

Greifswalder Transporttage 2021

(final program)

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Thursday September 2nd

Time	Title of the talk	Presented by
16:00-16:30	Registration	
16:30-16:55	Welcome	Mladen Tzvetkov, Stefan Oswald, Giuliano Ciarimboli
16:55-17:35	<u>Keynote:</u> Assessing the activity of ABC transporters at the lung epithelial barrier with PET imaging	Oliver Langer (Wien, Austria)
17:40-18:40	Models and methods (chairs: Joachim Geyer and Pedro Pinto)	
17:40-17:55	Predicting renal secretion in a kidney-on-a-chip model	Pedro Pinto (Greifswald)
17:55-18:10	Designing an extracellular tag in the transport protein SLC26A3	Sophie Achilles (Rostock)
18:10-18:25	Establishment of novel human intestinal in vitro models for preclinical drug research and investigation of transport processes	Randy Przybylla (Rostock)
18:25-18:40	Sodium/hydrogen exchanger 2 regulates intracellular pH and differentiation of intestinal epithelial cells and colonoids	Katerina Nikolovska (Hannover)
18:40-19:00	Short break	

19:00-20:10	Pharmacokinetics with focus on modelling (chairs: Oliver Langer and Stefan Oswald)	
19:00-19:40	<u>Keynote:</u> The Next Frontier in ADME Science: Proteomics/REF-Based Approach to Predicting Transporter-based Drug CL and Tissue Concentrations	Jashvant Unadkat (Seattle, USA)
19:40-19:55	Prediction of hepatic concentrations of transported drugs in humans using rosuvastatin as a model drug: comparison of the relative expression factor approach and sandwich-cultured hepatocytes	Flavia Storelli (Seattle, USA)
19:55-20:10	Is Protein-Mediated Transport Effect a Real Phenomenon or an Artifact?	Mengyue Yin (Seattle, USA)

Friday September 3rd

Time	Title of the talk	Presented by
09:00-10:40	Novel physiological aspects of membrane transporters and aging (chairs: Giuliano Ciarimboli and Cesare Indiveri)	
09:00-09:20	Genome-wide analyses identify SLC17A4 as a thyroid hormone transporter	Alexander Teumer (Greifswald)
09:20-09:40	The role of SOAT (SLC10A6) for steroid supply to peripheral organs	Joachim Geyer (Giessen)
09:40-09:55	Expression of OCT2 in Pancreas	Giuliano Ciarimboli (Münster)
09:55-10:10	OCT1 deficiency affects peripheral serotonin levels in humans	Eileen Moritz (Greifswald)
10:10-10:25	Aging effects on the expression of renal Oct transporters in rats	Dean Karaica (Zagreb, Croatia)
10:25-10:40	Aging-related expression of renal SGLT transporters in rats	Ivana Vrhovac Madunic (Zagreb, Croatia)
10:40-11:15	Short break	

11:15-12:35	Structure-to-function: novel insights in protein structure (chairs: Eric Geertsma and Mladen Tzvetkov)	
11:15-11:35	Phe32 and Cys36 confer the substrate-selectivity of fenoterol and trospium uptake: lessons from the comparison of human and mouse OCT1 orthologs	Marleen Meyer (Greifswald)
11:35-11:50	Tracing the Stereoselectivity of Organic Cation Transporter 1: New Insights from Modelling and Mutagenesis Studies	Lukas Gebauer (Göttingen)
11:50-12:05	Cholesterol recognition and interaction in OCT2 a tough nut to CRAC (and CARC)	Morena Sutter (Zürich, Switzerland)
12:05-12:20	Newly identified tyrosine-enriched motif of the Na ⁺ /taurocholate cotransporting polypeptide (NTCP) regulates its transport and virus receptor functions	Dariusz Zakrzewicz (Giessen)
12:20-12:35	A molecular hinge determines the conformational transition in the SLC23 transporter UraA	Benedikt Kuhn (Dresden)
12:35-14:00	Lunch	

14:00-14:50	Structure-to-function: identification of novel substrates (chairs: Marek Drozdziak, Michele Visentin)	
14:00-14:20	Novel tool compounds for hepatic OATPs identified by structural modeling and machine-learning based virtual screening	Barbara Zdrazil (Wien, Austria)
14:20-14:35	Large scale identification of OCT1 substrates and inhibitors by bioinformatics and in vitro screening	Christof Dücker (Göttingen)
14:35-14:50	Identification of HBV/HDV entry inhibitors by pharmacophore and QSAR-guided virtual screening	Michael Kirstgen (Gießen)
14:50-15:10	Short break	

Species differences and non-mammalian transporters and channels (chairs: Yohannes Hagos and Ellen Closs)		
15:10-16:30		
15:10-15:25	Cloning and functional characterization of novel rat Oat6 (rSlc22a20) and comparison with the mouse orthologue	Yohannes Hagos (Göttingen)
15:25-15:40	OCT1 of dogs and men	Sarah Römer (Greifswald)
15:40-15:55	Establishment of complete oct1 and oatp1d1 knockout mutants in zebrafish	Lana Vujica (Zagreb, Croatia)
15:55-16:10	Uniport in non-mammalian SLC23 transporters	Katharina Holzhüter (Frankfurt a. M.)
16:10-16:30	Lessons on renal TRPC6 channels: from drosophila to man	Dmitry Tsvetkov (Berlin/Greifswald)
16:30-17:00	Short break	

Pharmacokinetics with focus on substrates (chairs: Anne Nies and Stefan Engeli)		
17:00-18:25		
17:00-17:40	<u>Keynote:</u> Unraveling Pharmacokinetic Natural Product-Drug Interactions: Transporters and Other Considerations	Mary Paine (Spokane, USA)
17:40-17:55	Tetrahydrocannabinol and Its Major Metabolites are Not (or are poor) Substrates and Inhibitors of Human P-glycoprotein (P-gp/MDR1/ABCB1) and Breast Cancer Resistance Protein (BCRP/ABCG2)	Xin Chen (Seattle, USA)
17:55-18:10	Role of MRP3/MRP4-in (Efflux) transport of morphine-3-glucuronide and morphine-6-glucuronide	Verena Weidmann (Greifswald)
18:10-18:25	The role of OATP1A2 in opioid transport and the generation of stably transfected cell lines using the FlpIn system	Corinna Hofmann (Greifswald)

Saturday September 4th

Time	Title of the talk	Presented by
Transporters in disease (chairs: Ursula Seidler and Gabriele Jedlitschky)		
09:00-10:20		
09:00-09:20	Protein abundance of drug transporters in hepatitis C livers	Marek Drozdzik (Stettin, Poland)
09:20-09:35	Tenapanor alleviates mucus accumulation and disturbed motility in CF gut by inhibition of the luminal Na/H exchanger NHE3	Xinjie Tan (Hannover)
09:35-09:50	Update on MRP4 and platelet function: Possible alterations in COVID-19 convalescent individuals	Gabriele Jedlitschky (Greifswald)
09:50-10:05	Characterisation of the interaction between HBV/HDV and the specific receptor NTCP through the identification of protein-protein interaction(-domains)	Massimo Palatini (Giessen)
10:05-10:20	The unexpected transport of acidic amino acids by the neutral amino acid transporter ASCT2 (SLC1A5)	Mariafrancesca Scalise (Rende, Italy)
10:20-10:45	Short break	

Transporters in tumor biology (chairs: Jörg König, Marcal Pastor-Anglada and Giuliano Ciarimboli)		
10:45-12:05		
10:45-11:05	Localization and function of the cancer-type OATP1B3 (Ct-OATP1B3) protein	Jörg König (Erlangen)
11:05-11:20	Role of transporters for organic cations in the development of toxic effects associated with oxaliplatin	Sara Eltayeb (Münster)
11:20-11:35	Drug Resistance of Renal Cell Carcinoma <i>in vitro</i>	Nathanil Justian (Greifswald)
11:35-11:50	The human cationic amino acid transporter CAT-1: A new target for tumour treatment	Anke Werner (Mainz)
11:50-12:05	Role of Human Concentrative Nucleoside Transporter 1 (hCNT1) in Disease	Marcal Pastor-Anglada (Barcelona, Spain)
12:05-12:25	Concluding remarks and farewell	Giuliano Ciarimboli and Mladen Tzvetkov

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