

Transporttage 2017 in Münster

21st and 22nd October 2017

Organizers: Kristina Kusche-Vihrog and Giuliano Ciarimboli (Westfälische-Wilhelms-Universität Münster); Mladen Tzvetkov (Universitätsmedizin Göttingen)



Venue:

Lecture hall 20 (L20)
Teaching Building (Lehrgebäude)
Building A6
University Clinic Münster (UKM)
Albert-Schweitzer-Campus 1
48149 Münster, Germany

Saturday, 21st October 2017

9:00 Kristina Kusche-Vihrog, Mladen Tzvetkov, and Giuliano Ciarimboli:
Welcome address

Session I: Osmoregulation (9:15-11:50)
Chairs: Kristina Kusche-Vihrog, Bernard C. Rossier

9:15-9:50: Keynote lecture 1 Bernard C. Rossier, Lausanne, Switzerland:
Osmoregulation: a Darwinian Perspective

9:50–10:05 **Alexei Diakov**, Erlangen, Germany:
A putative clathrin adaptor protein 2 recognition motif in the γ -subunit of the epithelial sodium channel (ENaC) is involved in channel down-regulation by connexin 30.

10:05–10:20 **Alexandr Ilyaskin**, Erlangen, Germany:
Bile acids as modulators of ion channels of the ENaC/Degenerin family

10:20-10:35 Short break (15 min)

10:35–10:50 **Morag Mansley**, Edinburgh, United Kingdom:
Extracellular vesicles (ECVs) stimulate sodium absorption in kidney collecting duct epithelial cells

10:50–11:05 **Zülfü Cosgun**, Münster, Germany:
The rapid membrane insertion of the endothelial sodium channel is induced by shear stress and stiffens the cell cortex

11:05–11:20 **Martina Maase**, Münster, Germany:
The endothelial Na⁺-channel (EnNaC), endothelial nanomechanics and endothelial (dys-)function: A vicious circle?

11:20–11:35 **Bayram Edemir**, Halle, Germany:
Osmolality Induced Changes in Gene Expression

11:35-11:50 **Johanna Salomon**, Heidelberg, Germany:
Sinonasal epithelial ion transport is altered in patients with non-CF chronic rhinosinusitis

11:50 – 13:00 Lunch

Session II: Transporters of the digestive tract (13:00-14:45) Chairs: Ursula Seidler, Stine Falsig Pedersen

13:00–13:15 **Britta Spanier**, München, Germany:
How does amino acid supplementation increase reproduction in PEPT-1 deficient C. elegans?

13:15–13:30 **Florian Rohm**, München, Germany:
Quantitative analysis of intestinal amino acid and dipeptide transport in vitro and in vivo

13:30–13:45 **Diana Busch**, Greifswald, Germany:
Intraindividual protein abundance of transporter proteins and metabolizing enzymes in gut and liver

13:45–14:00 **Janett Müller**, Greifswald, Germany:
Global proteomic analysis of intestinal cell lines and human intestinal tissue

14:00–14:15 **Katerina Nikolovska**, Hannover, Germany:
Loss/downregulation of sodium/hydrogen exchanger 2 affects differentiation of intestinal epithelial cells in murine colon and in the Caco2bbe self-differentiating enterocyte cell line

14:15–14:30 **Archana Kini**, Hannover, Germany:
Genetic deletion of DRA and it's

consequence on the pH-microclimate, microbiome and inflammation

14:30–14:45 **Karen Bannert**, Rostock, Germany: *Sorting Nexin 27 is required for DRA function – studies on colocalization, activity and surface expression*

14:45–15:15 **Coffee break**

Session III: Regulation (15:15–17:25) Chairs: Cesare Indiveri, Joachim Geyer

15:15–15:50 **Keynote lecture 2 Stine Falsig Pedersen**, Copenhagen, Denmark: *Regulation, physiology, and structure-function relationship of the ubiquitous plasma membrane Na⁺/H⁺ exchanger isoform 1 (NHE1)*

15:50–16:05 **Anna Euteneuer**, Cologne, Germany: *Estrogen receptor induces promoter activity of renal organic anion transporters 1 (OAT1) and OAT3*

16:05–16:20 **Anne Mahringer**, Heidelberg, Germany: *Receptor-dependent Regulation of ABC-Transporters (P-gp, Bcrp, Mrp2, Mrp4) and Solute Carriers (Oct2, MATE1/2) in human renal proximal epithelial tubule cells and proximal tubules from Fundulus heteroclitus*

16:20–16:35 **Jitske Jansen**, Utrecht University, The Netherlands: *Regulation of indoxyl sulfate secretion in human proximal tubule epithelial cells*

16:35–16:50 **Benedikt Fels**, Münster, Germany: *Transient receptor potential channel*

1 (TRPC1) mediated mechano-signaling in murine pancreatic stellate cells

16:50–17:25 **Keynote lecture 3 Cesare Indiveri**, Arcavacata di Rende, Italy: *Regulation of mitochondrial transporters by post translational modifications*

17:25–17:40 **Short break**

Session IV: Functional aspects of selected transporters (17:40–19:30) Chairs: Sonja Sucic, Gerhard Burckhardt

17:40–17:55 **Sonja Sucic**, Vienna, Austria: *Sleepless in Vienna: how to rescue dopamine transporter function in flies*

17:55–18:10 **Jörg König**, Erlangen, Germany: *Analysis of mutations in the human uptake transport NaCT: a transporter important for energy metabolism and brain development*

18:10–18:25 **Joachim Geyer**, Gießen, Germany: *Structure and function of the novel SLC10 carriers SLC10A4-SLC10A7*

18:25–18:40 **Ole Jensen**, Göttingen, Germany: *OCT1 and the pharmacokinetic of vitamin B1 in humans*

18:40–19:15 **Keynote lecture 4 Ivan Sabolic**, Zagreb, Croatia: *Sex and species differences in the transporters expression*

19:15–19:30 **Janine Hussner**, Basel, Switzerland: *Species-specific differences in OATP2B1 transport function*

19:30 **Dinner**

Sunday, 22nd October 2017, 9:00

Session V: Transporters and Drugs (9:00–10:35) Chairs: Mladen Tzvetkov, Giuliano Ciarimboli

9:00–9:35 **Keynote lecture 5 Alex Sparreboom**, Columbus, United States of America: *Pharmacological role of transporters*

9:35– 9:50 **Cynthia Bosquillon**, Nottingham, United Kingdom: *Role of transporters in the disposition of inhaled drugs in layers of the human bronchial epithelial cell line Calu-3*

9:50–10:05 **Beatrice Kissler**, Greifswald, Germany: *Characterization of the affinity of ezetimibe to intestinal and hepatic transporters*

10:05–10:20 **Bayew Abebe**, Greifswald, Germany: *Transporter-mediated drug-drug interaction of trospium: evidence from in vitro and in vivo*

10:20–10:35 **Anne Nieß**, Stuttgart, Germany: *Assessment of OATP1B1 and OATP1B3 as transporters of the antipsychotic agent clozapine*

10:35 – 11:00 **Coffee break**

Session VI: Transporters, Drugs, and 3D models (11:00–13:35) Chairs: Jörg König, Stefan Osswald

11:00–11:15 **Marleen Meyer**, Göttingen, Germany: *Is there an OCT1-mediated transport without Aspartate-475?*

11:15–11:30 **Mariafrancesca Scalise**, Arcavacata di Rende, Italy: *Potent and irreversible inhibitors of SLC7A5 as potential anticancer drugs*

11:30–12:05 **Keynote lecture 6 Roos Masereeuw**, Utrecht, The Netherlands: *Development of a bioartificial kidney for active renal excretion of endogenous wastes*

12:05–12:20 **Jelle Vriend**, Nijmegen, The Netherlands: *P-Glycoprotein and MRP drug interaction studies in a kidney-on-a-chip*

12:20–12:35 **Marianne Vormann**, Leiden, The Netherlands: *High-Throughput microfluidic platform for culture of 3D-kidney tissue models*

12:50–13:05 **Paul Jochems**, Utrecht, The Netherlands: *A 3-dimensional intestinal cell model as next generation drug and nutrient screening tool*

13:05–13:20 **Tom Nieskens**, Nijmegen, The Netherlands: *Is there a role for organic anion transporters in cisplatin-induced nephrotoxicity?*

13:20–13:35 **Manuele Rebsamen**, Vienna, Austria: *A systems biology approach to SLCs*

13:35–13:40 Kristina Kusche-Vihrog, Mladen Tzvetkov, and Giuliano Ciaramboli: *Conclusions and farewell address*

13:40 Lunch

Yellow fields: Keynote lectures (25 minutes + 10 minutes discussion):

Green fields: free communications (10 minutes + 5 minutes discussion)

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