

# 4th Alpine Winter Conference on Medicinal and Synthetic Chemistry

## Confirmed Speakers

### Keynote Speakers

#### New Catalytic Approaches for Simplifying Complex Molecule Synthesis (KL01)



Prof. Darren J. DIXON  
(UNIVERSITY OF OXFORD, Oxford, United Kingdom)

#### The Discovery of PAXLOVID (KL02)



Dr Dafydd OWEN  
(PFIZER, Cambridge, United States)

#### Site-Selective C—H Oxidations for Late-Stage Functionalizations (KL03)



Prof. M. Christina WHITE  
(UNIVERSITY OF ILLINOIS URBANA-CHAMPAIGN, Urbana, United States)

### From Underground to Mainstream: Neglected and Novel, Emerging Functional Groups for Drug Discovery

#### Boron Based Heterocycles and their Application in Drug Discovery (PL05)



Prof. Bhaskar DAS  
(LONG ISLAND UNIVERSITY, Brooklyn, United States)

#### “Magic Chloro”: Profound Effects of the Chlorine Atom in Drug Discovery (PL06)



Dr Yoshihiro ISHIHARA  
(VIVIDION THERAPEUTICS, San Diego, United States)

#### Deuterium in Drug Design: From Deuterium Switch to De Novo Drug Discovery (PL07)



Prof. Tracey PIRALI  
(UNIVERSITY OF PIEMONTE ORIENTALE, Novara, Italy)

#### New Functional Groups for Synthetic and Discovery Chemistry (PL08)



Prof. Michael WILLIS  
(UNIVERSITY OF OXFORD, Oxford, United Kingdom)

### Human Dose Prediction in the Discovery Space

#### Early Human Dose Predictions in Lead Optimization (PL13)



Dr Johan BYLUND  
(CTC CLINICAL TRIAL CONSULTANTS AB, Uppsala, Sweden)

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### Predicting Human Exposure and Dose of Compounds Targeting the Brain (PL16)



Dr Nicola COLCLOUGH  
(ASTRAZENECA, Cambridge, United Kingdom)

### Early Human Dose Prediction & Machine Learning Models - Can We Impact Lead Selection? (PL14)



Dr Gregori GEREBTZOFF  
(NOVARTIS INSTITUTES FOR BIOMEDICAL RESEARCH, Basel, Switzerland)

### SwiftPK: Development and Implementation of a High Throughput PBPK/PD Framework to Inform Drug Selection in Early Drug Discovery (PL15)



Dr Andres OLIVARES  
(F. HOFFMANN-LA ROCHE, Basel, Switzerland)

### Radical Intermediates in Complex Molecule Synthesis

#### Recent Adventures in Catalysis and Beyond (PL22)



Prof. Bill MORANDI  
(ETH ZÜRICH, Zürich, Switzerland)

#### Alkenes as Flexible Platforms for Asymmetric Transformations (PL23)



Prof. Cristina NEVADO  
(UNIVERSITY OF ZURICH, Zurich, Switzerland)

#### Light-Mediated Nickel Catalysis Enabled by Donor-Acceptor Ligands (PL21)



Prof. Bart PIEBER  
(INSTITUTE OF SCIENCE AND TECHNOLOGY AUSTRIA (ISTA), Klosterneuburg, Austria)

(SOPLVIAS AG (WAS FUJIFILM))

#### Attempts to Deliver on the Promise of Natural Product Synthesis (PL24)



Prof. Ryan SHENVI  
(SCRIPPS RESEARCH, La Jolla, United States)

### Cryo-EM: Applications for Structure-Based Drug Discovery

#### Deep Learning-Driven De Novo Drug Design Based on Gastric Proton Pump Structure (PL25)



Prof. Kazuhiro ABE  
(NAGOYA UNIVERSITY, Nagoya, Japan)

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### Cryo-EM Enables Structure-Based Drug Design for Membrane Protein Targets at BI (PL26)



Dr Rebecca EBENHOCH  
(BOEHRINGER INGELHEIM, Biberach, Germany)

### Single Particle CryoEM at 200 kV & Itchy GPRs (PL27)



Prof. Jonathan F. FAY  
(UNIVERSITY OF NORTH CAROLINA CHAPEL HILL, Chapel Hill, United States)

### Examples from Structure-Based Drug Discovery Using Cryo-EM at MSD (PL28)



Dr Harini KRISHNAMURTHY  
(MERCK, SHARP & DOHME, Blue Bell, United States)

## Recent Developments in Synthetic Methodologies and their Impact

### Organic Reactions in Aqueous Medium enabled by Surfactants (PL01)



Dr Niginia BORLINGHAUS  
(UNIVERSITY OF KONSTANZ, Konstanz, Germany)

### Reagents and Catalysts with Translational Potential (PL02)



Dr Josep CORNELLA COSTA  
(MAX PLANCK INSTITUTE FOR COAL RESEARCH, Mülheim an der Ruhr, Germany)

### From Batch to Flow: Advancing Synthetic Organic Chemistry through Technological Innovation (PL03)



Prof. Timothy NOËL  
(UNIVERSITY OF AMSTERDAM, Amsterdam, The Netherlands)

### Chemo-Biocatalytic Processes Enabled by a Continuous Flow Set Up (PL04)



Prof. Francesca PARADISI  
(UNIVERSITY OF BERN, Bern, Switzerland)

## Antiviral Drug Discovery

### Discovery, Chemistry, and Preclinical Development of Pritelivir, a Novel Option for Acyclovir-Resistant Herpes Simplex Virus Infections (PL17)



Dr Alexander BIRKMANN  
(AICURIS ANTI-INFECTIVE CURES AG, Wuppertal, Germany)

### Targeting Viral RNA Degradation Via Small Molecules As a Novel Antiviral Strategy to Achieve HBV Cure (PL18)

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Dr Dimitar GOTCHEV  
(ARBUTUS BIOPHARMA, Doylestown, United States)

### Discovery of Obeldesivir; Oral Prodrug of Nucleoside GS-441524 That Exhibits Antiviral Efficacy in SARS-CoV-2-Infected African Green Monkeys (PL20)



Dr Rao KALLA  
(GILEAD SCIENCES, Foster City, United States)

### Direct-Acting Antivirals with a Targeted Protein Degradation Mechanism (PL19)



Prof. Priscilla YANG  
(STANFORD UNIVERSITY, Stanford, United States)

## Latest Advances and Approaches in Bioconjugation Drug Discovery

### Next-Generation Bioconjugates for Intra- and Extracellular Targeting (PL10)



Prof. Christian HACKENBERGER  
(FMP BERLIN, Berlin, Germany)

### Bicyclic Peptides as a Novel Therapeutic Modality (PL09)



Dr Philip MURRAY  
(BICYCLE THERAPEUTICS, Cambridge, United Kingdom)

(SOPLVIAS AG (WAS FUJIFILM))

### Creating Next-Generation Biotherapeutics Using Novel Chemistry Platform Technologies (PL11)



Dr Vijaya R. PATTABIRAMAN  
(BRIGHT PEAK THERAPEUTICS, Basel, Switzerland)

### Exploring the Versatility of Covalent and Supramolecular Bioconjugation in ADC and AOC (PL12)



Dr Alain WAGNER  
(CNRS/UNIVERSITY OF STRASBOURG, Illkirch, France)

## Drug Discovery Tales I

### Selective Inhibition of Tead Transcription and Impact on the Up-Stream Effector Kinases of the Hippo Pathway to Halt Metastatic Colorectal Cancer Cell Growth (OC05)



Prof. Maria Paola COSTI  
(UNIVERSITY OF MODENA AND REGGIO EMILIA, Modena, Italy)

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### Discovery of [18F]RoSMA-18-D6 for PET Imaging of Cannabinoid Type 2 Receptors (OC04)



Dr Luca GOBBI  
(F. HOFFMANN-LA ROCHE, Basel, Switzerland)

### Discovery of a Bivalent Protein Kinase CK2 Inhibitor with Activity in Renal Cell Carcinoma (OC02)



Dr Isabelle KRIMM  
(CLB, Lyon, France)

### Discovery of BI 7446: A Potent Cyclic Dinucleotide Sting Agonist with Broad-Spectrum Variant Activity for the Treatment of Cancer (OC03)



Dr Christian KUTTRUFF  
(BOEHRINGER INGELHEIM PHARMA GMBH & CO. KG, Biberach, Germany)

### NLRP3 Inhibitors for Neurodegenerative Disorders (OC01)



Dr Oscar MAMMOLITI  
(JANSSEN RESEARCH & DEVELOPMENT, Beerse, Belgium)

## Drug Discovery Tales II

### Discovery of a Novel Oral NO- and Heme-Independent sGC Activator Runcaciguat (BAY 1101042) (OC06)



Dr Michael G. HAHN  
(BAYER AG PHARMACEUTICALS, Wuppertal, Germany)

### Discovery of LY3154885, a Dopamine D1 Receptor Positive Allosteric Modulator with an Improved Drug-Drug Interaction Risk Profile (OC09)



Dr Erik HEMBRE  
(ELI LILLY AND COMPANY, Indianapolis, United States)

### Heterocyclic Compounds as Delta-5 Desaturase Inhibitors (OC07)



Dr Ana MINATTI  
(AMGEN INC, Copenhagen, Denmark)

### Novel Approaches to Molecular Glue Discovery: Design of Clinical Candidate NVP-DKY709 an IKZF2 Degradar by Re-Programming of CRBN Selectivity and Screening for Cooperativity Using DNA Encoded Libraries (OC8)



Dr Frédéric ZECRI  
(NOVARTIS, Cambridge, United States)