

Division of
BioMedical Sciences
Faculty of Medicine

Memorial University of Newfoundland

Research

Education

Training

Annual Report
2010

Annual Report 2010

Compiled and edited by
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Memorial University of Newfoundland

**Faculty of Medicine
Division of BioMedical Sciences**

Annual Report

Academic Year 2010

May 2012

Table of Content

Introduction.....	
Research Programs.....	
Faculty and Staff.....	
Educational Responsibilities.....	
Visiting Speakers.....	
Graduate Students.....	
Undergraduate Students.....	
Faculty Publications.....	
Presentations.....	
Research Funding in the Division of BioMedical Sciences.....	
University and Community Service.....	

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.

You can find us at <http://www.med.mun.ca/biomed>

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 9 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. One of the faculty members, Dr. Ann Dorward, is the recipient of a Tier 2 Canada Research Chair in Molecular Signaling in Human Health and Disease.

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 6 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 8 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 recipient of a CRC Tier 1 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 8 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 recipient of a CRC Tier 1 Senior Chair in Stroke and Neural Plasticity.

In addition to BioMedical Sciences 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), Tier 1 Canada Research Chair in Stroke and Neuroplasticity
- Dore, Jules** (Tennessee), associate professor of cell biology
- Dorward, Ann** (McMaster), assistant professor of molecular signaling, Tier 2 Canada Research Chair in Molecular Signaling in Human Health and Disease
- Drover, Sheila** (Memorial), associate professor of immunology
- Gendron, Robert** (McGill), associate professor of cancer/cardiovascular biology
- Gillespie, Laura** (Ottawa), professor of oncology
- ***Grant, Michael** (McMaster), professor of immunology
- Hansen, Penny A.** (Memorial), professor of physiology
- Harris, June A.** (Memorial), professor of anatomy, Assistant Dean of Student Affairs, Director of MedCAREERS
- Hirasawa, Kensuke** (Tokyo), assistant professor of immunology

Hirasawa, Michiru (Tokyo), associate professor of neurosciences
Kao, Ken (Toronto), professor of oncology
Larijani, Mani (Toronto), assistant professor of immunology and infectious diseases
MacPhee, Daniel (Western Ontario), associate 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, Tier 1 Canada Research Chair in Viral Hepatitis and Immunology
Moody-Corbett, Penny (McGill), professor of physiology, Associate Dean, Research and Graduate Studies
Paradis, Helene (Montreal), associate professor of vascular molecular biology
Paterno, Gary (Ottawa), professor of oncology – no report received for Dr. Paterno
***Richardson, Vernon** (Sheffield), associate professor of surgery (oncology)
Russell, Rod (McGill), assistant professor of immunology
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)
Vanderluit, Jacqueline (British Columbia), assistant professor of neurosciences
Van Vliet, Bruce (Saskatchewan), professor of cardiovascular/renal physiology
***Vasdev, Sudesh** (Punjab) professor of medicine (biochemistry)
Yuan, Qi (Memorial) assistant professor of neurosciences

* Joint Appointed

Affiliated Faculty

Adamec, Robert (McGill), professor of psychology
Brosnan, John (Oxon), professor of biochemistry
Brosnan, Margaret (Toronto), professor of biochemistry
Cheema, Sukhinder (PGIMER), associate 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)
Liu, Hu (Alberta), associate professor of pharmacy
Malsbury, Charles (McGill), professor of psychology
Weber, John (Virginia), assistant professor of pharmacy
***Young, Terry-Lynn** (Memorial), assistant professor of genetics

* Cross-appointed

Adjunct Faculty

Mandal, Sanat (Calcutta)
Mansour, Atef (Cairo), Scientist, DFO
Ploughman, Michelle (Memorial)

Professors Emeriti

Allderdice, Penelope (Montana)
Bieger, Detlef. (Kiel), professor of pharmacology
Orr, James (Glasgow)
Roberts, Kenneth. (Oxon)
Tomlinson, J.D.W. (Cambridge)

Post-Doctoral Fellows

Chen, Annie Yang
Christian, Sherri
Cordova, Christopher
Daneshtalab, Noriko
Hou, Quinlong
Jones, Daniel
Langdon, Kris
Mulrooney-Cousins, Patricia
Simmonds, Charlene

Visiting Professor

Kagota, Satomi

Administrative and Secretarial Staff

Blundon, Judy
Hawco, Madonna
Parrott, Deborah
Petten, Janice

Research Support Staff

Alberto, Alberto	Gallant, Maureen
Arora, Simran	Gardiner, Danielle
Chafe, Linda	Granter-Button, Shirley
Chernenko, Garry	Mercer, Corinne
Chia, Elizabeth	Miskiewicz, Ewa
Codner, Dianne	Nafar, Firoozeh
Darby-King, Andrea	Walker, Jacqueline
Davis, Anita	Whittle, Nicole
Day, Kristine	Xiong, Jieying
Ducey, Catherine	Zipperlen, Katrin
Fifield, Heather	

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.

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, Course Chair, Dr. P. Hansen

MED 4300 – Introduction to General and Autonomic Pharmacology, Course Chairs, Drs. J. Church and R/. Tabrizchi

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 – J. Dore

Participating Faculty – J. Church, J. Dore, A. Dorward, 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, B. Stuyvers, 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. T. Michalak

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

Courses

MED 6127 – Immunology I
MED 6128 – Immunology II
MED 6130 – Advanced Immunological Methods
MED 6100-6114 – Immunology Seminars

Neurosciences

Co-ordinator – Dr. Xihua Chen

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

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

Post Graduate Education

Visiting Speakers

Mar 2011 – Dr. Daniel McCormick, University of Auckland
“Wireless power enables new physiological measurements”

Mar 2010 – Dr. Richard Wainford, Louisiana State University
““CNS $G\alpha_{i2}$ proteins participate in the central neural regulation of fluid and electrolyte homeostasis and in countering the development of salt-sensitive hypertension”

Apr 2010 – Dr. William Muller, McGill University
“Oncogene-mediated signal transduction in transgenic mouse models of human breast cancer”

Apr 2010 – Dr. David Hoskin, Dalhousie University
“Anti-inflammatory activities of dietary phytochemicals”

Apr 2010 – Dr. Kyle Legate, Max Planck Institute of Biochemistry, Germany
“Regulating the activity of integrin transmembrane receptors”

Apr 2010 – Dr. Christian Hansel, University of Chicago
“Cellular mechanisms of synaptic and non-synaptic plasticity in cerebellar circuits”

Apr 2010 – Dr. Peter Klein, University of Pennsylvania
“Wnt signalling in early development and hematopoietic stem cells”

May 2010 - Dr. Alan Wallace, Astrazeneca R&D Charnwood, Loughborough, Leics
“Design of NO synthase inhibitors as novel therapy for neuronal and inflammatory diseases”

May 2010 – Dr. James McLarnon, University of British Columbia
“Roles of microglia and vasculature in mediating chronic inflammation in Alzheimer disease brain”

May 2010 – Dr. Stefano Stifani, McGill
“Brain development from pluripotent neural stem/progenitor cells”

Jun 2010 – Dr. James Van Huysse, University of Ottawa
““Critical role of the brain Na, K-ATPase $\alpha 2$ isoform in the hypertensive response to elevated CSF sodium levels”

Jun 2010 – Dr. Brian Christie, University of Victoria
“Exercise your mind: How exercise can enhance structural and functional plasticity in the brain”

Jun 2010 – Dr. Robert Noll, University of Pittsburgh
“Pediatric cancer and psychological functioning: Risk or resilience: An evidence based model”

Jul 2010 – Dr. Anie Philip, McGill University
“Regulation of TGF-beta signaling in the skin”

Jul 2010 – Dr. Didier Mougnot, Laval University
“Everything you always wanted to know about sodium sensors in the brain”

Jul 2010 – Dr. Jun Yan, University of Calgary
“Neural basis of top-down modulation - auditory corticofugal system”

Jul 2010 – Dr. Marc Poulin, University of Calgary
“Impact of physical fitness on vascular regulation and cognition in older women”

Aug 2010 – Dr. Roy Duncan, Dalhousie University
“Cell-cell membrane fusion: new insights from the reovirus FAST proteins”

Sep 2010 – Dr. Peter Ernst, University of Virginia
“The microbiome and immune regulation in mucosal immunity”

Sep 2010 – Dr. David Park, University of Ottawa
“Pathways of dopaminergic loss”

Sep 2010 – Dr. Elizabeth Cowley, Dalhousie University
“The role of prostaglandin receptors in mediating oxidant stress in human airway epithelial cells”

Nov 2010 – Dr. Jorg Fritz, McGill University
“Regulation of host resistance through innate immune recognition of microbes”

Nov 2010 – Dr. Shyam Kottlil, National Institutes of Health, Bethesda
“Connecting the dots on interferon responsiveness in HCV/HIV co-infection: the virus, the cytokine, the receptor and the gene”

Nov 2010 – Dr. Alan Fine, Dalhousie University
“How is long-term synaptic plasticity expressed? Answers from single synapses visualized in hippocampus”

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 2010

Last Name	First Name	Degree	Program	Supervisor(s) Last	Supervisor (s) First
Kolypetri	Panayota	MSc	Immunology	Carayanniotis	George
Harding	Meghan	MSc	Neuroscience	Chen	Xihua
Pittman	Andrea	MSc	Neuroscience	Chen	Xihua
Hewlett	Krista	PhD	Neuroscience	Corbett/McLean	Dale/John
Kelly	Meighan	MSc	Neuroscience	Corbett	Dale
Jeffers	Matthew	MSc	Neuroscience	Corbett	Dale
Ings	Danielle	MSc	Cancer	Doré	Jules
White	Nicole	MSc	Cancer	Doré	Jules
Macdonald	Katie	MSc	Neuroscience	Dorward	Ann
Smith	Kerri	MSc	Cancer	Dorward	Ann
Corkum	Christopher	MSc	Immunology	Drover	Sheila
Mostafa	Ahmed	PhD	Immunology	Drover	Sheila
LeShane	Lisa	MSc	Immunology	Drover	Sheila
Armstrong	Elizabeth	MSc	Cancer	Gendron/Paradis	Robert/Hélène
Grozinger	Kindra	MSc	Cancer	Gendron/Paradis	Robert/Hélène
Whelan	Maria	MSc	Cancer	Gendron/Paradis	Robert/Hélène
Clements	Jaclyn	MSc	Cancer	Gillespie	Laura
Gladney	Krista	MSc	Immunology	Grant	Michael
Brazil	Aiden	MSc	Immunology	Grant	Michael
Monajemi	Mahdis	MSc	Immunology	Grant	Michael
Penney	Stephen	MSc	Immunology	Grant	Michael
Licursi	Maria	PhD	Immunology	Hirasawa	Kensuke
Komatsu	Yumiko	MSc	Immunology	Hirasawa	Kensuke
Alemzadeh	Arezoo	MSc	Immunology	Hirasawa	Kensuke
Parsons	Matthew	PhD	Neuroscience	Hirasawa	Michiru
He	Zhijian	MSc	Cancer	Kao	Ken
Thorne	Karley	MSc	Cancer	Kao	Ken
Tzenov	Youlian	MSc	Cancer	Kao	Ken
Andrews	Philip	MSc/PhD	Cancer	Kao	Ken
Kennedy	Mark	Postdoc	Cancer	Kao	Ken
Abdouni	Hala	MSc	Immunology	Larijani	Mani
Dancyger	Alex	MSc	Immunology	Larijani	Mani
Monajemi	Mahdis	MSc	Immunology	Larijani	Mani
Lucas	Heather	MSc	Immunology	Larijani	Mani
White	Bryan	PhD	Cancer	MacPhee	Daniel
Elustondo	Pia	PhD	Cancer	MacPhee	Daniel
Kirby	Trina	PhD	Cancer	MacPhee	Daniel

Last Name	First Name	Degree	Program	Supervisor(s) Last	Supervisor (s) First
Peach	Mandy	MSc	Cancer	MacPhee	Daniel
Grimes	Matthew	PhD	Neuroscience	McLean	John
DeJong	Jeremy	MSc	Neuroscience	McLean	John
Nartey	Michaelina	MSc	Neuroscience	McLean	John
MacParland	Sonya	PhD	Immunology	Michalak	Thomas
Sarhan	Mohamed	PhD	Immunology	Michalak	Thomas
Williams	Bradley	MSc	Immunology	Michalak	Thomas
Skardasi	Georgia	MSc	Immunology	Michalak	Thomas
Kafari	Hassan	PhD	Immunology	Richardson	Vernon
Abouchehade	Kaseem	PhD	Immunology	Richardson	Vernon
Atoom	Ali	?????	Immunology	Russell	Rodney
Morris	Heidi	?????	Immunology	Russell	Rodney
Harris	Kayla	?????	Immunology	Russell	Rodney
Davis	Laura	MSc	Cardiovascular-Renal	Smeda	John
Haq	Kazi	PhD	Cardiovascular-Renal	Stuyvers	Bruno
Daniels	Rebecca	MSc	Cardiovascular-Renal	Stuyvers	Bruno
Cardenas	Adriana	MSc	Cardiovascular-Renal	Stuyvers	Bruno
Mahajan	Puneet	PhD	Cardiovascular-Renal	Tabrizchi	Reza
Duggan	Daniel	MSc	Cardiovascular-Renal	Tabrizchi	Reza
Malone	Craig	MSc	Neuroscience	Vanderluit	Jacqueline
Hasan	Mahmudul	MSc	Neuroscience	Vanderluit	Jacqueline
Roome	Robert Brian	MSc	Neuroscience	Vanderluit	Jacqueline
Gillingham	Ashley	MSc	Cardiovascular-Renal	Van Vliet	Bruce
Lethbridge	Rebecca	MSc	Neuroscience	Yuan	Qi
Shakhawat	Amin	MSc	Neuroscience	Yuan	Qi
Jerome	David	MSc	Neuroscience	Yuan	Qi

The preceding list is of graduate students in medicine who are supervised by Divisional (FT) faculty members. 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
Keough	Mike	Honours	Corbett	Dale
Oakley	Amanda	Honours	Corbett	Dale
Curtis	Julia	Honours	Corbett	Dale
Botsford	Alex	Honours	Corbett	Dale
Wells	Heidi	Honours	Dorward	Ann
Jackson	Danielle	Honours	Dorward	Ann
Lewis	Clare	Honours	Dorward	Ann
Lewis	Krista	Honours	Drover	Sheila
Lewis	Krista	Summer	Drover	Sheila
Dyer	Tracy	Honours	Drover	Sheila
Dyer	Tracy	NSERC	DroverHirasawa	Sheila/Kensuke
Smith	Nicole	Honours	Hirasawa	Michiru
Muram	Sandeep	Honours/NSERC	Hirasawa	Michiru
Butt	Julia	Honours/NSERC	Hirasawa	Michiru
Buhariwalla	Catherine	Honours	Kao	Ken
Armstrong	Elizabeth	Honours/Summer	Gendron/Paradis	Robert/Hélène
Ho	Nhu	Summer	Gendron/Paradis	Robert/Hélène
Davis	Michael	NSERC	Hirasawa	Kensuke
Wakeham	Susan	Summer	Hirasawa	Kensuke
Hammerl	Andreas	German exchange	Hirasawa	Kensuke
Abdouni	Hala	Honours	Larijani	Mani
Hennessey	John	Honours/Summer/MUCEP	McGuire	John
Dinn	Sarah	Honours/NSERC	MacPhee	Daniel
Marsh	Noelle	Honours/NSERC	MacPhee	Daniel
Arsenault	Shane	Honours	McLean	John
MacDonald	Nicholas	Honours	Michalak	Thomas
Baksh	Amin	Volunteer	Richardson	Vernon
LeMesurier	Jennifer	Volunteer	Richardson	Vernon
Morris	Heidi	SURA	Russell	Rodney
Harris	Kayla	?????	Russell	Rodney
Brazil	Maria	CIHR	Russell	Rodney
Lee	Juliet	Summer	Stuyvers	Bruno
Duggan	Daniel	Honours/NSERC/MUCEP	Tabrizchi	Reza
Greene	Helena	NSERC	Tabrizchi	Reza
McRae	Samanthaa	MUCEP	Tabrizchi	Reza
Jenkins	Kari	Honours	Van Vliet	Bruce
Roome	Robert Brian	Summer	Vanderluit	Jacqueline
Elliott	Megan	Honours	Yuan	Qi

Faculty Publications

Alberto CO, **Hirasawa M** (2010). AMPA receptor-mediated miniature EPSCs have heterogeneous time courses in orexin neurons. *Biochem Biophys Res Commun* 400(4): 707-712

Apicella A, **Yuan Q**, Scanziani M, Isaacson JS. Pyramidal cells in piriform cortex receive convergent input from distinct olfactory bulb glomeruli. *J Neurosci*. 2010 Oct 20;30(42):14255-60

Bancej CM, Campbell N, **McKay DW**, Nichol M, Walker RL, Kaczorowski J (2010). Home blood pressure monitoring among Canadian adults with hypertension: Results from the 2009 Survey on Living with Chronic Diseases in Canada. *Canadian Journal of Cardiology* May; 26(5): e152-7

Barrett L, Gallant M, Howley C, Bowmer MI, Hirsch G, Peltekian K, **Grant MG** (2010). Stronger hepatitis C virus-specific CD8⁺ T cell responses occur with human immunodeficiency virus coinfection. *J. Viral Hepatitis*, epub: May 20

Barrett L, Gallant M, Howley C, Bowmer MI, Hirsch G, Peltekian K, **Grant MD**. Differential character of HCV-specific T cell responses in spontaneous versus treatment-induced viral clearance. *J Clin Immunol*. (submitted)

Burke M, Bieger D, **Tabrizchi, R** (2010). Agonist-induced vasomotion in rat isolated pulmonary artery. *Fund. Clin. Pharmacol*. doi: 10.1111/j.1472-8206.2010.00878.x. (Epub ahead of print)

Chechi K, **McGuire JJ**, Cheema SK (2010). An Interaction of the Pre- and Post-Weaning Diets Rich in Omega-6 Polyunsaturated Fats Alters Plasma Lipids, Hepatic Gene Expression and Aortic Vascular Reactivity in Adult C57Bl/6 Mice. *Journal of Nutrition and Metabolic Insights*. 3:69-78

Dancyger A, Fifield H, Saunders H, Tucker S, Berru M, Magor B, Martin A, **Larijani M**. Biochemical analysis of AID from bony fish (*in preparation*)

Daneshtalab N, **Doré JJ**, **Smeda JS** (2010). Troubleshooting tissue specificity and antibody selection: Procedures in immunohistochemical studies. *J Pharmacol. Toxicol. Methods*. 61:127-35

Daneshtalab N, **Smeda JS** (2010). Alterations in the modulation of cerebrovascular tone and blood flow by nitric oxide synthases in SHRsp with stroke. *Cardiovasc. Res*. 86:160-68

Davis L, **Smeda JS** (2010). Captopril treatment temporarily restores cerebral blood flow autoregulation in SHRsp after hemorrhagic stroke. - *J. Cardiovasc. Pharmacol*. 56:255-62

Day K, Power AM, Xiong J, **Vanderluit JL**. Changes in mouse mass: a guide to gestational age (*in preparation*)

Dorward, A, Macdonald K, Blundell J, Washburn L, Donahue LR. A new mouse model for partial androgen insensitivity syndrome: physiological and behavioural characteristics. (*in preparation*)

Ford CA, Mahajan P, **Tabrizchi R** (2010). Characterization of β -adrenoceptor-mediated relaxation signals in isolated pulmonary artery of Dahl salt-sensitive hypertensive and normotensive rats. *Autonomic & Autacoid Pharmacol.* doi: 10.1111/j.1474-8673.2010.00460.x. (*Epub ahead of print*)

Fritz J, McCarthy D, Simard N, **Larijani M**, Hapfelmeier S, Ivanov I, Martin A, Casellas R, McCoy K, Andrew Macpherson, Paige C, Gommerman J (2010). Acquisition of a multifunctional TNF/iNOS-producing IgA+ plasma cell phenotype in the gut. *Nature*. (*Manuscript under review*)

Gendon R, Armstrong E, Haines L, Desjardins M, Short CE, Clow KA, Driedzic W. Osmotic, pressure-adaptive responses in eye tissues of the rainbow smelt (*Osmerus mordax*) (*in revision Molecular Vision*)

Gendron R, Kumar MR, **Paradis H**, Martin D, Ho N, Gardiner D, Merschrod EF, Poduska KM. Toward an Artificial Cornea: electrochemical engineering of a collagen scaffold. (*in preparation*)

Gendron RL, Laver NV, Good WV, Grossniklaus HE, Miskiewicz E, Whelan MA, Walker J, **Paradis H** (2010). Loss of tubedown expression as a contributing factor in the development of age-related retinopathy. *Invest Ophthalmol Vis Sci.*; 51(10):5267-77

Gujar,SA, Jenkins, AK, MacParland SA, **Michalak, TI** (2010). Pre-acute hepadnaviral infection is associated with activation-induced apoptotic death of lymphocytes in the woodchuck (*Marmota monax*) model of hepatitis B. *Develop. Compar. Immunol.* 34: 999-1008

Guy,CS, Wang, **Michalak TI** (2010). Hepadnaviral infection augments hepatocyte cytotoxicity mediated by both CD95 ligand and perforin pathways. *Liver Intl.* 30: 396-405

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Kolypetri P, Noel NA, Carayanniotis KA, **Carayanniotis G** (2010). Iodine content of thyroglobulin in NOD.H2^{h4} mice developing iodine-accelerated autoimmune thyroiditis. *Hormones* 9:151-60

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Monajemi M, Woodworth C, Grant M, **Larijani M**. APOBEC-induced mutations do not augment cytotoxic T cell response in HIV patients. (*in preparation*)

Monajemi M, Woodworth C, **Grant M, Larijani M**. The role of APOBEC-induced mutations in adaptive immunity. (*review*) (*in preparation*)

Moody-Corbett P (2010). What will you do on your summer vacation? Student Wellness e-Newsletter, Faculty of Medicine, Memorial University of Newfoundland

Moody-Corbett P (2010). Role of research in Canadian Faculties of Medicine. *Gravitas* 43(2),19

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Parsons MS, Zipperlen K, Gallant M, Howley C, **Grant MD** (2010). Distinct phenotype of unrestricted cytotoxic T lymphocytes from human immunodeficiency virus-infected individuals. *J Clin Immunol* 2:272-279

Penney SJ, Gallant ME, **Grant MD**. Elevated CD5-negative percentage suggests adaptation of human immunodeficiency virus-specific CD8⁺ T cells to antigenic variation. *PLoS ONE* (*submitted*)

Pham TNQ, Rahman PP, **Richardson VJ** (2010). Divergent effects of infliximab and anakinra therapies on macrophage phenotype from patients with refractory rheumatoid arthritis. *International Journal of Immunopathology and Pharmacology* 23:491-501

Pham, TNQ, Coffin, CS, **Michalak, TI** (2010). Occult hepatitis C virus infection: what does it mean? *Liver Intl.* 30:502-511. (*Invited review subjected to review process*)

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Raineki C, Pickenhagen A, Roth TL, Babstock DM, **McLean JH**, Harley CW, Lucion AB, Sullivan RM (2010). The neurobiology of infant maternal odor learning. *Braz J Med Biol Res* 43:914-919.

Richardson VJ (2010). Divergent and synergistic regulation of matrix metalloprotease production by cytokines in combination with C-C chemokines. *International Journal of Immunopathology and Pharmacology* 23:715-726

Shaker MA, **Doré JJ**, Younes HM (2010). Synthesis, characterization and cytocompatibility of a poly(diol-tricarballylate) visible light photo- cross-linked biodegradable elastomer. *J Biomater Sci Polym Ed*. 21(4):507-28

Smeda JS, **McGuire JJ**, Daneshtalab N (2010) Protease-activated receptor 2 and bradykinin-mediated vasodilation in the cerebral arteries of stroke-prone rats. *Peptides*. 31(2):227-37.

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Tabrizchi R, Ford CA (2010). Alteration in hemodynamic effects on interleukin 2 after treatment with indomethacin in anesthetized rats. *Vascul. Pharmacol*. 52:230-235

Vanderhyden B and **Dorward AM** (2010). Ovarian cancer and the environment: Rodent models. *Elsevier's Comprehensive Toxicology*, 2nd edition. Editor: Charlene A. McQueen

Vukolic A, Antic V, **Van Vliet BN**, Yang Z, Albrecht U, Montani JP (2010). Role of Mutation of the Circadian Clock Gene Per2 in Cardiovascular Circadian Rhythms. *Am J Physiol Regul Integr Comp Physiol*. Mar 298(3):R627-34

Williams SJ, Shynlova O, Lye SJ, **MacPhee DJ** (2010). Spatiotemporal expression of $\alpha 1$, $\alpha 3$, and $\beta 1$ integrin subunits is altered in rat myometrium during pregnancy and labour. *Reprod Fertil Dev* 22(4): 718-732. (NSERC)

Presentations

Invited Presentations

Carayanniotis G (Sept) Linking iodine with autoimmune thyroiditis. CIHR Infection and Immunity Institute Advisory Board Meeting, St. John's, NL.

Chandra S 21 various presentations to provincial high schools - GC Rowe and CC Laughlin in Corner Brook, Sacred Heart Elementary and Bishops College High in St. John's, Laval High in Placentia, and St. Anne's Academy in Dunville.

Corbett D (Nov) Timing, plasticity and rehabilitation interventions after experimental stroke, New Science of Brain Repair and Rehabilitation. Satellite Symposium, Society for Neuroscience, San Diego, CA, USA

Corbett D (Oct) Neuroplasticity and stroke recovery: Past, present and future, Heart and Stroke Foundation of Ontario, 2010 Stroke Collaborative, Toronto, ON

Corbett D (July) Neuroplasticity and the challenges of an aging nervous system, Canadian Physiotherapy Association Congress, St. John's, NL.

Corbett D (June) Critical periods, BDNF and thresholds of stroke recovery, Canadian Stroke Congress, Quebec, QC.

Corbett D (June) Animal stroke models: The devil is in the details, Canadian Stroke Congress, Quebec, QC.

Corbett D (May) Effects of prior physical and cognitive activity on long-term cognitive function, Annual Canadian Association for Neuroscience Meeting, Ottawa, ON.

Corbett D (May) Restoration of function in the post-stroke damaged brain, Dept. of Physiology, Queen's University, Kingston, ON.

Corbett D (May) Neuroprotection, neuroplasticity and post-stroke recovery of function, Dept. of Neurology Grand Rounds, Queen's University, Kingston, ON.

Corbett D (Mar) Activity based/pharmacological treatment and interactions with stem/progenitor Rx, Stem Cell Therapies as an Emerging Paradigm for Stroke 2 (STEPS 2), Houston, TX, USA.

Dorward A (Feb) The rodent ovary: comparative physiology, genetics and tumour susceptibility. Genetics weekly seminar series, Memorial University.

Dorward A (Feb) The rodent ovary: comparative physiology, genetics and tumour susceptibility. Dept. Of Physiology and Biophysics, Dalhousie University.

Dorward A (Apr) Granulosa cell tumours: what have we learned from rodent models of disease? Centre for Research on Reproduction and Women's health, University of Pennsylvania.

Drover S (Feb) Broadening the boundaries for students through mentorship. Canadian Federation of University Women, St. John's.

Drover S (Jan) Immune parameters in breast cancer patients – implications for prognosis and survival. Breast Cancer Group, Bliss Murphy Cancer Centre, St. John's.

Gillespie L (Nov) Run for the Cure Celebration Event, St. John's.

Grant M (Sept) Cytomegalovirus and accelerated immune senescence in human immune deficiency virus infection. Atlantic Canadian HIV Education Conference, St. John's.

Kao KR (Apr) Regulation of Wnt-mediated developmental competency by Pygo-Bcl9 during body axis specification in *Xenopus*. Experimental Biology Conference – American Association of Anatomists, Anaheim, CA.

Kao KR (Apr) Comparison of hPygo2 with HPV as a marker for cervical dysplasia. American Society for Investigational Pathology, Anaheim CA.

Larijani, M (Oct) Mechanisms of genome mutators governing immunity and lymphomagenesis. Department of Microbiology and Immunology, University of Western Ontario.

Scholarly Lectures

Michalak T (Oct) Repeated exposure to low doses of hepadnavirus induces prominent virus-specific T cell response in the absence of humoral immunity and hepatitis. Sixty First Annual Meeting of the American Association for the Study of Liver Diseases, Boston. NY

Michalak T (Oct) Occult hepatitis B and hepatitis C virus infections: identification, characteristics and pathological implications. School of Pharmacy MUN

Michalak T (Oct) Multiple low doses of hepadnavirus induce virus-specific T cell response in the absence of humoral immunity and liver injury. 2010 International Meeting on Molecular Biology of Hepatitis B Viruses, Taipei, Taiwan)

Michalak T (July) Consequences of occult Hepatitis C virus infection. Fifth Meeting of the Polish Hepatology Association, Mikolajki, Poland

Michalak T (June) HCV persistence and cytokines. Novartis Institute for Biomedical Research, Tel Aviv, Egypt

Michalak T (Apr) Hepatocyte-mediated cell killing is facilitated by the asialoglycoprotein receptor. Forty Fifth Annual Meeting of the European Association for the Study of the Liver, Vienna, Austria

Michalak T (Mar) Persistent HCV after SVR – What does it mean? Plenary Session of the 2010 Statewide Hepatitis C Conference, New York City

Michalak T (Mar) HCV persistence after clinically diagnosed SVR: Virological characteristics and clinical considerations. Rockefeller University, Weill Cornell University Medical College and New York-Presbyterian Hospital, New York City

Russell R (Feb) The 1st years in academia. Annual NCRTP Meeting, Toronto, ON

Russell R (Nov) Hepatitis C virus: Now that we've brought it to life, how do we go about killing it? Department of Biology, Memorial University of Newfoundland

Smeda J (Sept) Cerebrovascular alterations associated with stroke, Department of Biochemistry, Memorial University of Newfoundland

Van Vliet B (Jan) Salt and blood pressure: from beginning to end of life. CIHR workshop-Developing a research agenda to support sodium reduction in Canada

Van Vliet B (May) Sodium and blood pressure: understanding the effects of our life-long exposure to high dietary sodium. CIHR Journalist Workshop on Sodium

Van Vliet B (May) Using the telemetry approach for assessing blood pressure in rodents. Physiological monitoring symposium, Queen's University, Kingston, ON

Conference Presentations

Amini M, Ma CL, **Vanderluit J**, Savitt JM, Slack RS, Bergeron R, Greer PA, Park DS. (July) Analysis of Conditional Knock-out of Calpain Small Subunit (Capn4) in Mouse Brain. International Symposium on Neural Repair, Germany

Christian SL, Komatsu Y, Licursi M, **Hirasawa K** (2010) The activated Ras/Raf/MEK pathway reduces the antiviral interferon-alpha response by inhibiting gene transcription of multiple interferon-alpha responsive genes. Cold Spring Harbor, NY

Daniels R, Haq K, Bungay S, **Stuyvers B** (2010). SR-Ca²⁺ release in swine cardiac purkinje cells: further evidence of the specificity of large size hearts. Annual meeting of the Biophysical Society meeting, San Francisco

Gujar SA, **Michalak T** (Oct) Multiple low doses of hepadnavirus induce virus-specific T cell response in the absence of humoral immunity and liver injury. International Meeting on Molecular Biology of Hepatitis B Viruses, Taipei, Taiwan

Gujar SA, **Michalak TI** (Nov) Repeated exposure to low doses of hepadnavirus induces prominent virus-specific T cell response in the absence of humoral immunity and hepatitis. Sixty First Annual Meeting of the American Association for the Study of Liver Diseases, Boston, MA

Guy CS, Rankin SL, **Michalak TI** (2010) Hepatocyte-mediated cell killing is facilitated by the asialoglycoprotein receptor. International Liver Congress 2010 of the European Association for the Study of the Liver, Vienna, Austria.

Hasan SMM, Sheen A, Xiong J, Day K, **Vanderluit JL**. (Apr) Mcl-1 promotes neurogenesis in the embryonic brain. Canadian Developmental Biology Conference. Mt Tremblant, QC

Hasan SMM, Sheen A, Xiong J, Day K, **Vanderluit JL**. (June) Mcl-1 promotes neural precursor cell differentiation in the embryonic brain. Canadian Association for Neuroscience Annual General Meeting, Ottawa, ON

Kolypetri P, **Carayanniotis G** (April) Identification of pathogenic T cell epitopes adjacent to cathepsin cleavage sites in thyroglobulin, 23rd Annual Meeting of the Canadian Society for Immunology, Niagara Falls, ON

Komatsu Y, Christian SL, **Hirasawa K** (2010) Ras/MEK regulates transcription factor to repress IFN-inducible genes. 23rd Annual Canadian Society for Immunology, Niagara Falls, ON

Lewis C, Codner D, Mostafa, AA, Dyer T, **Drover S**. (2010) HLA class II regulation and HER2 in breast cancer cells. Beatrice Hunter Cancer Research Institute Symposium, Halifax, NS

MacLellan CL, Keough M, Granter-Button S, Chernenko, G, **Corbett D** (June). A critical threshold of rehabilitation, involving BDNF, is required for post-stroke recovery. Canadian Stroke Congress, Quebec, QC

MacPharland SA, Pham TNQ, **Michalak TI** (2010) Inhibition of CD4+ T lymphocyte proliferative response following ex vivo exposure to wild-type hepatitis C virus. 2010 Canadian Digestive Diseases Week (CDDW) and Annual CASL Winter Meeting , Toronto, ON

MacPhee D (June) Understanding the making of a flat cake: the placenta. Division of Biomedical Sciences, Atlantic Veterinary College, University of Prince Edward Island

MacPhee D (Mar) Phosphorylation of small heat shock proteins in the myometrium: implications for function. Myometrium Symposium, 57th Annual Meeting of the Society for Gynecological investigation, Orlando, FL

Malone C, Furlong M, Xiong J, **Vanderluit JL** (Apr) Mcl-1 is a critical survival factor for adult neural precursor cells. Canadian Developmental Biology Conference. Mt Tremblant, QC, April 2010

Malone C, Furlong M, Xiong J, **Vanderluit JL**. (June) Mcl-1 is a critical regulator of apoptosis in adult neural precursor cells. Canadian Association for Neuroscience Annual General Meeting. Ottawa, ON

McKay D (2010) Oration honouring Dr. Dawn Howse

McKay D, Parati G (Sept) Should masked hypertension be treated? Clinical Science Debate 1. 23rd Scientific Meeting of the International Society of Hypertension, Vancouver (invited debate)

McKay DW (2010) Home blood pressure measurement: ensuring quality and interpreting results. CHEP Core Curriculum. 23rd Scientific Meeting of the International Society of Hypertension, Vancouver, BC

Mostafa AA, and **Drover S**. (2010) Mechanisms involved in the regulation of HLA class II in breast cancer. CIHR Research Poster Competition, Winnipeg

Mostafa AA, Codner D, Lewis C, Hirasawa K, Christian S, Steimle V, **Drover S**. (2010) Estrogen receptor downregulates HLA class II in breast cancer cells by interfering with CIITA. Beatrice Hunter Cancer Research Institute Symposium, Halifax, NS

Parsons MP, Hirasawa M (2010) Starve a fever: temperature-induced inhibition of orexin neurons. Canadian Association for Neuroscience Meeting, Ottawa

Sarhan MA, **Michalak TI** (2010) CD5 as a molecule mediating entry of hepatitis C virus to human T lymphocytes. Canadian Digestive Diseases Week (CDDW), and Annual CASL Winter Meeting, Toronto, ON

Smith KN, Halfyard SJ, Shultz KL, Beamer WG, Heravi-Moussavi A, Huntsman D, **Dorward AM** (May). Positional cloning of the *Gct1* Granulosa cell tumour susceptibility locus in SWR/Bm inbred mice. 5th Canadian Ovarian Cancer Conference, Toronto, ON. (*oral presentation*)

Smith, KN, Halfyard SJ, Shultz KL, Beamer WG, Hervai-Moussavi A, Huntsman D, **Dorward AM** (Nov). Positional cloning of the *Gct1* Granulosa cell tumour susceptibility locus in SWR/Bm inbred mice. Beatrice Hunter Cancer Research Institute Cancer Research Symposium, Halifax, NL. (*oral presentation*)

Stuyvers BD, Boyden P, Daniels R, Haq K (2010). Experimental and computational evidences for dual alteration of sarcoplasmic reticulum function in arrhythmic Purkinje cells after myocardial infarction

Stuyvers BD, Boyden P, Daniels R, Haq K, Kelly C, Duffy H, Dun W, ter Keurs H (2010). Arrhythmogenicity associated with Myocardial Infarction in the dog; a dual alteration of SR-Ca²⁺-transport in Purkinje Cells. *Circulation Research* Jan (submitted)

Sugden P, Pham TNQ, Ratnrajah S, Cameron B, Bull R, White P, **Michalak TI**, Lloyd A (Sept) Detection of occult HCV in high risk, seronegative, apparently uninfected subjects: A two center, masked, case-control study. International symposium on Hepatitis C Virus and Related Viruses, Yokohama, Japan

Wells HJ, Young HM, Shultz KL, Beamer WG, **Dorward AM** (May). Chr X and ovarian phenotypes revealed through a model of spontaneous juvenile-onset granulosa cell tumorigenesis. 5th Canadian Conference on Ovarian Cancer Research, Toronto, ON.

Poster Presentations

Atoom AM, Whittle NJ, **Russell RS** Analysis of the role of the p7 protein in the hepatitis C virus life cycle. International Symposium on Hepatitis C Virus and Related Viruses, Yokohama, Japan

Guy CS, Rankin SL, **Michalak TI** Hepatocyte-mediated cell killing: A role of the asialoglycoprotein receptor (ASGPR) in hepatocyte cell target recognition. International Meeting on Molecular Biology of Hepatitis B Viruses, Taipei, Taiwan

Kouwenber A-L, **McKay DW**, Storey AE (Sept) Measuring corticosterone in alcid feathers: a tool for assessing long-term stress. World Seabird Conference, Victoria, BC

Kouwenbert A-L, Rector ME, **McKay DW**, Storey AE (Feb) Variation in baseline corticosterone levels of breeding Atlantic puffins (*Fratercula arctica*). 37th Pacific Seabird Group Annual Meeting, Long Beach, CA

Lin LT, Noyce RS, Pham TNQ, Wilson JA, Sisson GR, **Michalak TI**, Mossman KL, Richardson CD (Sept) Deletion of interferon regulatory factor-3 expression of liver-specific microRNA-122 facilitate replication of hepatitis C virus subgenomes in mouse fibroblasts. International Symposium on Hepatitis C Virus and Related Viruses, Yokohama, Japan

Peach M, **MacPhee DJ** (Mar) Heat shock protein B6 phosphorylation increases during pregnancy and is induced by uterine stretch: Perhaps stress is good for pregnancy. 57th Annual Meeting of the Society for Gynecologic Investigation, Orlando, FL

Pham, TNQ, Lin DM, **Michalak TI** (2010) Differential virological and cytokine gene expression profiles in lymphoid cells of responders and nonresponders to pegylated

interferon alpha and ribavirin therapy. International Liver Congress 2010 of the European Association for the Study of the Liver, Vienna, Austria

Sarhan M, **Michalak TI** (Nov) Are the candidate hepatitis C virus receptors required for infection of human T lymphocytes? Sixty First Annual Meeting of the American Association for the Study of Liver Diseases, Boston, MA

Research Funding in the Division of BioMedical Sciences

Carayanniotis G

CIHR – Immunoregulation of experimental autoimmune thyroiditis. Operating grant (total \$126,786 2008-2013)

Chen X

NSERC – Contribution of L-type channel subtypes to burst firing of dopaminergic cells in the mouse ventral tegmental area. Discovery grant (total \$57,287 2009-2013)

Corbett D

CIHR – Recovery of function following stroke. Operating grant (total \$733,760 2010-2015)

Canadian Stroke Network – An animal model of vascular cognitive impairment. Operating grant (total \$287,346 2009-2011)

Heart & Stroke Foundation of Canada. The development of drug and cell delivery systems for using stem cell based therapies to treat stroke (Moreshead C, [PI], Shoichet M, Corbett D co-investigators). Operating grant (total \$120,000 2008-2011)

NSERC. Exercise and cognitive function. Operating grant (total \$180,000 2009-2014)

Dorward A

Canada Research Chair (Tier II). Molecular signaling in human health and disease. Salary award (\$500,000 2007-2012)

Canada Foundation for Innovation. Molecular signaling in human health and disease. (\$125,000 2007-2012)

Regional Partnership Program/CIHR and CIHR-IHDCYH. Genetics determinants for juvenile-type granulosa cell tumorigenesis. (total \$219,520 3 years)

Medical Research Foundation. A new mouse model for partial androgen insensitivity syndrome. (\$10,000)

Drover S

Canadian Breast Cancer Foundation. Investigation of molecular mechanisms that regulate antigen presentation pathways in breast carcinoma. (total \$115,000 2010-2012)

CBCF Summer studentship to Christa Lewis. HER2 and HLA-class II regulation in breast cancer cells. (\$4,500)

Gendron R, Paradis H, MacPhee D, Dore J

Canada Foundation for Innovation – Cellular Signaling Mechanisms in Growth Development and Disease. Infrastructure Operating Fund (total \$150,000 2006-2011)

Gendron R, Paradis H

CIHR / Regional partnership. Role of Tubedown in endothelial permeability in healthy vision. Operating grant (total \$287,919 2009-2012)

Gillespie L

CIHR – Investigation into the role of MIER1 α , a novel ER co-regulator. Operating grant (total \$541,770 2009-2014)

CBCF – Investigation of an alternatively spliced isoform of MIER1 alpha and its role in DCIS progression (total \$119,580 2010-2012)

CIHR – MIER1 α , a novel PPAR γ co-regulator and its role in adipogenesis. Operating grant (total \$278,436 2010-2013)

Paradis H, Gendron R

CIHR – Tubedown in vision loss during aging and age-related retinopathies. Operating grant (total \$505,880 2008-2012)

Grant M

CANFAR – Identification of conserved epitopes in drug resistant HIV. Operating grant (total \$156,000 2008-2010)

CIHR – The influence of killer cell immunoglobulin-like receptors and their ligands on HIV-specific CD8 T cell function. (total \$282,000 2009-2011)

CIHR – Heteroclitic peptides to increase human immunodeficiency virus-specific CD8⁺ T cell interleukin-2 production. (total \$100,000 2009-2010)

Hirasawa K

Priority announcement: Infection and immunity. Operating grant (total \$100,000 2009-2010)

CIHR / Regional Partnership Program – Downregulation of IFN-inducible genes by Ras/Raf/MEK (\$242,456 2010-2012).

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

CIHR – Pandemic Preparedness In vivo treatment of influenza virus with MEK inhibitor. Catalyst grant (total \$100,000 2009-2010)

Hirasawa M

CIHR – Central control of energy balance and food reinforcement. Operating grant (\$540,073 2007-2012)

CIHR – (co-investigator) Basal forebrain regulation of sleep-wake state. Operating grant (total \$721,560 2009-2014)

NSERC – Role of short-term potentiation of spontaneous excitatory transmission in the supraoptic nucleus. Discovery grant (total \$147,550 2004-2010)

Hirasawa M, Hirasawa K

Cox Award – Analysis of brain gene expression in juvenile obesity model. (\$30,000)

Kao KR

CIHR operating grant (\$109,000 2009-2014)

GTEP – Memorial University (\$10,000)

Motorcycle Ride for Dad Foundation (2010) H. Bliss Murphy Cancer Research Foundation grant-in-aid for Prostate Cancer Research (\$79,953)

RDC-IRIF match support (\$90,247)

Larijani M

CIHR -- Bridge Operating Grant (\$99,000)

CIHR-RPP -- New Investigator Salary Award (\$150,000)

McGuire J

CIHR / Newfoundland Dept. of Innovation – Mechanisms to offset endothelial dysfunction in hypertension. Operating grant (total \$284,767 2008-2011)

CIHR / Newfoundland Dept. of Innovation – Salary support new investigator award. (total \$125,000 2005-2010)

MacPhee D

NSERC – Operating grant (total \$160,000 2007-2012)

CIHR / Regional Partnership (total \$357,000 2010-2013)

Medical Research Development Award (total \$7,500 2009-2010)

McLean J

CIHR – A window on promoting memory. Operating grant (total 456,431 2009-2013)

Michalak T

Novartis Institutes of Biomedical Research – Clinical diagnostic research – genomic analysis of circulating immune cells. Operating grant (total \$65,566 2009-2012)

Novartis Institutes of Biomedical Research – Interferon responder test from circulating immune cells. Operating and equipment grant (total 884,380 2010-2012)

PTC Therapeutics Inc – Testing PTC compounds against Hepatitis C virus in lymphoid cell culture model. Research contract (total \$22,550 2010-2011)

Paradis H, Gendron R

CIHR – Tubedown in vision loss during aging and age-related neovascular retinopathies. (total \$505,880 2008-2012)

Richardson V

Wallace Ingram Award (total \$14,000 2010-2011)

MUN Instructional Development Grant (total \$5,000 2010-2011)

Medical Research Foundation (total \$10,000 2008-2010)

Russell R

CIHR – Viral determinants of infectious hepatitis C virus production (total \$300,000 includes \$30,000/yr research funding in kind from Faculty of Medicine 2010-2015)

RDC – Viral and cellular determinants of hepatitis C virus production (\$100,000)

CIHR – Elucidation of the role of p7 in virus assembly. Operating grant

CIHR – Characterization of the function of the HCV core protein in virus assembly. Operating grant

Smeda J

CIHR/Regional Partnership – Cerebrovascular alterations associated with stroke development. Operating grant (total \$352,000 2010-2013)

Stuyvers B

CIHR bridge funding (\$100,000)

Tabrizchi R

NSERC – Integrative animal biology (total \$29,100 2006-2011)

Vanderluit J

CIHR/Regional Partnership – Operating grant (total \$338,856 2008-1010)

CIHR/Regional Partnership – New Investigator award (total \$300,000 2008-2012)

Canadian Foundation for Innovation – Leadership Opportunity Fund (total \$250,000 2008-2013)

Van Vliet B

CIHR – (2008-2011)

Yuan Q

CIHR – New Investigator award (2010-2015) – amount

Faculty start-up (\$100,000 2009-xxxx)

IRIF start-up matching fund (total \$100,000 2009- xxxx)

CIHR-Regional Partnership (total \$26,460 2009-2010)

CIHR (total \$98,061 2010-2015)

CIHR New Investigator award (total \$60,000 2010-2015)

University and Community Service

University Service

Faculty members from the Division of BioMedical Sciences had significant administrative duties in 2010 in terms of membership on numerous Divisional, Faculty, and University committees.

Committees include

Admissions (Interview) Committee
Institutional Animal Care Committee
Graduate Committee
Neuroscience Program Coordinator
Medical Research Foundation Grant Review Committee
Vice-President, MUNFA
Chief Negotiator, MUNFA
Academic Freedom and Grievance Committee, MUNFA
University Radiation Safety Committee
Animal Care Search Committee
Vice President and Pro-Vice Chancellor Search Committee
Graduate Studies Committee (Medicine)
Cox Award Committee
Undergraduate Medical Student Education Promotions Committee
Undergraduate Medical Student Subcommittee on Student Assessment
MUNFA/MUN Joint Occupational Safety and Health Committee
MUNFA Executive
MUN JOHSC Restructuring Working Group
Ad-Hoc Committee on Planning New Central Animal Care Facility
Health and Safety Committee
Central Animal Care Facility

Search Committee for Tenure Faculty Position, Primary Health Research Unit
Steering Committee, Regional Partnership Program, CIHR
Medical Research Foundation Review
Promotion and Tenure
Human Investigation Committee/Human Research Ethics Board
Senate Committee on Research
Undergraduate Medicine Student Appeals Committee
Review Committee for Associate Dean of Research and Graduate Studies (Medicine)
Student Assessment Subcommittee
Pre-clerkship Committee
Undergraduate Medical Studies Committee
Senate
MUN Presidential Search Committee
MUN HR Director Search Committee
University Orator
Galbraith Lecture Selection Panel
University Radiation Control Committee
University Safety Committee
Investigation Committee, School of Graduate Studies

Community Service

Ski Patrollers Workshop
CMHF Workshop
Shad Valley Program Workshop
Message Therapy Workshop
Graduate Studies Job Fair
Graduate Studies Open House
Scientific Evaluation Committee, Sanofi-Aventis Biotechnology Challenge
Sanofi-Aventis Biotechnology Challenge Organizing Committee
Princeton Alumni Schools Committee
Fitness Instructor at The Works
Ovarian Cancer Canada Winner's Walk of Hope, St. John's Organizing Committee
Member
Motorcycle ride for Dad – Avalon Chapter
TFRI activities
Heart & Stroke Foundation of Newfoundland and Labrador
Canadian Blood Services Regional Liaison Committee
Brain Storm Competition for High School Students