

# 15th Winter Conference on Medicinal & Bioorganic Chemistry

January 30th - February 3rd 2022  
Steamboat Springs Resort, Colorado

Organised in collaboration with:



## Provisional Program



### Sunday 30<sup>th</sup> January 2022

- 1.00 – 5.00pm      Registration**
- 4.00 – 5.00          Welcome Coffee and Cookies and Visit our Exhibitors**
- 5.00                  Welcome and Opening Remarks – Philippe Nantermet, Conference Chair**
- Welcome to the 2022 MBCF Scholars – Sarah Reisman, Member of the Board**
- 5.20 – 7.40 pm      Drug Hunting**  
Chair: *Scott Wolkenberg, Janssen*
- Kevin Freeman-Cook, Pfizer**  
*Design of PF-07104091, a CDK2 Selective Inhibitor for the Treatment of Cancer*
- Antonio Romero, Cytokinetics**  
*The Discovery of CK-136, a Selective Cardiac Troponin Activator*
- Dustin J. Mergott, Lilly**  
*Discovery and Early Clinical Development of LY3372689, an O-GlcNAcase (OGA) Enzyme Inhibitor*
- Drug Hunter Award Introduction and Prize**
- Sabine Hadida, Vertex (Drug Hunter Award)**  
*Discovery of CFTR modulators for the treatment of Cystic Fibrosis*
- 7.40 – 10.00 pm    Welcome Networking Reception in the Exhibition Area**

## Monday 31<sup>st</sup> January 2022

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

**8.00 - 11.00 am      Total Synthesis / Biocatalysis**

Chair: Sarah Reisman, Caltech and Shane Krska, Merck

**Alison Narayan**, University of Michigan  
*Biocatalysis and Complex Molecule Synthesis*

**Ania Fryszkowska**, Merck  
*Enzymatic Routes to the Next Generation Therapeutics*

**Rusty Lewis**, Pfizer  
*Commercial Synthesis of APIs enabled by Enzymatic Reductive Amination*

**Ian Seiple**, UCSF  
*Next-generation Synthesis of Antibiotics*

**4.00 - 5.00 pm      Back from the Slopes – Coffee & Cookie Break and Visit the Exhibitors**

**5.00 – 8.00 pm      Nontraditional Modalities in Drug Discovery**

Chair: Lou Chupak, BMS

**Laurence Burgess**, Vividion Therapeutics  
*Application of a Proteome-Wide Covalent Fragment Screening Platform: The Discovery of Potent, Selective, Allosteric JAK1 Inhibitors*

**Ingrid Wertz**, BMS  
*Co-opting the Ubiquitin System for Therapeutic Benefit*

**Lauren Monovitch**, Novartis  
*Identification of a PCSK9-LDLR Disruptor Peptide with In Vivo Function*

**Thomas Tucker**, Merck  
*Cyclic peptide PCSK9 Inhibitors Derived from an mRNA Display Screen and Optimized via Structure Based-Design*

**Alexander Buitrago Santanilla**, GlaxoSmithKline  
*Development of a Nanoscale Direct-to-Biology Platform: Applications to Cell Assays and PROTACs*

## Tuesday 1<sup>st</sup> February 2022

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

**8.00 – 11.00 am      Molecular Interactions in Drug Discovery**

Chair: *Payal Seth, BMS*

**Mary Matyskiela**, Neomorph Inc  
*Drugging the Undruggable with Molecular Glue*

**Kaspar Hollenstein**, Merck  
*"Structures of Active-State Orexin Type-2 Receptor Enable Structure-Based Drug Discovery"*

**Kathleen Farley**, Pfizer  
*Impacting Drug Design using NMR Solution Conformations*

**Speaker Invited**  
*Title to be confirmed*

**4.00 - 5.00 pm      Back from the Slopes – Coffee & Cookie Break and Visit the Exhibitors**

**5.00 – 6.40 pm      General Session: Advances in Synthesis and Medicinal Chemistry**

Chair: *Mike Visser, Novartis*

**Speaker Selected from Abstracts**, Affiliation  
*Title to be confirmed*

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*Title to be confirmed*

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*Title to be confirmed*

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*Title to be confirmed*

**Speaker Selected from Abstracts**, Affiliation  
*Title to be confirmed*

**6.40 – 8.00 pm      Networking Session  
Drinks & Poster Session and Visit the Exhibition**

## Wednesday 2<sup>nd</sup> February 2022

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

**8.00 – 11.00 am**      **Novel Enabling Synthetic Methodology (including high throughput experimentation, LSF / Inert Bond Activation / Automation)**

Chair: *Darren Dixon, University of Oxford*

**Andy McNally**, Colorado State

*Selective Functionalization of Pyridines, Diazines and Pharmaceuticals via Unconventional Intermediates*

**Cara Brocklehurst**, Novartis

*Tackling Synthetic Challenges and Applying Synthetic Technologies across the Novartis Drug Discovery Portfolio*

**Martin Eastgate**, BMS

*Innovation in the Synthesis of Complex Pharmaceuticals*

**Sophie Rousseaux**, University of Toronto

*Title to be confirmed*

**Robert Paton**, Colorado State

*Title to be confirmed*

**4.00 - 5.00 pm**      **Back from the Slopes – Coffee & Cookie Break and Visit the Exhibitors**

**5.00 – 8.00 pm**      **Chemical Biology**

Chair: *Stephanie Monson, Genentech*

**Marcus Bantschef**, Cellzome, GSK

*Tracking Drug Action at the Cell Surface and in the Secreted Proteome*

**Justin Rettenmaier**, Jnana Therapeutics

*RAPID - a High-Throughput, Cell-Based Ligand Discovery Platform for Difficult to Drug Targets*

**Kate Carroll**, Scripps

*Rewriting the Textbook on Cysteine Oxidation*

**Tamara Reyes Robles**, Merck

*Understanding Immune Cell Interactions via Photocatalysis*

**Michael Lazear**, Scripps

*Function-first Proteomic Strategies for Chemical Probe Discovery in Human Cells*

## Thursday 3<sup>rd</sup> February 2022

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

**8.00 – 11.00 am**      **Late Breaking Stories in Drug Discovery**

Chair: *Rebecca Gallego, Pfizer*

**Julian Levell**, Constellation Pharmaceuticals, a MorphoSys Company  
*Identification and Optimization of First-in-Class Small Molecule Inhibitors of TREX1, a Novel Target in Immuno-oncology*

**Mark Layton**, Merck  
*Discovery of a novel PDE10 inhibitor in clinical development for the treatment of Schizophrenia*

**Eric Newcomb**, Pfizer  
*Discovery of the Selective CSF1R Inhibitor ARRY-382*

**Brendan Crowley**, Merck & Co., Inc.  
*Next Generation Oxazolidinone Antibiotics for the Treatment of Tuberculosis*

**James Taylor**, Gilead  
*Title to be confirmed*

**5.00 pm**                      **GALA DINNER AND ROBERT M. WILLIAMS KEYNOTE ADDRESS**

Chair: *Philippe Nantermet, Merck and Matthew Hayward, Pfizer*

**Networking Session**  
**Pre-Dinner Drinks**

**Keynote Speaker: Jay Bradner**, Novartis  
*Small Molecules with Big Ambitions: Approaches to Intractable Targets*

**Conference Dinner**

**Conference Closes**