

Cancer Physiology Cardiovascular System

Neurosciences Immunology Anatomy NSERC

Virology Signal Transduction Apoptosis

Cell Biology **Division of  
BioMedical Sciences**

Development ILK Hepatitis B Hypertension

Growth Factors Fibroblasts **Faculty of Medicine**

Diabetes **Memorial University of Newfoundland**

Learning ER-1 Memory CFI Ischemia

BDNF **Research** Pain Leptins Infection

MAPK Genes Medical Education Neuroblastoma

Regeneration **Education** Informatics RAS Genomics

Atherosclerosis IGF Anti-virals **Training** Addiction

HLA Ion channels NGF Interleukins Neurons

Vaccines Smooth Muscle Cell Signaling HSF

Veins Arteries CRC MedCareers Angiogenesis

Cell Imaging T-Cells Oncogenes Proteomics

Molecular Biology Cell Biology **Annual Report  
2004-2006**

Differentiation NFkB Immune Response

# **Annual Report 2004-2006**

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Karen Mearow, Deborah Parrott and Janice Petten

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**Memorial University of Newfoundland**

**Faculty of Medicine**

**Division of BioMedical Sciences**

**Annual Report**

**Academic Year 2004-2006**

**January 2007**

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## ***Introduction***

### ***Mission of the Faculty of Medicine***

- to enhance the health of the people of Newfoundland and Labrador by educating physicians and health scientists; by conducting research in clinical and BioMedical sciences and applied health sciences and by promoting the skills and attitudes of lifelong learning

### ***Goals and objectives of the Division of BioMedical Sciences***

- To conduct and promote research and associated scholarly activities in the area of biomedical sciences.
- To promote and deliver a high-quality, science-based medical education to undergraduate and post-graduate medical students, and to foster programs of excellence for the training of graduate students in BioMedical Sciences.
- To serve as a primary resource for biomedical sciences for the Faculty of Medicine, other Faculties and Schools, national and international scientific and educational organizations and for the Community at large.

The Division of BioMedical Sciences is the home to many of the basic biomedical researchers and educators within the Faculty of Medicine. Our faculty members have a diversity of interests as illustrated by the contents of this report. While the major focus of many of our members is research, and providing excellent research and training opportunities for our graduate students and promising undergraduate science students, we also have a commitment to education. As part of this commitment, our faculty instruct in the undergraduate medical curriculum with the aim of providing a solid foundation in the BioMedical Sciences for medical students. In addition to the MD program, we also provide instruction at the undergraduate level in the School of Pharmacy and Faculty of Science courses. At the graduate level, many of our faculty are members of research programs which provide the basis for the graduate programs administered by the School of Graduate Studies and the Office of Research and Graduate Studies within the Faculty of Medicine. Each graduate program has courses coordinated and taught by divisional members.

The last few years have been ones of change for the Division. This period has been one of growth and renewal – our new faculty members have provided the Division with obvious energy and enthusiasm, and have quickly become integrated into the Division and the Faculty as a whole. In the coming year, we hope to build upon this recruitment and energy with appointments in the area of Immunology, Neurosciences and a Tier 2 Canada Research Chair in Cell Signaling in Health and Disease.

Our web site was finally launched this year and you can find us at <http://www.med.mun.ca/basic>

K.M. Mearow,  
Associate Dean

## **Research Programs**

### **Research Groups**

There are 32 full time and 6 jointly-appointed faculty members in the Division of BioMedical Sciences. The majority of faculty in the Division are members of Research Groups. These include the Cancer, Cardiovascular Sciences, Immunology and Neuroscience research groups, which form the basis of the graduate programs in these areas.

### **Cancer**

**Key areas of research:** angiogenesis, apoptosis, cancer genetics, growth factors, viral oncogenesis

There are currently six BioMedical Sciences faculty in the Cancer Research Group. The Cancer Research Group's interests span the breadth of cancer research. These researchers pursue fundamental cell and molecular biological questions, studying viral oncogenesis, growth factors and oncogenes in developmental models, programmed cell death, drug resistance and cancer genetics. Other researchers, including colleagues from the Division of Community Health and clinicians from the Newfoundland Cancer Treatment and Research Foundation (NCTRF) and the clinical disciplines, bring a great deal of clinical experience and interest in clinical trials, pediatric oncology, epidemiology and cancer imaging/screening and diagnosis to the group. Funding for this research comes from external operating and personnel awards from CIHR, NCI and NSERC.

### **Cardiovascular Sciences**

**Key areas of research:** Investigation of cardiovascular regulation and pathology in preparations ranging from the conscious animal to isolated tissues.

This is one of the smaller research groups with five members, but has a well-funded and active research program. The cardiovascular/renal group is actively involved in a range of research including hypertension, stroke, salt-sensitivity of blood pressure, cerebral blood flow regulation, vascular remodeling, venous circulation, blood pressure variability, role of aldehydes and oxidative stress in hypertension and hypertensive damage, heart failure; physiology and pharmacology of blood vessels. Funding for this research comes from CIHR, NSERC, Heart and Stroke Foundation, as well as partnerships with pharmaceutical companies.

### **Immunology**

**Key areas of research:** Hepatitis B and C, HIV, HLA genes and T cell receptors, virus induced cell injury, autoimmunity, tumor immunity

The Immunology research group has five members from the Division of BioMedical Sciences involved in studies of the immune system and infectious disease. Research interests include immune regulation in HIV infection, virus induced cell injury and persistence, dietary nutrients in regulation of immune responses and susceptibility to infection, understanding the mechanisms of susceptibility to rheumatoid arthritis, how HLA alleles influence the immune response in breast cancer patients, development of hepatitis vaccines and antivirals. Funding for this research comes from CIHR, Canadian Breast Cancer Alliance and several pharmaceutical partners. One of the

faculty members, Dr. Thomas Michalak is the recent recipient of a CRC Senior Chair in Viral Hepatitis.

## **Neuroscience**

**Key areas of research:** learning and memory, neural plasticity, neuropharmacology, neuroprotection, stroke, neurotrophins, signal transduction

The Neuroscience group consists of seven faculty members from the Division of BioMedical Sciences. Research interests include both central and peripheral nervous system with strengths in cerebrovascular disease, neuropharmacology, memory, neural regeneration, autonomic control mechanisms and cellular signal transduction mechanisms. Research models range from in vitro cellular studies to whole animal behavioural studies. Funding for this research comes from CIHR, NSERC, Newfoundland and Labrador Neurotrauma Initiative, Heart and Stroke Foundation. One of the faculty members, Dr. Dale Corbett, is the recent recipient of a CRC Senior Chair in Stroke and Neural Plasticity.

In addition to Basic Science faculty members, these research groups also include colleagues from various clinical disciplines (Oncology, Genetics, Medicine) and other University departments (Biochemistry, Psychology). This provides for a collaborative approach to research and education. The graduate programs in each of these areas are very active with students at both the M.Sc. and Ph.D. levels.

## **Faculty and Staff**

### **Core Faculty**

\***Carayanniotis, George** (Toronto), professor of medicine (endocrinology)

**Chandra, Shakti** (New Delhi), associate professor of anatomy

\***Chen, Xihua** (Cambridge), associate professor of neuroscience (biological psychiatry)

**Church, Jon** (Toronto), professor of oncology

**Corbett, Dale** (Concordia), professor of physiology (neurosciences), *Senior Canada Research Chair in Stroke and Neuroplasticity*

**Dore, Jules** (Tennessee), assistant professor of cell biology

**Drover, Sheila** (Memorial), associate professor of immunology

**Gendron, Robert** (McGill), assistant professor of cancer/cardiovascular biology

**Gillespie, Laura** (Ottawa), professor of oncology

\***Grant, Michael** (McMaster), associate professor of immunology

\***Green Roger** (Birmingham), associate professor of cell sciences

**Hirasawa, Kensuke** (Tokyo), assistant professor of immunology

**Hirasawa, Michiru** (Tokyo), assistant professor of neurosciences

**Hansen, Penny A.** (Memorial), professor of physiology

**Harris, June A.** (Memorial), associate professor of anatomy, *Director of MedCAREERS*

**Hoekman, Theodore** (Illinois), professor of medical informatics

**Kao, Ken** (Toronto), professor of oncology

**Kirouac, Gilbert** (Manitoba), associate professor of neurosciences (cardiovascular)

**Larsen, Bodil** (Bergen), associate professor of immunology

**Lodge, Stuart** (Bradford) associate professor of physiology  
**MacPhee, Daniel** (Western Ontario), assistant professor of reproductive and cell  
**McGuire, John** (Queen's), assistant professor of cardiovascular sciences  
**McKay, Donald W.** (Michigan State), professor of physiology, *Director, Faculty Development*  
**McLean, John** (Dalhousie), professor of anatomy  
**Mearow, Karen** (McMaster), professor of neuro/molecular biology, **Associate Dean, Division of BioMedical Sciences**  
**Michalak, Thomas I.** (Warsaw), professor of molecular virology and medicine, *Senior Canada Research Chair in Viral Hepatitis and Immunology*  
**Michalski, Chet J.** (North Carolina), professor of molecular biology  
**Moody-Corbett, Penny** (McGill), professor of physiology, **Assistant Dean, Research and Graduate Studies**  
**Neuman, Richard** (Alberta), professor of pharmacology, *Co-Chair, Human Investigation Committee*  
**Paradis, Helene** (Montreal), associate professor of vascular molecular biology  
**Paterno, Gary** (Ottawa), professor of oncology  
**\*Richardson, Vernon** (Sheffield), associate professor of surgery (oncology)  
**Scott, Thomas M.** (Edinburgh), professor of anatomy  
**Smeda, John** (McMaster), professor of cardiovascular/renal physiology  
**Stuyvers, Bruno** (Bordeaux, France), associate professor of Cardiovascular Cellular and Molecular Physiology  
**Tabrizchi, Reza** (British Columbia), professor of pharmacology (cardiovascular)  
**Van Vliet, Bruce** (Saskatchewan), professor of cardiovascular/renal physiology  
**\*Vasdev, Sudesh** (Punjab) professor of medicine (biochemistry)  
\* Joint Appointed

### ***Affiliated Faculty***

**Adamec, Robert** (McGill), professor of psychology  
**Brosnan, John** (Oxon), professor of biochemistry  
**Brosnan, Margaret** (Toronto), professor of biochemistry  
**\*Harley, Caroline.** (Oregon), professor of physiology (neurosciences)  
**Kovacs, Christopher** (Queen's), associate professor of medicine (endocrinology)  
**Loomis, Christopher.** (Queen's), professor of pharmacology, **Vice President (Research and International Relations)**  
**Malsbury, Charles** (McGill), professor of psychology  
**\*Young, Terry-Lynn** (Memorial), assistant professor of genetics  
\* Cross-appointed

### ***Adjunct Faculty***

Mandal, S (Calcutta)  
Mansour, A (Cairo), Scientist, DFO



### ***Professors Emeriti***

Allderdice, P. (Montana)

**Bieger, Detlef** (Kiel), professor of pharmacology

Orr, J.C. (Glasgow)

Roberts, K.B. (Oxon)

Tomlinson, J.D.W. (Cambridge)

### ***Administrative and Secretarial Staff***

Judy Blundon

Shirley Atkins

Madonna Hawco

Janice Petten

Deborah Parrott

### ***Research Support Staff***

Christian Alberto

Tina Blackmore

Krista Butt

Matthew Cameron

Linda Chafe

Garry Chernenko

Norma Churchill

Dianne Codner

Andrea Darby- King

Anita Davis

Catherine Ducey

Sue Evans

Carol Ann Ford

Rebecca Ford

Maureen Gallant

Nicole Garrett

Shirley Granter-Button

Sarah Halfyard

Jim Hansen

Karina LeBlanc

Sa Li

Kathy McKay

Sonya MacParland

Corinne Mercer

Ewa Miskiewicz

Judy Neuman

Ingrid Pardoe

Tram Pham

Masuma Rahimtula

Paula Ryan

Colleen Trelegan

Jieying Xiong

## **Educational Responsibilities**

### ***Undergraduate Teaching***

Faculty in the Division of BioMedical Sciences contributed to teaching in a variety of undergraduate courses in the Faculty of Medicine, the School of Pharmacy and the Faculty of Science in the academic year 2004-2006.

### ***M.D. Curriculum***

MED 5600 – Basic Science of Medicine I. This is an integrated course with components including anatomy, biochemistry, physiology, cell biology, pathology. The course is intended to provide an introduction to the basic science of medicine.

MED 6600 – Basic Science of Medicine II; BSM II is a continuation of BSMI, with subject areas including immunology, and genetics.

MED 5650 – Integrated Study of Disease I. This course provides an introduction to the clinical science and pathology of major organ systems. Major components taught by Basic Science faculty include Cardiovascular physiology.

MED 6650 – Integrated Study of Disease II. This is a continuation of ISD I and components taught by faculty in BioMedical Sciences include Neurosciences/Neurology, Endocrinology, Women's Health.

MED 7280 – Integrated Basic, Community Health and Clinical Sciences. This course is also known as "Back to Basics".

### ***Courses offered for non-medical students***

MED 310A, 310B (aka BIOC 311A/B) – Human Physiology

MED 4300 – Introduction to General and Autonomic Pharmacology

PHARM 4105/BIOCH4105 - Immunology  
Course Chair – T. Michalak

### ***Graduate Teaching***

Graduate teaching and courses in the Faculty of Medicine are administered by the School of Graduate Studies, co-ordinated through the Office of Research and Graduate Studies. Four of the graduate programs in the Faculty of Medicine are primarily associated with the research programs in the Division of BioMedical Sciences. These programs are Cancer, Cardiovascular/Renal Physiology, Immunology and Neurosciences. The Program Coordinators and the courses offered through each program are noted below.

## ***Cancer***

**Co-ordinator** – L. Gillespie

Participating Faculty – J. Church, J. Dore, R. Gendron, L. Gillespie, K. Kao, D. MacPhee, H. Paradis, G. Paterno

### **Courses**

MED 6580 – Molecular biology of cancer

MED 6590 – Molecular biology I

MED 6591 – Molecular biology II

MED 6400 – Cancer seminars

## ***Cardiovascular/Renal Physiology***

**Co-ordinator** – J. Smeda

Participating Faculty – J. Smeda, J. McGuire, R. Tabrizchi, B. Van Vliet, S. Vasdev

### **Courses**

MED 6140 – Basic cardiovascular and renal physiology

MED 6141 – Cardiovascular/Renal techniques

MED 6142 – Special Topics in cardiovascular/renal physiology

## ***Immunology***

**Co-ordinator** – Dr. G. Carayanniotis

Participating Faculty – G. Carayanniotis, S. Drover, M. Grant, K. Hirasawa, T. Michalak, V. Richardson

### **Courses**

MED 6127 – Immunology I

MED 6128 – Immunology II

MED 6130 – Advanced Immunological Methods

MED 6100-6114 – Immunology Seminars

## ***Neurosciences***

**Co-ordinator** – Dr. Dale Corbett

Participating Faculty – X. Chen, D. Corbett, M. Hirasawa, G. Kirouac, J. McLean, K. Mearow, P. Moody-Corbett, R. Neuman

### **Courses**

MED 6193 – Advanced Topics in neuroscience

MED 6196 – Systems neuroscience

MED 6197 – Cellular neuroscience

## ***Graduate Research Integrity Program (GRIP)***

Coordinator for Medicine - P. Moody-Corbett

Facilitator - D.W. McKay

## **PostGraduate Education**

### **Visiting Speakers**

Dec. 2004 – Dr. Quentin Pittman, University of Calgary

“Hot baby – cold mama: how early immune experience programs host defence”

Feb. 2005 – Dr. Harry Robertson, Dalhousie University

“Novel approaches to brain repair”

Apr. 2005 – Dr. Antonio Bertoletti, London, U.K.

“The role of hepatitis B virus – specific CD8+ T cells in chronic infection”

May 2005 – Professor Anne Cooke, University of Cambridge

“Infection and autoimmunity: have we won the war only to lose the peace”

May 2005 – Dr. Lorne Tyrrell (David Hawkins Lectureship), University of Alberta

“From the farm to big pharma: The role of animal models in the development of viral hepatitis therapies”

May 2005 – Dr. Fiona Parkinson, University of Manitoba

“Regulation of brain adenosine levels”

June 2005 – Dr. Jose Gimenez Vidal, University of Murcia

Influence of 12 {beta}-estradiol on the effect of angiotensin-converting enzyme inhibition in ovariectomized spontaneously hypertensive rats”

June 2005 – Dr. Noah Isakov, Ben Guiron University of the Negev Beer Sheva, Israel

“Involvement of the Crk adapter proteins in the regulation of T cell activation”

July 2005 – Dr. Anthony Grace, University of Pittsburgh

“Limbic system dysfunction and the pathophysiology of schizophrenia”

Sept. 2005 – Dr. Michael Adams, Queen’s University

“Curing experimental hypertension by transplanting previously-treated hypertensive kidneys?”

Oct. 2005 – Dr. Michael Davis, Emory University

“Neural systems involved in fear and anxiety”

Oct. 2005 – Dr. Tim Murphy, University of British Columbia

“Insight into mechanisms of stroke damage and repair from imaging individual synapse *in vivo*”

March 2006 – Dr. Steven Barnes, Dalhousie University

“The eye on acid: Proton-mediated feedback inhibition of synaptic transmission from photoreceptors”

March 2006 – Dr. Steven J. Compton, East Yorkshire, UK  
“Inflammatory regulation of PAR2 & the TRPV1 ion channel”

Apr. 2006 – Dr. John Dick, University of Toronto  
“Cancer stem cells: Lessons from leukemia”

Apr. 2006 – Dr. Patrick Lee, Dalhousie University  
“Reovirus oncolysis”

Apr. 2006 – Dr. Margaret Fitch, Sunnybrook Regional Cancer Centre  
“What cancer patients say they want”

Apr. 2006 – Dr. Peter Watson, BC Cancer Research Centre  
“The biology of ductal carcinoma *in situ* of the breast – a matter of survival”

June 2006 – Dr. Peter Nguyen, University of Alberta  
“Mechanisms for stabilizing synaptic plasticity”

June 2006 – Dr. Patrick Whelan, University of Calgary  
“Vasopressin and oxytocin: An alternative fuel for spinal motor circuits?”

June 2006 – Dr. Mary Olmstead, Queen’s University  
“Modeling drug addiction in rats: the role of impulsivity”

June 2006 – Dr. David Clarke, Dalhousie University  
“Hsp27’s potential role in retinal ganglion cell survival and regeneration”

June 2006 – Dr. Sandra T. Davidge, University of Alberta  
“Effects of maternal hypoxia on cardiovascular function in adult offspring”

June 2006 – Dr. Richard Wassersug, Dalhousie University  
“Vertebrate Biology in Microgravity: What we know (and don’t know)”  
“Modern day Eunuchs: Who is castrated in modern society and why?”

Aug. 2006 – Dr. Michael Kawaja, Queen’s University  
“Using proteomics to define olfactory ensheathing cells, a potential cellular therapy for spinal cord injury”

Sept. 2006 – Dr. Richard Brown, Dalhousie University  
“The life and work of Donald O. Hebb (Canada’s greatest psychologist): a biographical review”

Sept. 2006 – Dr. Richard Brown, Dalhousie University  
“The importance of studying behaviour in mouse models of neurodegenerative disease”

Sept. 2006 – Dr. Ken Lukowiak, University of Calgary “Modulation of long-term memory by environmental factors”

Sept. 2006 – Dr. Christopher D. Richardson, Dalhousie University  
“Potential role of a DNA repair protein (DDB1) in hepatocarcinogenesis and aging”

Sept. 2006 – Dr. Hans Will, University of Hamburg, Hamburg, Germany  
“Cellular components involved in hepatitis B virus propagation”

Sept. 2006 – Dr. Stephen J. Polyak, University of Washington  
“Hepatitis C virus-host interactions”

Nov. 2006 – Dr. Bryan Kolb, University of Lethbridge  
“Brain plasticity and behaviour”

Nov. 2006 – Dr. Barbara C. Vanderhyden, University of Ottawa  
“Mouse models for ovarian cancer research”

### ***Graduate Students***

The following students are supervised by BioMedical Sciences faculty members and were enrolled in the Faculty of Medicine graduate programs associated with the Division of BioMedical Sciences research groups in 2004-2006.

Last Name	First Name	Degree	Program	Supervisor(s) Last	Supervisor (s) First
Alberto	Christian	MSc	Neuroscience	Hirasawa	Michiru
Andrews	Matthew	MSc	Immunology	Drover	Sheila
Barrett	Lisa	MD/PhD	Immunology	Grant	Michael
Brazil	Aiden	MSc	Immunology	Grant	Michael
Butler	Gregory	MSc	Immunology	Drover	Sheila
Christie-Fougere	Melissa	MSc	Neuroscience	McLean	John
Clarke	Jared	PhD	Neuroscience	Corbett	Dale
Collier	Thaddeus	MSc	Immunology	Hirasawa	Kensuke
Cross	Brandon	MSc	Cancer	MacPhee	Daniel
Cui	Wen	PhD	Neuroscience	McLean	John
Davis	Laura Anne	MSc	Cardiovascular	Smeda	John
Dodge	Elaine	PhD	Neuroscience	Mearow	Karen
Downton	Kelly	PhD	Cancer	Kao	Ken
Elustondo	Pia	PhD	Cancer	MacPhee	Daniel
Fifield	Heather	MSc	Cancer	Gillespie	Laura
Giles	Corey	PhD	Neuroscience	Neuman	Richard
Green	Adam	PhD	Cancer	Gendron/Paradis	Robert/Hélène
Grimes	Matthew	MSc	Neuroscience	McLean	John
Gujar	Shashi	PhD	Immunology	Michalak	Thomas
Guo	Liang	MSc	Cardiovascular	Tabrizchi	Reza

Last Name	First Name	Degree	Program	Supervisor(s) Last	Supervisor (s) First
Guy	Clifford	PhD	Immunology	Michalak	Thomas
Halfyard	Sarah	MSc	Neuroscience	McKay	Don
He	Zhijian	MSc	Cancer	Kao	Ken
Hefferan	Michael	PhD	Neuroscience	Loomis	Chris
Hewlett	Krista	MSc	Neuroscience	Corbett	Dale
Hodgson	Pamela	MSc	Community Health	Church	Jon
Hough	Christopher	MSc	Cancer	Dore	Jules
Huang	Y.H. Ivy	MSc	Cancer	Gillespie	Laura
Islam	Thasin	MSc	Cancer	Gendron/Paradis	Robert/Hélène
Jenkins	Adam	MSc	Immunology	Michalak	Thomas
Jiang	Hong	MSc	Immunology	Carayanniotis	George
Kennedy	Mark	PhD	Cancer	Kao	Ken
Kielley	Danielle	MSc	Cancer	Dore	Jules
King	Chris	MSc	Cardiovascular	McGuire	John
Kirby	Trina	PhD	Cancer	MacPhee	Daniel
Laidley	David	MSc	Neuroscience	Corbett	Dale
Langdon	Kris	PhD	Neuroscience	Corbett	Dale
Leonard	Allision	MSc	Cardiovascular	Van Vliet	Bruce
Li	Haiyan	PhD	Immunology	Carayanniotis	George
Licursi	Maria	MSc	Immunology	Hirasawa	Kensuke
Liu	Yudan	MSc	Neuroscience	Chen	Xihua
MacParland	Sonya	PhD	Immunology	Michalak	Thomas
Martin	Darryl	PhD	Cancer	Gendron/Paradis	Robert/ Hélène
Mason	Rosemarie	MSc	Immunology	Grant	Michael
McCarthy	Patti	PhD	Cancer	Church/Gillespie	Jon/Laura
Mulrooney	Patricia	PhD	Immunology	Michalak	Thomas
Muthukrishnan	Anoo	MSc	Immunology	Michalak	Thomas
Noel	Natasha	MSc	Immunology	Carayanniotis	George
Oldford	Sharon	PhD	Immunology	Drover	Sheila
O'Rielly	Darren	PhD	Neuroscience	Loomis	Chris
Parsons	Amanda	MSc	Cancer	Paterno	Gary
Parsons	Matthew	PhD	Neuroscience	Kirouac	Gilbert
Penney	Stephen	MSc	Immunology	Grant	Michael
Pham	Tram	PhD	Immunology	Michalak	Thomas
Ploughman	Michelle	PhD	Neuroscience	Corbett	Dale
Quinlan	Michelle	MSc	Neuroscience	Hirasawa	Michiru
Rankin	Sherri	MSc	Neuroscience	Mearow	Karen
Rissanen	Anna	PhD	Neuroscience	Corbett	Dale
Rose	Jessica	MSc	Immunology	Grant	Michael
Sarhan	Mohamed	PhD	Immunology	Michalak	Thomas
Skhirtladze	Olga	MSc	Cancer	Kao	Ken
Spurrell	David	PhD	Immunology	Drover	Sheila

Last Name	First Name	Degree	Program	Supervisor(s) Last	Supervisor (s) First
Sullivan	Shannon	PhD	Immunology	Grant	Michael
Thorne	Leanne	MSc	Cancer	Gillespie	Laura
Trask	Robert	PhD	Neuroscience	Hirasawa	Michiru
Tucker	Budd	PhD	Neuroscience	Mearow	Karen
Verginis	Panayotis	PhD	Immunology	Carayanniotis	George
Wang	Jinguo	PhD	Immunology	Michalak	Thomas
Wells	Malcolm	MSc	Cancer	Kao	Ken
White	Bryan	PhD	Cancer	MacPhee	Daniel
Williams	Kristy	MSc	Neuroscience	Mearow	Karen
Williams	Selena	PhD	Cancer	MacPhee	Daniel
Windle	Victoria	PhD	Neuroscience	Corbett	Dale
Winter	Nicole Joan	MSc	Immunology	Drover	Sheila
Zipperlen	Katrin	MSc	Immunology	Richardson	Vernon
Zu	Dong	MSc	Immunology	Hirasawa	Kensuke

The preceding list is of graduate students in Medicine who are supervised by Divisional (FT) faculty members. Faculty also supervised or co-supervised students in other graduate programs (eg, the Cognitive and Behavioural Ecology (CABE) Program, D.W. McKay; School of Pharmacy, V. Richardson). Divisional members also serve on supervisory committees of students in the School of Pharmacy, Departments of Biology and Biochemistry.

### ***Undergraduate Students***

Last Name	First Name	Program	Supervisor(s) Last	Supervisor (s) First
Attwood	Zack	Honors	Corbett	Dale
Ayre	Craig	Honors	Kao	Ken
Battcock	Sarah	Summer/Honors	Hirasawa	Kensuke
Bazeley	Peter	Summer	Michalak	Thomas
Bourgeois	Catherine	Honors/summer	Paterno	Gary
Collier	Thaddeus	Summer	Hirasawa	Kensuke
Cross	Brandon	BSc Honors/summer	MacPhee	Daniel
Daley	Sara	Honors	Corbett	Dale
Grant	Aaron	Honors	Paterno	Gary
Hall	Allison	Summer	Drover	Sheila
Hayward	Mark	BSc	McGuire	John
Henderson	Amy	MUCEP/BSc (Fall)	Drover	Sheila
Hewlett	Krista	Honors	Corbett	Dale
Jenkins	Greg	Honors/Summer	Gillespie	Laura
Kolipetri	Panagiota	Honors	Carayanniotis	George
Koubi	Sharon	Summer Res. Fellowship	Gendron/Paradis	Robert/Helene
Langille	Melissa	BSc Honors	MacPhee	Daniel
Little	Chris	Summer/Honors	Grant	Michael



Last Name	First Name	Program	Supervisor(s) Last	Supervisor (s) First
Mercer	Susan	Summer	Michalak	Thomas
Mong	Christopher	Summer	Michalak	Thomas
Morrissey	Sarah	Summer	Paterno	Gary
Nicholas	Chris	Honors	Kao	Ken
Noseworthy	Diana	BSc/Summer Studentship	McKay	Donald
O'Dea	Heather	MUCEP/summer	MacPhee	Daniel
Organ	Michael	BSc Honors	MacPhee	Daniel
Peddle	S.	MUCEP	Tabrizchi	Reza
Pike	Luke	BSc Honors/Summer	MacPhee	Daniel
Reid	Stephanie	Honors	Paterno	Gary
Rogers	Stacey	Honors	McLean	John
Samourkasidis	Paul	Honors	Carayanniotis	George
Serrick	Matthew	Honors	Tabrizchi	Reza
Smith	Andrew	Honors	McLean	John
Weiner	Lukasz	Biochem	Michalak	Thomas

## **Faculty Publications**

Adamec R, Strasser K, Blundell J, Burton P, **McKay DW** (2006) Protein synthesis and the mechanisms of lasting change in anxiety induced by severe stress. *Behavioural Brain Res* 167(2):270-86.

Alberto CO, Trask RB, Quinlan ME, **Hirasawa M**. Bidirectional dopaminergic modulation of excitatory synaptic transmission in orexin neurons. *J Neurosci* (in press).

Andrews P, Lake B, Popadiuk C, **Kao KR** (2006) Requirement of human pygopus 2 in breast cancer. *Int J Oncol* (in press).

Barrett L, Gamberg J, Gallant M, **Grant M**. Circulating CD14<sup>+</sup>CD36<sup>+</sup> Peripheral blood mononuclear cells constitutively produce interleukin-10 (submitted to *J Leuk Biol*).

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Smeda JS, **McGuire JJ**, Buckle KL (2006) Effects of post-stroke losartan versus captopril treatment on cerebrovascular myogenic and endothelial function of SHRsp. *Stroke* (accepted).

Spurrell DR, Codner D, **Drover S**. Cell-type restricted epitopes on HLA-RB1\*HLA-DM molecules modulate DRB1\*04 molecules (in preparation for *Cellular Immunol*).

Storey AE, Delahunty KM, **McKay DW**, Walsh CJ, Wilhelm SI (2006) Social and hormonal bases of individual differences in the parental behavior of birds and mammals. *Canadian J Exp Psychol* 60:237-245.

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**Tabrizchi R** (2006) Metabolic syndrome: Sign of things to come. *Vascular Health and Risk Management* 2:193-194.

**Tabrizchi R** (2006) Incidence of stroke after myocardial infarction. *Vascular Health and Risk Management* 2:1-2.

**Tabrizchi R** (2006) Risk of cardiovascular events and cyclooxygenase-2 inhibitors. *Vascular Health and Risk Management* 2:95-96.

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Thorne LB, Paterno GD, **Gillespie LL**. Expression pattern of MI-ER1 in mouse embryos and adult mouse tissues (submitted to *Gene Expression Patterns*).

Van Vliet BN, **McGuire JJ**, Chafe L, Leonard A, Joshi A, Montani JP (2006) Phenotyping the level of mouse blood pressure by telemetry. *Clin Exp Pharmacol & Physiol* 33(11):1007-15 (review).

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White BG, Williams SJ, Highmore K, **MacPhee DJ** (2005) Small heat shock protein 27 (Hsp27) is highly induced in rat myometrium during late pregnancy and labour. *Reproduction* 129:115-126.

Williams SJ, Shynlova O, Lye SJ, **MacPhee DJ** (2006) Temporal and spatial expression of  $\alpha$ 1,  $\alpha$ 3 and  $\beta$ 1 integrins in rat myometrium during pregnancy and labour. *Reproduction* (submitted).

Williams SJ, White BG, **MacPhee DJ** (2005) Expression of  $\alpha$ 5 integrin (*Itga5*) is elevated in the rat myometrium during late pregnancy and labour: Implications for development of a mechanical syncytium. *Biol Reprod* 72:1114-1124.

Windle V, **Corbett D** (2005) Fluoxetine and recovery of motor function after focal ischemia in rats. *Brain Res* 1044:25-32.

Windle V, Szymanska A, Granter-Button S, White C, Buist R, Peeling J, **Corbett D** (2006) An analysis of four different methods of producing focal cerebral ischemia with endothelin-1 in the rat. *Exper Neurol* 201:324-334.

Winter NJ, Codner D, Celis E, **Drover S**. Activation of HLA-DR expressing CD4+ T-cell line with HER2 p883 peptide leads to bystander killing of carcinoma cell lines (in preparation for *J Immunol*).

## **Presentations**

### ***Invited Presentations***

**Carayanniotis G** (October 2004) The cryptic but pathogenic self in autoimmune thyroiditis: what keeps it under control? Dept. Pathology, Johns Hopkins University, Baltimore, MD, USA.

**Corbett D** (September 2005) 1. Neuroplasticity, brain repair, and recovery of function following stroke. Jerry Olszewski Guest Lecture, Canadian Association of Neuropathologists, St. John's, NL.

**Corbett D** (March 2005) Strategies to promote functional recovery following stroke. Hotchkiss Brain Institute, Calgary, AB.

**Corbett D** (May 2006) Lost in translation: Bridging the gap between basic neuroscience and clinical stroke. Fourth Annual Ramon J. Hnatyshyn Lecture, Canadian Stroke Network, St. John's, NL.

**Corbett D** (March 2006) Neuroplasticity, brain repair, and recovery of function following stroke. Keynote Address, Lawson Research Institute Research Day, London, ON.

**Corbett D** (January 2006) New approaches to promoting recovery of function following stroke. Dept. of Psychology and Neurosciences, Carleton University, Ottawa, ON.

**Grant M** (September 2005) Current controversies in HIV: When not to start or when to stop antiretroviral therapy. Fifth Atlantic Collaboration for HIV Education Meeting, St. John's, NL.

**Grant M** (June 2005) Raising an immune barrier: The up side of HIV antiretroviral drug resistance mutations. National Microbiology Laboratory and Department of Medical Microbiology, University of Manitoba, Winnipeg, MB.

**Grant M** (April 2005) Promiscuous immune recognition of RT 179-187 and associated drug resistance variants. Symposium on HIV/AIDS in Honour of Dr. Mark A. Wainberg's 60<sup>th</sup> Birthday: From Basic Research to Global Control. Montreal, QU.

**Grant M** (September 2006) The immunology of HIV infection. AIDS Committee of Newfoundland and Labrador PHA Skills Building Symposium. Lavrock, Salmonier Line, NL.

**Grant M** (May 2006) Immunology/Vaccinology 101. 1st Public Health Immunization Conference. Inco Innovation Centre, St. John's, NL.

**Grant M** (2005) Conspiracy theory: immune responses in hepatitis C virus (HCV) and HIV infection.

Brazil A, Barrett L, Howley C, Bowmer MI, Hirsch G, Peltekian K, **Grant M**. 19<sup>th</sup> Spring Meeting of The Canadian Society for Immunology, Whistler, BC.

**Grant M** (2005) Different characteristics of HCV-specific CD8<sup>+</sup> T cell responses in chronic HCV infection, HIV coinfection and spontaneous clearance.

Barrett L, Howley C, Hirsch G, Bowmer MI, Peltekian K, **Grant M**. Sixth International Symposium on HIV and Emerging Infectious Diseases, Toulon, France.

**Grant M** (October 2006) Selective recognition of HIV-1 peptides from heterologous clades.

Dai C, Mason R, **Grant M**. CFBS 4<sup>th</sup> Northern Lights Fall Conference on Infection and Immunity. Ottawa, ON.

**Grant, M** (May 2006) Accumulation of CD8<sup>+</sup> T cells with broad reactivity in HIV infection. Dai C,

**Grant M**. 15<sup>th</sup> Canadian Association for HIV Research Conference. Quebec City, QU.

**Hansen P** (April 2005) The many faces of problem-based learning: a framework for integrative physiology education. Symposium chair and speaker, International Union of Physiological Sciences Congress, San Diego CA.

**Hansen P** (August & February 2005) Facilitating small group discussion. Half-day Workshop for Clinical Tutors, St. George's University, Grenada, W.I., and Kingston Medical College, St. Vincent, W.I.

**Hansen, P** (August 2005) Calibrating your course. Full-day Workshop for Chairs and Course Directors, St. George's University, Grenada, W.I.

**Hansen P** (November 2005) Research in physiology education: our classrooms are our laboratories, XIX Ann. Meeting of the Chilean Physiological Society, Santiago.

**Hansen P** (November 2005) Finding and revealing your hidden curriculum, University of Santiago.

**Hansen P** (February 2006) Finding and revealing your hidden curriculum, MUN.

**Hansen P** (April 2006) Kibble J, Hansen PA. Using SOAP notes to clean up small-group discussion in a Medical Physiology course, Exp. Biol. Ann. Meeting, San Francisco (poster presentation).

**Hansen P** (May 2006) Revealing the hidden curriculum of PBL, 6<sup>th</sup> Asia-Pacific Conference on Problem-based Learning, Tokyo.

**Hansen P** (May 2006) How to be a better PBL facilitator, Kinki University School of Medicine, Osakasayama, Japan.

**Harris J** (June 2004) Resumes and Personal Statements, MedCAREERS Program, Faculty of Medicine.

**Harris J** (December 2004) Interview Workshop for 4<sup>th</sup> year medical students.

**Harris J** (September – November 2004) Financial Health seminars by MD Mgmt for 1<sup>st</sup>- and 2<sup>nd</sup>-year students.

**Harris J** (October 2005) MUN Research Days: Oral Presentation

**Harris J** (February 2005) Personality Typing Workshop for 1<sup>st</sup>- and 2<sup>nd</sup>-year medical students.

**Harris J** (May 2005) Invited by Dr. Bruce Fleming and Dr. Peter Granger to present to a small group of faculty and medical students at UBC about evaluation of their Medical Counselling Program. Later, submitted a written report to Dr. Fleming, Assistant Dean of Student Affairs.

**Harris J** (June 2005) Resumes and Personal Statements. MedCAREERS Program, Faculty of Medicine.

**Harris J** (September – November 2005) Financial Health seminars by MD Mgmt for 1<sup>st</sup>- and 2<sup>nd</sup>-year students.

**Harris J** (February 2006) Personality Typing Workshop for 1<sup>st</sup>-year medical students.

**Harris J** (May 2006) Challenging Interview Questions. 12<sup>th</sup> International Ottawa Conference, NY, (oral presentation).

**Harris J** (September – November 2006) Financial Health seminars by MD Mgmt for 1<sup>st</sup>- and 2<sup>nd</sup>-year students.

**Harris J** (October 2006) – MUN Research Days (oral presentation).

**Hirasawa M** (April 2006) Multiple mechanism of dopaminergic synaptic modulation in orexin neurons." Halifax, Nova Scotia, Canada. Department of Anatomy and Neurobiology, Faculty of Medicine, Dalhousie University.

**Hirasawa M** (June 2006) Multiple mechanism for dopaminergic synaptic modulation in orexin neurons. Memorial University of Newfoundland, St. John's, Newfoundland, Canada. CIHR Institute of Neuroscience, Mental Health and Addiction, Institute Advisory Board Meeting.

**Kao K** (November 2005) Requirement For Pygopus in Epithelial Ovarian Cancer. International Ovarian Cancer Conference, Memorial Sloan Kettering Cancer Center, New York, NY. (oral presentation with C. Popadiuk). Awarded First Prize (\$500 + expenses)

**Kao K** (September 2005) Role of Pygopus in Ovarian Cancer. BSDB conference on Wnt Signaling, Aberdeen, Scotland (presented poster).

**MacPhee, D** CHECK FILES ON COMPUTER under 'poster presentations, conference presentations, and scholarly lectures.

**McGuire J** (September 2006) Persistence of PAR2 vasodilation in BPH/2 mice. Smooth Muscle Research Group Seminar Series, Faculty of Medicine, University of Calgary.

**McKay D** (April 2005) Harris JA, McKay DW. Personality type and medical specialty choice at the time of match [CaRMS]: A review of Canadian students. AFMC Annual Meeting, Saskatoon.

**McKay D** (April 2005) Harris JA, McKay DW. Canadian specialty profiles - data from the 2004 National Physician Survey: A work in progress. AFMC Annual Meeting, Saskatoon.

**McKay D** (June 2005) Contribution acknowledged on poster by Dr. J.A. Harris entitled: MedCAREERS (Counselling) Program Evaluation. Presented at the AFMC meeting in Saskatoon and the Professional Development Conference for Student Affairs Officers and Careers in Medicine Liaisons (SAO-CIM), Orlando, FL.

**McKay D** (October 2006) Fodor JG, Turton P, Sussex B, McKay D, Gadag V, Chockalingam A, Cifkova R. Global risk estimation and metabolic syndrome: Does the Framingham Risk Engine accurately stratify individuals with metabolic syndrome? 59th Canadian Cardiovascular Society Annual Scientific Meeting, Vancouver.

**McKay D** (May 2006) Fodor JG, Turton P, Sussex B, McKay D, Gadag V, Chockalingam A, Cifkova R. Global Risk Estimation and Metabolic Syndrome: Does the Framingham risk engine accurately stratify individuals with metabolic syndrome? 2nd Annual Metabolic Diseases World Summit, Long Beach, California.

**McLean J** (May 22, 2006) Mensa National Conference: St. John's. NL. "Brain Storm" activities.

**Paterno G** (2006) Invited Speaker, Dept of Physiology & Biophysics, Dalhousie University.

**Paterno G** (2006) Invited Speaker, CIHR Symposium, St. John's. Invited speaker.

**Paterno G** (2006) CIHR Symposium, St. John's. Invited Speaker

**Neuman R** (May 2005) Research Ethics Boards in the Institutional Setting, Toronto, Canadian Association of Ethics Boards Annual Meeting (presentation).

**Neuman R** (May 2006) Health Canada Working Group, Toronto, Canadian Association of Ethics Boards Annual Meeting (presentation).

**Neuman R** (2006) Open University Lecture: Research Ethics: What is it and How Did WE Get Here? MUN .

**Neuman R** (February 2005) Ethic Review, Meeting on Allied Health, Organized by Eastern Health, St. John's (presentation).

**Neuman R** (October 2005) Update on Adverse Event Reporting, Ethics Day, St. John's.  
**Paterno G** (2006) Department of Physiology & Biophysics, Dalhousie University.

**Richardson V** (December 2006) Effect of anti-cytokine therapies on macrophage phenotype diversity in patients with rheumatoid arthritis. 7<sup>th</sup> United Kingdom Nitric Oxide Forum University of Hertfordshire, Hatfield UK.

### **Conference Presentations**

Quinlan ME, Parsons K, **Hirasawa M** (2006) Presynaptic mechanism for short term potentiation of miniature EPSC in the supraoptic nucleus. *Soc Neurosci* (Abstr).

Xu X, Trask RB, Maddatu TP, Johnson BA, **Hirasawa M**, Naggert JK, Nishina PM, Ikeda A (2006) *Car8* mutation results in abnormal synaptic morphology and function in the mouse cerebellum. *Soc Neurosci* (Abstr).

Alberto CO, **Hirasawa M** (2006) Characteristics of excitatory quantal events in the orexin neurons. *Soc Neurosci* (Abstr).

Trask RB, Alberto CO, Quinlan ME, **Hirasawa M** (2006) Dopamine inhibits melanin-concentrating hormone expressing neurons through pre-and postsynaptic mechanisms. *Soc Neurosci* (Abstr).

**Hirasawa M** (2006) Effect of dopamine on hypothalamic feeding neurons. *Can Physiol Soc Renaud Symposium*.

Trask RB, **Hirasawa M** (2005) Co-activation of dopamine D1- and D2-like receptors induces increase in spontaneous GABA release onto orexin and MCH neurons. *Soc Neurosci* (Abstr).

Alberto CO, **Hirasawa M** (2005) Dopamine D1 and D2-like receptors differentially modulate excitatory synaptic transmission in orexin and MCH neurons. *Soc Neurosci* (Abstr).

Williams SJ, White, BG, **MacPhee DJ** (2006) Uterine distension is a regulator of  $\alpha 5$  integrin expression in the rat myometrium during pregnancy. *53<sup>rd</sup> Annual Meeting of the Society for Gynecologic Investigation*, Toronto, Canada. March 22-25.

### **Poster Presentations**

Elustondo P, Wu Y, Caniggia I, **MacPhee DJ** (2004) Expression of Integrin-linked Kinase During Human Placental Development: Implications for a Role in Trophoblast Differentiation. 10<sup>th</sup> International Federation of Placental Associations Meeting, Asilomar, CA, USA, Sept. 25-29.

**MacPhee DJ** (2005) The role of ILK in trophoblast differentiation. *CIHR Institute of Genetics and Institute of Human Development, Child and Youth Health- New Principal Investigators Meeting*. Jackson's Point, Ontario, Nov. 2-6.

Cross BE, O'Dea H, White BG, Williams SJ, **MacPhee DJ** (2006) Expression of small heat-shock related protein 20 (HSP20) in rat uterine smooth muscle is markedly decreased just prior to and during labour. *53<sup>rd</sup> Annual Meeting of the Society for Gynecologic Investigation, Toronto, Canada, March 22-25.*

Gendron RL, **Paradis H** (2005) Approaches to data analysis in proteomic studies of Tubedown-1 in health and disease. Computer Science Colloquium, Memorial University of Newfoundland, St. John's, NL.

**Richardson V** (2006) Natural compounds from *Tripterigium wilfordii* in the treatment of rheumatoid arthritis. Nottingham Trent University Biomedical and Natural Sciences.

**Richardson V** (June 2006) Nottingham Trent University Biomedical and Natural Sciences Macrophage expression of PKC- $\epsilon$  and iNOS in Rheumatoid arthritis.

**Richardson V.** PKC- $\epsilon$  and iNOS gene expression in peripheral blood derived macrophages from refractory RA patients treated with anti-cytokine therapies. AstraZenica UK

## **Scholarly Lectures**

White BG, **MacPhee DJ** (2005) Uterine distension and progesterone regulate hsp27 expression in the rat myometrium during pregnancy. 38<sup>th</sup> Annual Meeting of Society for Study of Reproduction, Quebec City, Canada, July, 24-27<sup>th</sup>.

**MacPhee DJ** (2004) Focal adhesion proteins in the myometrium during pregnancy and labour: development of a mechanical syncytium? Invited Speaker, Department of Obstetrics and Gynecology Seminar Series, University of Western Ontario, London, Ontario, Canada, September 29.

**MacPhee DJ** (2006) Finetuning your CV and teaching dossier. Faculty Development Seminars, Faculty of Medicine, Memorial University of Newfoundland, St. John's, NL, Canada.

**Michalak T** (Sept. 2005) HBV immune responses: questions and challenges. Introduction to the Session "Immune Response" at the 2005 International Meeting on the Molecular Biology of Hepatitis B Viruses (Heidelberg).



**Michalak T** (Oct. 2005) Molecular virology and immunology research on hepatitis C virus pathogenesis. Seminar at the Strategic Planning Meeting of the National Canadian Research Training Program in Hepatitis C (Montreal).

**Michalak T** (Nov. 2005) De novo infection and propagation of wild-type hepatitis C virus in normal human T cells *in vitro*. Podium presentation in the Session: "HCV Virology" at the Fifth-Sixth Ann. Meeting of the American Assoc. for the Study Liver Diseases. Press Conference on the same subject for journalists accredited at the meeting (San Francisco).

**Michalak T** (April 2006) Characteristics and consequences of occult hepatitis B virus and hepatitis C virus infections. Invited guest lecture at the Symposium: "New Frontiers and Challenges in Viral Hepatitis" organized by the Canadian Association for the Study of the Liver and the Canadian Association of Hepatology Nurses at the Second Annual Winter Meeting of the Canadian Association for the Study of the Liver (Toronto).

**Michalak T** (April 2006) Heightened nonspecific T cell response precedes delayed specific T cell reactivity after both primary and secondary exposure to hepadnavirus. Podium presentation at the Second Annual Winter Meeting of the Canadian Association for the Study of the Liver (Toronto).

**Michalak T** (April 2006) Differential characteristics of primary occult (POI) and secondary occult (SOI) hepadnaviral infections. Podium presentation at the session: "Experimental Hepatitis C and Occult Hepatitis B" at the Fourth First Annual Meeting of the European Association for the Study of the Liver (Vienna).

**Michalak T** (July 2006) Replication of infectious wild-type HCV in cultured human T cells. Podium presentation at the Twelfth International Symposium on Viral Hepatitis and Liver Disease (Paris).

**Michalak T** (July 2006) Primary and secondary occult hepadnaviral infections: identification and differential characteristics. Podium presentation at the Twelfth International Symposium on Viral Hepatitis and Liver Disease (Paris).

**Michalak T** (September 2006) Woodchuck hepatitis virus inhibition of class I major histocompatibility complex presentation on hepatocytes is mediated by virus envelope pre-S2 protein and can be restored by treatment with gamma interferon. Podium presentation at The 2006 International Meeting on the Molecular Biology of Hepatitis B Viruses (Vancouver).

**Michalak T** (Oct. 2006) Silent HBV and HCV Persistence in Human and Experimental Models". Invited guest lecture by the Centers for Disease Control and Prevention (CDC) (Atlanta, GA).

## **Research Funding in the Division of BioMedical Sciences**

### **Carayanniotis, G**

CIHR-Immunoregulation of experimental autoimmune thyroiditis. Operating grant renewal, 2004-2006 – \$252,016 (total 2003-2008, \$630,040)

### **Chen, X**

NSERC - Ionic basis for cholinergic activation of dopaminergic cells in the rat ventral tegmental area *in vitro*. Discovery Grant, 2004-2006 - \$60,000 (total 2003-2007, \$120,000).

GlaxoSmithKline (GSK) scholarship (formerly SmithKline Beecham scholarship) - salary award (total 1999-2004 - \$250,000).

### **Church, J**

Purple Lupin (breast cancer information Project) – CBCF. 2006 - \$8,000.

Lymphedema Roadshow – CBCF. 2005 - \$15,000.

### **Corbett, D**

CIHR/Canada Research Chairs Program - Stroke and Neuroplasticity, Senior (Tier1) Canada Research Chair, 2004-2006 - \$400,000 (total 2003-2010 - \$1,400,000).

NCE Canadian Stroke/Stem Cell Network - Stem Cells to Treat Stroke. 2005-2006 - \$90,000 year.

NCE Canadian Stroke/Stem Cell Network – Stem Cells to Treat Stroke. 2006 - \$97,500 (total 2006-2008 - \$195,000).

NCE Canadian Stroke/Stem Cell Network – Recovery: Novel Approaches to stimulating recovery. 2006-2008 - \$80,000/year.

CIHR- Neuroprotection & Recovery of Function. Operating grant renewal, 2006 - \$70,127 (total 2001-2006, \$350,635).

CIHR – Recovery of Function. 2006 - \$95,822 (total 2006-2009 - \$287,466).

NSERC - Non-invasive MR & functional methods for studying brain disorders. P.I. with Dr. J. Peeling, Univ. of Manitoba. (total 2000-2004, \$60,000).

Heart and Stroke/CIHR/Alzheimer's Society Vascular Dementia. Exercise, aging and vascular dementia. 2004-2006 - \$240,000 (total 2004-2007, \$360,000).

Heart and Stroke – Targeting K channels to control inflammation in stroke. 2005-2006 - \$69,000 (total 2005-2007 \$138,000).

**Doré, JJ**

CIHR/RPP - Transforming growth factor-beta receptor intracellular trafficking regulates signaling, New Investigator Award/RPP, 2004-2006 - \$150,000 (total 2003-2008, \$250,000).

CIHR/RPP - Transforming growth factor-beta receptor intracellular trafficking regulates signaling. Operating Grant. 2004-2006 - \$118,990 (total 2002-2006, \$237,980, Equipment \$74,020).

CIHR/RRP – Transforming growth factor-beta signaling through phosphatidylinositol 3-kinase in normal epithelium and carcinoma. 2006 \$279,687 (total 2006-2009, \$372,914)

Canada Foundation for Innovation. New Opportunities Award (Project number 7411): "Cellular Signaling Mechanisms in Growth Development and Disease", Coinvestigators: Robert Gendron, Hélène Paradis, Daniel MacPhee. 2004-2006 - \$628,679 (total 2003-2007, \$1,257,358).

**Drover, S**

CBCRI - The influence of HLA class II genes on the immune response in breast cancer. Operating grant. 2004-2005 - \$85,682 (total 2002-2005, \$275,046).

CBCRA – The influence of HLA class II genes on the immune response in breast carcinoma. 2005 - \$42,000.

Medical Research Foundation (MUN) – Genetic difference in HLA-DR allotypes and regulatory T cells. 2006 - \$10,000

CIHR-RPP – Immune parameters in breast carcinoma patients. 2004-2006 - \$125,918 (total 2006-2010, \$251,836).

**Gendron, RL**

CIHR/RPP - Tubedown-1 in Blood Vessel Health and Disease. Investigator Award. 2004-2006 - \$140,000 (total 2002-2007, \$350,000) salary support.

CIHR - Tubedown-1 in Blood Vessel Health and Disease. Co-Investigator Hélène Paradis. Operating grant. 2004-2006 - \$99,451 (total 2002-2005, \$298,353; equipment \$40,255).

Foundation Fighting Blindness Canada - Tubedown-1 as a modulator of choroid-retinal angiogenesis, Co- Investigator Hélène Paradis. Operating grant. 2002-2004, \$60,000.

CIHR – Tubedown-1 in cellular differentiation and cancer. Operating grant. 2004-2005 - \$102,888 (total 2002-2005, \$308,665).

CIHR Regional Partnership Program. Principal investigator H  l  ne Paradis. Tubedown-1 in vision loss during aging and in age related neovascular retinopathies. 2006-2008 - \$204,824.

Foundation Fighting Blindness Canada – Tubedown-1 as a modulator of choroid-retinal angiogenesis. Operating Grant. 2004-2005 - \$30,00 (total 2002-2005, \$90,000).

CIHR. Principal investigator H  l  ne Paradis. Tubedown-1 in aging of the retina and in age related retinal and choroidal neovascular disease. 2005-2006 - \$50,000.

CIHR. Principal investigator Robert Gendron. Tubedown-1 in blood vessel health and disease. Bridge funding from Institute of Genetics. 2005-2006 - \$99,451.

Canada Foundation for Innovation. New Opportunities Award (Project number 7411): Cellular Signaling Mechanisms in Growth Development and Disease. 2004-2006 - \$628,679 (total 2003-2007, \$1,257,358).

CIHR/Regional Partnership Program. Principal investigator Robert Gendron. Tubedown-1 in blood vessel health and disease. 2005-2006 - \$111,982 (total 2005-2008 \$335,946).

2006 Association of Atlantic Universities (AAU), Springboard Patenting and Legal Fund. Tbdn MABs for Diagnosis - \$10,000.

ACOA – Pathogen free barrier project (mouse vivarium), Memorial University. \$367,690.

CFI – Qstar Tandem Mass Spectrometer for the analysis of molecular structures and interactions. 2004-2006 - \$664,959 (total 2003-2007, \$1,329,971).

### **Gillespie, LL**

NSERC - Characterization of novel fibroblast growth factor early response genes and their role in *Xenopus* embryonic development, 2004-2006 - \$102,000 (total 2002-2007, \$255,000).

CIHR – Investigation into the role of MI-ER1 alpha, a novel ER co-regulator. 2004-2006 - \$236,654 (total 2005-2009, \$473,308).

Canadian Breast Cancer Foundation – Investigation of MI-ER1 alpha, a novel ER alpha corepressor and its potential role in breast cancer diagnosis and treatment. 2006-2007 - \$55,300.

Breast Cancer Society of Canada - A Novel Breast Tumour-Specific Gene Regulating Estrogen Receptor Activity. Operating award. 2004-2005 - \$30,000 (total 2003-2005, \$60,000).

**Grant, M**

CIHR (HIV/AIDS) - Generation and maintenance of HIV-specific memory T cells. Operating grant renewal. 2004-2005 - \$98,880 (total 2002-2005, \$296,640).

CANFAR – Identification of broadly immunogenic HIV peptides selected by antiretroviral drugs. 2005-2006 - \$76,700 (total 2005-2007, \$153,400).

CIHR – Impact of HIV infection on the immune response against HCV. 2004-2006 - \$194,799 (total 2004-2007, \$292,199).

CIHR – Subset distribution of HIV-specific CD8<sup>+</sup> memory T cells. 2006-2010 - \$444,000.

**Harris JA**

Director of MedCAREERS, Operating grant – 2006, \$21,000.

MUCEP grant, 2006, \$541/term to hire a medical student to implement Career Shadowing.

MUCEP grant, 2006, \$271/term to hire a medical student to coordinate a Wellness Committee.

MUCEP grant, 2006, \$271/term to hire a medical student to set up a Confidential Peer Assistance Program.

Director of MedCAREERS, operating grant, 2005, \$21,000.

MUCEP grant of \$271/term to hire a medical student to maintain three web sites, 2005.

MUCEP grant of \$541 to hire a medical student to organize Specialties Nights, 2005.

MUCEP grant of \$271 to hire a medical student to organize a Residents Night, 2005.

MUCEP grant of \$541/term to hire a medical student to implement Career Shadowing, 2005.

MUCEP grant of \$271/term to hire a medical student to coordinate a Wellness Committee, 2005.

MUCEP grant of \$271/term to hire a medical student to set up a Confidential Peer Assistance Program, 2005.

In-kind donation of \$1,000 from the Canadian Medical Association to continue the Personality Typing Study, 2004.

MUCEP grant of \$271/term to hire two medical students to maintain three web sites, 2004.

MUCEP grant of \$541 to hire a medical student to organize Specialties Nights, 2004.

MUCEP grant of \$271 to hire a medical student to organize a Residents Night, 2004.

MUCEP grant of \$541/term to hire a medical student to implement Career Shadowing, 2004.

**Hirasawa, K**

Newfoundland Cancer Treatment and Research Foundation - Comparison of oncolytic viruses for cancer therapy. 2004-2005 - \$10,000.

Breast Cancer Society of Canada - Oncolytic virotherapy for tamoxifen resistant breast cancer. 2005-2006 - \$30,000 (total 2005-2007, \$60,000).

CIHR operating grant – Interaction of interferon-induced antiviral responses and Ras signalling pathways. 2005-2006 \$94,342 (total 2005-2008, \$283,026).

NSERC Discovery grant – Viral IRES-mediated translation under stress conditions, 2006 - \$34,000 (total 2006-2011, \$170,000).

CHIR/RPP New Investigator award. Virus replication and cellular signalling environment. 2004-2006 - \$50,000 (total 2004-2009, \$125,000).

Canadian Foundation for Innovation – *In vitro* and *in vivo* studies for virus infection and cellular signalling pathways. 2004 - \$352,114 total.

**Hirasawa, M**

CIHR New Investigator award. Central control of energy homeostasis. 2004-2006 - \$100,000 (total 2004-2009, \$250,000).

CIHR – Central control of energy homeostasis. Operating grant. 2004-2006 - \$153,038 (total 2004-2007, \$229,558).

CIHR operating grant – Central control of energy homeostasis. 2004-2006 - \$153,372 (total 2004-2007, \$228,558).

NSERC – Role of short-term potentiation of spontaneous excitatory transmission in the supraoptic nucleus. Discovery grant. 2004-2006 - \$59,020 (total 2004-2009, \$147,550).

CFI. – Cellular electrophysiology and photostimulation system for investigation of central mechanism of body weight control. New opportunity fund. 2004-2006 - \$223,218 (total 2003-2006, \$334,827).

**Kao, K**

CIHR - Regulation of embryonic mesoderm induction by a novel rel/NF- $\kappa$ B oncogene. Operating grant renewal. 2004-2006 - \$272,800 (total 2003-2008, \$682,000).

CIHR – Knowledge translation award. 2005-2006 - \$10,000.

Summer studentship award to Malcolm Wells, Leukemia and Lymphoma Society of Canada. 2006 - \$5,000.

Breast Cancer Research Foundation – Atlantic Chapter. Regulation of hPygo2 in breast cancer. 2006-2008 - \$120,000.

**Kirouac, G**

NSERC - Pain mechanisms in the cingulate cortex, Discovery grant. 2004-2005 - \$18,000 (total 2003-2005, \$36,000).

CIHR – Regulation of orexin (hypocretin) neurons by monoaminergic and cholinergic systems. 2004-2006 - \$152,252 (total 2004-2007, \$228,378).

**MacPhee, D**

CIHR/RPP New Investigator award – The role of integrin-linked kinase in trophoblast differentiation. 2004-2006 - \$110,000 (total 2003-2008, \$275,000).

CIHR/RPP – The role of integrin linked kinase in human trophoblast differentiation. Operating grant. 2004-2006 - \$140,048 (total 2003-2006 \$210,072).

CIHR/Regional Partnership operating grant. 2004-2006 - \$146,648 (total 2003-2006, \$219,972).

CIHR/Regional Partnership operating grant. 2006-2008 - \$147,424.

NSERC operating grant, renewal. 2007-2012 - \$275,000.

NSERC operating grant. 2004-2006 - \$64,000 (total 2002-2007, \$160,000).

NSERC – The role of focal adhesion signaling in uterine smooth muscle during pregnancy. Discovery grant. 2004-2006 - \$64,000 (total 2002-2006, \$128,000).

CIHR operating grant renewal. 2006-2011 - \$713,890 (submitted).

CFI New Opportunities Infrastructure (co-applicant). 2004-2005 - \$250,000 (total 2003-2005, \$499,999).

Canada Foundation for Innovation. New Opportunities Award (Project number 7411): Cellular Signaling Mechanisms in Growth Development and Disease. 2004-2006 - \$62,868 (2003-2007 - \$1,257,358).

**McGuire, J**

CIHR/RPP (Department of Innovation, Trade and Rural Development, Government of Newfoundland and Labrador) – PAR2 and cardiovascular disease. 2004-2006 - \$221,888 (total 2004-2007, \$332,832).

Canada Foundation for Innovation, On-going New Opportunities. Laboratory for integrative cardiovascular-renal physiology and experimental therapeutics research. 2005 - \$432,556.

CIHR regional Partnership Program – New Investigator Award. 2004-2006 - \$25,000 (total 2005-2010, \$125,000).

**McLean, J**

CIHR/RPP - Making memories: Cellular correlates and circuit analysis in early olfactory learning. Operating grant. 2004-2006 - \$192,000 (total 2004-2009, \$480,000).

CIHR – A window on promoting memory. 2004-2006 - \$191,767 (total 2004-2009, \$479,418).

**McKay DW**

CIHR (co-applicant with Dr. George Fodor, PI), 2006 - \$315,000 for two years.

**Mearow, KM**

NSERC - Stress-mediated signaling. Discovery grant renewal 2004-2006 - \$59,000 (2003-2007, \$118,000).

CIHR - Interactions of growth factor and integrin-mediated signaling Operating grant. 2004-2006 - \$186,666 (total 2003-2006, \$280,000).

**Michalak, TI**

MediVir AB, Sweden - Determination of treatment schedule of MIV-210 of chronic WHV hepatitis - Trial Sequence II. Research contract. 2002-2004 - \$39,926.

MediVir AB, Sweden - Evaluation of treatment of chronic WHV hepatitis. Research contract. 2003-2004 - \$26,400.

National Research Council of Canada/Institute of Biodiagnostics - Proton and phosphorous imaging of infectious disease in woodchuck model of hepatitis B and hepatocellular carcinoma. Research contract to provide animals, assays and expertise. 2004-2006 - \$7,650 (total 2003-2007, \$15,300).

CIHR (Hepatitis C Initiative) - Hepatitis C virus lymphotropism and persistence. Operating grant. 2005-2006 - \$127,115 (total 2005 -2010, \$635,575).

CIHR - Hepadnaviral pathogenicity in woodchuck model of hepatitis B. Operating grant renewal. 2001-2004 - \$331,517.

CIHR - Hepadnaviral pathogenicity in woodchuck model of hepatitis B. Operating grant renewal. 2004-2006 - \$274,990 (total 2004-2009, \$687,475).

CIHR/CRC program - Senior (Tier1) Canada Research Chair in Viral Hepatitis/ Immunology, Canada Research Chair Program. 2004-2006 - \$400,000 (total 2001-



2008, \$1,400,000).

Canada Foundation for Innovation – Infrastructure component of the Canada Research Chair. 2001-2004 - \$321,500.

Medivir AB, Sweden. MIV-219 (FLG prodrug) treatment of chronic WHV hepatitis. Research contract. 2001-2004 - \$251,865.

Cancer Research Society of Canada and Faculty of Medicine, MUN. Molecular probes for evaluation of cellular genes as markers of hepatocellular carcinoma – faculty internal award - \$6,000.

CIHR, Infection and Immunity Project – The 2006 International Meeting on Molecular Biology of Hepatitis B Viruses. Grant to support symposium - \$10,000.

MRC, Faculty of Medicine, MUN – Hepatitis C virus and host determinants of susceptibility to antiviral therapy using lymphoid cells from patients resistant to interferon-alpha therapy as a model. \$10,000.

PTC Therapeutics Inc., USA – Evaluation of antiviral potency of PTC compounds in HCV infection system in mitogen-induced human T cells. Research contract. 2004-2006 - \$52,500.

### **Moody-Corbett, P**

HSF/CIHR/Alzheimer Soc/Pfizer – Exercise, aging and cognitive impairment. Principal investigator - Dale Corbett. 2004-2006 - \$240,000 (total 2004-2007, \$360,000).

### **Paradis, H**

CIHR - Tubedown-1 in cellular differentiation and cancer, co-investigator RL Gendron. Operating grant. 2004-2005 - \$102,886 (total 2002-2005, \$308,658).

CIHR – Tubedown-1 in blood vessel health and disease, co-investigator RL Gendron. 2004-2005 - \$112,869 (total 2002-2005, \$338,608).

CIHR operating grant – Tubedown-1 in blood vessel health and disease, 2005 - \$49,726.

CIHR Regional Partnership Operating IRIF grant – Tubedown-1 in blood vessel health and disease. 2005-2006 - \$111,982 (total 2005-2008, \$335,947).

Association of Atlantic Universities, Springboard Patenting and Legal Fund – Tbdn MABs for diagnosis. 2006 - \$10,000.

National Institutes of Health – Role of growth factors on corneal morphogenesis, PI Winston Kao, 2002-2006.

Foundation Fighting Blindness Canada – Tubedown-1 as a modulator of choroid-retinal angiogenesis (primary applicant RL Gendron). 2004-2006 - \$30,000 (total 2002-2005, \$90,000).

Canada Foundation for Innovation. New Opportunities Award (Project number 7411): Cellular Signaling Mechanisms in Growth Development and Disease. 2004-2006 - \$628,679 (total 2003-2007, \$1,257,358).

CIHR operating grant – Tubedown-1 in normal aging of the retina and in age related retinal and choroidal neovascular disease. 2005-2006 - \$50,000.

ACOA, Business Development Program Award – Pathogen free barrier project (Mouse Vivarium), Applicant: Memorial University. (project leader, H Paradis, RL Gendron). 2004 - \$372,812.

Canadian Foundation for Innovation New Opportunities Fund – Cellular signaling mechanisms in growth, development and disease. 2004-2006 \$499,999 (total 2003-2006, \$1,257,000).

Contract for Human Resources and Skills Development Canada support 60% of research technician salary. 2006-2007 - \$15,736.

CIHR Regional Partnership Operating IRIF grant – Tubedown-1 in vision loss during aging and age-related neovascular retinopathies. 2006-2008 - \$204,824.

### **Paterno, G**

CFI - Tandem mass spectrometer for the analysis of molecular structures and interactions. Innovation award. 2004 - \$1,400,000.

NSERC - Characterization of novel fibroblast growth factor early response genes and their role in *Xenopus* embryonic development. Discovery grant. 2004-2006 - \$102,000 (total 2002-2006, \$204,000).

Breast Cancer Society of Canada - A novel breast tumour-specific gene regulating estrogen receptor activity. Operating award. 2004-2005 - \$30,000 (total 2003-2005, \$60,000).

CIHR - Functional characterization of ER1: a novel tumour-associated transcription factor. (operating grant co-awarded with L.L. Gillespie) 2004-2005 - \$122,357 (total 2002-2005, \$367,072; equipment, \$13,890).

CIHR operating grant, 2004-2009.

NSERC 2002-2007 (renewal applied for)

Canadian Breast Cancer Foundation 2006-2007

**Richardson, V**

Salary as grant, 2006 - \$4,450.

Matching grant (Nottingham Trent University) 2006 - \$4,450.

Canada/UK Universities Partnership Program, 2007 - \$6,000.

**Smeda, J**

CIHR - Cerebrovascular alterations associated with stroke. Operating grant. 2004-2006 - \$153,666 (total 2003-2006, \$230,500; \$11,500 equipment).

**Tabrizchi, R**

Heart and Stroke Foundation - Drugs and the venous system. Operating grant. 2004-2006 - \$64,000 (total 2003-2006, \$96,000).

NSERC – Control of vascular smooth muscle. Discovery Grant. 2004-2006 - \$58,000 (total 2002-2006, \$116,000).

NSERC- Integrative Animal Biology. 2004-2006 - \$14,055 (total 2002-2006, \$28,111).

HSF – Integrative animal biology. 2006-2011 - \$29,100.

HSF – Pharmacology. 2004-2006 – 21,333 (total 2003-2006, \$32,000).

**Van Vliet, B**

CIHR - Hypertension, mechanisms of salt-sensitivity. Operating grant. 2004-2006 - \$222,885 (total 2003-2006, \$334,327).

**University and Community Service*****University Service***

Faculty members from the Division of BioMedical Sciences had significant administrative duties in 2004-2006 in terms of membership on numerous Divisional, Faculty, and University committees.

**Committees include**

Academic Council, School of Pharmacy  
Academic Council, School of Graduate Studies  
Accreditation Committee PASS/Faculty  
Admissions Committee  
Admissions Interview Panel  
Advisory Committee for Life Sciences Building  
Advisory Committee, Genomics and Proteomics  
Anatomy Subcommittee  
Animal Care Barrier Facility

Animal Care Committee  
Animal Resources Committee advising the Vice-President of Research at MUN on matters related to AC Services  
BioMedical Sciences, UGMS Committee  
Biomedical CIHR Committee  
Board member, Genesis Group Inc.  
Board of Directors, Medical Research Foundation (MRF)  
Calendar Review Committee  
Canadian Hypertension Society  
Canadian Stroke Network  
Cancer Symposium Organizing Committee  
Cardiovascular CIHR Committee  
CFI (NARIS) Proposals Committee  
CIHR, Institute of Aging Pilot Projects Committee  
CIHR Awards Committee  
Clinical Skills Committee  
Comprehensive Exam Committees (SGS)  
CREAIT Advisory Board  
Dean of Science Review Committee  
Dean's Advisory Committee on Graduate Studies  
Executive Committee, Faculty Council  
Faculty Council  
Faculty Development Committee  
Faculty of Medicine Space committee  
Flow Cytometer Users Committee  
Graduate Studies Committee, Faculty of Medicine  
Health Sciences Centre Library Advisory Committee  
Human Investigation Committee  
Medical Research Foundation Committee, Faculty of Medicine  
Medical School Laboratories Advisory Committee  
Medicine Management Advisory Committee  
MRC Committee  
MRF Grants Review Committee  
MUN eMed School Portal, Review and Advisory Committee  
MUNFA Executive  
MUNFA Jount Occupational Safety and Health Committee  
MUNFA Academic Freedom and Grievance Committee  
Pharmacological Society Research Investigator Awards Committee  
Pre-accreditation (MD program) self-study, Academic Environment Committee  
Pre-accreditation self-study Task Force  
Pre-accreditation subcommittee on Student Services  
Preclerkship and Clerkship Committee  
Presidents Award for Outstanding Research Selection Committee  
Planning Committee, Research Space Expansion (Fac Med- MUN-HCCSJ)  
Planning Committee, New Science Building (MUN)  
Professional Development Council

Promotions and Tenure Committee  
Radiation Control Committee  
Research and Development Committee, Faculty of Medicine  
Resource Management Committee (Faculty of Medicine)  
Review and Advisory Committee on MUN eMED School Portal  
Review Committee of Associate Dean  
School of Graduate Studies, Awards and Medals Sub-Committee  
School of Graduate Studies Committee to Review Allocation of Funding  
Scientific Days Committee  
Search Committee for Chair of Discipline of Oncology  
Search Committee for Immunology Position  
Search Committee for Neuroscience position  
Search Committee, Neurotrauma/Neurostasticity  
Search Committee for Pharmacology Position  
Search Committee for Genetics Position  
Senate Committee on Research  
Senate Committee on Undergraduate Scholarships and Financial Aid  
Steering Committee, Regional Partnership Program, CIHR  
Strategic Directions Research Committee  
Strategic Planning Committee, Teaching and Learning  
Strategic Training Initiative in Research in Reproductive Health Sciences  
Wellness Committee

Faculty also serve as members of committees or reviewers for NGO and Government funding agencies – Alzheimer’s Society of Canada, Alzheimer’s Association (US), CIHR (operating awards and salary awards), Genome Atlantic, Heart and Stroke Foundation, Multiple Sclerosis Society, National Cancer Institute, NCE Stroke Network, NSERC, NL Neurotrauma Initiative. In addition, many faculty serve as reviewers for scientific journals and several serve on journal editorial boards.

### ***Community Service***

Faculty members in the Division have taken part in many events or made presentations to groups in the Community over the past year. Some of these include:

Anatomy lab, teaching dissection to technician  
Aventis Biotechnology Challenge Organizing Committee  
Bishop Field Elementary Grounds and Environmental Committee  
Brain Storm Competition for Brain Awareness Week  
BrainStorm Competition Judge  
Canada-wide Science Fair  
Canadian Blood Services, Community Liaison Committee & Donor Advisory Panel  
Canadian Mental Health Association, door to door canvas  
Canadian National Institute for the Blind, Age related macular degeneration.  
CIHR “Sundays at the Fluvarium”  
Community Mediation Services  
Edit resumes and reference letters for students  
Epilepsy Newfoundland and Labrador

Genome Canada, Canada-wide Science Fair  
Health Promotion Committee, H&SFNL  
National Board of the Canadian Liver Foundation  
National Board of the Canadian Association for the Study of the Liver  
Newfoundland Neurotrauma Committee  
OSCEs first and second year medicine volunteer evaluator  
PHREA/PHREB Working Group  
Presentation on research in the Faculty of Medicine to Provincial Government at Arts  
and Culture Centre for Minister of Trade, Technology and Rural Development  
Presentations to community or government groups  
Princeton Alumni Schools Committee  
Provincial Health Research Ethics Board advising on legislation for a provincial Ethics  
board – part of PHREB Committee  
Rainbow Riders  
Research projects volunteer  
Scientific Evaluation Review Committee, Aventis Biotechnology Challenge  
Session for 'Y' fitness instructors  
Session for ski patrollers  
Sonofi Adventis Biotechnology Challenge  
Workshop for Shad Memorial Students  
Workshop for Canadian Medical Hall of Fame Students

Our faculty also contribute their time and expertise acting as members of local, provincial and national boards – Medical Research Foundation, the Newfoundland and Labrador Neurotrauma Initiative, the Genesis Group, the Heart and Stroke Foundation of Newfoundland and Labrador, Provincial Advisory Committee on Human Health Research, Canadian Coalition for High Blood Pressure Prevention and Control, Community Mediation Services, Memorial University Recreation Complex (MURC), Genesis, MUN Botanical Gardens.