

2002/2003 Doctoral Research Award

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

- **Adhihetty, Peter J.** (Kinesiology & Health Science, York University)
Contractile activity-induced changes associated with apoptosis in skeletal and cardiac myocytes.
Supervisor: Hood, David A.
- **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
- **An, Phuong (Mary) T.** (Physiology and Biophysics, University of Calgary)
Molecular determinants of T-type calcium channel inactivation.
Supervisor: Zamponi, Gerald W.
- **Arrell, Kent David** (Physiology, Queen's University)
Proteomic analysis of pharmacological preconditioning.
Supervisor: Van Eyk, Jennifer E.
- **Atkins, Ross** (Biology & Biochemistry, University of Victoria)
Integrin function in the migration of cardiac neural crest cells.
Supervisor: Burke, Robert D.
- **Balasubramaniam, Janani** (Pathology, University of Manitoba)
[Focus on Stroke Training Initiative Award](#)
Time and age dependent responses following intracerebral hemorrhage in rodent brain.
Supervisor: Del Bigio, Marc R.
- **Bandali, Karim S.** (Physiology, University of Toronto)
The effects of hyperoxia on the neonatal heart and its mechanism.
Supervisor: Wittnich, Carin
- **Beauchamp, Marie-Claude** (Nutrition, Université de Montréal)
Rôle des produits terminaux de glycation (AGEs) dans la surexpression de la lipoprotéine lipase macrophagique dans le diabète de type 2.
Supervisor: Renier, Genevieve
- **Benchabane, Hassina** (Molecular Biology and Cancer, Mount Sinai Hospital)
Regulation of Smad7 transcription through BMP signalling.
Supervisor: Wrana, Jeffrey
- **Becker, Lev** (Biochemistry, Queen's University)
Assembly of lipoprotein (a) particles.
Supervisor: Koschinsky, Marlys L.
- **Bernier, Virginie** (Médecine, Hôpital du Sacré-Coeur)
Des chaperons pharmacologiques pour traiter le diabète insipide néphrogénique.
Supervisor: Bichet, Daniel G.
- **Bhagat, Yusuf A.** (Biomedical Engineering, University of Alberta)
[Focus on Stroke Training Initiative Award](#)
Diffusion tensor magnetic resonance imaging of clinical stroke.
Supervisor: Beaulieu, Christian
- **Brown, Kelly L.** (Microbiology and Immunology, University of British Columbia)
Molecular mechanisms that control CD44 binding to hyaluronan.
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
- **Boucard, Antony A.** (Pharmacologie, Université de Sherbrooke)
Elucidation des interactions ligand-récepteur pour les GPCR à ligands peptidiques.
Supervisor: Leduc, Richard
- **Butler, Beverly C.** (Psychology, Queen Elizabeth II Health Science Centre)
Attention and motor interactions in neglect subjects and controls.
Supervisor: Eskes, Gail
- **Cardin, Sophie** (Centre de Recherche, Institut de Cardiologie de Montréal)
Changement de l'expression génique au cours du remodelage auriculaire et ventriculaire induit par l'insuffisance cardiaque.
Supervisor: Nattel, Stanley
- **Chan, Jason R.** (Laboratory Medicine and Pathobiology, University of Toronto)
Role of $\alpha4\beta1$ integrin affinity in early stages of leukocyte emigration.
Supervisor: Cybulsky, Myron
- **Charest, Pascale** (Biochemistry, University of Montreal)
Study of palmitoylation and its molecular determinants in G protein-coupled receptors.
Supervisor: Bouvier, Michel
- **Chen, Tim T.** (Pharmacology and Therapeutics, University of Calgary)
Vascular smooth muscle delayed rectifier K^+ channel regulation of resistance arterial diameter.
Supervisor: Cole, William C.
- **Cheng, Xing** (Pharmacology & Therapeutics, University of British Columbia)
Abnormal response to vasoactive agents in pulmonary hypertension.
Supervisor: Pang, Catherine C.Y.
- **Choi, Hong Y.** (Medicine, University of Alberta)
Apolipoprotein-mediated lipid efflux from arterial smooth muscle cells.
Supervisor: Francis, Gordon A.
- **Cimini, Massimo** (Medicine, London Health Sciences Centre)
Cellular phenotypes of the aortic heart valve in health and disease.
Supervisor: Boughner, Derek R.
- **Colantonio, David A.** (Physiology, Queen's University)
Detection of cardiac troponin I in patients with acute coronary syndromes.
Supervisor: Van Eyk, Jennifer E.
- ***Con, Andrea H.** (Applied Psychology, University of Calgary)
Psychosocial predictors of pain and functional impairment in patients recovering from coronary artery bypass graft surgery.
Supervisor: Hiebert, Bryan
- **Cooper, Conan B.** (Physiology & Biophysics, University of Calgary)
Molecular determinants of G-protein binding to N-type Ca channels.
Supervisor: Zamponi, Gerald W.
- **Crawley, Scott W.** (Biochemistry, Queen's University)
Phosphorylation of caldesmon by Ca^{2+} /calmodulin-dependent kinase III.
Supervisor: Côté, Graham P.

- ***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
- **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.
- **Denis, Maxime** (Medicine, McGill University)
Molecular and cellular regulation of cholesterol efflux.
Supervisor: Genest, Jacques Jr.
- ***Der Sarkissian, Shant** (Pharmacology, University of Montreal)
Pharmacological control of cardiovascular remodeling and correction of endothelial dysfunction.
Supervisor: deBlois, Denis
- **Dibattista, Emily R.** (Biochemistry, University of Alberta)
Structure function analysis of the mammalian Na⁺/H⁺ exchanger isoform 1.
Supervisor: Fliegel, Larry
- **Dodds, Marnie L.** (Physiology and Biophysics, University of Calgary)
Regulation of cardiac sarcoplasmic reticulum by anions.
Supervisor: Kargacin, Gary J.
- **Dunkerley, Heather** (Pharmacology & Toxicology, Queen's University)
Loss of cyclic nucleotide phosphodiesterase3 expression in cultured and neointimal vascular smooth muscle cells.
Supervisor: Maurice, Donald H.
- **Edwards, Michael R.** (Kinesiology, University of Waterloo)
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The effects of blood pressure and carbon dioxide on dynamic cerebral autoregulation.
Supervisor: Hughson, Richard L.
- **Elias, Chadwick L.** (Physiology, Toronto General Hospital)
Inhibition of Na-Ca exchange by KB-R7943: mechanism of mode selectivity.
Supervisor: Backx, Peter H.
- **Esmail, Muneer** (Molecular Biology and Biochemistry, Simon Fraser University)
Functional characterization of a novel putative molecular chaperone associated with Bardet-Biedl syndrome.
Supervisor: Leroux, Michel R.
- **Garcia, Damien** (Biomedical Engineering, IRCM)
Hemodynamic study of the aortic stenosis by doppler echocardiography.
Supervisor: Durand, Louis-Gilles
- **Georges, Romain** (Développement de différenciation cardiaques, Institut de recherches cliniques de Montréal)
Facteur de transcription GATA-4 et hypertrophie ventriculaire.
Supervisor: Nemer, Mona
- ***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
- **Hurtado, Cecilia** (Physiology, University of Manitoba)
Role of sodium-calcium exchange and sodium hydrogen exchange in ischemia-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
- **Kassiri, Zamaneh** (Physiology, University of Toronto)
Role of transient outward K⁺ current (ITO) in triggering cardiac hypertrophy in murine model.
Supervisor: Backx, Peter H.
- **Labonté, Julie** (Pharmacologie, Université de Sherbrooke)
Études de la réactivité croisée endothéline-oxide nitrique dans la fonction plaquettaire.
Supervisor: D'Orléans-Juste, Pedro
- **Larrivée, Bruno** (Pathology and Laboratory Medicine, St. Paul's Hospital)
Role of VEGF and its receptors in endothelial cell differentiation and growth.
Supervisor: Karsan, Aly
- **Lee, Joanne S.Y.** (Laboratory of Medicine and Pathobiology, University of Toronto)
Microtubules regulate actin organization and distribution of focal adhesions and adherens junctions.
Supervisor: Gotlieb, Avrum I.
- ***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
- **Lessard, Andrée** (Physiologie, Université de Montréal)
Rôle des tachykinines et de leurs récepteurs dans les mécanismes centraux de régulation cardiovasculaire.
Supervisor: Couture, Réjean
- **Liang, Willmann** (Pharmacology & Therapeutics, University of British Columbia)
Calcium signaling of valvular myofibroblasts and endothelium in human cardiac valvular disease.
Supervisor: Van Breemen, Casey
- **Liu, Pinggang** (Pharmacology, University of Saskatchewan)
Regulation of endothelin by angiotension II, vasopressin and insulin in rat cardiomyocytes.
Supervisor: Gopalakrishnan, Venkat
- **Liu, Yitao** (Physiology, University of British Columbia)
[Focus on Stroke Training Initiative Award](#)
AMPA trafficking in models of cerebral ischemia.
Supervisor: Wang, Yu Tian
- **Lynch, Jeffrey M.** (Biochemistry, University of Alberta)
Regulation of calreticulin promoter and calcium homeostasis in cardiomyocytes.
Supervisor: Michalak, Marek

- **MacKenzie, Cheri L.** (Kinesiology, McMaster University)
Isometric handgrip training and arterial pressure reduction: effects and mechanisms.
Supervisor: McCartney, Neil
- **Melnyk, Peter** (Pathology, McGill University)
The spatial distribution of cardiac ion channels: a basis for functional specialization.
Supervisor: Nattel, Stanley
- **Michaud, Sophie Élise** (Sciences Biomédicales, Université de Montréal)
Angiogenèse et ischémie vasculaire: Rôle du tabagisme.
Supervisor: Rivard, Alain
- **Mullaly, Sarah C.** (Physiology & Biophysics, University of Calgary)
CD14, TLR4, P38 and leukocyte recruitment in shock.
Supervisor: Kubes, Paul
- ***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.
- **Pelletier, Stephane** (Pharmacology, University of Montreal)
Role of the Jak/STAT pathway in hypertrophic and chemotactic actions 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.
- **Pourrier, Marc** (Pharmacology, University of Montreal)
Molecular mechanisms underlying cardiac transient outward potassium current inactivation.
Supervisor: Nattel, Stanley
- **Quiniou, Christiane** (Pédiatrie, Hôpital Ste-Justine)
Mécanisme de la mort cellulaire endothéliale microvasculaire causée par le thromboxane.
Supervisor: Chemtob, Sylvain
- **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 & 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 mechanisms of HDL-cholesterol lowering in hypertriglyceridemic states.
Supervisor: Lewis, Gary F.
- **Rose, Robert A.** (Physiology & Biophysics, University of Calgary)
Effects of C-type natriuretic peptide in the heart.
Supervisor: Giles, Wayne R.

- ***Ruel, Isabelle** (Nutrition, Université Laval)
Étude de la déficience en lipase hépatique dans le métabolisme des lipoprotéines chez l'humain.
Supervisor: Lamarche, Benoit
- **Sabati, Mohammad R.** (Radiology & Clinical Neurosciences, University of Calgary)
Interactive large field-of-view peripheral magnetic resonance angiography.
Supervisor: Frayne, Richard
- **Segall, Laura** (Biochemistry, Montreal General Hospital)
Na, K-ATPase: mechanism and isoform-specific properties.
Supervisor: Blostein, Rhoda
- **Smith, Robin H.** (Pharmacology, Dalhousie University)
Cardiac excitation - contraction coupling in a transgenic model of heart failure.
Supervisor: Ferrier, Gregory R.
- **St-Pierre, Annie** (Nutrition, Centre hospitalier de l'Université Laval)
Risques cardio-vasculaires associés à la taille des LDL et au syndrome d'insulino-resistance.
Supervisor: Lamarche, Benoit
- ***Sturk, Celina** (Cancer Biology Research, Sunnybrook and Women's Health Sciences Centre)
Determine a biological role for Grb7 and Grb14 in Tek/Tie2 mediated endothelial biology.
Supervisor: Dumont, Daniel J.
- **Sun, Hong-Shuo** (Physiology and Biophysics, University of Calgary)
[Focus on Stroke Training Initiative Award](#)
Neuroprotective role of K(ARP)-channels of interneurons and neuroglia in stroke using knockout-mice.
Supervisor: French, Robert J.
- ***Taillefer, Marie-Christine** (Psychosomatique, Institut de Cardiologie de Montréal)
Qualité de vie pré.-post. chirurgie valvulaire.
Supervisor: Dupuis, Gilles
- **Tang, Guanghua** (Physiology, University of Saskatchewan)
Voltage-dependent K⁺ channels in vascular smooth muscle cells in hypertension.
Supervisor: Wang, Rui
- **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)
Microarray analysis of zebrafish development.
Supervisor: Liew, C.C.
- **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

- **Truong, To-Quyen** (Sciences Biologiques, Université du Québec à Montréal)
Rôle des cavéoles dans le métabolisme du cholestérol.
Supervisor: Brisette, Louise
- **Villar, Juan C.** (Cardiology, McMaster University)
Cardiovascular investigation to assess the markers and outcomes of Chagas' disease.
Supervisor: Yusuf, Salim
- **Voskas, Daniel** (Medical Biophysics, University of Toronto)
The role of Tek/Tie2 signalling in cardiovascular development.
Supervisor: Dumont, Daniel J.
- **Wang, Jiaxu** (CIHR Group in Matrix Dynamics, University of Toronto)
Regulation of alpha-smooth muscle actin (SMA) by mechanical force in cardiac hypertrophy.
Supervisor: McCulloch, Christopher A.
- **Wilson, Timothy D.** (Kinesiology, University of Western Ontario)
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The sympathetic nervous system and cerebrovascular control.
Supervisor: Shoemaker, J. Kevin
- **Wong, C. Guin Ting** (Brain and Behaviour, Hospital for Sick Children)
PI3 kinase transgenic mice: AMPA receptors and ischemic cell death.
Supervisor: Snead, Orlando Carter
- **Wu, Feng** (Physiology & Medical Biophysics, University of Western Ontario)
Oxidants potentiate iNOS induction in sepsis: effect of ascorbate.
Supervisor: Wilson, John X.
- **Yang, Li** (Laboratory Medicine & Pathology, St. Michael's Hospital)
Conditional cardiac overexpression of endothelin-1 in transgenic mice.
Supervisor: Stewart, Duncan J.