However, the mechanism of mesothelial cell migration is largely unknown. I use intravital microscopy to study cellular migration in the abdominal cavity in real-time. In this seminar, I would like to introduce a new multi-photon Leica Stellaris microscope that is located in Murtenstrasse 35. I will discuss the principles of intravital microscopy and provide some several exemplary research questions that could be addressed using it. I will present one particular imaging model in detail and discuss how I developed it and how it ultimately allowed us to discover a novel migratory behaviour of GATA6+ cavity macrophages. Finally, I will report some unpublished data and how we plan to leverage this microscopy system to study immune-mediated mesothelial cell migration.

Host: Prof. Dr. Anne Angelillo-Scherrer, Chair of the Johanna Dürmüller-Bol DBMR Award Committee 2021, Blood Research Program, Department for BioMedical Research, University of Bern.

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

Next DBMR Research Conference

Monday, June 05, 2023, 5 pm – 6 pm

Prof. Dr. Jerome Guicheux, the Regenerative Medicine and Skeleton Research Centre, Inserm & Nantes University Hospital (FR)

Title: "4R medicine for diseased joints: Replace, Repair, Regenerate & Reprogram"



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