

CARDIOVASCULAR SCIENCES COLLABORATIVE PROGRAM

Faculty of Medicine, University of Toronto

ANNUAL REPORT **2011 – 2012**

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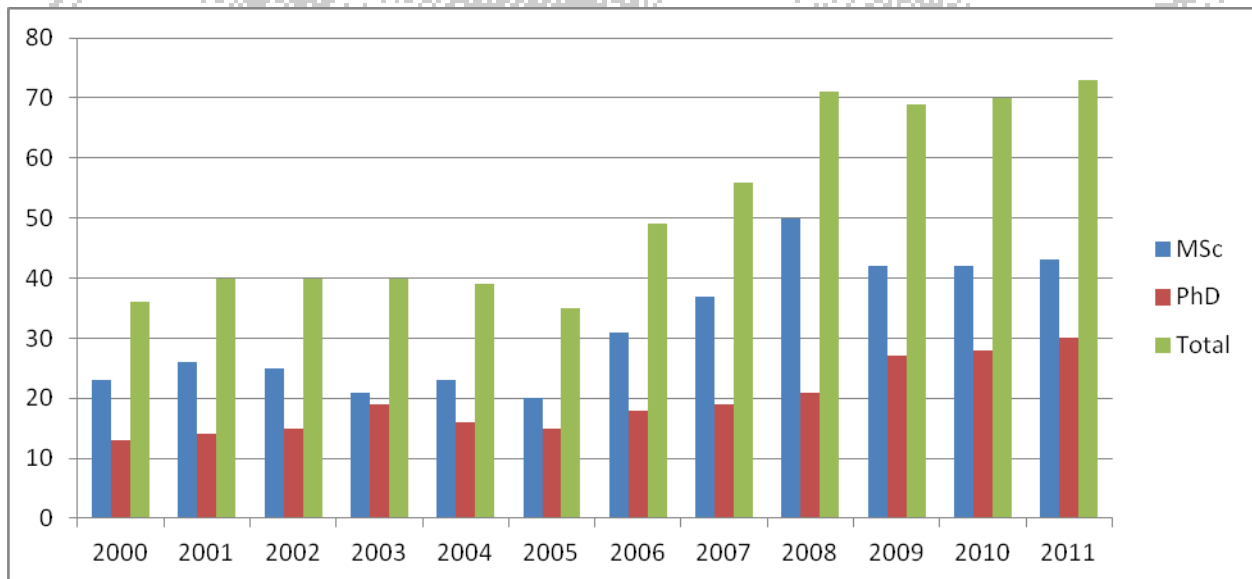
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DIRECTOR'S MESSAGE



It is my pleasure to present this annual report highlighting the Cardiovascular Sciences Collaborative Program's (CSCP) activities and accomplishments for the 2011-2012 academic year. Ongoing financial and in-kind support from the Heart & Stroke/ Richard Lewar Centre of Excellence, Faculty of Medicine, and Medtronic Canada allowed the CSCP to continue to provide enhanced graduate training experiences to our students. As you read through the report, it should be immediately apparent that the CSCP does the extra to ensure that our trainee's experiences are optimized and that our efforts dovetail with those of our participating Faculties, Departments and Institutes/Centres. This enhances both programs; making this the best place to come for graduate training in this field.

As evidenced by the data in this report, student enrollment continued to increase, even though we graduate a significant number of students annually. I am particularly pleased with these numbers as it reflects student enthusiasm for the program. As well, the completion numbers, which are close to 100%, illustrate their dedication to training and the value added the CSCP brings. This resulted in a total enrollment number of 73 graduate students, including our 14 completed students. I am very proud and grateful to our faculty who have mentored our students through to their successes.



The high level of student satisfaction with the Program is confirmed during their annual meeting with the CSCP Student Affairs Committee Chair and the exit surveys we continue to receive. These annual meetings also help guide our direction and, if needed, address any student concerns early, thus further assuring that we stay on track to meet the ever changing student needs. Today's discerning student is well aware that it is not enough to just fulfill their department's degree requirements if they hope to succeed post graduation. Even those who chose to enter professional degree programs know that a specialist certification, such as that

issued upon successful completion of the CSCP, is a statement of excellence that provides them with an edge. Top University of Toronto cardiovascular scientists from across the campus are involved with the CSCP at every level from administration to teaching and supervision. This has given the CSCP trainee exposure to the diversity of excellence we have both on campus and at our teaching hospitals and research centres. In the progressively more difficult financial times we face, clearly any time taken from the research done by the student could be viewed as lessening the productivity for the supervisor, yet participation in the CSCP is promoted. This is a testimonial to the value and quality offered by the CSCP to the cardiovascular research community and its' trainees.

As in previous years, details on the many highlights related to CSCP activities can be found within the body of this report and on our web site at www.cscp.utoronto.ca. The flagship event continues to be the day long Student Research Day, where students are able to network with other students across the campus in the many differing disciplines. By sharing their research, they learn from each other and we often hear that collaborations with students from another focus are another side benefit. This same feeling is found during another student academic event 'Circulation Rounds', which consist of visits to the different research locations of our diverse faculty. This allows the students to meet and experience current and ongoing projects in the cardiovascular arena. The summer CSI series which has evolved to include practical visits to facilities such as Toronto Rehabilitation Centre and the Surgical Skills Laboratory further expands the awareness of the breadth and depth offered at the University of Toronto in the cardiovascular sciences. Our flagship graduate course JCV3000 series, made up of 4 modules each worth one half credit, continues to be very popular.

Despite our ongoing academic successes, financial sustainability continued to illude us this past year. By sharing out some administrative time on a cost recovery basis and having some additional monies historically saved for just such a situation, I was able to keep the CSCP going without individual departmental financial contributions. This however is not sustainable for the long term. Discussions are ongoing on potential creative solutions to this one dilemma in an otherwise exciting and growing program. We are working hand-in-hand with our partners and stakeholders to explore creative solutions and I hope, within the next academic year, good news will be forthcoming. Because of the critical nature of the CSCP financial sustainability, our main objective for 2012-2013 is to work towards securing fiscal stability for this award-winning program.

Please let me take a moment to thank Drs. Margaret Rand and Scott Thomas, Chairs of the Scholarship & Awards Committee and Student Affairs Committee respectively, who volunteer their time to make that extra contribution. They have dedicated many selfless hours to their additional responsibilities, without which we would not have as great a program as we do. I would also like to thank Dr. Vivek Rao who admirably represented the CSCP as Acting Director during a critical time in my absence. As well, the CSCP would not be what it is today without the constant and ongoing loyalty and hard work of our senior administrator, Victoria Simpson, who really is the face of the CSCP. And finally, to all the participating students for their contributions and to our faculty who encourage the students to join and who also teach and share their expertise. The CSCP owes you all a great debt of gratitude.

*Dr. Carin Wittnich, O.Ont.
Director, CSCP
Professor of Surgery & Physiology
Northrop Frye Scholar*

MISSION STATEMENT

“The Cardiovascular Sciences Collaborative Program, approved by the University and Ontario Council on Graduate Studies in 1992, and listed in the calendar of the School of Graduate Studies, exists to give formal, organized expression to cardiovascular studies and research at the graduate level. It builds on the strengths of all participating academic units, and other agencies, to enhance the visibility of cardiovascular studies and to facilitate collaborative, interdisciplinary training and research.”

The above mission is achieved by advertising and promoting the importance of, and opportunities in, cardiovascular studies, by making known the results of such studies, by recruitment of excellent students, and by coordinating the graduate collaborative program in cooperation with the academic units in which they are registered. Students in this collaborative program must fulfill the requirements of their home units as well as the Program. Upon graduation the notation “Specialization in Cardiovascular Sciences” will appear on the student’s academic transcript and the Program will present the student with a certificate and gift.

COLLABORATING FACULTIES

Dentistry
Kinesiology and Physical Education
Medicine
Nursing
Pharmacy

COLLABORATING GRADUATE UNITS

Biomaterials and Biomedical Engineering
Dentistry
Exercise Sciences
Health Policy, Management & Evaluation
Laboratory Medicine and Pathobiology
Medical Biophysics
Medical Science
Nursing Science
Pharmaceutical Sciences
Pharmacology and Toxicology
Physiology
Public Health Sciences
Rehabilitation Science

SUPPORTING CLINICAL DEPARTMENTS

Anesthesia
Medicine
Surgery

COMMITTEES

Executive

The Executive Committee consists of 4 members of the Program Committee representing as wide a range of disciplines as possible and includes the Director. They also act as Chairs of the various subcommittees as noted beside their name. The Executive Committee provides student counseling, screens applicants, provides advice and acts as a Steering Committee.

Dr. C. Wittnich (Fundraising)
Dr. M. Rand (Scholarships & Awards)
Dr.S. Clarke (Membership/Curriculum)
Dr. S. Thomas (Student Affairs)

Program

The Program Committee consists of a representative from each collaborating department as well as two student representatives. It administers the Program, selects the Director, and generally meets twice per year.

C. Wittnich (Chair)
D. Brooks (Rehabilitation Science)
S. Wu (Pharmaceutical Sciences)
D. Mazer (Anesthesia)
J. Parker (Pharmacology)
S. Heximer (Physiology)
D. Steinman (Institute of Biomaterials and Biomedical Engineering)
M. Rand (Laboratory Medicine and Pathobiology)
R-K. Li (Institute of Medical Science)
TBA (Dentistry)
S. Thomas (Exercise Sciences)
TBA (Health Policy, Management and Evaluation)
F. Silverman (Public Health)
S. Clarke (Nursing)
G. Wright (Medical Biophysics)
President, CSCP Student Association
Vice-President, CSCP Student Association

COURSES OFFERED

EXS5508H Cardiovascular Disease and Exercise
JCV1060H Developmental Cardiovascular Physiology
JCV3060H* Advanced Topics in Cardiovascular Sciences – Molecular Biology & Heart Signal Transduction
JCV3061H* Advanced Topics in Cardiovascular Sciences – Hormones
JCV3062H* Advanced Topics in Cardiovascular Sciences – Heart Function
JCV3063H* Advanced Topics in Cardiovascular Sciences – Vascular
JEB1365H Ultrasound: Theory and Applications in Biology and Medicine
JTC1331H Biomaterials Science
LMP1015H Vascular Pathobiology

LMP1504H Cell and Molecular Biology of Cardiovascular Diseases

PSL1462H Molecular Aspects of Cardiovascular Function

* Core Courses for PhD Trainees (2 of 4 modules required); JCV denotes joint listing with most of our collaborating departments.

Suggested Courses (Considered valuable but does not fulfill Program requirements)

CHL5201 Introducing Biostatistics for Students in Biological Sciences I

LMP1404S Cellular and Molecular Mechanisms of Disease

PROGRAM SPONSORED ACTIVITIES

ANNUAL STUDENT RESEARCH DAY

The 13th Annual Cardiovascular Sciences Collaborative Program (CSCP) Student Research Day was held on Wednesday, April 18, 2012. CSCP students were given the opportunity to present their current research to their peers in a welcoming environment promoting discussion and the free flowing of ideas. The day began with opening remarks from the CSCP Director, Dr. Carin Wittnich, followed by a day of excellent science presented by the Program students and finishing with inspiring presentations from our guest speakers, Professors Jack Goodman (Faculty of Kinesiology & Physical Education) and Sean Clarke (Faculty of Nursing). Awards were also presented to outstanding students and certificates presented to students who had completed their CSCP training.

STUDENT PRESENTATIONS

As part of the CSCP requirements, all students must present their research during their training period. This presentation is 10-minutes followed by a brief question period. Presentations cover a broad range of topics in cardiovascular research.

Session I: Chair – Paul Lee

Sagar Rohailla (MSc – Institute of Medical Science)

Development of a Langendorff-perfused Mouse Heart Model for Delayed Remote Ischemic Preconditioning Studies

Lily Zou (MSc – Pharmacology)

Structural Remodeling and Atrial Fibrillation Vulnerability in a Novel Atrial Fibrillation Rat Model

Azadeh Mofid (MSc – Institute of Medical Science)

S100A6 Gene Therapy for Acute Myocardial Infarction

Tina Hu (MSc – Institute of Medical Science)

Lower Dose of a Highly Beta-1 Selective Antagonist Preserves Cerebral Perfusion in Hemodiluted Rats

Henry Cheng (MSc – Laboratory Medicine and Pathobiology)

Regulation of the Inflammatory Response in Endothelial Cells by MicroRNA-146a/b

Amelia Mociornita (MSc – Institute of Medical Science)

The Role of Human Leukocyte Antigen-G in Heart Transplantation



Session I: (L-R) Azadeh Mofid, Tina Hu, Amelia Mociornita, Henry Cheng, Sagar Rohailla
Absent: Lily Zou

Session II: Chair – Arash Ghashghai

Alanna Adleman (PhD – Institute of Medical Science)

Intraocular Pressure and Systemic Hypercapnia and Hyperoxia

Katherine Allan (PhD – Institute of Medical Science)

Cardiotoxic Neighbourhoods: Does Where You Live Affect Your Risk for Out-of-Hospital Cardiac Arrest?

Eric Shikatani (PhD – Laboratory Medicine and Pathobiology)

Altered Vascular Morphology and Function in Mice Homozygous for a Hypomorphic Allele of the *c-myb* Proto-oncogene.

Mark Moon (PhD – Institute of Medical Science)

Inhibition of Mindin improves Survival and Adverse Remodeling Post-Myocardial Infarction.

CERTIFICATES/AWARDS

Dr. Rand presented certificates to students who successfully completed the Cardiovascular Sciences Collaborative Program over the past year:

MSc

Megan Thompson, IMS (Supervisor: Dr. P. Marsden)

Ryan Seeto, EXS (Supervisor: Dr. S. Thomas)

Robert Lakin, EXS (Supervisor: Dr. J. Goodman)

Matthew Machina, PSL (Supervisor: Dr. J. Fisher)

Roxana Chis, PSL (Supervisor: Dr. A. Gramolini)

S. Moniba Mirkhani, PSL (Supervisor: Dr. P. Backx)

Namhee Kim, PSL (Supervisor: Dr. D. Mazer)

Jennifer Yang, PSL (Supervisor: Dr. P. Liu)

Joe Gabriel, IMS (Supervisor: Dr. D. Bradley)

Shazareen Khan, EXS (Supervisor: Dr. S. Thomas)

Talha Farid, IMS (Supervisor: Dr. K. Nanthakumar)

Adam McKillop, EXS (Supervisor: Dr. S. Thomas)



(L-R) Dr. Carin Wittnich, Talha Farid, Moniba Mirkani, Megan Thompson, Matthew Machina, Adam McKillop, Dr. Margaret Rand

PhD

Albert Tsui, PSL (Supervisor: Dr. G. Hare)
 Geoffrey de Couto, PSL (Supervisor: Dr. P. Liu)

Congratulations to all the students and success in their future career endeavours!

Continuing the spirit of success and achievement, the annual CSCP student award was presented by Dr. Carin Wittnich.

2012 Bigelow Book Prize Recipient – Laura Banks

The CSCP congratulates Ms. Laura Banks, a PhD candidate in the Institute of Medical Science, supervised by Dr. B. McCrindle, The Hospital for Sick Children, who was presented with the 2012 Bigelow Book Prize for her continued and sustained academic scientific excellence. Laura's primary research has involved the implementation of novel magnetic resonance imaging (MRI) technology in order to determine cardiac phosphorus metabolism in pediatric disease cohorts. More specifically, the goal of her research is to determine factors affecting cardiac phosphorus metabolism in adolescents who are healthy, overweight, or born with heart disease. She is specifically interested in determining the effect of physical activity and sex on cardiac phosphorus metabolism, as it relates to heart function in these cohorts. This is a new and exciting research area with significant potential for impacting cardiovascular health. Her findings may enable us to implement exercise and/or pharmacological interventions to more specifically target cardiovascular health.



L-R: Dr. Carin Wittnich, Laura Banks, Dr. Margaret Rand

Following the awards presentations, students socialized and networked during the complimentary lunch before being treated to our esteemed invited guest speakers.

GUEST SPEAKERS



After completing his doctoral degree in nursing from McGill University, Dr. Sean Clarke completed three years of postgraduate clinical and research training at the University of Pennsylvania. He joined the standing faculty at the University of Pennsylvania School of Nursing in 2001, and became the Associate Director of the Center for Health Outcomes and Policy Research at that time as well. Currently, Dr. Clarke holds the RBC Chair in Cardiovascular Nursing Research at the University of Toronto and the University Health Network in Toronto. In the fall of 2010, he became Deputy Director for the University of Toronto site of the Nursing Health Services Research Unit funded by the Ministry of Health and Long-Term Care. Dr. Clarke's research deals primarily with organizational aspects of acute care nursing (with a particular emphasis on staffing levels, work environment factors, patient outcomes and nurse occupational health) and nurse workforce issues. He has authored or co-authored over 80 articles, 15 book chapters and co-edited a volume on medication safety for nurses. A fellow of the American Academy of Nursing, he holds an adjunct appointment at the Université de Montréal and visiting appointments at University College Dublin and the University of Hong Kong.



Dr. Jack Goodman obtained his PhD from the University of Toronto in Exercise Physiology in 1987. Following this, he completed a 2-year post-doctoral fellowship in nuclear cardiology at the Toronto General Hospital, working with Dr. Peter Liu. He was appointed to the Faculty of Physical Education and Health, University of Toronto in 1989, where he maintains his primary appointment. He is holds an Adjunct Scientist staff position at the UHN/Mt. Sinai Division of Cardiology, collaborating in the Clinical Cardiovascular Research Laboratory. He is also an Adjunct Scientists at the Toronto Rehab Institute, Cardiac Program. In addition, Dr. Goodman serves on the Chief Coroner's Cardiac Death Advisory Committee. His current research interests include the mechanisms of cardiac dysfunction during prolonged exercise and cardiac mechanics during exercise. These interests extend to cardiac risks of exercise and consequences of long-term training, including exercise-induced atrial fibrillation. Dr. Goodman also examines cardiovascular adaptations to training in healthy populations and those recovering from heart disease. Support for his research has included the Heart and Stroke Foundation and the Canadian Institutes of Health Research. Outside of his academic life, he tried to maintain his fitness through over 35 years of running and is an avid and regular sports participant.

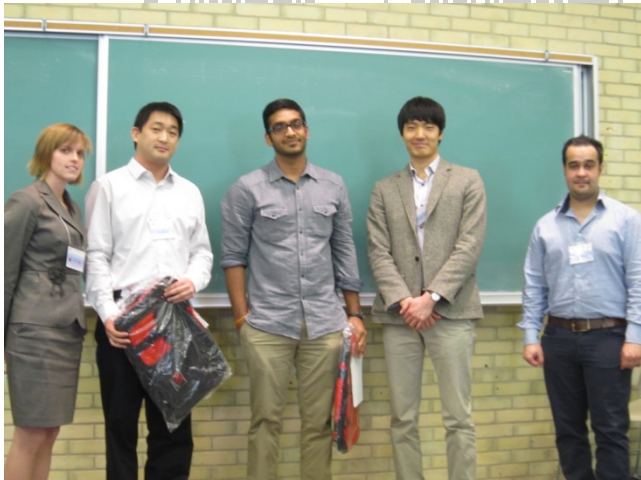
The CSCP thanks our guest speakers for the very insightful and interesting talks which will no doubt resonate strongly with the students for the rest of their careers.



(L-R) Laura Banks, Sean Clarke, Jack Goodman, Arash Ghashghai, Paul Lee

SESSION PRESENTATION AWARD WINNERS

Each presenter was evaluated for best presentation and most innovative research by four members of the organizing committee. Criteria included content (quality of research, organization of presentation), visuals (clarity, readability), delivery (voice level, pacing) and overall impression. Certificates/gifts were presented to the winners by the Session Chairs, Paul Lee and Arash Ghashghai. Congratulations to awardees Sagar Rohailla and Eric Shikatani for their outstanding talks.



(L-R) Laura Banks, Eric Shikatani, Sagar Rohailla, Paul Lee, Arash Ghashghai

CLOSING

The Student Research Day was a success and would not have been possible without the combined efforts of several individuals. Thank you to the Organizing Committee (Laura Banks, Danielle Bentley, Arash Ghashghai, Paul Lee, Victoria Simpson) for all their hard work; Professors Sean Clarke and Jack Goodman for their outstanding and inspiring presentations; and the Sessions Chairs, Paul Lee and Arash Ghashghai for keeping the sessions running smoothly. Thank you to all the CSCP students and to all involved in making the 13th Annual CSCP Student Research Day a great success!

STUDENT FORUM

This event is an excellent opportunity for new students of the CSCP to meet one another and for senior students to catch up with old friends, and develop relationships with the up and comers. Discussions range from basic research, laboratory trials and triumphs, to future academic /career directions. Connections for research collaboration, as well as friendships are developed, and all those in attendance thoroughly enjoy the festive dinner and the change to meet other students. Due to a lack of funding we were unable to provide the CSCP student body with the 2011 CSCP Forum and Dinner. We hope to resume this event in 2012.

CARDIOVASCULAR SUMMER INITIATIVE (CSI)

This summer (2011), the Cardiovascular Sciences Collaborative Program organized a successful program called the Cardiovascular Summer Initiative (CSI). This program was targeted towards undergraduate students involved or interested in cardiovascular research as well as graduate students in cardiovascular research, with the goal of providing students a more inclusive feel for the field and a broader frame of reference than just lab experience alone. This summer, we had a large number of undergraduate and exchange students attend CSI events after advertising to various summer student programs associated with the Institute of Medical Science, Sick Kids Hospital, St. Michael's Hospital, and Mount Sinai Hospital.

The first event of the CSI program took place on July 11th at the St. Michael's Hospital Cardiac MRI and CT Imaging Centre with over 30 students attending. Students were given the opportunity to learn about cardiac MRI and CT, take a tour of the imaging facilities, see post-processing images, and engage in case discussions with Drs. Kirpalani and Prabhudesai.



The second July 28th at the Site with 18 facility and were exercise class and cardiopulmonary assessment with Ms. Ann Minnes and staff.

event of the CSI program took place on Toronto Cardiac Rehabilitation Outpatient students signing up. Students toured the given the chance to observe a cardiac

CIRCULATION ROUNDS

The CSCP student body organizes and runs this event which highlights the diverse nature of research carried out by our faculty. These academic rounds rotate through the various research sites at the University of Toronto and each event is hosted by a faculty member where their research focus is the topic of the day. The goal of this event is to provide graduate students, post-doctoral fellows, research associates, undergraduates and project/summer students with the chance to develop an appreciation of the vast range of excellent research being conducted in our widespread community. The students do a great job organizing these events and all seminars are well attended. For more detailed information regarding the presentations noted below, please go to the CSCP web site at www.cscp.utoronto.ca.

Presenter	Date /Time	Location	Topic	RSVP Deadline:
Dr. Jack Goodman	Wednesday, March 9 th 2:00-3:30pm	The Athletic Complex-55 Harbord St, Rm 2030	<i>Exercise Physiology and Clinical Research: Bridging the Gap</i>	Friday, March 4, 2011 sagar.rohaila@utoronto.ca
Dr. Seema Mital	Tuesday, April 5 th 1:00-2:30pm	Sick Kids-TBA	<i>Applying Genomics to Congenital Heart Disease</i>	Friday, March 1, 2011 tina.hu@utoronto.ca
Dr. Vivek Rao	Tuesday, Sept 27 th 3:00-4:30pm	Toronto General Hospital- Bayer Conference Rm (EN12)	<i>Heart Failure Surgery</i>	Friday, Sept 16, 2011 lily.zou@utoronto.ca
Dr. Alan Moody	Tuesday, Nov 15 th 2:00-3:30pm	Sunnybrook Hospital- MRI Suite A Wing, Ground Floor	<i>Vascular Imaging</i>	Friday, Nov 4, 2011 leeanne.khuu@utoronto.ca

AWARDS

MEDTRONIC TRAVEL AWARD

Two competitions were held (spring and fall) for the Medtronic Travel Award. This award, established in 1995, helps to defray costs of travel for Program students presenting their research work at recognized scientific meetings. Students supported by this award this academic year were:

Fall 2011:

Adam McKillop, MSc, Dept. of Exercise Sciences (Supervisor: Dr. S. Thomas)

Canadian Society of Exercise Physiology Annual Meeting, Quebec, 2011

“Oral Presentation: Microparticle Generation Following a Simulated Dive to 81msw for 20 Minutes in Naval Clearance Divers”

Spring 2012:

Lee-Anne Khuu, PhD Candidate, Institute of Medical Science (Supervisor: Dr. C. Hudson)

Association for Research in Vision and Ophthalmology (ARVO) Annual Meeting, Florida, 2012

“Retinal Blood Flow and Retinal Thickness Measurements in Patients with Type 2 Diabetes and Non-Proliferative Diabetic Retinopathy”

Alanna Adleman, MSc Candidate, Institute of Medical Science (Supervisor: Dr. C. Hudson)

Association for Research in Vision and Ophthalmology (ARVO) Annual Meeting, Florida, 2012

“Intraocular Pressure and Systemic Hypercapnia and Hyperoxia”

Tina Hu, MSc Candidate, Institute of Medical Science (Supervisor: Dr. G. Hare)

Society of Cardiovascular Anesthesiologists 34th Annual Meeting, Massachusetts “Lower Dose of a Highly Beta-1 Selective Antagonist Preserves Cerebral perfusion in Hemodilated Rats”

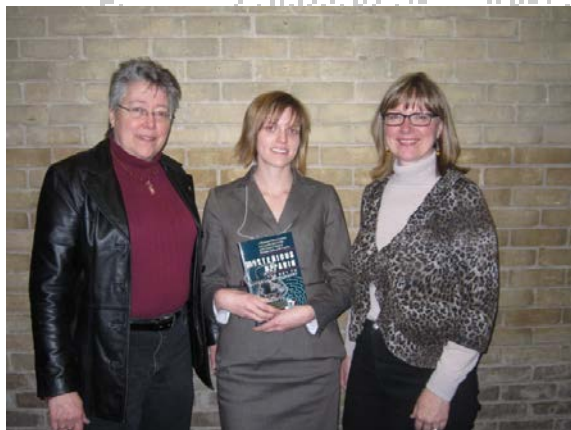
BIGELOW BOOK PRIZE

This prize was established in 1995 by the Cardiovascular Sciences Collaborative Program to recognize and honor a pioneer clinician and scientist in the field of cardiovascular sciences. Awardees should exemplify the personal traits of Dr. Bigelow - curiosity, drive, and scientific integrity. The award is given in every year that a qualified student is identified. Qualifications include sustained academic scientific excellence, innovative experimental approaches, original discoveries and good scientific productivity. Some weight is given to work that has recognizable clinical relevance, especially that which promises to improve patient care. The Bigelow Book Prize consists of 2 books written by Dr. W.G. Bigelow entitled “Cold Hearts” and “Mysterious Heparin” and a keeper plaque created to honor Dr. Bigelow. Appropriate candidates are identified and the final decision is made by the Program Committee.

1995 – John S. Ikonomidis
1996 – Shona M. Torrance
1997 – Vivek Rao
1998 – Bryce Cowan
1999 – Gideon Cohen
2000 – Michael Borger
2001 – Saeid Babaei
2002 – Wm. Jack Wallan
2003 – Paul W.M. Fedak

2004 – Nathalie Lapointe
2005 – Karim Bandali
2006 – Danny Ramzy
2007 – Patricia Rose
2008 – Mitesh Badiwala
2009 – Jane MacIver
2010 – Carlo Cifelli
2011 – Emma O’Donnell
2012 – Laura Banks

The CSCP congratulates Ms. Laura Banks, a PhD candidate in the Institute of Medical Science, supervised by Dr. B. McCrindle, The Hospital for Sick Children, who was presented with the 2012 Bigelow Book Prize. Her primary research has involved the implementation of novel magnetic resonance imaging (MRI) technology in order to determine cardiac phosphorus metabolism in pediatric disease cohorts. Her findings may enable us to implement exercise and/or pharmacological interventions to more specifically target cardiovascular health.



L-R: Dr. Carin Wittnich, Laura Banks, Dr. Margaret Rand

LORNE PHENIX GRADUATE AWARD

This award was made possible by a generous donation in the memory of Mr. Lorne Phenix by Mrs. Geraldine Phenix. It is her hope that this award will focus attention on the issue of heart disease – which is still the #1 killer of both men and women in Canada. In addition, women who have heart problems are at least equal if not at greater risk than men and Mrs. Phenix hopes that this award will serve to encourage trainees to pursue this area of research to address this particular problem. It is awarded to a graduate student in the Faculty of Medicine on the basis of research and academic excellence. The award consists of a cash prize and certificate and is presented to the recipient at the Annual Student Research Day. Appropriate candidates are identified and a winner is selected by a subcommittee chaired by Dr. Donna Stewart. The award is given in every year that a qualified student is identified. This award is presented at the Annual Student Research Day.

2001 – Wm. Jack Wallen
2002 – Wm. Jack Wallen
2003 – Shathiyah Kulandavelu
2004 – Rachel Mitchell
2005 – Nesime Askin

2006 – Danny Quaglietta
2007 – Emma O'Donnell
2008 – Luke Tan
2009 – Amir Manbachi
2010 – Shazareen Khan

ONTARIO STUDENT OPPORTUNITY TRUST FUNDS (OSOTF) AWARD

The OSOTF award refers to a class of awards that have resulted from the Ontario government's "matching" program. Under the program every dollar of donation received for student assistance has been matched by the government as well as the university on a dollar-for-dollar basis. The Cardiovascular Sciences Collaborative Program participates in this program. There are two major conditions for all OSOTF awards; recipients must be Ontario residents and demonstrate financial need. However, the Program has additional eligibility criteria that must be adhered to, including excellence in science and academic performance. One competition is held per academic year. The applications are handled centrally through the Office of the Associate Dean, Inter-Faculty and Graduate Affairs. Applications pertaining to the CSCSP are sent to us and are then adjudicated by a subcommittee chaired by Dr. Margaret Rand. Committee recommendations are then forwarded to the OSOTF Awards Committee (Faculty of Medicine). The following student received funding for the 2011-2012 year:

Tina Hu, MSc Candidate, Institute of Medical Science (Supervisor: Dr. G. Hare)

ONTARIO GRADUATE SCHOOL SCIENCE & TECHNOLOGY (OGSST)

The OGSST program is designed to encourage excellence in graduate studies in science and technology. The program is supported through funds provided by the Ministry of Training, Colleges and Universities and by funds raised by the University of Toronto and the Heart & Stroke Foundation of Ontario. To be awarded to graduate students at the University of Toronto who are pursuing cardiovascular/stroke research. Students must have maintained an overall A-average over the last two years of study at the post-secondary level and exhibit research ability/potential, good communication skills and interpersonal/leadership abilities. The following students were ranked and offered an award:

<u>Name</u>	<u>Degree</u>	<u>Dept.</u>	<u>Supervisor</u>
J. Kroetsch	PhD	PSL	S-S. Bolz
M. Chiu	PhD	IMS	J. Tu
A. Siu	MSc	LMP	M. Cybulsky
S. Chiang	MSc	PSL	A. Giacca
H. Flowers	PhD	SLP	R. Martino
K. Bensimon	MSc	PCL	K. Lanctot
M. Lino	MSc	LMP	K. Adeli
D. Kepecs	MSc	IMS	R. Gilbert
H. Wong	MSc	IMS	L. Robinson

ADVERTISING MATERIAL

The CSCP maintains and updates its web site (www.cscp.utoronto.ca). Faculty information is updated whenever we are notified of relevant changes. Collaborating departments are encouraged to provide hypertext links to the CSCP on their web site.

ACKNOWLEDGEMENTS

The Cardiovascular Sciences Collaborative Program would like to thank the following sponsors for their generous support: Medtronic Canada, the Heart and Stroke/Richard Lewar Centre of Excellence and the Faculty of Medicine.

STUDENTS

Name	Supervisor	Degree	Department
Cynthia Abbasi	A. Gramolini	MSc	PSL
Alanna Adleman	C. Hudson	MSc	IMS
Katherine Allan	P. Dorian	PhD	IMS
Hajera Amatullah	H. Zhang	PhD	PSL
Nesime Askin	C. Wittnich	PhD	PSL (<i>inactive status</i>)
Mitesh Badiwala	V. Rao	PhD	IMS
Laura Banks	B. McCrindle	PhD	IMS
Danielle Bentley	S. Thomas	PhD	EXS
Mark Blaser	C. Simmons	PhD	BME
Henry Cheng	J. Fish	MSc	LMP
Richard Cheng	C. Hudson	MSc	PSL
Roxana Chis	A. Gramolini	MSc	PSL
Jake Cosme	A. Gramolini	MSc	PSL
Geoff de Couto	P. Liu	MSc	PSL
Alex Di Battista	A. Gramolini	PhD	PSL
Suzan El-Rass	X-Y. Wen	MSc	IMS
Sam Esfandiari	J. Goodman	MSc	EXS
M. Sadegh Farahvash	C. Hudson	MSc	IMS
Talha Farid	K. Nanthakumar	MSc	IMS
Joe Gabriel	D. Bradley	MSc	IMS
Richard Gao	M. Liu	MSc	PSL
Arash Ghashghai	V. Rao	MSc	IMS
Gabriela Ghisi	S. Thomas	PhD	EXS
Zachary Goodman	S. Thomas	MSc	EXS
Taylor Gray	J. Goodman	MSc	EXS
June (Hui Jun) Guo	A. Giacca	MSc	PSL
Christy Hamilton	M. Locke	MSc	EXS (<i>inactive status</i>)
Tina Hu	G. Hare	MSc	IMS
Jemy Joseph	V. Rao	MSc	IMS
David Kepecs	R. Gilbert	MSc	IMS
Shazareen Khan	S. Thomas	MSc	EXS
Lee-Anne Khuu	C. Hudson	PhD	IMS
Namhee Kim	D. Mazer	MSc	PSL
Jeffrey Kroetsch	S-S. Bolz	PhD	PSL
Robert Lakin*	J. Goodman	PhD	EXS
Paul Lee	H. Poi	MSc	IMS
Michael Lekas	D. Stewart	PhD	IMS (<i>inactive status</i>)
Jane MacIver	V. Rao	PhD	IMS (<i>inactive status</i>)
Matthew Machina	J. Fisher	MSc	PSL
Timothy Mak	G. Hare	MSc	PSL
Antonio Mauro	X-Y. Wen	MSc	IMS
Adam McKillop*	B. McCrindle	PhD	IMS
Azadeh Mofid	H. Leong-Poi	MSc	IMS
S. Moniba Mirkhani	P. Backx	MSc	PSL
Amelia Mociornita	V. Rao	MSc	IMS
Mark Moon	P. Liu	PhD	IMS
Alex Mulyar	A. Gramolini	MSc	PSL

Emma O'Donnell	J. Goodman	PhD	EXS
Omodele Olowoyeye	A. Moody	PhD	IMS
Maral Ouzounian	P. Liu	PhD	IMS (<i>inactive status</i>)
Olena Puzyeyeva	C. Hudson	MSc	IMS
Iran Rashedi	A. Keating	PhD	BME
Sagar Rohailla	C. Caldarone	MSc	IMS
Patricia Rose	C. Hudson	PhD	IMS (<i>inactive status</i>)
Ethan Ruderman	G. Wells	MSc	EXS
Ryan Seeto	S. Thomas	MSc	EXS
Uswa Shahzad	T. Yau	MSc	IMS
Eric Shikatani	M. Husain	PhD	LMP
Elnaz Shokrollahi	G. Wright	PhD	BME
Bunty Singh	R-K. Li	PhD	LMP
Renee Suen	D. Stewart	PhD	IMS (<i>inactive status</i>)
Vivian Szeto	S. Mital	MSc	IMS
Luke Tan	C. Wittnich	MSc	PSL
Megan Thompson	S. Mital	MSc	IMS
Albert Tsui	G. Hare	MSc	PSL
Steve Wright	J. Goodman	MSc	EXS
Jennifer Yang	P. Liu	MSc	PSL
Hanpo Yu	H. Zhang	MSc	PSL
Siming (Phil) Xue	R-K. Li	MSc	IMS
Nima Zamiri	K. Nanthakumar	MSc	IMS
Lily Zou	P. Dorian	MSc	PCL

* Students registered during the year at MSc and PhD training levels.

CONVOCATED STUDENTS/FOLLOW-UP

Roxana Chis, MSc, Department of Physiology (Supervisor: Dr. A. Gramolini):
 “Elucidation of the Protective Mechanism of α Crystallin B in Cardiomyocytes”
 (*Medical School*)

Geoffrey T. de Couto, PhD, Department of Physiology (Supervisor: Dr. P. Liu): “Innate Immune Transcription Activator Interferon Regulatory Factor-3 (IRF3) Contributes to Maladaptive Remodeling Post-Myocardial Infarction”
 (*Post-Doctoral Fellowship*)

Talha A. Farid, MSc, Institute of Medical Science (Supervisors: Drs. K. Nanthakumar, P. Dorian): “The Role of K_{ATP} -Channels in the Maintenance of Ventricular Fibrillation in Cardiomyopathic Human Hearts”
 (*Medicine*)

Joseph M. Gabriel, MSc, Institute of Medical Science (Supervisor: Dr. D. Bradley):
 “Effect of Intravenous Saline Infusion and Venous Compression Stockings on Upper Airway Size and Obstruction”
 (*Medical School – Queen’s University*)

Shazareen Khan, MSc, Department of Exercise Sciences (Supervisor: Dr. S. Thomas):
“Physical Activity Levels & Correlates 2 to 6 Years Post-Rehabilitation in Cardiac Patients”
(MBA)

Namhee Kim, MSc, Department of Physiology (Supervisor: Dr. D. Mazer): “A Large Water Diuresis during Hypoxia: Intervention with DDAVP and Furosemide”
(Research Assistant, UofT)

Robert Lakin, MSc, Department of Exercise Sciences (Supervisor: Dr. J. Goodman):
“Effects of Moderate-Intensity Aerobic Cycling and Swim Exercise on Post-Exertional Blood Pressure in Healthy, Young Men and Women”
(PhD – University of Toronto)

Matthew Machina, MSc, Department of Physiology (Supervisor: Dr. J. Fisher): “The Effects of Continuous Positive Airway Pressure on the Work of Breathing at Rest and During Exercise”
(PhD – Health Policy, Management & Evaluation, UofT)

Adam McKillop, MSc, Department of Exercise Sciences (Supervisor: Dr. S. Thomas):
“Circulating Microparticles in Response to Decompression Stress”
(PhD – University of Toronto)

S. Moniba Mirkhani, MSc, Department of Physiology (Supervisor: Dr. P. Backx): “Role of Oxidative Stress in Mediating Elevated Atrial Fibrillation by Tumor Necrosis Factor-Alpha”
(Medical School)

Ryan Seeto, MSc, Department of Exercise Sciences (Supervisor: Dr. S. Thomas): “The Effect of Muscle Mass During Priming Exercise on Pulmonary Oxygen Uptake and Cardiac Output Kinetics”
(Academia or Medicine)

Megan Thompson, MSc, Institute of Medical Science (Supervisor: Dr. S. Mital):
“Epigenetic Control of Gene Expression in the Placental Trophoblast”
(Perinatal Pathologists’ Assistant, Mt. Sinai Hospital)

Albert Tsui, PhD, Department of Physiology (Supervisor: Drs. G. Hare and P. Marsden):
“The Adaptive Role of Neuronal Nitric Oxide Synthase in Maintaining Oxygen Homeostasis During Acute Anemia”
(Management Consulting – MBA)

Jennifer Yang, MSc, Department of Physiology (Supervisor: Dr. P. Liu): “Exacerbated Cardiac Fibrosis in Apelin-Deficient Mice Post Myocardial Infarction is Associated with Vimentin and Microrna-378”
(Occupational Therapist)

AWARDS AND HONORS

NAME	HONORS AND AWARDS
Cynthia Abbasi	- SGS Conference Grant, 2012 - Poster Award, Frontier of Physiology Scientific Day, 2012
Alanna Adleman	- Ontario Graduate Scholarship
Katherine Allan	- SGS Conference Grant, Winter 2012 - CIHR Travel Award - Institute of Circulatory & Respiratory Health, 2012 - CIHR Doctoral Award – Frederick Banting and Charles Best Canada Graduate Scholarship, 2011-2014 - Heart & Stroke Jump Start Resuscitation Doctoral Research Award, 2011-2014 (declined) - Ontario Graduate Scholarship, 2011-2012 (declined) - Heart & Stroke/Richard Lewar Centre of Excellence Studentship Award, 2011-2012 (declined)
Hajera Amatullah	- Ontario Graduate Scholarship, 2012 - Li Ka Shing Knowledge Institute, St. Michael's Hospital Scholarship, 2012 - CIHR Travel Award – Institute of Circulatory & Respiratory Health, 2012 - Sperrin Chant Award in Toxicology, 2011 - Dan Leckie City of Toronto Award, 2011
Mitesh Badiwala	- Cheryl & Fred Solmon Cardiac Surgery Scholarship – Sunnybrook Health Science Centre, University of Toronto, 2012 - Shafie S. Fazel Outstanding Resident Surgeon & Investigator Award – Department of Surgery, University of Toronto, 2011
Laura Banks	- Bigelow Book Prize, Cardiovascular Sciences Collaborative Program, University of Toronto, 2012 - SGS Conference Travel Award, 2011 - Doctoral Research Award, Heart & Stroke Foundation of Canada, (declined) 2010-2013
Danielle Bentley	- OSOTF Award, Cardiovascular Sciences Collaborative Program, University of Toronto, 2012
Mark Blaser	- CIHR Doctoral Award – Frederick Banting and Charles Best Canada Graduate Scholarship, 2011-2014 - Heart & Stroke/Richard Lewar Centre of Excellence Studentship Award, 2011-2012 (declined) - Ontario Graduate Scholarship, University of Toronto, 2011-12 (declined) - Honourable Mention, CIHR National Student Research Poster Competition, 2012 - 3 rd Prize, Research Poster Competition, Canadian Connective Tissue Conference, Toronto, 2012 - ICS-ICRH Travel Award, 2012 - Young Investigator's Award, 1 st Runner-up & Finalist, 5 th Biennial Mtg on Heart Valve Biology & Tissue Engineering, Mykonos, Greece, 2012 - CSATVB Travel Subsidy, 2011 - SGS Conference Grant, 2011
Henry Cheng	- Runner-up Poster Competition, Dept. of Laboratory Medicine and Pathobiology, 2012 - Meredith & Malcolm Silver Scholarship in Cardiovascular Studies, Dept. of Laboratory Medicine and Pathobiology, 2011
Jake Cosme	- University of Toronto Fellowship, 2011-2012
Taylor Gray	- Dr. Terry Kavanagh Fellowship, 2012
June Guo	- Canadian Diabetes Assoc. Doctoral Student Research Award, 2010-2013
Tina Hu	- CIHR Travel Award, 2011-2012 - Li Ka Shing Knowledge Institute Travel Award, 2011-2012

	<ul style="list-style-type: none"> - Medtronic Travel Award, Cardiovascular Sciences Collaborative Program, 2011-2012 - Have a Heart National Award, Canadian Cardiovascular Congress, 2011-2012 - Teaching Funding Certificate, University of Toronto, 2011-2012 - Graduate Professional Skills Certificate, University of Toronto, 2011-2012 - SGS Conference Grant, UoT, 2011-2012
Lee-Anne Khuu	<ul style="list-style-type: none"> - Medtronic Travel Award, Cardiovascular Sciences Collaborative Program, University of Toronto, 2012 - Office of Research Trainees Travel Award, University Health Network, 2012 - SGS Conference Grant, University of Toronto, 2012 - Doctoral Fellowship, Vision Science Research Program Award, University of Toronto, 2011
Jeffrey Kroetsch	<ul style="list-style-type: none"> - 1st Place, Poster Presentation, Heart & Stroke/Richard Lewar Centre of Excellence, 2012 - 2nd Place, Poster Presentation – Cardiovascular Platform, The Frontiers in Physiology Graduate Student Conference, 2012 - 1st Place, Poster Competition, Joint Meeting of European Society for Microcirculation/German Society of Microcirculation & Vascular Biology, 2011
Paul Lee	<ul style="list-style-type: none"> - Arthur E. Weyman Young Investigator's Award, American Society of Echocardiography, 2012 - SGS Conference Grant, 2011
Adam McKillop	<ul style="list-style-type: none"> - Top Ten Poster Presentation, North American Society for Pediatric Exercise medicine, 2012 - Medtronic Travel Award, Cardiovascular Sciences Collaborative Program, 2012 - Institute of Medical Science Entrance Award, 2011-2012
Azadeh Mofid	<ul style="list-style-type: none"> - QEII-GSST, Department of Medicine, 2011-2012
Ethan Ruderman	<ul style="list-style-type: none"> - Research Program in Applied Sport Science, 2012-2013
Uswa Shahzad	<ul style="list-style-type: none"> - CIHR Doctoral Award – Frederick Banting and Charles Best Canada Graduate Scholarship, 2011-2012 - University of Toronto Fellowship, IMS, 2011-2012
Eric Shikatani	<ul style="list-style-type: none"> - Canadian Hypertension Congress Travel Award, 2011 and 2012 - Best Presentation, 13th Annual Student Research Day, Cardiovascular Sciences Collaborative Program, 2012 - Doctoral Research Award: Hypertension (SHOPP), CIHR, 2012-2015 - Institute Community Support Travel Award, 2012 - 2nd Place, Poster Competition, 15th Annual Graduate Student Research Day, Dept. of Laboratory Medicine & Pathobiology, 2012 - Meredith & Malcolm Silver Scholarship in Cardiovascular Studies, Dept. of Laboratory Medicine and Pathobiology, 2011-2012 - Ontario Graduate Scholarship, 2011-2012 (declined)
Kaustabh (Bunty) Singh	<ul style="list-style-type: none"> - Heart & Stroke/Richard Lewar Centre of Excellence Studentship, 2011-2012 - University of Toronto Fellowship, 2011-2012
Stephen Wright	<ul style="list-style-type: none"> - Dr. Terry Kavanagh Fellowship, Faculty of Kinesiology & Physical Education, 2012 - Medtronic Travel Award, Cardiovascular Sciences Collaborative Program, 2012
Nima Zamiri	<ul style="list-style-type: none"> - Ontario Graduate Scholarship, 2012-2013
Lily Zou	<ul style="list-style-type: none"> - Graduate Student Award, Department of Medicine, University of Toronto, 2011-2012

PUBLICATIONS

Amatullah H, North ML, Akhtar US, Rastogi N, Urch B, Silverman, FS, Evans GJ, Chow C-W, Scott JA: Comparative cardiopulmonary effects of size-fractionated airborne particulate matter. *Inhalation Toxicology*, 2012;24(3):161-71.

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Banks L, Lin YT, Chahal N, **Manhiot C**, Yeung RSM, McCrindle BW: Factors associated with low moderate-to-vigorous physical activity levels in pediatric Kawasaki disease patients. *Clinical Pediatrics*, 2012;51(9):828-34.

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Ford RJ, Teschke SR, Reid EB, Durham KK, **Kroetsch JT**, Rush JW: AMP-activated protein kinase activator AICAR acutely lowers blood pressure and relaxes isolated resistance arteries of hypertensive rats. *J Hypertens*, 2012, Feb, Epub.

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Ghisi GLM, Santos RZ, Schweitzer VA, Barros AI, Recchialo TL, Oh P, Benetti M, Grace SL: Development and validation of a Portuguese version of the cardiac rehabilitation barriers scale. *Brazilian Arch Cardiol*, 2012;98(4):344-352.

Graham N, Haines T, Goldsmith C, **Shahzad U**, Talovikova E, Gross A: Reliability of three assessment tools used to evaluate randomized controlled trials for treatment of neck pain. *Spine*, 2012;37(6):515-522.

Hannan JL, Cheung GL, **Blaser MC**, Pang JJ, Pang SC, Webb RC, Adams MA: Characterization of the vasculature supplying the genital tissues in female rats. *J Sexual Med*, 2012;9(1):136-47.

Hood D, **Singh K**: Mitochondrial biogenesis. IN: *Encyclopedia of Exercise Medicine and Disease*. (Eds: Mooren F, Skinner J), Springer Publishing, 2012

Irurhe NK, Raji SB, **Olowoyeye OA**, Adeyomoye AO, et al: Knowledge and awareness of breast cancer among female secondary school students in Nigeria. *Am J Can Res*, 2012;5(1):1-5.

Irurhe NK, Sulaymon FA, **Olowoyeye OA**, Adeyomoye AAO: compliance rate of adequate filling of radiology request forms in a Lagos University teaching hospital. *World J Med Sci*, 2012;7(1):10-11.

Jadhav A, Liang W, Balsevich J, Bastin G, **Kroetsch J**, Heximer S, Backx P, Gopalakrishnan V: L-tryptophan ethyl ester dilates resistance arterioles by inhibition of smooth muscle L-type Ca²⁺ channels. *Br J Pharmacol*, 2011, Sep, Epub.

Kojuri J, Ostovan MA, **Zamiri N**, Farshchizarabi S, Varavipour B: Hemodynamic instability following carotid artery stenting. *Neurosurgical Focus*, 2011;30(6):E12.

Lee PJ, Rudenko D, Fujii H, Shen V, Kabir G, Connelly KA, Liao C, Kuliszewski MA, Leong-Poi H: Paracrine effects of ultrasound mediated surviving gene delivery ameliorates doxorubicin-induced cardiomyopathy. *Can J Cardiol*, 2011;27:5S S329.

Lee PJ, Rudenko D, Fujii H, Shen V, Kabir G, Connelly KA, Liao C, Kuliszewski MA, Leong-Poi H: Examination of paracrine effects of ultrasound-mediated surviving gene therapy for heart failure. *Circulation*, 2011;124:A11503.

Lee PJ, Rudenko D, Kuliszewski MA, Liao C, Shen V, Kabir G, Connelly KA, Leong-Poi H: Ultrasound-mediated anti-apoptotic gene therapy for doxorubicin cardiomyopathy. *J Am Soc Echocardiography*, 2012;25(6):B2.

Lee SH, Jarantow LW, Wang H, Sillaots S, **Cheng H**, Meredith TC, Thompson J, Roemer T: Antagonism of chemical genetic interaction networks resensitize MRSA to β -lactam antibiotics. *Chem & Biol*, 2011;18(11):1379-1389.

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Nasseri-Moghaddam S, **Mofid A**, Razjouyan H: Dietary nitrate may have a role in development of gastro-esophageal reflux disease. *Arch Iranian Med*, 2011;14(5):312-314.

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Olowoyeye OA, Jaja SI, Kehinde MO, Awosanya GO, et al: Effects of ascorbic acid intake on the intima-media thickness and blood flow velocities of the carotid artery in patients with sickle cell anemia. *J Diagnostic Med Sonography*, 2011;27(5):214-219.

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Sider KL, **Blaser MC**, Simmons CA: Animal models of aortic valve disease. Int J Inflammation, 2011;364310.

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Van Horn L, **Banks L**, Vincent E, McCrindle BW: The importance of nutrition and physical activity for children. Pediatric Annals, 2012;41(2):67-72.

Xiao J, **Moon M**, Yan L, Nian M, Zhang Y, et al: Cellular FLICE-inhibitory protein protects against cardiac remodeling after myocardial infarction. Basic Res Cardiol, 2012;107(1):1.

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FACULTY

Faculty are divided into 3 categories (Full, Associate, Affiliate). Details on faculty research interests, and contact information are available on the CSCP web site. Departmental affiliations listed below are those within the CSCP. For annual information on faculty peer-reviewed funding and publications, please refer to their home department's annual reports.

<i>Name</i>	<i>Departmental Affiliation(s)</i>	<i>Location</i>
<u>Full</u>		
Lee Adamson	BME/IMS/PSL	Mount Sinai Hospital
Khosrow Adeli	LMP	Hospital for Sick Children
Peter Backx	Medicine/PSL	UofT – FitzGerald Bldg.
Jaques Belik	IMS/PSL	Hospital for Sick Children
Michelle Bendeck	LMP/Medicine	UofT – MSB
Sandra Black	IMS	Sunnybrook Health Centre
Douglas Bradley	IMS/Medicine	Toronto General Hospital
Dina Brooks	REH	UofT – Rehabilitation Science
Sean Clarke	NUR	UofT – Faculty of Nursing
John Coles	IMS/Surgery	Hospital for Sick Children
Philip Connelly	LMP/Medicine	St. Michael's Hospital
David Courtman	BME/Surgery	St. Michael's Hospital
Paul Dorian	IMS/Medicine/PCL	St. Michael's Hospital
Daniel Drucker	IMS/LMP	Mount Sinai Hospital
Joel Fisher	Anesthesia	Toronto General Hospital
John Flanagan	IMS	Toronto Western Hospital
John S. Floras	IMS/Medicine	Mount Sinai Hospital
Stephen Fremes	IMS/Surgery	Sunnybrook Health Centre
Adria Giacca	PSL	UofT - MSB
Jack M. Goodman	EXS	UofT - Physical Ed & Health
Len S. Goodman	EXS	Def & Civil Inst Environ Med
Avrum I. Gotlieb	LMP	Toronto General Hospital
Gil Gross	IMS	Hospital for Sick Children
David Hampson	Pharmaceutical Science	UofT – Pharmacy
Gregory Hare	PSL	St. Michael's Hospital
Scott Heximer	PSL	UofT - MSB
Aleksander Hinek	IMS/LMP	Hospital for Sick Children
Margaret Hough	IMS	Sunnybrook Health Centre
Chris Hudson	IMS	Toronto Western Hospital
Mansoor Husain	IMS/LMP/Medicine	Toronto General Hospital
K. Wayne Johnston	BME/IMS/Surgery	Toronto General Hospital
Peter G. Kalman	IMS/Surgery	Community
Armand Keating	IMS/BME	Princess Margaret Hospital
Michelle Letarte	MBP	Hospital for Sick Children
Gary F. Lewis	IMS/Medicine	Toronto General Hospital
Ren-Ke Li	IMS/LMP/Surgery	Toronto General Hospital
Tom Lindsay	IMS/Surgery	Toronto General Hospital
Mingyao Liu		MaRS, Toronto General
Peter Liu	IMS/Medicine	Toronto General Hospital
Marius Locke	EXS/CHL	UofT – Physical Ed & Health
Philip Marsden	IMS/LMP/MBP/Medicine	UofT – MSB

Brian McCrindle	IMS/HPME	Hospital for Sick Children
Peter McLaughlin	IMS/Medicine	Toronto General Hospital
Alan Moody	BME/IMS	Sunnybrook Health Centre
David Naylor	IMS/Medicine/CHL/Surgery	UofT – MSB
Heyu Ni	LMP	St. Michael's Hospital
Peter O'Brien	PHM	UofT - Pharmacy
John Parker	IMS/Medicine	Mount Sinai Hospital
Tom Parker	IMS/Medicine	Toronto General Hospital
Margaret Rand	IMS/LMP	Hospital for Sick Children
Vivek Rao	IMS/Surgery	Toronto General Hospital
Michael Sefton	BME	UofT – Wallberg Bldg.
Craig Simmons	BME	UofT – Mechanical Engineering
Arthur S. Slutsky	IMS/Medicine/Surgery	Mount Sinai Hospital
David Steinman	BME	UofT – Wallberg Bldg.
Donna E. Stewart	Anesthesia/IMS/Surgery/Medicine	Toronto General Hospital
Duncan Stewart	IMS/LMP/Medicine	St. Michael's Hospital
Bradley Strauss	LMP/Medicine	St. Michael's Hospital
Howard Tenenbaum	Dentistry	UofT - Dentistry
Scott G. Thomas	EXS/PSL	UofT – Physical Ed & Health
Jack Tu	HPME	Sunnybrook Health Centre
Michael Tymianski		
Robert Wald	IMS/Medicine	Mount Sinai Hospital
Richard D. Weisel	IMS/Surgery	Toronto General Hospital
Peter Wells	PHM	UofT - Pharmacy
Gregory Wilson	IMS/LMP/PSL/Surgery	Toronto General Hospital
Carin Wittnich	IMS/PSL/Surgery	UofT - MSB
Graham Wright	MBP	Sunnybrook Health Centre
Shirley Wu	PHM	UofT - Pharmacy
Burton Yang	LMP	Sunnybrook Health Centre
Terry Yau	IMS/Surgery	Toronto General Hospital
Erik L. Yeo	IMS/Medicine	Toronto General Hospital
Yeni Yücel	LMP	St. Michael's Hospital
Haibo Zhang	IMS/PSL	St. Michael's Hospital
<u>Associate</u>		
William Hutchison	PSL	Toronto Western Hospital
Jane Irvine	CHL	Toronto General Hospital
Howard Leong-Poi	IMS	St. Michael's Hospital
Valery Leytin	LMP	St. Michael's Hospital
David Mazer	Anesthesia/IMS	St. Michael's Hospital
Seema Mital	IMS	Hospital for Sick Children
Kumar Nanthakumar	IMS	Toronto General Hospital
Steffen-Sebastian Bolz	PSL	UofT – MSB
Anthony Gramolini	PSL	UofT – Best Institute
Vijay Chauhan	IMS/Medicine/PSL	Toronto General Hospital
Jason Fish		Toronto General Hospital
<u>Affiliate</u>		
Jagdish Butany	LMP/Medicine	Toronto General Hospital

Flavio Coceani (adjunct Professor – currently in Italy)
Gideon Cohen Surgery

Sunnybrook Health Centre

Faculty publications for the 2010-2011 academic year can be found through their departmental websites.

