

DFG Research Training Group "TJ-Train", GRK 2318
Tight junctions and their proteins:
molecular features and actions in health and disease
Retreat, September 17-19, 2018
Hotel Döllnsee-Schorfheide



September 17, 2018

12:00 – 1:00 p.m. Lunch

1:00 – 1:10 p.m. Welcome by Jörg Schulzke / Dorothee Günzel

Chair: Laura-Sophie Beier

1:10 – 2:10 p.m. Plenary lecture by Alan Yu, Kansas City, KS, USA

Chair: Susanne Krug

2:10 – 2:30 p.m. Hannah Lutz: *Effects of HIV-associated inflammatory cytokines on macromolecule translocation across the gut mucosa*

2:30 – 3:00 p.m. Carolin Grünhagen: *Macromolecule uptake across the mucosa in HIV infection*

3:00 – 3:30 p.m. Izabela Kowalczyk: *The role of endocytic receptors in neuroepithelial integrity and neural stem cell fate*

3:30 – 4:00 p.m. Coffee break

Chair: Roland Bücker

4:00 – 4:30 p.m. Praveen Natthamilarasu: *HT-29/B6-GR/MR - a cell model to investigate tight junction alterations and ENaC dependent sodium absorption in Campylobacter infection*

4:30 – 5:00 p.m. Fábía Lobo: *Campylobacteriosis and barrier-protective influences in the cell and animal model*

5:00 – 5:20 p.m. Eduard Butkevych: *MLC-dependent tight junction changes during Campylobacter jejuni infection in HT-29/B6 cells*

5:20 – 5:40 p.m. Sholpan Omarova: *Barrier- and transport function in postinfectious irritable bowel syndrome*

5:40 – 6:30 p.m. Meeting of external referees and doctoral students (without PIs)

Photo session in front of the hotel or in the garden

7:00 – 10:00 p.m. Dinner

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September 18, 2018

Chair: Martin Lehmann

- 8:30 – 9:00 a.m. **Hannes Gonschior:** *Resolving the tight junctional structure and dynamic by using super resolution microscopy*
- 9:00 – 9:30 a.m. **Deborah Delbue da Silva:** *IL-22 effects in cell polarity and barrier function in intestinal epithelial cells*
- 9:30 – 10:00 a.m. **Danielle Cardoso da Silva:** *Tracking a primary barrier defect in celiac disease*
- 10:00 – 10:30 a.m. Coffee break**

Chair: Michael Fromm

- 10:30 – 11:00 a.m. **Laura-Sophie Beier:** *Targeting of claudins by CPE-based modular biologicals*
- 11:00 – 11:30 a.m. **Jiachen Hu:** *Role of the tricellular tight junction in inflammatory bowel diseases*
- 11:30 – 12:00 a.m. **Carlos Ayala-Torres:** *Contribution of tricellulin to paracellular water permeability in epithelia of different tightness*

Photo session in front of the hotel or in the garden

12:00 – 1:00 p.m. Lunch

Chair: Deborah Delbue da Silva

- 1:00 – 2:00 p.m. **Matthias Ocker:** *Medical Research - From Bench to Bedside to Office*

Chair: Dominik Müller

- 2:00 – 2:30 p.m. **Murat Seker:** *The role of Cnnm2 in the regulation of transepithelial magnesium transport*
- 2:30 – 3:00 p.m. **Roman Mannweiler:** *Impedance spectroscopy indicates multiple barriers in stratified epithelia*
- 3:00 – 3:30 p.m. **GRK2318, feedback and strategy for the next year**
- 3:30 – 4:00 p.m. Coffee break**
- 4:00 – 7:00 p.m. **Debate Training for students**
- 7:00 – 10:00 p.m. Dinner**
- 8:00 – 9:00 p.m. **Steering Committee Meeting**

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September 19, 2018

Chair: Dorothee Günzel

8:30 – 9:00 a.m. **Alexander Holler:** *Transcriptional integration of tight junction assembly in renal epithelial cells*

9:00 – 9:30 a.m. **Janna Leiz:** *Transcriptional Networks of tight junction biogenesis in renal collecting ducts*

9:30 – 10:15 a.m. **Susanne Krug:** *Electron microscopy*

10:15 – 10:45 a.m. **Coffee break**

10:45 – 11:30 a.m. **Jörg Schulzke:** *Correction of active transport for subepithelial resistance*

11:30 – 1:00 p.m. **Martin Lehmann:** *Super-resolution microscopy imaging of nanoscale structures in cells and tissues*

1:00 – 2:00 p.m. **Lunch**

End of the Retreat