
2006 Society Award Designates

Dr. Joe Casey, from the Department of Biochemistry, University of Alberta, has been chosen to receive the Merck Frosst Prize for meritorious research by a young Canadian scientist with ten years or less of independent research in the areas of biochemistry.

Dr. Frances Sharom, from the Department of Molecular and Cellular Biology at the University of Guelph, has been selected to receive the Jeanne Manery Fisher Memorial Lectureship award for outstanding contributions by a Canadian woman scientist to research, teaching or society in the fields of biochemistry, molecular or cellular biology.

These awardees will be presenting Plenary Lectures at the 49th Annual General Meeting of the Canadian Society of Biochemistry, Molecular and Cellular Biology to be held May 31 – June 4 2006 at White Oaks Inn Conference Resort in Niagara-on-the-Lake, Ontario.

The 2006 CSBMCB Merck Frosst Prize

Dr. Joe Casey

Dr. Joe Casey was born Lansing, Michigan, where his father completed his Ph.D. in Psychology at Michigan State University, and immigrated to Canada with his family in the summer of 1967. Joe spent his primary school days in Kingston, Ontario and went to high school in downtown Toronto. From 1983-1987, he studied biochemistry at Queen's University, Kingston. During those years he worked for two summers in the plant physiology laboratory of Dr. Ken Budd, Department of Biology, where he learned about biochemistry as a lifestyle by coming into the lab at all hours to take readings of cyanobacterial growth. Joe's last summer as an undergraduate was spent with Dr. John Elce, Department of Biochemistry, where he further honed his protein purification skills on calpain and learned a lot about immunochemistry. His first exposure to molecular biology was in the laboratory of Peter Davies, where he completed his B.Sc. honours thesis on antifreeze gene chromatin

In 1987, with a fresh B.Sc., Joe moved to the Department of Biochemistry, University of Toronto, to work with Dr. Reinhart Reithmeier, where he spent five years trying his hand at just about every protein chemical and biophysical technique that could be thrown at the erythrocyte membrane anion exchanger, Band 3. For postdoctoral work, Joe decided that he would like to combine molecular biological approaches with protein chemical techniques, he went to work with Dr. Ron Kopito at Stanford University.

In 1996, Joe moved to the University of Alberta, to join the Membrane Transport Group in the Department of Physiology, initially as an Assistant Professor, and as a Full Professor since 2006. Since 2002, he has been cross-appointed to the Department of Biochemistry. Joe has received salary support awards from MRC and the Alberta Heritage Foundation for Medical Research (AHFMR) and is currently a Senior Scholar of AHFMR.

With funding from CIHR and the Heart and Stroke Foundation, Joe's lab has focused on the study of structure, function and regulation of plasma membrane bicarbonate transport proteins. Since 1997, he has been a member of the Membrane Protein Group, headed by Dr. Marek Michalak.



The 2006 Jeanne Manery Fisher Memorial Lectureship Frances Sharom

Dr. Frances Sharom was born in Newcastle-upon-Tyne, U.K. and emigrated to Canada with her family after completion of her A-levels.



During her high school years in England she developed a keen interest in chemistry, especially the biological aspects. Frances registered in the Honours Chemistry program at the University of Guelph and graduated with a degree with distinction. For three summers she worked in the laboratory of the Department Chair, Dr. Allan Colter, carrying out kinetic experiments on redox reactions of nicotinamide derivatives with quinones.

This work stimulated

her interest in research and led her to pursue graduate studies at the University of Western Ontario. There, her supervisor was Dr. Chris Grant in the Department of Biochemistry; she was his first graduate student. Her research focussed the use of spin-labelling to study the behaviour of neutral glycolipids, gangliosides and integral glycoproteins in reconstituted membrane bilayers. The ESR spectroscopy was carried out in the laboratory of Dr. Jim Bolton in the Department of Chemistry. These spin-label studies were the first of their kind and advanced the knowledge on the behavior of individual membrane components.

After completing her Ph.D., Frances moved to Malaysia with her husband, but the difficult political situation there at the time forced them to return to Guelph over a year later, where she worked with Dr. Alan Mellors as a postdoctoral

fellow. Her research in his laboratory focussed on the effects of various hydrophobic toxicants on membrane-bound 5 α -nucleotidase. Following her postdoctoral work, she received an NSERC University Fellowship and began her faculty career as an Assistant Professor in the Department of Chemistry and Biochemistry. In 1994, she was promoted to Professor. Frances served a term as Director of the Guelph-Waterloo Centre for Graduate Work in Chemistry and Biochemistry from 1991-1994, and in 2003, she became Director of the Biophysics Interdepartmental Group, an interdisciplinary graduate program at the University of Guelph. In May 2004, she and the other biochemistry faculty moved from Chemistry and Biochemistry to the new Department of Molecular and Cellular Biology.

Frances' research laboratory group works in three areas – the P-glycoprotein multidrug transporter, lipid rafts and GPI-anchored proteins, and the NPC1 protein that is defective in Niemann-Pick Type C disease. Her research group been instrumental in the development of fluorescence spectroscopic tools for studying the structure and function of these membrane proteins. Her research has been supported by NSERC, the National Cancer Institute of Canada, and the Ara Parseghian Medical Research Foundation. Frances currently holds a Canada Research Chair in Membrane Protein Biology in the Department of Molecular and Cellular Biology at the University of Guelph.