



Department of Chemistry
University of Toronto
April 18th-20th, 2008

Friday, April 18th, Leslie L. Dan Pharmacy Building

2:30-4:30 PM	<u>Registration</u>	Pharmacy Bldg.
Session I		
4:30-4:45	Introduction: Claudiu Gradinaru, Rob Graham , University of Toronto	Pharmacy Bldg.
4:45-5:30	a) Raymond Kapral , University of Toronto <i>Why Fluctuations and Hydrodynamics Matter for Biochemistry in the Cell</i>	
5:30-6:30	<u>Panel/Audience Discussion:</u> Topic: The Next Big Thing in Chemical Biophysics	
6:30-7:45	<u>Buffet Dinner</u>	Pharmacy Bldg.
Session II		
	Chair: Jan Rainey , Dalhousie University	Pharmacy Bldg.
7:45-8:30	a) Michael Noseworthy , McMaster University <i>Correlating Brain Structure With Function Using Magnetic Resonance</i>	
8:30-8:50	b) Sameer Al Abdul Wahid , University of Toronto <i>A Solution NMR Approach to the Measurement of Amphiphile Immersion Depth and Membrane Protein Topology in Membrane Model Systems</i>	
9:00-Unknown	<u>Informal Discussions</u>	Faculty Club Pub

Saturday, April 19th, Leslie L. Dan Pharmacy Building

Session III		
	Chair: Tony Mittermaier , McGill University	Pharmacy Bldg.
9:00-9:45 AM	a) Erik Winfree , California Institute of Technology <i>Learning to Program Chemistry</i>	
9:45-10:15	b) Scott Phillips , Andor Technology <i>Spinning Disk Confocal: Why it is important in Live Cell Imaging and Why Now?</i>	



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- 10:15-10:35 c) **Seila Selimovic**, Brandeis University
PhaseChip 2.0: Applications in Structural Biology
- 10:35-10:55 b) **Helan Xiao**, University of Toronto
Fe²⁺-Catalyzed Nonenzymatic Glycosylation Alters Collagen Conformation during AGE-Collagen Formation in Vitro
- 10:55-12:30 PM Poster Session & Coffee break
10:35-10:55 Set-up
10:45- 12:30 Even-numbered posters
Sponsored by Asylum Research
- 12:30-1:15 Buffet Lunch Pharmacy Bldg.
- Session IV** Chair: **Heiko Heerklotz**, University of Toronto Pharmacy Bldg.
- 1:15-2:00 a) **Glen S. Kwon**, University of Wisconsin – Madison
Polymeric Micelles for Combination Drug Delivery
- 2:00-2:20 b) **Gillian L. Ryan**, Dalhousie University
Bacteriophage λ has Back Doors to Lysis
- 2:20-2:40 c) **Sophia V. Hohlbauch**, Asylum Research
Topographic and Phase Images of Amyloid-Like Insulin Fibrils in Fluid Using Direct Magnetic Acutation
- 2:40-4:30 Poster Session & Coffee Break
Odd-numbered posters
Sponsored by Bruker
- Session V** Chair: **Rob Graham**, University of Toronto Pharmacy Bldg.
- 4:30-5:15 a) **Rob M. Corn**, University of California – Irvine
Extreme Biosensing with Plasmons, Nanoparticles, and Surface Enzyme Chemistry
- 5:15-5:35 b) **Holly Freedman**, University of Alberta
Predicting the Tubulin Tail-Body Interaction using Molecular Dynamics Simulated Annealing
- 5:35-5:55 c) **Nilmadhab Chakrabarti**, Hospital for Sick Children
Molecular Simulation Study of the CorA Mg²⁺ Channel in a Hydrated Lipid Bilayer
- 5:55-6:15 d) **Asmahan Abu-Arish**, McMaster University
Spatial Distribution and Mobility of the Protein Ran in Live Interphase Cells
- 6:15-7:00 Break and travel to restaurant



7:00-??

Symposium Banquet

Forest View Chinese Restaurant, 466-468 Dundas St. W., 2nd floor

Do you know your stuff? Chemical Biophysics game show to follow!

Sunday, April 20th, Leslie L. Dan Pharmacy Building

Session VI

Chair: **Sameer Al Abdul Wahid**, University of Toronto at Mississauga

Pharmacy Bldg.

9:30-10:15 AM

a) **Brian Sykes**, University of Alberta
Protein Structure and Dynamics in situ

10:15-10:35

b) **Jean-Philippe Demers**, McGill University
Binding Mechanism of the Fyn SH3 Domain studied by ITC and NMR Spectroscopy

10:35-10:55

Coffee break
Sponsored by Systems for Research

Session VII

Chair: **Gilbert Walker**, University of Toronto

Pharmacy Bldg.

10:55-11:40

a) **Boris Akhremitchev**, Duke University
*Studying attractive and repulsive interactions between biomolecules:
Single molecule force spectroscopy and nanoindentation measurements by AFM*

11:40-12:00 PM

b) **Avijit Chakrabarty**, University of Toronto
Probing Alzheimer amyloid peptide aggregation using a fluorescent protein folding method

12:00-12:45 PM

c) **Nancy Forde**, Simon Fraser University
Probing mechanical response from single molecules to biomaterials

12:45-1:00

Closing Remarks

1:00 - Unknown

Lunch at a local restaurant (pay your own way)