

16th Winter Conference on Medicinal & Bioorganic Chemistry

January 29th - February 2nd 2023
Steamboat Springs Resort, Colorado

Organised in collaboration with:



Program



Sunday 29th January 2023

- 1.00 – 5.00pm** **Registration**
- 3.00 – 5.00** **Welcome Coffee and Cookies**
- 5.00** **Welcome and Opening Remarks – Philippe Nantermet, Conference Chair**
- Welcome to the 2023 MBCF Scholars – Maria Chiriac, MBCF Scholarship Lead**
- 5.20 – 7.40 pm** **Drug Hunting**
 Chair: Klemens Hoegenauer, Novartis
- 5.20** **Woody Sherman**, Psivant Therapeutics
Is it Time for Computation-driven Drug Design? The Discovery of a Small Molecule STING Agonist using the QUAISAR Computational Platform
- 5.55** **Jason Shields**, AstraZeneca
Medicinal Chemistry with the Fifth Element: Discovery of Arginase Inhibitor AZD0011
- 6.30** **Kentaro Futatsugi**, Pfizer
Discovery of DGAT2 Inhibitors for the Treatment of NASH
- 7.05** **Drug Hunter Award Introduction and Prize**
Chairs: Philippe Nantermet and Matthew Hayward
- 7.10** **Ian M. Bell**, Merck (**Drug Hunter Award**)
CGRP Receptor Antagonists for the Treatment of Migraine
- 8.00 – 10.00 pm** **Welcome Networking Reception in the Exhibition Area**
Includes fork buffet dinner and open bar

Monday 30th January 2023

7.00 – 8.00 am Good Morning Buffet Breakfast

8.00 Enabling Methodology and Technology

Chair: Iulia Strambeanu, Janssen

8.05 David Leitch, University of Victoria
Mapping Chemical Space via High-throughput Experimentation: New Tools, New Reactions, and New Bicyclic Scaffolds

8.40 Song Lin, Cornell
New Strategies for Redox Catalysis

9.15 Amanda Dombrowski, AbbVie
Enabling and Accelerating Drug Discovery with High Throughput Chemistry

9.50 Victoria Hélan, AstraZeneca
Towards Picomole Library Synthesis and Analysis using Acoustic Technologies

10.25 Kohki Nakafuku, Janssen
Discovery of Small Molecule Inhibitors Using a Modern Screening Paradigm and High Throughput Chemistry

4.00 - 5.00 pm Back from the Slopes – Coffee and Brownies Break

5.00 – 8.00 pm Antivirals and Pandemic Diseases, Past, Present and Future

Chair: John McCauley, Merck

5.05 Jamie Tuttle, Pfizer
Discovery and Development of Nirmatrelvir

5.40 Patrick Fier, Merck
Developing Large-Scale Syntheses of Molnupiravir, an Antiviral for COVID-19

6.15 Phil Sanderson, NIH
The Antiviral Program for Pandemics at NCATS-NIH

6.50 Uwe Schoenbeck, Pfizer Inc.
Expanding the potential of RNA beyond Covid-19

7.25 End of Session

Tuesday 31st January 2023

7.00 – 8.00 am **Good Morning Buffet Breakfast**

8.00 – 11.00 am **SynthChemBio**
Chair: *Niyi Fadeyi, InduPro*

8.05 **Christopher am Ende**, Pfizer Inc.
Advancing Chemical Biology through Innovative Synthesis

8.40 **Emma Grant**, GlaxoSmithKline
Reactive Fragments in Covalent Drug Discovery

9.15 **Haoxin Li**, Scripps
Assigning Functionality to Cysteines by Base Editing of Cancer Dependency Genes

9.50 **Francisco Garcia**, Novartis Institute for Biomedical Research
Enhancing the Scope of Ligandability with Diverse Electrophiles

10.25 **Rob Oslund**, InduPro Therapeutics
Redox Activation Strategies to Profile Biological Systems

4.00 - 5.00 pm **Back from the Slopes – Coffee and Warm Pretzels Break**

5.00 – 8.00 pm **MacMillan Alumni Session: Topics in Medicinal and Synthetic Chemistry**
Chair: *Michael VanHeyst, GSK*

5.05 **Raphaelle Berger**, Merck
Discovery of MK-6158 an oral, once daily, Soluble Guanylate Cyclase (sGC) Stimulator for the treatment of Pulmonary Arterial Hypertension

5.40 **Andrew Capacci**, Biogen
Discovery of Selective, CNS-Penetrant Covalent Inhibitors of Bruton's Tyrosine Kinase for the Treatment of Multiple Sclerosis

6.15 **Vy Dong**, UCI
Choose Your Own Adventure in Metal-Hydride Catalysis

6.50 **Robert M. Williams' Memorial KEYNOTE LECTURE**
Program Chair: Mike VanHeyst, GSK

2021 Nobel Laureate David W.C. MacMillan, Princeton University
The Development of Asymmetric Organocatalysis and Metallaphotoredox

8.00 – 8.45 pm **Champagne Networking Reception**
With charcuterie and cheese boards

Wednesday 1st February 2023

7.00 – 8.00 am Good Morning Buffet Breakfast

8.00 – 11.00 am **Beyond Ro5 and Novel Modalities**
Chair: *Lou Chupak, Bristol-Myers Squibb*

8.05 Dave Degoey, AbbVie
Discovery of bRo5 Drugs: Lessons from the Past and Progress toward Better Prediction of Oral Absorption

8.40 Yanke Liang, C4 Therapeutics
The Discovery and Characterization of CFT-18442: A Potent, Selective, and Orally Bioavailable Degradar of BRAF V600E

9.15 Geoffray Leriche, Plexium
Rational Discovery of BRD4 Monovalent Protein-Degraders

9.50 Patrizio Mattei, F. Hoffmann-La Roche Ltd
Discovery of RG6006, a Tethered Macrocyclic Peptide Targeting Acinetobacter baumannii

10.25 John O. Link, Gilead Sciences
The Discovery and Development of Lenacapavir (GS-6207): a Twice-Yearly Injectable or Orally Dosed First-in-Class HIV Capsid Inhibitor

4.00 - 5.00 pm Back from the Slopes – Coffee, Cookies & Brownies Break

5.00 – 7.00 pm **General Session: Synthesis and Med Chem**
Chair: *Amy Dounay, Colorado College*

5.00 Bryan Norman, Enveda Biosciences
Natural Product Drug Discovery in the Age of Metabolomics and Machine Learning

5.20 Schuyler Chambers, Stanford University
Harnessing Human Milk Oligosaccharides to Combat Group B Streptococcus

5.40 Lori Ferrins, Northeastern University
Human Kinase Inhibitors as Starting Points for Kinetoplastid Drug Discovery

6.00 Mark Tichenor, Johnson & Johnson
Discovery of JNJ-64264681: A Potent and Selective Covalent BTK Inhibitor for Treating Hematological Malignancies

6.20 Jana Polivkova, Pfizer
Synthesis of MC4R Antagonist PF-07258669: From First Synthesis to Development of Scalable Route for Clinical Studies

6.40 Jeremy Richter, Bristol-Myers Squibb
Discovery of a Renal Outer Medullary Potassium (ROMK) Channel Inhibitor Clinical Candidate for the Treatment of Heart Failure

7.00 – 8.30 pm **Networking Session**
Drinks & Poster Session
Finger Buffet, Beers and Wine

Thursday 2nd February 2023

7.00 – 8.00 am **Good Morning buffet breakfast**

8.00 – 11.00 am **Late Breaking Stories and 1st Disclosures**

Chair: *Hanna Wisniewska, Pfizer Inc.*

8.05 **Jim Barrow**, John Hopkins University
Discovery and Profiling of a Peripherally-restricted GABA-A Positive Allosteric Modulator for Treatment of Irritable Bowel Syndrome

8.40 **Manuel de Lera Ruiz**, Merck
Invention of the Dual Plasmepsin IX/X Inhibitor MK-7602 – A Promising Next Generation Antimalarial Agent from an Efficient Academic/Industrial Collaboration

9.15 **Rob Kania**, Kinnate
The Discovery of KIN-2787, A Solution to the Challenges of Pan-RAF Kinase Inhibition

9.50 **Nicolas Soldermann**, Novartis
Conquest of a PPI Everest: Disrupting the YAP/TEAD Interface with Small Molecules

10.25 **Lou Chupak**, Bristol-Myers Squibb
Phenotypic Discovery and Optimization of Potent T-Cell Modulators: Dual Inhibition of Diacylglycerol Kinases α and ζ

5.00 pm **Top of the Gondola**

Networking Session

5.00 – 6.00 pm **Pre-Dinner Drinks**

Open bar

6.00 pm **Conference Dinner**

*Salad, Pre-ordered entrée and Dessert
Beer and Wine*

9.30 pm **Conference Closes**