4th Alpine Winter Conference on Medicinal and Synthetic Chemistry

Programme

Sunday January 28, 2024

Registration

Opening Remarks

Dr Klemens HOEGENAUER (NOVARTIS INSTITUTES FOR BIOMEDICAL RESEARCH, Basel, Switzerland)
Dr Karl Heinz KRAWINKLER (NOVARTIS PHARMA AG DEVELOPMENT, Basel, Switzerland)
Dr Antonia F. STEPAN (F. HOFFMANN-LA ROCHE LTD, Basel, Switzerland)

Recent Developments in Synthetic Methodologies and their Impact

Session Chair

Dr Fabrice GALLOU
(NOVARTIS PHARMA, Basel, Switzerland)

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)

Coffee Break

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)

Break

New Catalytic Approaches for Simplifying Complex Molecule Synthesis (KL01)

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

Welcome Reception, Sponsored by abcr

End of the day

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

Session Chair
Dr Ulrich LÜCKING
(FORX THERAPEUTICS, Basel, Switzerland)

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)

Coffee Break

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)

Outdoor Networking Activities

Networking Break

In Silico Prediction of Phase I and II Metabolism: Guiding Optimisation of Drug Metabolism o_BR*Company Workshop by Optibrium*c_BR
Dr Matthew SEGALL
(OPTIBRIUM LTD, Cambridge, United Kingdom)

Latest Advances and Approaches in Bioconjugation Drug Discovery

Session Chair
Dr Karl Heinz KRAWINKLER
(NOVARTIS PHARMA AG DEVELOPMENT, Basel, Switzerland)

Bicyclic Peptides as a Novel Therapeutic Modality (PL09)
Dr Philip MURRAY (BICYCLE THERAPEUTICS, Cambridge, United Kingdom)
(SOPLVIAS AG (WAS FUJIFILM))

Next-Generation Bioconjugates for Intra- and Extracellular Targeting (PL10)
Prof. Christian HACKENBERGER
(FMP BERLIN, Berlin, Germany)

Coffee Break

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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)

Poster Session 1 (odd numbers)

End of the Poster Session

4th Alpine Winter Conference on Medicinal and Synthetic Chemistry

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Tuesday January 30, 2024

Human Dose Prediction in the Discovery Space

Session Chair
Dr Holger FISCHER
(F. HOFFMANN-LA ROCHE LTD., BASEL, Switzerland)

Early Human Dose Predictions in Lead Optimization (PL13)
Dr Johan BYLUND
(CTC CLINICAL TRIAL CONSULTANTS AB, Uppsala, Sweden)

Early Human Dose Prediction & Machine Learning Models - Can We Impact Lead Selection? (PL14)
Dr Gregori GEREBTZOFF
(NOVARTIS INSTITUTES FOR BIOMEDICAL RESEARCH, Basel, Switzerland)

Coffee Break

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)

Predicting Human Exposure and Dose of Compounds Targeting the Brain (PL16)
Dr Nicola COLCLOUGH
(ASTRAZENECA, Cambridge, United Kingdom)

Outdoor Networking Activities

Networking Break

Antiviral Drug Discovery

Session Chair
Dr Dafydd OWEN
(PFIZER, Cambridge, United States)

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

Coffee Break

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

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Prof. Priscilla YANG
(STANFORD UNIVERSITY, Stanford, 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)

The Discovery of PAXLOVID (KL02)

Dr Dafydd OWEN
(PFIZER, Cambridge, United States)

End of the Scientific Programme

Conference Dinner

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Wednesday January 31, 2024

Radical Intermediates in Complex Molecule Synthesis

Session Chair

Prof. Nina HARTRAMPF
(UNIVERSITY OF ZURICH, Zürich, 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))

Recent Adventures in Catalysis and Beyond (PL22)

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

Coffee Break

Alkenes as Flexible Platforms for Asymmetric Transformations (PL23)

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

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

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

Outdoor Networking Activities

Networking Break

AI for Medicinal Chemists: Novel Compounds Design and Retrosynthesis Prediction o_BR*Company Workshop by Iktos*c_BR

Dr Quentin PERRON
(IKTOS, Paris, France)

Drug Discovery Tales I

Session Chair

Dr Scott WOLKENBERG
(JANSSEN PHARMACEUTICAL COMPANIES OF JOHNSON & JOHNSON, Spring House, United States)

NLRP3 Inhibitors for Neurodegenerative Disorders (OC01)

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

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

Dr Isabelle KRIMM
(CLB, Lyon, France)

Coffee Break

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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)

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

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

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)

Poster Session 2 (even numbers)

End of the Poster Session

4th Alpine Winter Conference on Medicinal and Synthetic Chemistry

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Thursday February 1, 2024

Cryo-EM: Applications for Structure-Based Drug Discovery

Session Chair
Dr Katharina DÜRR
(OMASS THERAPEUTICS, Oxford, United Kingdom)

Deep Learning-Driven De Novo Drug Design Based on Gastric Proton Pump Structure (PL25)
Prof. Kazuhiro ABE
(NAGOYA UNIVERSITY, Nagoya, Japan)

Cryo-EM Enables Structure-Based Drug Design for Membrane Protein Targets at BI (PL26)
Dr Rebecca EBENHOCH
(BOEHRINGER INGELHEIM, Biberach, Germany)

Coffee Break

Single Particle CryoEM at 200 kV & Itchy GPRCs (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)

Outdoor Networking Activities

Networking Break

Drug Discovery Tales II

Session Chair
Dr Scott WOLKENBERG
(JANSSEN PHARMACEUTICAL COMPANIES OF JOHNSON & JOHNSON, Spring House, United States)

Discovery of a Novel Oral NO- and Heme-Independent sGC Activator Runcaciguat (BAY 1101042) (OC06)
Dr Michael G. HAHN
(BAYER AG PHARMACEUTICALS, Wuppertal, Germany)

Heterocyclic Compounds as Delta-5 Desaturase Inhibitors (OC07)
Dr Ana MINATTI
(AMGEN INC, Copenhagen, Denmark)

Coffee Break

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

Programme

Dr Frédéric ZECRI
(NOVARTIS, Cambridge, United States)

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)

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

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

Closing Remarks