
45th Annual Meeting of the CSBMCB, Banff, Alberta. “Membrane Proteins in Health and Disease”

The Banff Centre in Banff, Alberta was the site of a very successful symposium on “Membrane Proteins in Health and Disease”. This meeting was organized by members of the Canadian Society of Biochemistry and Molecular & Cellular Biology, led by Joseph Casey (University of Alberta). Other members of the Organizing Committee from Alberta included Carol Cass, Chris Cheeseman, Xing-Zhen Chen, Larry Fliegel, Bernard Lemire, Marek Michalak and James Young, with expert administrative support from Barbara Thom. Society Past-President Frances Sharom (University of Guelph) and Councillor Reinhart Reithmeier (University of Toronto) rounded out the Organizing Committee.

This meeting was a combination of the CSBM-CB 45th Annual Meeting and the 12th Winternational Symposium, and provided a very rich menu of presentations by an international array of speakers. The meeting began with Satellite Meetings on Bicarbonate Transporters and Nucleoside Transporters. Participants in the Satellite Meetings were greeted by clear blue Alberta skies and an invigorating -26°C , prompting interesting comments by registrants from Australia and Kuwait. The satellite meetings attracted a dedicated group of researchers who then stayed on for the main meeting.

The meeting comprised six sessions. Session 1 was held in honour of Peter Dolphin (Dalhousie U.) who passed away suddenly. Fred Palmer introduced the audience to the many accomplishments of Dr. Dolphin, his science, his passion for teaching, his role as mentor and as a loyal member of the Society. Peter will be missed. A graduate student prize in Peter’s name has been created in the Biochemistry Department at Dalhousie University.

The sessions covered a range of topics includ-

ing the structural biology of membrane proteins, pH regulation and cell health, organellar membrane proteins and function, transporter function and dysfunction, and finished off with a session on the implications of membrane proteins for therapeutics, sponsored by the CIHR Institute of Genetics. The talks were excellent, and presented by a stellar cast of Canadian and International scientists. Although there were many opportunities for recreational activities, the lecture hall held a full complement of participants for all sessions. The poster sessions were packed as well, with many lively discussions.

Travel Awards and Poster Prizes

Participation in the meeting by graduate students and post-doctoral fellows was facilitated by numerous travel grants. Merck-Frosst travel awards were presented to the following graduate students: Mona Abu-Abed (U. Toronto), Victoria Ahn (U. Toronto), Denise Bay (U. Manitoba), Anne Bergeron (U. Laval), Joanne Cheung (U. Toronto), Anatheia Flaman (Dalhousie U.), Steve Huntley (U. Toronto), Daniel Krofchick (U. Toronto), Qin Qu (U. Guelph), Felicia Vulcu (McMaster U.). Perkin-Elmer supported travel grants to the following post-doctoral fellows: Emmanuelle Cordat (U. Toronto), Michelle Furtado (U. Toronto), and Rongmin Zhao (U. Toronto). Additional travel grants provided by BD Biosciences were presented to Fred Loiselle and Frank Visser, and PENCE Alberta gave travel grants to Xiuju Li and Les Grad (all from U. Alberta). The CSBMCB presented a slate of trainee travel awards to: Vitaly Khutorsky (U. Toronto), Robert Sasata (NRC, Saskatoon), Laila Singh (Simon Fraser U.), Marcela Aliste (U. Calgary) and Stephen Brokx (U. Alberta).

Many of the invited speakers were assigned the additional duty of judging the posters displayed

by graduate students and post-doctoral fellows. The poster judges are thanked for reviewing posters.

Roche Diagnostics Canada generously sponsored three awards for the best poster presentations given by graduate students. The winners of awards for the two best posters in biochemistry were Isabelle Carrier (McGill U.) and Patrick Lusk (U. Alberta), while the winner of the Jake Duerksen Memorial poster award for the best poster in the cellular biology area was Quansheng Zhu (U. Alberta). Special mention went to graduate students Oleh Petriv (U. Alberta) and Curtis Oleschuk (Queen's U.). The CSBMCB Post-doctoral Poster Prize was awarded to Roger Bascom (U. Alberta), with special mention to Anass Haimeur (Queen's U.) and Nicolas Touret (U. Toronto and Sick Children's Hospital).

Merck Frosst Award and Jeanne Manery Fisher Memorial Lecture

The Annual Meeting features presentations by winners of the Merck Frosst Award and the Jeanne Manery Fisher Memorial Lectureship. This year's winner of the Merck Frosst Award was Jeff Wrana from the University of Toronto and the Lunenfeld Research Institute, Mount Sinai Hospital. This award is given for meritorious research by an investigator in Canada within the first ten years of their independent research career. Dr. Wrana gave an impressive presentation on the molecular analysis of the complexities of "The Smad signal transduction pathway". This pathway is involved in morphogenesis and involves a series of fine-tuned regulatory and inhibitory interactions that modulate information flow from the cell surface to the nucleus.

Mona Nemer from the Université de Montréal and the Clinical Research Institute of Montreal was the winner of the Jeanne Manery Fisher Memorial Lectureship. The award is given in honor of the late Jeanne Manery Fisher, who was an outstanding biochemist and outspoken advocate for women in science. This lectureship is presented to a woman scientist working in Canada who has a distinguished career in biochemistry, molecular and cellular biology. Dr.



Christian Riel of Merck Frosst Canada (right) presents the 2002 CSBMCB Merck Frosst prize to Dr. Jeff Wrana (left).

Nemer spoke on her studies of "Transcriptional regulation of cardiac growth". This lecture also had a signalling theme and featured the role of GATA transcription factors in heart development and disease.



Dr. Mona Nemer (left) receives the 2002 CSBMCB Jean Manery Fisher Award from Dr. Leon Browder, CSBMCB President (right).

A meeting of this calibre could not be held without the generous support of our many sponsors (Agilent Technologies Canada, Inc., Alberta Heritage Foundation for Medical Research, AMGEN, AstraZeneca, BD Biosciences, Beckman-Coulter Bioresearch, Caprion Pharmaceuticals, Cedarlane Laboratories, Canadian Institutes of Health Research, Institute of Genetics (CIHR), Interscience, Invitrogen, Merck-Frosst, PENCE (Alberta), Perkin-Elmer, Roche Diagnostics, the University of Alberta and the Department of Biochemistry, University of Toronto. We thank them for their continued support of our Annual and Winternational Meeting. Frances Sharom is congratulated on her success in securing corporate sponsorship for this meeting.

CSBMCB Executive

Frances Sharom (University of Guelph) completed her term as Past-President. Frances played a major role in the organization and success of this meeting and the previous 44th Annual Meeting held at Alliston, Ontario in 2001. She has also moved the Society into the electronic age with on-line registration for meetings and membership dues collections (coming soon). Leon Browder (University of Calgary) now assumes the position of Past-President. Leon has worked hard to improve the effectiveness of the Society and to promote its activities. David Andrews (McMaster University) moves to the President's office after a year as Vice-President. David has been very involved in the lobbying efforts our Society has initiated in partnership with CFBS. Reinhart Reithmeier (University Toronto) has completed his 3-year term as Councillor. Reinhart has been very active in the organization and promotion of our Annual Meetings. Gene Tustanoff (emeritus member, University of Western Ontario) and Fred Palmer (Dalhousie University) are tireless in their duties as CSBMCB Secretary and Treasurer, respectively.

International Congress of Biochemistry and Molecular Biology

The 46th CSBMCB Annual Meeting will be held in conjunction with the XIX International Union of Biochemistry & Molecular Biology Congress, at the Metro Toronto Convention Centre, Toronto, Canada, July 20-24, 2003. For information, connect to the Congress web-site: (www.nrc.ca/confserv/iubmb2003). We encourage all our members to attend this exciting meeting, which will showcase the work of researchers from Canada and abroad. See you in Toronto!



Winners of the Roche Diagnostics Graduate Student Poster Prizes: (left to right) Isabelle Carrier, Patrick Lusk and Quansheng Zhu (Jake Duerkson Cell Biology Poster Prize), with Anita Erasmus of Roche Diagnostics.



Winner of the CSBMCB Post-doctoral Fellow Poster Prize, Dr. Roger Bascon, is congratulated by CSBMCB President Dr. Leon Browder.

Merck Frosst Travel Awards for graduate students; (front row from left to right), Mona Abu Abed, Victoria Ahn, Denise Bay, Anne Bergeron, Joanne Cheung, Christian Riel (Merck Frosst Canada), (back row from left to right) Anatheia Flaman, Steven Huntley, Daniel Krofchick, Qin Qu and Felicia Vulcu.



Perkin Elmer Travel Awards for post-doctoral fellows: (left to right) Emmanuelle Cordat, Michelle Furtado and Rongmin Zhao, with Janice Watkin (Perkin Elmer).



CSBMCB Trainee Travel Awards: (left to right) Vitaly Khutorsky, Robert Sasata, Laila Singh, Marcela Aliste, Stephen Brokx and Frances Sharom (Past-President CSBMCB).



Organizing Committee Chair Joe Casey receives a gift of appreciation from Reinhart Reithmeier on behalf of the other members of the committee.



BD Biosciences Travel Awards: (left to right) Fred Loiselle, Frank Visser and Ivy Cook (BD Biosciences).



PENCE Alberta travel awards: (left to right) Les Grad, Xujiu Li and Frances Sharom (Past-President CSBMCB).



The Organizing Committee for the Banff conference: (left to right) Committee Chair Joe Casey, Larry Fleigel, Xing-Zhen Chen, Chris Cheeseman, Carol Cass, Bernard Lemire, Frances Sharom, Reinhart Reithmeier, and James Young (not present, Marek Michalak).

2002 Society Graduate Student/PDF Travel and Poster Awards

The following travel stipends were awarded to Society graduate student and post-doctoral fellow members to encourage their participation in the Society's Annual Meeting and Symposium "Membrane Proteins in Health and Disease" held in Banff, Alberta March 21-24, 2002, by assisting in their travel and meeting expenses. These competitive stipends are awarded based on the merit of their submitted poster abstracts. The Society is indebted to Merck Frosst Canada, Perkin Elmer Canada, BD Biosciences and Roche Diagnostics PENCE Alberta, for the financial sponsorship of this programme.

\$750 awards - Merck-Frosst Travel Awards for graduate students

Mona Abu Abed, Banting and Best Department of Medical Research, University of Toronto. Supervisor: Dr. David MacLennan "Zooming in on the ATP-binding Domain of the Sarco/Endoplasmic Reticulum Ca^{2+} -ATPase: Examining Ligand-Induced Effects by Multidimensional NMR".

Victoria E. Ahn, Department of Medical Biophysics, University of Toronto. Supervisor: Dr. Gil Prive. "A Structure of a Small Sphingolipid Binding Protein".

Denise Bay, Department of Microbiology, University of Manitoba. Supervisor: Dr. Deborah Court. Structural and Functional Studies of *Neurospora crassa* Mitochondrial Porin Mutants Using Black Lipid Bilayers and Circular Dichroism Spectropolarimetry".

Anne Bergeron, Laboratory of Cell and Developmental Genetics, Department of Medicine, Université Laval. Supervisor: Dr. Robert Tanguay. "Fumarylacetoacetate causes disruption of ER function and apoptosis through a CHOP/GADD153 independent pathway".

Joanne C. Cheung, Department of Biochemistry, University of Toronto. Supervisor: Dr. Reinhart Reithmeier. "Human anion exchanger 1 (band 3) is not palmitoylated in transfected cells."

Anathea S. Flama, Department of Biochemistry and Molecular Biology, Dalhousie University. Supervisor: Dr. Melanie Dobson. "Molecular genetic analysis of the yeast Niemann-Pick C-related gene, NCR1".

Steven Huntley, CIHR Group in Membrane Biology, Department of Medicine, University of Toronto, Supervisor: Dr. Mel Silverman. "Functional characterization of the Q170CrSGLT1 mutant of *Xenopus* oocytes: modification of polarity and charge regulates empty carrier kinetics and charge transfer."

Daniel Krofchick, Department of Electrical and Computer Engineering, University of Toronto, Supervisor: Dr. Mel Silverman. "Novel Decay Components of the Rabbit Na^{+} /Glucose Co-transporter (rSGLT1) are Exposed, Indicating a Minimum of Two Transitions at the Extracellular Surface Prior to Glucose Binding".

Qin Qu, Department of Chemistry and Biochemistry, University of Guelph. Supervisor: Dr. Frances Sharom. "Proximity of bound Hoechst 33342 to the ATPase catalytic sites places the drug binding site of the P-glycoprotein multi-drug transporter within the cytoplasmic membrane leaflet".

Felicia Vulcu, Department of Biochemistry, McMaster University. Supervisor: Dr. David Andrews. "FtsY interacts with phosphatidylethanolamine and a proteinaceous component on the inner membrane of *Escherichia coli*."

\$750 awards - Perkin Elmer Travel Awards for post-doctoral fellows

Dr. Emmanuelle Cordat, Department of Biochemistry, University of Toronto. Supervisor: Reinhart Reithmeier. "Carboxyl-terminal truncations of human AE1 impair its normal trafficking to the plasma membrane".

Dr. Michelle Furtado, Division of Cell Biology, Research Institute, Hospital for Sick Children. Supervisor: Dr. Amira Klip "Insulin-dependent interaction between p38 MAPK and GLUT4".

Dr. Rongmin Zhao, CIHR Research Group in Membrane Biology, Department of Medicine, University of Toronto. Supervisor: Dr. Reinhart Reithmeier "Hydrodynamic stability of the yeast anion exchanger homologue in detergent solutions".

CSBMCB Trainee Travel Awards - \$750, \$500 and \$250 awards

Dr. Vitaly Khutorksy, \$750. CIHR Membrane Biology Group, Department of Medicine, University of Toronto. Supervisor: Dr. Mel Silverman. "Molecular modelling of the putative TM helices IV and V of the rabbits sodium glucose co-transporter SGLT1".

Robert J. Sasata, \$750. Plant Biotechnology Institute, University of Saskatchewan, Supervisor: Dr. Patrick Covello. "Using mutagenesis to investigate structure/function relationships in fatty acid desaturases".

Laila M. R. Singh, \$500. Department of Molecular Biology and Biochemistry, Simon Fraser University, Supervisor: Dr. Jennifer Thewalt. "Transmembrane Peptides in Cubic Lipid Phases: NMR investigations".

Dr. Marcela P. Aliste, \$250. Department of Biological Sciences, University of Calgary. Supervisor: Dr. Peter Tieleman. Molecular Dynamics of Pentapeptides at Interfaces".

Stephen Brokx, \$250. Department of Biochemistry, University of Calgary. Supervisor: Dr. Joel H. Weiner. "Investigation of yedYZ, a novel oxidoreductase from *Escherichia coli*"

BD Biosciences Travel Awards

Frederick B. Loiselle, \$250. Department of Physiology, University of Alberta. Supervisor: Dr. Joseph R. Casey. "Potentiation of Bicarbonate Transport Activity by Direct Interaction of NBC3 Sodium Bicarbonate Co-Transporter with Carbonic Anhydrase II".

Frank Visser, \$250. Department of Oncology, University of Alberta. Supervisor: Dr. Carol E. Cass. "Asn 338 of human equilibrative nucleoside transporter 1 (hENT1) is critical for interaction with high-affinity inhibitors".

PENCE Alberta Travel Awards

Dr. Xuiju Li, \$250. Department of Biochemistry, University of Calgary. Supervisor: Dr. Larry Fliegel. "Carbonic Anhydrase II Binds to and Enhances Activity of the Na⁺ /H⁺ Exchanger".

Leslie I. Grad, \$250. Department of Biochemistry, University of Alberta. Supervisor: Bernard D. Lemire. "Modelling of human mitochondrial disease in the nematode *Caenorhabditis elegans*".

Roche Diagnostics Graduate Student Poster Awards

Isabelle Carrier, Department of Biochemistry, McGill University, Supervisor: Dr. Philippe Gros. "Dissecting the catalytic mechanism of P-glycoprotein."

C. Patrick Lusk, Department of Cell Biology, University of Alberta, Supervisor: Dr. Richard W. Wozniak. "The efficient assembly of Nup53p into the nuclear pore complex is a karyopherin-mediated process".

Quansheng Zhu (Jake Duerksen Cell Biology Prize), Department of Physiology, University of Alberta. Supervisor: Dr. Joseph R. Casey. “Topology of the C-terminal region of the human plasma membrane $\text{Cl}^-/\text{HCO}_3^-$ anion exchanger, AE1”.

CSBMCB Post-Doctoral Poster Award

Dr. Roger A. Bascon, Department of Cell Biology, University of Alberta, Supervisor: Dr. Richard Rachubinski. “*Yarrowia lipolytica* Pex3p Initiates Peroxisome Assembly by Sequestering Components of Peroxisome Biogenesis”.

The presenters for the various awards were Christian Riel (Merck Frosst), Janice Watkin (Perkin Elmer) Ivy Cook (BD Biosciences), and Anita Erasmus (Roche Poster awards)