

## 1999/2000 Research Trainees

\* Applicants who are funded via the MRC/HSFC Partnership Challenge Fund.

- **Abu-Abed, Mona** (Medical Research, University of Toronto)  
*Structural analysis of cytoplasmic domains of sarco(endo)plasmic reticulum calcium ATPase.*  
Supervisor: MacLennan, David H.
- \* **Ahmed, Sara** (Epidemiology & Biostatistics, McGill University)  
*The development of a quality of life measure for stroke.*  
Supervisor: Mayo, Nancy E.
- **Arikawa, Emi** (Pharmacology & Toxicology, University of British Columbia)  
*Role of endothelin-1 in coronary arteries from diabetic rats.*  
Supervisor: McNeill, John H.
- **Barbot, Lionel.** (Physiologie, Université de Montréal)  
*Etudes des tachykinines et de leurs récepteurs dans les mécanismes périphériques de régulation cardio-vasculaire.*  
Supervisor: Couture, Réjean
- **Bellingham, Catherine** (Cardiovascular Research, Hospital for Sick Children)  
*The development of elastin-based biomaterials.*  
Supervisor: Keeley, Fred W.
- **Borradaile, Nica M.** (Pharmacology & Toxicology, University of Western Ontario)  
*Regulation of lipoprotein metabolism by citrus flavonoids.*  
Supervisor: Huff, Murray W.
- **Briand, Sandie I.** (Pharmacologie, Université de Sherbrooke)  
*Phosphorylation du récepteur AT4 des cellules endothéliales d'aorte de boeuf.*  
Supervisor: Guillemette, Gaétan
- **Cayabyab, Francisco S.** (Physiology, University of Toronto)  
*Ion channel regulation in microglia following cerebral ischemia: oxidative stress and neuroprotection.*  
Supervisor: Schlichter, Lyanne C.
- **Chauhan, Vinita** (Laboratory of Immunology, University of Ottawa Heart Institute)  
*Binding of lipoproteins to the low density lipoprotein receptor.*  
Supervisor: Milne, Ross W.
- **Chulak, Chantal** (Physiology, University of Montreal)  
*Interaction between endothelial and sympathetic control of vascular function.*  
Supervisor: de Champlain, Jacques
- \* **Cronin, Lisa** (Cardiology, McMaster University)  
*Development and validation of risk models for prognosis and patient management in unstable coronary artery disease.*  
Supervisor: Yusuf, Salim
- **Crowley, Christine** (Pharmacology & Therapeutics, University of British Columbia)  
*Novel extracellular calcium store in human blood vessels.*  
Supervisor: Van Breemen, Cornelis (Casey)
- **Cunningham, Michael A.** (Pathology, McMaster University)  
*Mutagenic separation of elastase-sensitive and thrombin-inhibitory reactive centre loop sequences of serpins.*  
Supervisor: Sheffield, William P.

- **Czubryt, Michael P.** (Physiology, St. Boniface General Hospital Research Centre)  
*Nuclear protein import in aortic vascular smooth muscle cells.*  
Supervisor: Pierce, Grant N.
- **D'Souza, Sandra** (Laboratory Medicine, University of Toronto)  
*Translocation of GABA-A receptors in brain ischemia.*  
Supervisor: Wang, Yu Tian
- **Dai, Ken-Shwo** (Laboratory Medicine, University of Toronto)  
*Identification and characterization of zinc finger protein genes in human cardiovascular system.*  
Supervisor: Liew, C.C.
- **Davidoff, Allen W.** (Medicine, University of Calgary)  
*Excitation-contraction coupling in rats with failing hearts.*  
Supervisor: ter Keurs, Henk E.D.J.
- **Dempsey, Adam A.** (Laboratory Medicine, University of Toronto)  
*Identification & characterization of differentially expressed genes during murine cardiogenesis.*  
Supervisor: Liew, C.C.
- **Ding, Hong** (Pharmacology & Therapeutics, University of Calgary)  
*Role of nitric oxide/prostacyclin-independent mechanisms in endothelium-dependent vasorelaxation.*  
Supervisor: Triggle, Christopher R.
- **Drolet, Benoit** (Centre de Recherche, Hôpital Laval)  
*Pharmacologie du syndrome du long QT acquis: évaluation électrophysiologique.*  
Supervisor: Turgeon, Jacques
- **Dunn, Jeremy** (Medical Biochemistry, University of Calgary)  
*Characterization of the sodium/calcium exchanger isoforms functions and inhibition.*  
Supervisor: Lytton, Johnathan
- **El Mabrouk, Mohammed** (Institut de recherches cliniques de Montréal)  
*Rôle de l'activation des MAP kinases dans les voies impliquées dans la croissance du muscle lisse vasculaire dans l'hypertension.*  
Supervisor: Schiffrin, Ernesto
- **Farmer, Pierre** (Pharmacologie, Université de Sherbrooke)  
*Effet des médiateurs responsables du développement de l'athérosclérose sur l'intégrité endothéliale.*  
Supervisor: Sirois, Pierre
- **Feeney, Christopher J.** (Pharmacy, University of Toronto)  
*Free radical-induced damage in cultured rat hippocampal astrocytes.*  
Supervisor: Pennefather, Peter
- **Fisher, Carl A.** (Biochemistry, University of Alberta)  
*Structure-function studies of human apolipoprotein E.*  
Supervisor: Ryan, Robert O.
- **\* 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** (Medical Biophysics, Sunnybrook Health Sciences Centre)  
*MR oximetry for coronary flow reserve measurements in ischemic heart disease.*  
Supervisor: Wright, Graham
- **Gendron, Fernand-Pierre** (Biologie, Université de Sherbrooke)  
*Rôle de l'ATP diphosphohydrolase dans le système circulatoire.*  
Supervisor: Beaudoin, Adrien R.

- **Gillis, Todd** (Kinesiology, Simon Fraser University)  
*Molecular mechanism for temperature dependent calcium sensitivity in the cardiac contractile protein troponin C.*  
Supervisor: Tibbits, Glen
- **Girouard, Hélène** (Physiologie, Université de Montréal)  
*Rôle des radicaux libres dans l'hypertension artérielle.*  
Supervisor: de Champlain, Jacques
- **Granville, David** (Pathology, St. Paul's Hospital)  
*Molecular mechanisms of coxsackievirus-induced cytopathic effect involved in myocarditis.*  
Supervisor: McManus, Bruce M.
- \* **Gwadry-Sridhar, Femida** (Clinical Epidemiology & Biostatistics, McMaster University)  
*Trial of education and concordance in heart dysfunction (TEACH).*  
Supervisor: Guyatt, Gordon H.  
Co-supervisor: Arnold, Malcolm J.
- **Hennan, James K.** (Pharmaceutical Science, University of British Columbia)  
*Role of cGMP and cGMP-dependent protein kinase in vascular smooth muscle tone.*  
Supervisor: Diamond, Jack
- **Ivanov, Joan** (Medicine, Sunnybrook Health Science Centre)  
*Risk-adjustment methods for improved assessment of outcomes of cardiac surgery.*  
Supervisor: Naylor, C. David
- \* **Ju, William** (Laboratory Medicine & Pathobiology, University of Toronto)  
*Neuroprotective roles of PI3-kinase in ischemic neuronal injury.*  
Supervisor: Wang, Yu Tian
- **Jutras, Isabelle** (Laboratory of Molecular Biochemistry of Hypertension, IRCM)  
*Mechanism of prorenin processing.*  
Supervisor: Reudelhuber, Timothy L.
- \* **Kassiri, Zamaneh** (Medicine, University of Toronto)  
*Genetic composition of transient outward K<sup>+</sup> current (I<sub>to</sub>) and its role in development and progression of heart disease in murine model.*  
Supervisor: Backx, Peter H.
- **Kelemen, Linda** (Medicine, McMaster University)  
*Evaluation of diet-gene interactions on CHD outcome in genetically susceptible populations.*  
Supervisor: Yusuf, Salim
- **Khaper, Neelam** (Physiology, University of Manitoba)  
*Molecular characterization of oxidative stress changes and their significance in congestive heart failure.*  
Supervisor: Singal, Pawan K.
- \* **Lear, Scott A.** (Pathology & Laboratory Medicine, University of British Columbia)  
*Extensive lifestyle management following cardiac rehabilitation.*  
Supervisor: Frohlich, Jiri
- **Lemieux, Isabelle** (Centre de Recherche, Centre Hospitalier de l'Université Laval)  
*Tailles et densité des lipoprotéines de faible densité (LDL): complications métaboliques et risque de cardiopathie ischémique.*  
Supervisor: Després, Jean-Pierre
- **Lessard, Andrée** (Physiologie, Université de Montréal)  
*Rôle des tachykinines et de leurs récepteurs dans les mécanismes centraux de régulation*

*cardiovasculaire.*

Supervisor: Couture, Réjean

- **Li, Timao** (Physiology, University of Manitoba)  
*Time-course of changes in antioxidant enzyme activities and gene expression in adriamycin-cardiomyopathy.*  
Supervisor: Singal, Pawan K.
- **Losito, Vito A.** (Pathology, Hospital for Sick Children)  
*Studies in the electrophysiology of ischemic preconditioning: role of chloride channels.*  
Supervisor: Wilson, Gregory J.
- **Mackay-Lyons, Marilyn J.** (Physiology & Biophysics, Dalhousie University)  
*Longitudinal study of cardiovascular and metabolic responses to treadmill exercise testing early after stroke.*  
Supervisor: Makrides, Lydia
- **Maj, Mary C.** (Biochemistry, McMaster University)  
*Enzymatic mechanism and structure-activity studies on mammalian of adenosine kinase.*  
Supervisor: Gupta, Radhey S.
- **\* 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.
- **Marxen, Michael** (Medical Biophysics, Sunnybrook Health Science Centre)  
*An analysis of perfusion by means of MRI.*  
Supervisor: Henkelman, Mark
- **\* Mawji, Imtiaz A.** (Laboratory Medicine & Pathobiology, University of Toronto)  
*The post-transcriptional regulation of human preproendothelin-1.*  
Supervisor: Marsden, Philip A.
- **McDonald, Paul C.** (Pathology, St. Paul's Hospital)  
*The role of proteoglycans and lipids in transplant vascular disease.*  
Supervisor: McManus, Bruce M.
- **McDonough, Jason** (Physiology, Queen's University)  
*Molecular mechanisms of myocardial ischemia/reperfusion injury.*  
Supervisor: Van Eyk, Jennifer E.
- **McManus, Daniel C.** (Pathology, University of Ottawa Heart Institute)  
*In vivo structure/function relationships of human apolipoprotein A-I by adenovirus-mediated gene transfer.*  
Supervisor: Marcel, Yves L.
- **Melnyk, Peter** (Pharmacology, McGill University)  
*The spatial distribution of cardiac ion channels: a basis for functional specialization.*  
Supervisor: Nattel, Stanley
- **Mohan, Ravi M.** (University Laboratory of Physiology, University of Oxford)  
*Nitric oxide and heart rate control: effect of exercise training and ischemia.*  
Supervisor: Paterson, David
- **Moore, Heidi M.** (Pharmacology, Dalhousie University)  
*A voltage-sensitive release mechanism for cardiac contraction: regulation by protein kinase.*  
Supervisor: Ferrier, Gregory R.

- **Noria, Sabrena F.** (Vascular Research Laboratory, Toronto Hospital Research Institute)  
*Shear stress-related tyrosine phosphorylation in endothelial cells.*  
Supervisor: Gotlieb, Avrum I.
- **O'Leary, Deborah** (Kinesiology, University of Waterloo)  
*Arterial baroreceptor control of heart rate and vascular responses in elderly women.*  
Supervisor: Hughson, Richard L.
- **\* Poepping, Tamie L.** (Medical Biophysics, John P. Robarts Research Institute)  
*Investigation of flow in the stenosed carotid bifurcation.*  
Supervisor: Holdsworth, David W.
- **Prescott, Gary** (Molecular Biology, IRCM)  
*Characterization and function of renin uptake in tissues.*  
Supervisor: Reudelhuber, Timothy L.
- **Rezvani, Mojgan** (Medical Sciences, University of Toronto)  
*Identification and characterization of cardiovascular genes involved in cardiovascular development and disease.*  
Supervisor: Liew, C.C.
- **\* Rhéaume, Caroline** (Médecine, Université Laval)  
*La relation entre la sensibilité à l'insuline et le débit sanguin des muscles squelettiques chez des sujets normotendus et hypertendus.*  
Supervisor: Cléroux, Jean
- **\* Robb, G. Brett** (Medicine, University of Toronto)  
*Post-transcriptional regulation of human endothelial nitric oxide synthase (eNOS) gene expression: contribution of the 3'-untranslated region.*  
Supervisor: Marsden, Philip A.
- **Rocnik, Edward** (Medicine, Robarts Research Institute)  
*Studies of a novel collagen-binding molecular chaperone in vascular smooth muscle cells.*  
Supervisor: Pickering, J. Geoffrey
- **Rupert, Jim** (Zoology, University of British Columbia)  
*Genetic influences on blood viscosity in American Indian populations.*  
Supervisor: Hochachka, Peter W.
- **\* St. Pierre, Julie** (Physiology, Laval University)  
*Association between genetic variants in protein kinase C (PKC)  $\beta$ I and  $\beta$ II genes and the development of type II diabetes, cardiovascular disease and insulin resistance.*  
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 chloride/ bicarbonate exchange proteins.*  
Supervisor: Casey, Joseph
- **Stewart, Ronald J.** (Medicine, Hamilton Civic Hospitals Research Centre)  
*Characterizing the stimulatory ability and binding of fibrin(ogen) derivatives to plasminogen and fibrin-specific plasminogen activators.*  
Supervisor: Weitz, Jeffrey I.
- **Sussman, Marshall** (Sunnybrook & Women's College Health Sciences Centre)  
*Accurate magnetic resonance (MR) coronary angiography through improved motion compensation*

*techniques.*

Supervisor: Wright, Graham

- **Szado, Tania.** (Pharmacology & Therapeutics, University of British Columbia)  
*Calcium signaling in freshly isolated smooth muscle cells from human saphenous vein and internal mammary artery.*  
Supervisor: Van Breemen, Cornelis
- **Temsah, Rana.** (Physiology, University of Manitoba)  
*Alterations in cardiac sarcoplasmic reticulum function and gene expression in ischemia-reperfusion injury.*  
Supervisor: Dhalla, Naranjan S.
- **Thifault, Stéphane** (Neurologie, Hôtel-Dieu de Montreal)  
*Evaluation pharmacogénétique des déficits comportementaux des souris hypertendues et hypotendues.*  
Supervisor: Lalonde, Robert
- **Thompson, Roger J.** (Biology, McMaster University)  
*Developmental regulation of O<sub>2</sub>-chemoreception in rat adrenal chromaffin cells.*  
Supervisor: Nurse, Colin A.
- **Turgeon, Benjamin** (Centre de recherche, Centre hospitalier de l'Université de Montréal)  
*Rôle de l'inhibiteur p27Kip1 dans la réponse phénotypique des CMLV.*  
Supervisor: Meloche, Sylvain
- **Veerasingham, Shereeni J.** (Hypertension Unit, University of Ottawa Heart Institute)  
*Hypothalamic nuclei that mediate salt-sensitive hypertension.*  
Supervisor: Leenen, Frans H.H.
- **\* Vogt, Janet A.** (Nutritional Sciences, University of Toronto)  
*Influence of colonic acetate and propionate on blood cholesterol levels.*  
Supervisor: Wolever, Thomas M.S.
- **Wang, Xi** (Cardiovascular Sciences, St. Boniface General Hospital Research Centre)  
*Regulation of B-adrenergic mechanisms in cardiac hypertrophy and failure.*  
Supervisor: Dhalla, Naranjan S.
- **Whang, Daniel** (Medicine, John P. Robarts Research Institute)  
*Novel genes associated with differentiation of human vascular smooth muscle cells.*  
Supervisor: Pickering, J. Geoffrey
- **Wu, Lingyun** (Physiology, University of Saskatchewan)  
*Vascular actions of angiotensin II and endothelin-1.*  
Supervisor: de Champlain, Jacques