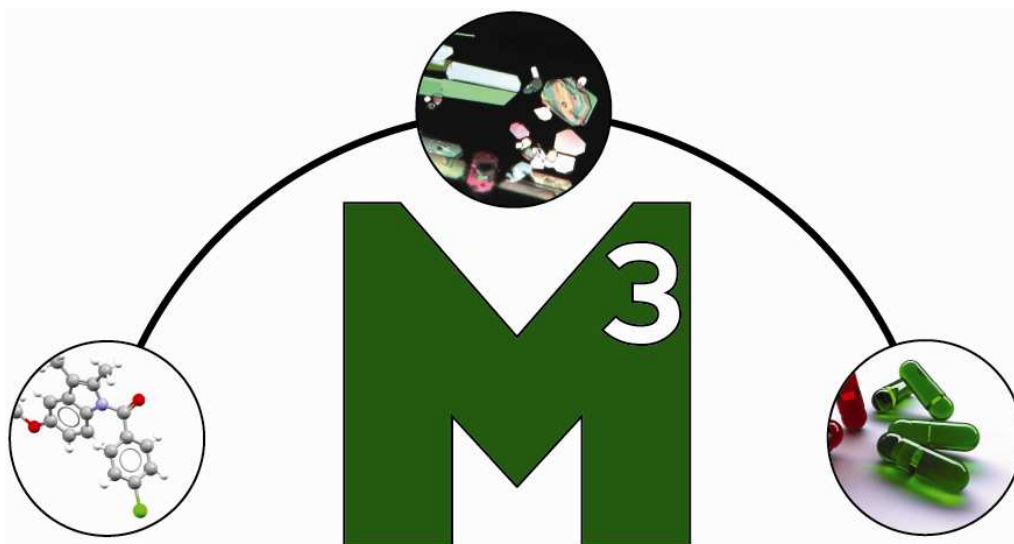


Sponsored by:

ACS DIVISION OF  
**Business Development and Management**



MOLECULES MATERIALS MEDICINES  
An International Conference on the Role of Materials Science  
and Engineering in Drug Development



May 19- 22<sup>nd</sup>, 2012

Banff Centre, Alberta, Canada



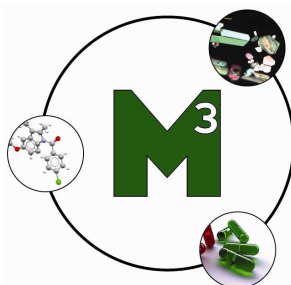
## Welcome

The M3 organizing committee invites you to join an exciting conference focusing on science at the interface between drug discovery and dosage form development based on material science to support all phases of clinical development. Our program is targeted for individuals interested in the discovery and development of pharmaceutical products. The goal of the M3 conference is to provide for learning and sharing of ideas at the interfaces between molecular discovery, materials science and early medical evaluation. We have an outstanding roster of invited speakers presenting on up-to-date science and technology. The venue is the striking Canadian Rocky Mountain vista of Banff, which is readily accessible via Calgary, Alberta. We look forward to seeing you there in May of 2012!

Further information about the conference, registration and Banff is available on the Website: [www.M3Conference.com](http://www.M3Conference.com)

## The organizing committee:

Dr. Örn Almarsson (Alkermes, USA)  
Dr. Patrick Connelly (Vertex Pharmaceuticals, USA)  
Dr. Magali Hickey (Alkermes, USA)  
Dr. Mick Hurrey (Vertex Pharmaceuticals, USA)  
Dr. Drazen Ostovic (Amgen, USA)  
Dr. Matt Peterson (Amgen, USA)  
Dr. Elizabeth B. Vadas (InSciTech, Canada)



# Technical Program

**Saturday, May 19<sup>th</sup>**

Welcome Reception and Keynote Address – “Do you really understand all there is to know about Ionic Liquids?” – **Robin Rogers**  
– **University of Alabama – Tuscaloosa**

**Sunday, May 20<sup>th</sup>**

**Breakfast**

Morning Session – **Developing & Understanding Amorphous Pharmaceutical Materials** – **Pat Connelly, presiding**

*Fundamental and practical aspects of amorphous materials characterization and their development as drug products*

Structure, Thermodynamics and Dynamics of Amorphous Solids – **G. Zografi, University of Wisconsin – Madison**

Fundamentals of Amorphous Material Behavior and Analysis Thereof  
– **L. Taylor, Purdue University**

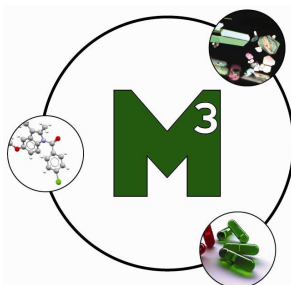
Development of Amorphous Pharmaceutical Materials: From Fundamental Properties to Practical Applications – **S. Johnston, Vertex Pharmaceuticals, Inc.**

Practical Aspects of Amorphous Solid Dispersion Design and Development – **F. Qian – Bristol-Myers Squibb Company**

**Lunch**

Afternoon Session – **The Use of Crystallographic Information in Pharmaceutical Development** – **Matt Peterson, presiding**

*Perspectives on how molecular design and characterization using crystal structure analysis techniques can yield insights that facilitate understanding of the structure and function of medicines.*



Crystal structure prediction – a performance snapshot – **M. Neumann, Avant-garde Materials Simulation**

From Form to Function: Crystal Shape Engineering for API Molecules – **M. Doherty, University of California – Santa Barbara**

Diffraction Studies, Phase Diagram, and Energy Calculations of a Conformational Polymorph and studies of its Conglomerate – Racemate Transition – **G. Stephenson, Eli Lilly and Company**

Crystallographic and kinetic understanding of the interconversion of an anhydrous/hydrate pair – **R. Kelly, Amgen, Inc.**

**Monday, May 21<sup>st</sup>**  
**Breakfast**

Morning Session – **Co-Crystals: Utility, Development and Scale-Up** – **Magali Hickey, presiding**

*From novelty to reality – 10 years in pharmaceutical co-crystal research of material discovery, drug product development and scale-up*

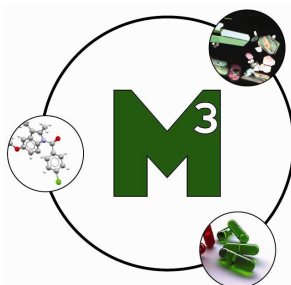
The crystal engineering approach to development of co-crystal former libraries – **M. Zaworotko, University of South Florida**

Co-crystal solubility and key indicators of thermodynamic stability – **N. Rodriguez-Hornedo, University of Michigan**

Supersaturating co-crystal systems: dissolution and formulation for pk studies – **S. Childs, Triclinic Labs, Inc.**

Scale-up of co-crystals – **R. Chiarella, Alkermes, Inc.**

**Lunch**



Afternoon: Free to explore the town of Banff or take a conference organized trip to one of the sights in the Rockies

## Conference Dinner

**Tuesday, May 22<sup>nd</sup>**  
**Breakfast**

Morning Session – **New approaches, new techniques in materials characterizations – Mick Hurrey, presiding**

*Exploration of new analytical approaches for the characterization of pharmaceutical materials*

Solid-State Materials Characterization – **R. Hilfiker, Solvias AG**

Surface Energy and Surface Relaxation Studies as Contributors to Pharmaceutical Development – **G. Buckton, University of London**

Understanding Pharmaceutical Powder Compaction with Mechanical and Thermodynamic Analysis – **I. Buckner, Duquesne University**

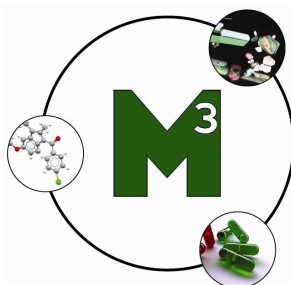
Resonant Microchannels for High Precision Characterization of Individual Particles – **S. Manalis, Massachusetts Institute of Technology**

**Boxed Lunch and End of Program**

## Important dates and deadlines

January 15th 2012 Deadline for submitting abstracts for posters

January 31st 2012 Deadline for early registration



## Venue and date

The conference will take place at the Banff Conference Centre, Banff, May 19th-22nd 2012. All sessions will be held in the Kinnear conference building. The official language of the conference is English. Visit <http://www.banffcentre.ca/conferences/> for more information about the venue.

## Posters and abstract submission

Participants in the conference are invited to present their own work related to the topics of the conference in the poster sessions. The deadline for abstract submission is January 15th 2012. All submissions must be sent electronically as a PDF file to [I\\_lamoureux@acs.org](mailto:I_lamoureux@acs.org). Faxed submissions will not be accepted. The e-mail address of the corresponding author should be included. The maximum size (excluding title, author(s) and affiliation(s)) for your abstract is 300 words. The name of the presenting author should be underlined. Posters should fit standard 4'x6' easel size.

## Conference Registration Fees

Fees include a book of abstracts, coffee breaks, meals, and the Icebreaker reception. Rooms to be booked directly with the Banff Centre at the conference rate of \$140 (CAD).

	before January 31 <sup>st</sup> 2012	after January 31 <sup>st</sup> 2012
Attendee	\$795 (USD)	\$995 (USD)
Accompanying Person	\$300 (USD)	\$300 (USD)

## Cancellation and Refunds

Written cancellation received before Feb 18th: A full refund will be given less an administrative fee of \$100 (USD); Written cancellation received after Feb 18th: No refund may be expected. Refunds will be processed after May 22nd.

