



NAWI Graz
Natural Sciences



The organizing committee

(Dominik Bulfon, Alina Jamnik, Benedikt Kien, Gabriel Chalhoub)

welcomes you to the

25th NAWI Graz DocDay

July 8th 2021

This DocDay is supported by:

Austrian Association of Molecular Life Sciences and Biotechnology (ÖGMBT)

Faculty of Natural Sciences of the University of Graz

Doctoral School of Molecular Biosciences and Biotechnology (TU Graz)

Doctoral School of Molecular Biology and Biochemistry (Uni Graz)

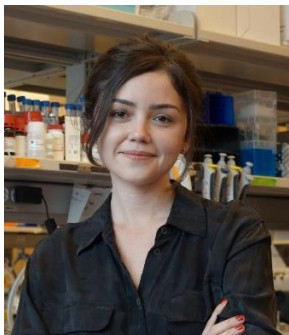
CONFIDENTIALITY

The abstracts and presentations of the 25th DocDay symposium contain unpublished data. Please respect these data as confidential information for the sole purpose of scientific discussion at this meeting. Therefore, the recording or communication of abstracts and research results outside of this meeting is inappropriate.

Meet the invited speakers



Dr. Maria Rohm received her diploma in biology from the University of Heidelberg (Germany), where she also completed her doctoral studies. In 2014, Dr. Rohm was awarded the Novo Nordisk Postdoctoral Research Fellowship, allowing her to continue her work in Professor Frances Ashcroft's research group at the University of Oxford (UK). Dr. Rohm's research interest lies on understanding the molecular basis of metabolic changes occurring in metabolic disease, including diabetes and cancer-associated cachexia. Since 2017, Dr. Rohm is a junior group leader at the Institute for Diabetes and Cancer (IDC) at the Helmholtz Center (Munich, Germany), where she currently aims to elucidate the link between non-alcoholic fatty liver disease (NAFLD) and sarcopenia. For her work, Dr. Rohm has received numerous prestigious prizes including the Research Awards of the German Societies for Diabetes and Endocrinology as well as the Lipidology Award of the "D-A-CH Gesellschaft Prävention von Herz-Kreislauf-Erkrankungen e.V.".



Dr. Clarissa Campbell obtained her master's degree in cellular and molecular biology from the Oswaldo Cruz Foundation of Rio de Janeiro (Brasil). She then pursued her PhD studies in Alexander Rudensky's research group at Weill Cornell Medical College (New York, USA). During this time, she investigated the reciprocal interactions between metabolism and immunity, specializing in mucosal immunology and regulatory T-Cell biology. Dr. Campbell continued her work as a postdoc at the Memorial Sloan Kettering Cancer Center in the field of immunology, with a special focus on host-commensal interactions. There, she characterized a circuit whereby microbial metabolites such as short-chain fatty acids (SCFAs) and secondary bile acids facilitate the differentiation of peripherally induced T_{reg} cells, which in turn suppress immune responses to colonization and preserve a niche for a group of intestinal bacteria. Dr. Campbell has recently joined the Research Center for Molecular Medicine (CeMM) in Vienna as a principal investigator. She is particularly interested in investigating how changes in microbial and organismal metabolism contribute to the regulation of immune cell function.



Prof. Dr. Judith Storch received her diploma in Nutritional Biochemistry from Columbia University in 1978. She stayed at Columbia University for her PhD in Physiology and Biophysics, which was followed up by a postdoctoral fellowship at Harvard Med. School. In 1986 Prof. Judith Storch became an assistant professor and in 1991 an associate professor at Harvard school of Public Health. Since 1997 she is a full professor of Nutritional Sciences at Rutgers University. For her outstanding work of deciphering the mechanisms of lipid trafficking and transport Prof. Storch has received a multitude of awards and honors. Her ongoing efforts are addressing the functions of fatty acid-binding proteins, endosomal and lysosomal cholesterol transport, and fatty acid and monoacylglycerol utilization in intestinal cells.

Scientific Program

11:15 – 11:25	Opening & Welcome <i>Univ.-Prof. Dr. Joachim Reidl</i> <i>Vice-Rector for Research and Career Development</i>
11:25 – 11:30	Sponsor announcement - ÖGMBT
11:30 – 11:45	Markus Hobisch <i>Solvent-free Photobiocatalytic Hydroxylation of Cyclohexane</i>
11:45 – 12:00	Jelena Spasic <i>Internal illumination to overcome the cell density limitation in the scale-up of whole-cell photobiocatalysis</i>
12:15 – 12:30	Modesta Trummer <i>Antioxidative effects of the hydrogen sulfide and persulfide donor P*: insights into hydrogen sulfide signaling</i>
12:30 – 12:45	Theo Sagmeister <i>Surface Layer Proteins of Lactobacillus acidophilus - A Story of SlpA and SlpX</i>
12:45 – 13:15	Flash presentations + Q&A * / Break
13:15 – 14:05	Plenary talk – Dr. Maria Rohm (Helmholtz Center, Munich, Germany) <i>Title to be announced!</i>
14:05 – 14:20	Isabella Pototschnig <i>Interleukin-6 initiates atrophy in the novel CHX207 model of cancer associated cachexia</i>
14:20 – 14:35	Gabriel Chalhoub <i>Carboxylesterase 2 proteins are efficient diglyceride and monoglyceride lipases possibly implicated in metabolic disease</i>
14:35 – 14:50	Laura Pajed <i>Advanced lipodystrophy reverses fatty liver in mice lacking adipocyte hormone-sensitive lipase</i>

14:50 – 15:05	Benedikt Kien <i>Perilipin 5-mediated lipid droplet-mitochondria coupling determines mitochondrial capacity</i>
15:05 – 15:15	Break
15:15 – 16:05	Plenary talk – Dr. Clarissa Campbell (CeMM, Vienna, Austria) <i>Reciprocal Interactions between Immunity and Metabolism</i>
16:05 – 16:20	Maksym Kitsera <i>Genotoxin Tilimycin produced by K. oxytoca has mutagenic and antibiotic activity</i>
16:20 – 16:35	Expedito Olimi <i>Tracking the microbiota along strawberry's life cycle provides new insights into food health and safety</i>
16:35 – 16:40	Polling – Best flash presentation & best student talk
16:40 – 17:30	Plenary talk – Prof. Dr. Judith Storch (Rutgers University, NJ, USA) <i>Regulation of cholesterol trafficking in Niemann-Pick C disease by Lysobisphosphatidic Acid</i>
17:30 – 17:45	Closing Session Announcement: Best presentation winners!

***Flash presentation titles**

Dominik Bulfon

Bis(monoacylglycerol)phosphate protects from cationic amphiphilic drug-induced cytotoxicity

Ines Kögler

Structure-activity relationships for glycosylation by bacterial and plant O-glycosyltransferases

Lisa Pusch

ABHD13 – a novel lysophospholipase

Vera Lambauer

*Gas fermentation for carbon dioxide fixation by hydrogen-oxidizing *Cupriavidus necator**

Carina Wagner

Lysosomal acid lipase is the major acid retinyl ester hydrolase in cultured hepatic stellate cells but not essential for retinyl ester mobilization

Kamela Myrtollari

*Protein engineering of phenolic acid decarboxylase from *Bacillus subtilis**

Margarita Schratte

The Functional Role of NIPAL4 in the Formation of the Skin Permeability Barrier
