

2001/2002 Doctoral Research Awards

* *Applicants who are funded via the HSFC/CIHR Health Research Partnership Fund.*

- **Abu-Abed, Mona** (Banting Best Department of Medical Research, University of Toronto)
NMR studies of the ATP-binding domain of the Ca²⁺ -ATPase.
Supervisor: MacLennan, David H.
- **Akhavan, Armin** (Physiology, McGill University)
Role of kinesin light chain in the trafficking of HERG potassium channel: possible mechanism for long Q-T syndrome.
Supervisor: Shrier, Alvin
- **Adihetty, Peter J.** (Kinesiology and Health Science, York University)
Expression and function of cytochrome oxidase subunit IV in contracting cardiac myocytes.
Supervisor: Hood, David A.
- * **Ahmed, Sara** (Epidemiology & Biostatistics, McGill University)
The development of a quality of life measure for stroke.
Supervisor: Mayo, Nancy E.
- **Arikawa, Emi** (Pharmacology and Toxicology, University of British Columbia)
Role of endothelin-1 in the development of diabetic cardiovascular complications.
Supervisor: McNeill, John H.
- * **Baroudi, Ghayath** (Médecine, Université Laval)
Étude structure-fonction du canal sodique cardiaque et son implication dans les syndromes cardiaques.
Supervisor: Chahine, Mohamed
- * **Bell, Andrea D.L.** (Biochemistry, Microbiology & Immunology, University of Ottawa)
TSH signal transduction in human abdominal preadipocytes.
Supervisor: Sorisky, Alexander
- **Benchabane, Hassina** (Molecular Biology and Cancer, Mount Sinai Hospital)
Regulation of Smad7 transcription through BMP signalling.
Supervisor: Wrana, Jeffrey
- * **Blais, Claudia** (Medicine, Laval University)
Dynamic physiology of aortic valve stenosis.
Supervisor: Pibarot, Philippe
- **Borradaile, Nica M.** (Medicine and Biochemistry, University of Western Ontario)
Regulation of apolipoprotein B metabolism by citrus flavanoids.
Supervisor: Huff, Murray W.
- **Briand, Sandie I.** (Pharmacologie, Université de Sherbrooke)
Identification de gènes différenciellement régulés par l'Ang IV dans les cellules HUVEC.
Supervisor: Guillemette, Gaetan
- * **Bridge, Suzanne K.** (Pharmacology and Toxicology, Queen's University)
Involvement of vasoactive systems and endothelial dysfunction in vascular structural regulation and remodelling.
Supervisor: Adams, Michael A.
- **Brown, Kelly L.** (Microbiology & Immunology, University of British Columbia)
Molecular mechanisms that control CD44 binding to hyaluronan in monocytes.
Supervisor: Johnson, Pauline

- **Brown, Robert J.** (Lipoprotein & Atherosclerosis Research Group, University of Ottawa Heart Institute)
Functional analysis of the carboxyl terminus of human hepatic lipase.
Supervisor: Yao, Zemin
- **Buscemi, Ninetta** (Physiology, Queen's University)
Effect of PAK on cardiac muscle contractility and its molecular mechanism of action.
Supervisor: Van Eyk, Jennifer E.
- * **Chan, Gary Chi-Hung** (Medicine, University of Toronto)
Epigenetic regulation of inducible nitric oxide synthase (iNOS) gene expression.
Supervisor: Marsden, Philip A.
- **Chan, Jason R.** (Laboratory Medicine and Pathobiology, University of Toronto)
Integrin affinity modulation during leukocyte recruitment.
Supervisor: Cybulsky, Myron
- **Charest, Pascale** (Biochemistry, University of Montreal)
Study of palmitoylation and its molecular determinants in G protein-coupled receptors.
Supervisor: Bouvier, Michel
- **Con, Andrea H.** (Educational Psychology, University of Calgary)
Psychosocial predictors of pain and functional impairment in patients recovering from coronary artery bypass graft surgery.
Supervisor: Hiebert, Bryan
- * **Coombes, Brian K.** (Pathology & Molecular Medicine, McMaster University)
Cellular and molecular mechanisms of chlamydia pneumoniae in atherosclerosis.
Supervisor: Mahony, James B.
- **Cooper, Conan B.** (Pharmacology & Therapeutics, University of Calgary)
Molecular determinants of G-protein binding to N-type Ca channels.
Supervisor: Zamponi, Gerald W.
- **Corbett, Elaine F.** (Biochemistry, University of Alberta)
Endoplasmic reticulum in the heart.
Supervisor: Michalak, Marek
- * **Cronin, Lisa** (Cardiology, McMaster University)
Development and validation of risk models for prognosis and patient management in unstable coronary artery disease.
Supervisor: Yusuf, Salim
- * **Cruz, William A.** (Laboratory Medicine and Pathobiology, University of Toronto)
The roles of TIMP-3 and TIMP-4 genes in cardiovascular disease
Supervisor: Khokha, Rama
- **Cunningham, Charles H.** (Medical Imaging, University of Toronto)
Multislice imaging of the coronary arteries with magnetic resonance.
Supervisor: Wood, Michael L.
- **Dan, Pauline** (Physiology, University of British Columbia)
Estrogen receptors in endothelial cells of rat valve, coronary and cerebral arteries.
Supervisor: Moore, Edwin D.
- **Danelisen, Igor** (Physiology, University of Manitoba)
The role of retinoic acid in oxidative stress-mediated adriamycin-induced cardiomyopathy.
Supervisor: Singal, Pawan K.

- **Dempsey, Adam A.** (Laboratory Medicine and Pathobiology, University of Toronto)
Identification and characterization of differentially expressed genes in hypertrophic cardiomyopathy.
Supervisor: Liew, C.C.
- **Denis, Maxime** (Cardiovascular Genetics Laboratory, Clinical Research Institute of Montreal)
Molecular and cellular regulation of cholesterol efflux.
Supervisor: Genest, Jr., Jacques
- * **Der Sarkissian, Shant** (Pharmacology, University of Montreal)
Pharmacological control of cardiovascular remodeling and correction of endothelial dysfunction.
Supervisor: deBlois, Denis
- **Ding, Hong** (Pharmacology & Therapeutics, University of Calgary)
Role of nitric oxide/prostacyclin-independent mechanisms in endothelium-dependent vasorelaxation.
Supervisor: Triggler, Christopher R.
- **D'Souza, Sandra** (Laboratory Medicine and Pathobiology, University of Toronto)
Molecular mechanisms regulating the cell surface expression of GABA-A receptors.
Supervisor: Wang, Yu Tian
- **Dunn, Jeremy** (Biochemistry and Molecular Biology, University of Calgary)
Characterization of the alternatively spliced isoforms of the rat Na/Ca exchanger.
Supervisor: Lytton, Jonathan
- **Elias, Chadwick L.** (Physiology, University of Manitoba)
Inhibition of Na-Ca exchange by KB-R7943: mechanism of mode selectivity.
Supervisor: Hryshko, Larry V.
- * **Fadel, Marc** (Anatomy and Cell Biology, University of Toronto)
The role of calreticulin in cardiac hypertrophy.
Supervisor: Opas, Michal J.
- * **Ferri, Catharine** (Physiology, Queen's University)
Transient outward potassium current mediates neuroprotection in PVN.
Supervisor: Ferguson, Alastair
- * **Fitzpatrick, Tania** (Anatomy & Cell Biology, Queen's University)
Effect of oxygen on human trophoblast proteolytic enzyme systems: relevance to preeclampsia.
Supervisor: Graham, Charles H.
- **Foltz, Warren D.** (Medical Biophysics, University of Toronto)
MR oximetry for ischemic heart disease.
Supervisor: Wright, Graham
- **Georges, Romain** (Développement de différenciation cardiaques, Institut de recherches cliniques de Montréal)
Facteur de transcription GATA-4 et hypertrophie ventriculaire.
Supervisor: Nemer, Mona
- **Gillis, Todd** (Kinesiology, Simon Fraser University)
Molecular mechanism for temperature dependent calcium sensitivity in the cardiac contractile protein troponin C.
Supervisor: Tibbits, Glen
- * **Grandy, Scott** (Pharmacology, Dalhousie University)
The role of voltage sensitive release mechanisms in a transgenic model of heart failure.
Supervisor: Howlett, Susan

- **Gritsenko, Valeriya** (Neuroscience, University of Alberta)
Automated FES-assisted therapy for hemiplegic hand function.
Supervisor: Prochazka, Arthur
- * **Gwadry-Sridhar, Femida** (Clinical Epidemiology & Biostatistics, McMaster University)
A pilot trial of education and concordance in heart failure.
Supervisor: Guyatt, Gordon H.
Co-supervisor: Arnold, Malcolm J.
- **Han, Wei** (Medicine, University of Montreal)
Ion channel mRNA expression in cardiac Purkinje fibers compared to ventricular muscle.
Supervisor: Nattel, Stanley
- **Hao, Jianming** (Physiology, St. Boniface Hospital Research Centre)
TGF-beta signaling pathway during the development of cardiac fibrosis.
Supervisor: Dixon, Ian M.
- **Hurtado, Cecilia** (Physiology, St. Boniface Hospital Research Centre)
Role of Na⁺/Ca⁺⁺ exchange in ischemic-reperfusion injury to the heart.
Supervisor: Pierce, Grant N.
- * **Jasmin, Jean-Francois** (Médecine, Université de Montréal)
Caractérisation de l'activité de l'enzyme de conversion de l'endothéline.
Supervisor: Dupuis, Jocelyn
- **Jenkins, Alexandra L.** (Clinical Nutrition, St. Michael's Hospital)
Short and long term effects of American ginseng and Konjac mannan fiber on cardiovascular risk factors in type 2 diabetes.
Supervisor: Vuksan, Vladimir
- * **Ju, William** (Laboratory Medicine and Pathobiology, University of Toronto)
Mechanisms underlying GABA-A receptor trafficking and alterations following stroke.
Supervisor: Wang, Yu Tian
- * **Jung, Benjamin P.** (Cellular & Molecular Biology, Toronto Western Hospital)
Role of MBD3 in differentiation and delayed neuronal death
Supervisor: Eubanks, James H.
- * **Kassiri, Zamaneh** (Medicine, University of Toronto)
Role of Ito in myocyte hypertrophy in rat neonatal ventricular myocytes and the underlying mechanism(s).
Supervisor: Backx, Peter H.
- **Kelemen, Linda** (Medicine, McMaster University)
Evaluation of diet-gene interactions on CHD outcome in genetically susceptible populations.
Supervisor: Yusuf, Salim
- * **Khan, Rajal Y.** (Medicine, University of Toronto)
Epigenetic regulation and allelic diversity in the endothelin converting enzyme-1 (ECE-1) gene.
Supervisor: Marsden, Philip A.
- * **Kotecha, Suhas A.** (Physiology, University of Toronto)
Metabotropic glutamate receptor modulation of NMDA receptors.
Supervisor: MacDonald, John F.
- * **Kurata, Harley, T.** (Physiology, University of British Columbia)
Structural determinants of Kv1.5 inactivation.
Supervisor: Fedida, David

- **Labonte, Julie** (Pharmacologie, Université de Sherbrooke)
Études de la réactivité croisée endothéline-oxide nitrique dans la fonction plaquettaire.
Supervisor: D'Orléans-Juste, Pedro
- **Larrivee, Bruno** (Pathology and Laboratory Medicine, St. Paul's Hospital)
Role of VEGF and its receptors in endothelial cells differentiation and growth.
Supervisor: Karsan, Aly
- **Lau, Connie H. Y.** (Cardiovascular Research Division, Hospital for Sick Children)
Identification and characterization of RNA-binding proteins regulating elastin mRNA stability.
Supervisor: Keeley, Fred W.
- * **Lee, Si Tuen** (Anatomy and Cell Biology, University of Toronto)
Delineate the molecular mechanism elicits through a novel TGF-beta receptor, wishful thinking?
Supervisor: Attisano, Liliana
- * **Lear, Scott A.** (Pathology and Laboratory Medicine, University of British Columbia)
Extensive lifestyle management following cardiac rehabilitation
Supervisor: Frohlich, Jiri J.
- **Leary, Scot C.** (Biology, Queen's University)
Redox-sensitive signaling pathway is responsible for cytochrome-oxidase loss during bioenergetic stress.
Supervisor: Moyes, Christopher D.
- **Lessard, Andrée** (Physiologie, Université de Montréal)
Rôle des tachykinines et de leurs récepteurs dans les mécanismes centraux de régulation cardiovasculaire.
Supervisor: Couture, Réjean
- **Li, Bo** (Psychiatry, University of British Columbia)
Effects of calbindin on NMDA receptors: implication for stroke.
Supervisor: Raymond, Lynn A.
- * **Links, Philip** (Lipoprotein & Atherosclerosis Research Group, University of Ottawa Heart Institute)
ApoCIII expression increases triglyceride rich VLDL secretion.
Supervisor: Yao, Zemin
- **Liu, Pinggang** (Pharmacology, University of Saskatchewan)
Regulation of endothelin by angiotension II, vasopressin and insulin in rat cardiomyocytes.
Supervisor: Gopalakrishnan, Venkat
- **Lynch, Jeffrey M.** (Biochemistry, University of Alberta)
Regulation of calreticulin promoter and calcium homeostasis in cardiomyocytes.
Supervisor: Michalak, Marek
- * **Manske, Stephen R.** (Adult Education, University of Toronto)
Modelling knowledge utilization among health promotion agencies: The case of the national smoking prevention resource improving the odds.
Supervisor: Leithwood, Kenneth A.
- * **Marchand, Eve-Lyne** (Pharmacology, University of Montreal)
Molecular mechanisms of cardiovascular remodeling in response to anti-hypertensive drugs.
Supervisor: deBlois, Denis
- **Marxen, Michael** (Medical Biophysics, University of Toronto)
An analysis of perfusion by means of MRI.
Supervisor: Henkelman, Mark

- **McDonald, Paul C.** (Pathology and Laboratory Medicine, University of British Columbia)
Proteoglycan regulation in vascular smooth muscle cells: role in transplant vascular disease.
Supervisor: McManus, Bruce M.
- **Mcdonough, Jason** (Physiology, Queen's University)
Myofilament protein modification in myocardial ischemia/reperfusion.
Supervisor: Van Eyk, Jennifer E.
- **Melnyk, Peter** (Pathology, McGill University)
The spatial distribution of cardiac ion channels - a basis for functional specialization.
Supervisor: Nattel, Stanley
- **Mielke, John G.** (Laboratory Medicine, University of Toronto)
Mechanisms mediating depression of AMPA receptor mediated neuronal excitation by insulin.
Supervisor: Wang, Yu Tian
- **Moore, Heidi M.** (Pharmacology, Dalhousie University)
A voltage-sensitive release mechanism for cardiac contraction: regulation by protein kinases.
Supervisor: Ferrier, Gregory R.
- **Moses, Audric** (Medicine, University of Alberta)
Structural analysis of the active apolipoprotein complex in tyrosyl radical-oxidized HDL.
Supervisor: Francis, Gordon A.
- * **Mungrue, Imran** (Laboratory Medicine and Pathobiology, Toronto General Hospital)
Regulated over-expression of inducible nitric oxide synthase (iNOS) in the cardiovascular system of transgenic mice.
Supervisor: Husain, Mansoor
- **Netherton, Stuart J.** (Pharmacology & Toxicology, Queen's University)
Insulin-mediated regulation.
Supervisor: Maurice, Donald H.
- * **Newton, Derek C.** (Medicine, University of Toronto)
The relevance of human neuronal nitric oxide synthase to cerebrovascular and cardiovascular health and disease.
Supervisor: Marsden, Philip A.
- **Noga, Anna** (Biochemistry, University of Alberta)
The role of phosphatidylethanolamine N-methyltransferase derived phosphatidylcholine in very low density lipoprotein secretion.
Supervisor: Vance, Dennis E.
- **Pelletier, Stephane** (Pharmacology, University of Montreal)
Role of JAK/STAT pathway in the hypertrophic/chemotactic action of angiotensin II on vascular smooth muscle cells.
Supervisor: Meloche, Sylvain
- **Perry, Ryan J.** (Biochemistry and Molecular Biology, Dalhousie University)
The role of oxysterol binding protein in cellular cholesterol homeostasis.
Supervisor: Ridgway, Neale D.
- * **Poepping, Tamie L.** (Medical Biophysics, John P. Robarts Research Institute)
Investigation of flow in the stenosed carotid bifurcation.
Supervisor: Holdsworth, David W.
- * **Postovit, Lynne-Marie** (Anatomy and Cell Biology, Queen's University)
The effects of nitric oxide on trophoblast invasion: an etiological consideration in pre-eclampsia.
Supervisor: Graham, Charles H.

- **Pourrier, Marc** (Pharmacology, University of Montreal)
Molecular mechanisms underlying cardiac transient outward potassium current inactivation.
Supervisor: Nattel, Stanley
- **Ramirez, Rafael J.** (Physiology, University of Toronto)
Mathematical models of cardiac action potentials: implications for treatment and prevention of fibrillation.
Supervisor: Backx, Peter H.
- * **Ramsamy, Tanya A.** (Pathology and Laboratory Medicine, University of Ottawa Heart Institute)
Hepatic lipase, proteoglycans and lipoprotein metabolism.
Supervisor: Sparks, Daniel L.
- **Rashid, Shirya** (Medicine, Toronto General Hospital)
Investigation of the mechanism of HDL-cholesterol lowering in hypertriglyceridemic states.
Supervisor: Lewis, Gary F.
- * **Robb, G. Brett** (Medicine, University of Toronto)
Post-transcriptional regulation of endothelial nitric oxide synthase: contribution of the 3'-untranslated region.
Supervisor: Marsden, Philip A.
- * **Regula, Kelly M.** (Physiology, University of Manitoba)
The molecular mechanisms of Bc12 signaling in the heart.
Supervisor: Kirshenbaum, Lorrie A.
- **Rose, Robert A.** (Physiology & Biophysics, University of Calgary)
Effects of C-type natriuretic peptide in the heart.
Supervisor: Giles, Wayne R.
- * **Ruel, Isabelle** (Nutrition, Laval University)
Étude de la déficience en lipase hépatique dans le métabolisme des lipoprotéines chez l'humain.
Supervisor: Lamarche, Benoit
- **Segall, Laura** (Medicine and Biochemistry, Montreal General Hospital Research Institute)
Studies of the isoform-specific properties of the Na, K-ATPase, with emphasis on the alpha2 and alpha3 catalytic subunits.
Supervisor: Blostein, Rhoda
- **St-Pierre, Annie** (Nutrition, Université Laval)
Risques cardio-vasculaires associés à la taille des LDL et au syndrome d'insulino-resistance.
Supervisor: Lamarche, Benoit
- * **St. Pierre, Julie** (Physiology, Laval University)
Genetic susceptibilities of cardiovascular disease among type2 diabetes mellitus and abdominally obese insulin-resistant subjects.
Supervisor: Després, Jean-Pierre
- * **Stark, Kenneth D.** (Human Biology & Nutritional Science, University of Guelph)
The effects of omega-3 fatty acids and soy phytoestrogens on cardiovascular disease risk factors in post-menopausal women.
Supervisor: Holub, Bruce J.
- **Sterling, Deborah A.** (Physiology, University of Alberta)
Role and regulation of cardiac Cl/HCO₃ exchange proteins.
Supervisor: Casey, Joseph
- **Sussman, Marshall** (Medical Biophysics, University of Toronto)
Accurate magnetic resonance (MR) coronary angiography through improved motion compensation

techniques.

Supervisor: Wright, Graham

- **Szado, Tania** (Pharmacology and Therapeutics, University of British Columbia)
The role of SR in regulation of tonic contraction of the rabbit basilar artery.
Supervisor: Van Breemen, Casey
- **Sturk, Celina** (Cancer Biology Research, Sunnybrook Health Science Centre)
Determine a biological role for Grb7 and Grb14 in Tek/Tie2 mediated endothelial biology.
Supervisor: Dumont, Daniel J.
- **Taillefer, Marie-Christine** (Psychologie, Université du Québec à Montréal)
Qualité de vie périopératoire des valvulaires selon leur sexe et leur âge.
Supervisor: Dupuis, Gilles
- **Tang, Guanghua** (Physiology, University of Saskatchewan)
Voltage-dependent K⁺ channels in vascular smooth muscle cells in hypertension.
Supervisor: Wang, Rui
- * **Teichert, Anouk-Martine** (Medicine, University of Toronto)
In vivo regulation of the eNOS gene: a role for transcriptional and posttranscriptional modification.
Supervisor: Marsden, Philip A.
- **Tessier, Sophie** (Centre de recherche en santé humaine, Université de Québec)
Caractérisation du domaine de liaison du récepteur ET-A de l'endothéline par photomarquage.
Supervisor: Fournier, Alain
- **Thomson, Christy A.** (Biochemistry, McMaster University)
Structure-function studies on Hsp47: A molecular chaperone for collagen.
Supervisor: Ananthanarayanan, Vettai S.
- **Tilley, Douglas G.** (Pharmacology & Toxicology, Queen's University)
In vivo regulation of cyclic nucleotide phosphodiesterase expression by cAMP: A mechanistic study.
Supervisor: Maurice, Donald H.
- **Ton, Christopher** (Laboratory Medicine and Pathobiology, University of Toronto)
Development of an integrated cDNA microarray for the zebrafish.
Supervisor: Liew, C.C.
- * **Tran, Jennifer** (Laboratory Medicine and Pathobiology, University of Toronto)
Survival of vascular endothelial cells mediated by angiogenic growth factors.
Supervisor: Kerbel, Robert S.
- **Tremblay, Sandra** (Biomedical Sciences, University of Montreal)
Study on the regulation of expression of HCaRG, a novel gene involved in cell proliferation and differentiation.
Supervisor: Tremblay, Johanne
- * **Vogt, Janet A.** (Nutritional Sciences, University of Toronto)
Influence of colonic acetate and propionate on blood cholesterol levels
Supervisor: Wolever, Thomas M.S.
- **Voskas, Daniel** (Medical Biophysics, University of Toronto)
The role of Tek/Tie2 signalling in cardiovascular development.
Supervisor: Dumont, Daniel J.
- **Wang, Wenjie** (Pharmacology & Pediatrics, University of Alberta)
Matrix metalloproteinases in myocardial ischemia-reperfusion injury.
Supervisor: Schulz, Richard

- * **Washburn, David** (Physiology, Queen's University)
Electrophysiological effects of calcium receptor activation in subfornical organ neurons.
Supervisor: Ferguson, Alastair
- * **Xue, Mengzhou** (Pathology, University of Manitoba)
Intracerebral hemorrhage and inflammation, cell death.
Supervisor: Del Bigio, Marc R.
- * **Yanagawa, Robert** (Pathology & Laboratory Medicine, University of British Columbia)
Host cell signalling following coxsackievirus B3 infection: Elucidation of anti-apoptotic and hypertrophic mechanisms.
Supervisor: McManus, Bruce M.
- * **Zettler, Marjorie E.** (Physiology, St. Boniface Hospital Research Centre)
The role of cell proteins in atherosclerosis.
Supervisor: Pierce, Grant N.