
50th Annual Meeting and Conference of the CSBMCB “Systems and Chemical Biology”

Thursday July 5 - Monday July 9, 2007

New Residence Hall, McGill University

Scientific Program

Thursday July 5th, 2007

9:00-12:00 pm: Canadian Society for Systems Biology (CSSB) Annual Meeting

1:10-5:00 pm: Trainee's Mini-Symposium including invited speakers from the abstracts

Session I Plenary Lectures

Session Chair: Eric Brown, McMaster University

- 7:30 pm Ronald Breaker, Yale University, CT
Exploring the diversity of riboswitch structures and functions
- 8:15 pm Pamela Silver, Harvard Medical School, Boston
Designing biological systems
- 9:00 pm Opening mixer and exhibits

Friday July 6th, 2007

Session II Small Molecule Probes of Big Biology

Session Chair: Eric Brown, McMaster University

- 8:20 am Tom Silhavy, Princeton University, NJ
Chemical conditionality: an approach for understanding outer membrane biogenesis in gram-negative bacteria
- 9:00 am Jim Inglese, NIH Chemical Genomics Center, MD
Quantitative high throughput screening: discovery of investigational molecular probes through the biological activity profiling of chemical libraries
- 9:40 am Mike Tyers, Samuel Lunenfeld Research Institute, Toronto
In search of the magic shotgun: interrogation and manipulation of cellular networks by combinations of small molecules
- 10:20 am Coffee break with exhibitors
- 10:50 am Raymond Andersen, University of British Columbia
Bioactive marine natural products: drug leads and cell biology tools
- 11:30 am Peter Roy, University of Toronto
Using *C. elegans* as a platform for the discovery of small molecule tools for biological analysis
- 12:10 pm CSBMCB Board Meeting

Session III Chemical Biology of Nucleic Acids

Session Chair: Yingfu Li, McMaster University

- 1:20 pm Eric Westhof, Institut de biologie moléculaire et cellulaire du CNRS, France
Molecular recognition between antibiotics and RNA
- 2:00 pm Hiro Suga, University of Tokyo, Japan
Genetic code reprogramming
- 2:40 pm Bruce Sullenger, Duke University Medical Center, NC
Novel applications of aptamers: teaching an old dog some new tricks
- 3:20 pm Coffee break with exhibitors

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- 3:50 pm Chuck Wilson, Chief Scientific Officer Archemix Corp, USA
Optimizing therapeutic aptamers through medicinal chemistry
- 4:30 pm Jean-Pierre Perreault, Université de Sherbrooke, Québec
Development of cleaving ribozyme with high fidelity
- 5:10-7:00 pm Poster Pub I and hors d'oeuvres
- 7:00-8:30 pm Award Lectures**
- 7:00-7:45 pm Roche Diagnostics Prize Lecture
- 7:45-8:30 pm Merck Frosst Prize Lecture

Saturday July 7th, 2007

Session IV Developments in Systems Biology

Session Chair: Daniel Figeys, University of Ottawa

- 8:20 am Janet Thornton, European Bioinformatics Institute, Cambridge, UK
The evolution of enzyme mechanisms and functional diversity
- 9:00 am Mathias Uhlén, Professor, Royal Institute of Technology, Sweden
A human protein atlas for normal and cancer tissues
- 9:40 am Shankar Subramaniam, University of California, San Diego
Systems biology approach to deciphering cellular networks in macrophages
- 10:20 am Coffee break with exhibitors
- 10:50 am Kristin Baetz, Ottawa Institute of Systems Biology
Integrated analysis of the histone acetyltransferase NuA4
- 11:30 am John Yates, Scripps Research Institute, CA
Driving biological discovery using mass spectrometry

Session V Genomics and Proteomics

Session Chair: Guy Poirier, Université Laval

- 1:20 pm N. Leigh Anderson, Plasma Proteome Institute, Washington DC
The plasma proteome: challenges for biomarker discovery and validation
- 2:00 pm Ronald Beavis, University of British Columbia
Informatics strategies for immune system surveillance
- 2:40 pm Arul M. Chinnaiyan, University of Michigan Medical School
Bioinformatics as an engine for oncology discovery
- 3:20 pm Coffee break with exhibitors
- 3:50 pm Benoit Coulombe, Institute des recherches cliniques de Montréal
A panorama of the protein complexes formed by the RNA polymerase II
transcription machinery in mammalian cells
- 4:30 pm Akhilesh Pandey, John Hopkins Bloomberg School of Public Health, Baltimore
An integrated bioinformatics and proteomics approach to study kinases and
substrates
- 5:10-7:00 pm Poster Pub II

Sunday July 8th, 2007

Session VI Frontiers in Chemical Biology

Session Chair: Gerry Wright, McMaster University

- 8:20 am Jon Clardy, Harvard Medical School, Boston
Genes, genetically-encoded small molecules, and biology
- 9:00 am Stephen Withers, University of British Columbia
Directed evolution as a strategy for the generation of new catalysts for glycoside
assembly

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- 9:40 am John Vederas, University of Alberta
Integrated approaches to discovery of new antimicrobial agents
- 10:20 am Coffee break with exhibitors
- 10:50 am Suzanne Walker, Harvard Medical School, Boston
Peptidoglycan biosynthesis and its inhibition
- 11:30 am Mike Marletta, University of California, Berkeley
Biological sensing of nitric oxide and oxygen: A problem in molecular recognition

Session VII Chemical Genomics and Cancer

Session Chair: Michael Hallet, McGill University

- 1:20 pm Albert Koong, Stanford University, CA
Inhibition of the unfolded protein response (UPR) as a cancer therapeutic strategy
- 2:00 pm Jerry Pelletier, McGill University, Montreal
Therapeutic potential of translation initiation inhibitors
- 2:40 pm Maya Schuldiner, University of California, San Francisco
Building a systems level view of the cell using genetic interaction maps
- 3:20 pm Coffee break with exhibitors
- 3:50 pm Stephen Michnick, Université de Montréal
Chemical biology on pins and needles

Session VIII CSBMCB 50th Anniversary Banquet and Awards Presentations

- 6:30 pm Cocktails with Dixieland Quartet at Faculty Club
- 7:30 pm Banquet and Awards Presentation
(Wine sponsored by Merck Frosst)

Monday July 9th, 2007

Session IX Systems and Synthetic Biology

Session Chair: Martin Latterich, Université de Montréal

- 8:20 am Robert Nadon, McGill University, Montreal
Statistical analysis of high throughput screening results
- 9:00 am John Bergeron, McGill University, Montreal
Systems biology of the cell via organellar proteomics
- 9:40 am Peter Swain, McGill University, Montreal
Stochasticity and designs of genetic networks
- 10:20 am Coffee break
- 10:50 am Anne-Claude Gingras, University of Toronto
Functional proteomics of serine/threonine phosphatases
- 11:30 am Jaclyn Vogel, McGill University, Montreal
Analysis of yeast PP1/Glc7 phosphatase networks using integrated genomic and proteomic approaches
- 1:10 pm Science Policy Meeting
- 2:10 pm CSBMCB Annual General Meeting
- 3:10 pm Coffee break
- 3:30 pm General discussion
- 4:00 pm CMC organizational meeting
- 4:30 pm Departure