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## Membrane Proteins in Health and Disease

49<sup>th</sup> Annual Meeting and Conference of the  
Canadian Society of Biochemistry, Molecular and Cellular Biology  
(CSBMCB/SCBBMC)  
May 31 – June 4, 2006  
White Oaks Conference Resort and Spa  
Niagara-on-the-Lake, Ontario, Canada

### Scientific Program

#### Wednesday, May 31, 2006

6:00 pm Dinner

#### Session I Plenary Lectures (Chair: Joel Weiner)

Sponsored by the Institute of Genetics, Canadian Institutes of Health Research

7:30 pm Ron Kaback (UCLA) Gambling with lac permease  
8:15 Peter Agre (Duke) Aquaporin water channels: from atomic structure to clinical medicine  
9:00 pm Mixer

#### Thursday, June 1, 2006

7:00 am Breakfast

#### Session II Structural Biology of Membrane Proteins (Chair: Reinhart Reithmeier)

Sponsored by the CIHR Strategic Training Program in the Structural Biology of Membrane Proteins Linked to Disease

8:30 am Charles Deber (Toronto) Hydrogen bonds matter: misfolding of membrane proteins in human disease  
9:10 Natalie Strynadka (UBC) Structure-based analysis of antibiotic targets on the bacterial membrane  
9:50 Invited talk from abstracts  
10:10 Coffee  
10:40 Francesca Marassi (Burnham) NMR studies of the regulatory subunits of the Na/K-ATPase  
11:20 Robert Stroud (UCSF) A two billion year old tale of membrane protein transport- still with us today!

12:00 noon Lunch

4:00 pm Poster Session I (Coffee and Cash Bar)

6:00 pm Dinner

#### Session III Regulating Membrane Permeability (Chair: Janet Wood)

7:30 pm David Andrews (McMaster) Regulation of membrane permeability by apoptosis proteins Bax and Bcl-XL  
8:10 Art Johnson (Texas) Maintaining the ER permeability barrier during protein trafficking  
8:50 Invited talk from abstracts  
9:10 John Collier (Harvard) Insertion of toxins into membranes

10:00-12:00 Poster Pub (Cash Bar)

#### Friday, June 2, 2006

7:00 am Breakfast

#### Session IV Dynamics of Membrane Proteins (Chair: Christine Bear)

8:30 am Frances Sharom (Guelph) Fluorescence studies of P-glycoprotein  
9:10 Francisco Bezanilla (UCLA) Molecular basis of voltage-gated channels  
9:50 Invited talk from abstracts  
10:10 Coffee Break  
10:40 Eduardo Perozo (Chicago) Pore dynamics and the gating mechanism of KcsA  
11:20 Peter Tieleman (Calgary) Computational studies of ABC transporters

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**Friday, June 2, 2006 (Cont'd)**

- 12:00 noon Lunch and CSBMCB Board Meeting  
4:00 pm Poster Session II (Coffee and Cash Bar)  
6:00 pm Dinner

**Session V Transporters and Disease** (Chair: Larry Fliegel)

Sponsored by the CIHR Strategic Training Program in Membrane Proteins and Cardiovascular Disease

- 7:30 pm Joseph Casey (Alberta) A membrane transport metabolon implicated in cardiac hypertrophy  
8:10 Jean-Yves Lapointe (Montréal) Properties of the tumor suppressor SLC5A8 Na<sup>+</sup>/monocarboxylate cotransporter  
8:50 Invited talk from abstracts  
9:10 David MacLennan (Toronto) Calcium pumps, pump regulatory proteins and cardiomyopathy  
10:00-12:00 Poster Pub (Cash Bar)

**Saturday, June 3, 2006**

- 7:00 am Breakfast

**Session VI Trafficking Defects in Membrane Proteins** (Chair: John Orłowski)

- 8:30 Reinhart Reithmeier (Toronto) Trafficking defects of the chloride/bicarbonate anion exchanger 1  
9:10 Michel Bouvier (Montréal) Rescue of misfolded G-protein coupled receptors  
9:50 Invited talk from abstracts  
10:10 Coffee Break  
10:40 Gergely Lukacs (Toronto) Cellular basis of misfolded CFTR removal from the cell surface  
11:20 Michael Caplan (Yale) Membrane protein trafficking in polarized cells: partners and pathology  
12:00 noon Lunch

**Session VII Workshop on Membrane Protein Crystallization** (Chair: Gil Prive)

- 1:30 pm Presentations  
5:00 pm CSBMCB Annual General Meeting

**Session VIII CSBMCB Awards Lectures** (Chair: David Thomas, President CSBMCB)

- 6:00 pm Merck Frosst Prize Lecture  
6:40 Jeanne Manery Fisher Memorial Lecture  
7:30 pm Banquet and Awards Presentation

**Sunday, June 4, 2006**

- 7:00 am Breakfast

**Session IX Assembly and Disassembly of Membrane Proteins** (Chair: John Baenziger)

- 8:30 am Igor Stagljar (Toronto) Interactive proteomics of membrane protein assemblies  
9:10 Tom Rapoport (Harvard) Getting proteins across membranes  
9:50 Invited talk from abstracts  
10:10 Coffee Break  
10:40 David Williams (Toronto) Calnexin and calreticulin: glycoprotein folding machines of the ER  
11:20 Jeff Brodsky (Pittsburgh) ER associated degradation of CFTR: lessons from yeast  
12:00 noon Lunch and Departure
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