



# UBC MD PhD

## UBC MD/PhD Program

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### Newsletter – 2014 Winter Term

<http://mdprogram.med.ubc.ca/mdphd/news/>

### Student Research Forum & Open House

The 15<sup>th</sup> annual UBC MD/PhD Student Research Forum and Open House was held on Friday, 5 September 2014, 2:00-5:00 pm, at the UBC Student Union Building. Opening remarks by **Dr. Lynn Raymond**, Director of the MD/PhD Program, set off the exciting event. Sincere thanks to our invited guest speaker, **Dr. David Scott**, Clinician-scientist, Centre for Lymphoid Cancer, BC Cancer Agency. Title of talk: “The MD/PhD: The Road Less Travelled”.



**Dr. David Scott**

Prospective applicants had some excellent questions and discussions with the speakers and the current MD/PhD students. Thanks to our student representatives, **Cynthia Min** and **Amanda Dancsok**, for organizing the event.



**Dr. Lynn Raymond**

# Student Research Forum & Open House (con't)

## ➤ Student presentation

**Gareth Mercer** and **Daniel Woodsworth** talked about their experiences in their MD/PhD training.

Other students presented their research work.

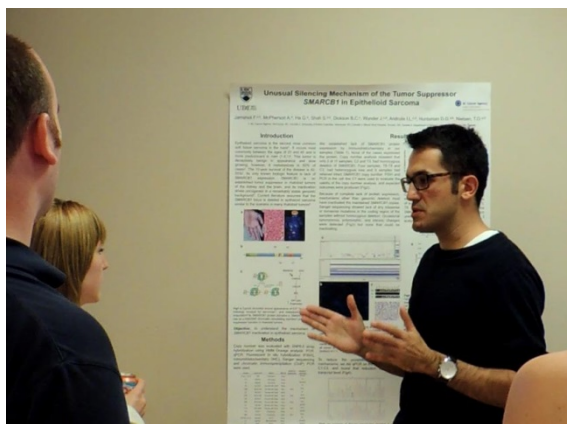
**Sonja Babovic**, “Developmental downregulation of LIN28 and HMGA2 expression in primitive normal human hematopoietic cells”.

**Farzad Jamshidi**, “Unusual silencing mechanism of the tumor suppressor SMARCB1 in epithelioid sarcoma”.

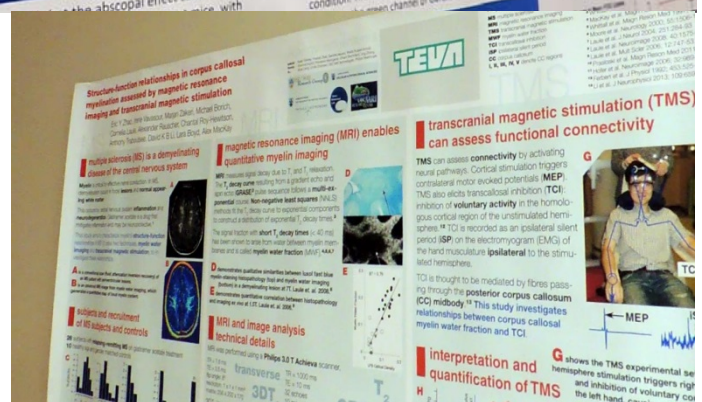
**Hwan Lee**, “Growth and metabolic responses to small animal stereotactic body radiotherapy in primary and distant tumors of mouse breast cancer models”.

**Daniel Woodsworth**, “A lymphocyte based cell-to-cell therapeutic delivery system”.

**Eric Zhao**, “Structure-function relationships in corpus callosal myelination assessed by magnetic resonance imaging and transcranial magnetic stimulation”.



UBC’s MD/PhD Program is one of the nation’s best and most competitive programs for training future clinician-scientists. Our alumni go on to top-tier residency programs across North America in specialties such as radiology, neurosurgery and neuropathology, ophthalmology, internal medicine, and emergency medicine, and later establish careers bridging clinical medicine with scientific research. Our program boasts an exceptional student publication record, guaranteed funding for all our students starting in the spring of the first year of the program, and outstanding success in external funding applications. We also offer reduced tuition and funding support to attend conferences.



## Program Admissions & Advisory Committee (PAAC) 2014-2015

The MD/PhD Admissions/Advisory Committee consists of four Ex-officio members and six appointed members. Ex-officio members are appointed as for their primary positions(s), including Associate Dean of Admissions, Associate Dean of Graduate & Postgraduate Education, MD/PhD Program Director and MD/PhD Associate Program Director. Appointed members are composed of clinician-scientists, basic scientists, graduate program advisors, student research supervisors and a senior student representative. To ensure that the MD/PhD Committee may benefit from maximum faculty involvement and has a healthy turn-over rate, the appointed members' term is for three years, renewable once. The Committee meets to review the admissions process and to finalize the ranking of MD/PhD applicants and to assign the CIHR MD/PhD Studentships to individual MD/PhD students. Members of the Committee also serve on the student Thesis Research Supervisory Committees, the PhD Comprehensive Examination Committees and the PhD Final Oral Examination Committees.

	<b>Bruce Fleming, MD</b> Associate Dean, Admissions, Faculty of Medicine, UBC
	<b>Peter Leung, PhD</b> Associate Dean, Graduate & Postgraduate Education, Faculty of Medicine, UBC
	<b>Lynn Raymond, MD, PhD</b> Director, MD/PhD Program, UBC Professor, Department of Psychiatry, UBC
	<b>Torsten Nielsen, MD/PhD</b> Associate Director, MD/PhD Program, UBC Professor, Department of Pathology & Laboratory Medicine, UBC
	<b>Dawn Cooper, PhD</b> Instructor, Department of Cellular & Physiological Sciences, UBC Co-Director, Foundations of Scholarship and Flexible Enhanced Learning, MD Curriculum, UBC
	<b>Jan Dutz, MD</b> Professor, Department of Dermatology & Skin Science, UBC
	<b>Pamela Hoodless, PhD</b> Professor, Department of Medical Genetics, UBC
	<b>Timothy O'Connor, PhD</b> Professor, Department of Cellular & Physiological Sciences, UBC Graduate Advisor, Graduate Program in Neuroscience, UBC
	<b>Stephen Yip, MD/PhD</b> Assistant Professor, Department of Pathology & Laboratory Medicine, UBC Residency Training Director, Neuropathology Program, UBC
	<b>Cynthia Min</b> Year 4, MD/PhD Student, UBC

Our sincere thanks go to **Drs. Robert Holt, Patrick Tang and Stuart Turvey** for their contribution to the committee in the past three years.

# UBC MD/PhD PROGRAM

## MD/PhD Student Representative - Cynthia Min

**Cynthia Min**, Year 4 student, is our 2014-2015 student representative, along with alternate student representative, **Amanda Dancsok** and **Sandy Wright**, our student representative at the Southern Medical Program. The major responsibility of the student representative is to sit on the MD/PhD Admissions/Advisory Committee. Other duties include helping to organize the MD/PhD monthly student meetings/seminars and presenting at student events to promote the MD/PhD Program. Prospective applicants are welcome to contact any of our students to ask questions. <http://mdprogram.med.ubc.ca/mdphd/students/>

### Message from Cynthia:

My journey to the MD/PhD Program began in the second year of my BHSc degree at McMaster University where I worked as a research assistant in a cognitive psychology lab. While I enjoyed the research I was involved with, I did not feel that it was the right field of research for me because the work was largely theoretical and did not have an applied focus. Given my interest in more applied research, the lab supervisor introduced me to researchers in the Program for Educational Research and Development where I spent the remainder of my degree conducting research in the area of medical education. This included a series of [projects](#) aimed at understanding how to help medical students transfer basic science knowledge into clinical contexts and a [project](#) studying the use of qualitative comments in the assessment of medical students.

Coming from a non-traditional field of research, I was very fortunate that Directors of the Program, were open minded and granted me the opportunity to train in the MD/PhD Program. Clinician-scientists/scholars outside of the basic sciences are becoming more prominent given the recognition of non-biomedical factors on health as well as the changing priorities of funding bodies such as CIHR.

Currently, I am completing my PhD in the Cross-Faculty Inquiry in Education Program through the [Centre for Health Education Scholarship](#). The opportunity to receive concurrent clinical and research training has been crucial to shaping the direction of my research given that my research interests stem from my experiences as a medical student. For my PhD thesis, I am interested in understanding the barriers that prevent medical students from identifying and remediating their performance deficits. A deeper understanding of this topic is important because successful self-identification and remediation of one's deficits is key to the delivery of safe and high quality patient care throughout a physician's career.

As an MD/PhD student, I have been very fortunate to receive a variety of supports from the program. This includes support from the Coordinator and the Directors with any problems that I have encountered. I have also received financial support in the form of stipends and reduced tuition, which has allowed me to focus on my research. In addition, I have had ample opportunities to attend research conferences to both disseminate my work and to engage in professional development opportunities.

My advice for aspiring MD/PhD students is to take the time to find an area of research that you are truly passionate about and find individuals and environments that will support your development as a clinician-scientist/scholar.

### Conference presentations (selected):

- Min, C.** (2014, November). *Does quality assurance lead to quality improvement? A critical analysis of physician performance review programs*. The Clinician Investigator Trainee Association of Canada/The Canadian Society for Clinical Investigation Young Investigators Forum, Toronto, ON.
- Min, C., Hatala, R., & Eva, K.** (2013, September) *Improving the assessment of physician competence: A multidisciplinary examination of the Halo Effect*. The Clinician Investigator Trainee Association of Canada/The Canadian Society for Clinical Investigation Young Investigators Forum, Ottawa, ON.
- Min, C., Hatala, R., & Eva, K.** (2013, April). *Improving the assessment of physician competence*. The 5th Biennial National Conference for Physician Scholars for the Social Sciences and Humanities, San Francisco, CA.
- Min, C., & Eva, K.** (2012, June). *Recognizing uncertainty in your knowledge: The impact of response options presentation on self-monitoring accuracy*. Poster presented at the Canadian National Medical Student Research Symposium, Winnipeg, MB.
- Ma, HK., Min, C., Neville, A., & Eva K.** (2012, April). *How good is good? Students and assessors' perceptions of qualitative markers of performance*. The Canadian Conference on Medical Education, Banff, AB.
- Kulasegaram, K., Lee, W., Min, C., Neville, A., & Norman, G.** (2011, November). *All mixed up: The effect of practice context on practice mode for transfer*. The Annual Meeting of the Association of American Medical Colleges/Conference on Research in Medical Education, Denver, CO.

## Meet Our Incoming Students - September 2014

**Sonja Babovic** (supervisor: **Dr. Connie Eaves**)  
UBC Medical Genetics, Terry Fox Laboratory, BC Cancer Agency, hosted by the Experimental Medicine Graduate Program.



I am very grateful for the opportunity to join the MD/PhD Program community, and am excited to learn and work alongside many brilliant classmates in the years to come.

Born and raised in Kuwait and Serbia respectively, I moved to Vancouver, unceded Coast Salish territories, in 2006 to study Biochemistry at UBC. I first had a chance to immerse myself in biomedical research during my first 8-month co-op term in **Dr. Dixie Mager's** lab at the BC Cancer Agency, studying how endogenous retroviruses have impacted the human genome. Following my graduation, I stayed in the same department, but switched labs to **Dr. Connie Eaves'** group, where I provided technical support for a year. It was there that I realized that, contrary to popular belief, research didn't primarily consist of setting up PCR reactions and developing Western blots. The intellectual exercise of formulating a research question, designing experiments to test it, interpreting data and having those interpretations challenged by your peers remains a source of awe, delight and humility.

I started my PhD program under Dr. Eaves' supervision in September 2012, and my thesis focus is on developmental differences in human hematopoietic stem cells and their relevance to leukemia. I chose this area of study in part because the medical specialty of hematology offers many opportunities to incorporate cutting-edge research into clinical practice.

Complementary to my research interests, I have volunteered for Universities Allied for Essential Medicines, an international student organization that strives to make the fruits of university biomedical research affordable and accessible around the world, since 2008. I also look forward to working with the MUS Political Advocacy Committee, and hope to eventually apply my medical and research training to advocate for policies that broaden access to health and opportunity for all. When not thinking about science, medicine, and their complex impacts on society, I'm riding my bicycle (my oversized panniers a perpetual source of steric hindrance), exploring beautiful BC on foot or by kayak, or daydreaming about my next adventure.

**Paulina Piesik** (supervisor: **Dr. Jan Dutz**)  
UBC Department of Dermatology, Child and Family Research Institute, hosted by the Experimental Medicine Graduate Program.



I am incredibly excited to join the UBC MD/PhD Program!

In my previous life, I finished a BSc in cell biology with an honours thesis on cell stress-coping mechanisms. As a co-op student, I worked on several research projects involving viral pathogenesis and host anti-viral defenses. Currently, my passion lies in understanding skin immunology, particularly how it relates to systemic inflammation. Allergic and autoimmune disorders are on the rise, and my broad research focus will be on the pathogenesis and potential treatments for such diseases. By harnessing the immune system of the skin, I will be exploring immunomodulatory therapeutics that can help reverse this alarming trend. Specifically, the skin is an important reservoir for immune cells, including antigen-specific regulatory T cells (Tregs).

My PhD thesis, done under the supervision of **Dr. Jan Dutz**, will focus on (1) understanding the role of Tregs and associated immune cells in inflammatory conditions of the skin and (2) harnessing the tolerogenic potential of skin Tregs to treat systemic inflammatory disease.

Outside of research, I translate my passion for skin health by acting as the co-chair of the UBC Skin Cancer Awareness Network, which provides educational workshops on skin cancers and sun safety to the general public.

When not immersed in research, I enjoy comedy (particularly satire and improv), following current events, and immersing myself in the cultural experiences readily found both in Vancouver and around the world.



## MD/PhD "Building Bridges Seminar Series" - ALL ARE WELCOME

This well-established seminar series aims to illustrate the relationship that exists between clinical practice and medical research. The seminars are organized for budding clinician-scientists of the MD/PhD and Clinician Investigator Programs, which allow the trainees to hear about different career tracks and various ways to combine clinical and research work. In addition to speaking about their active research, the invited speakers discuss their experiences and training backgrounds, share their advice with prospective clinician-scientists, and give their opinions on career development options for clinician-scientists. All faculty, clinical investigator trainees, and students in the Faculty of Medicine are invited. Our usual venue is at the Medical Student Alumni Centre, 6:00-7:00 pm, video-conferenced to Victoria, Prince George and Kelowna.



Dr. Adeera Levin

Dr. Paul Yong

Monday, 17 November 2014

Invited speaker: **Dr. Adeera Levin**, Professor, Department of Medicine, UBC

Monday, 12 January 2015

Invited speaker: **Dr. Paul Yong**, Assistant Professor, Department of Obstetrics & Gynaecology, UBC

For information on upcoming seminars, please visit our webpage at

<http://mdprogram.med.ubc.ca/mdphd/seminars/>

## MD/PhD Social

The MD/PhD group and their families had a wonderful time at the Spanish Banks in the afternoon of 28 August 2014. We had a barbecue party with good food and exciting sport games. This annual event is to welcome incoming students and also serves as a great opportunity for our significant others to join us for fun.



Great photo to share  
(after packing up).

## Award Winners (selected)

### Philip Edgcumbe

- Outstanding Young Scientist Award, Medical Image Computing and Computer Aided Interventions (MICCAI) conference, Boston USA.  
Oral presentation - Pico lantern: A pick-up projector for augmented reality in laparoscopic surgery

### Hwan Lee

- Roman M. Babicki Fellowship in Medical Research, Faculty of Medicine, UBC
- Elwyn Gregg Memorial Fellowship, Faculty of Graduate and Post-doctoral Studies, UBC

### Cynthia Min

- Dean of Education Scholarship, UBC

### Long Nguyen

- Elizabeth K Craig Memorial Scholarship, Faculty of Medicine, UBC

### Allen Zhang

- Faculty of Science Graduate Award, UBC

## PhD Comprehensive Exam



Philip Edgcumbe



Victor Li



Cynthia Min

Congratulations to **Philip Edgcumbe**, **Victor Li** and **Cynthia Min**, Year 4 MD/PhD students. They passed the comprehensive examination and had been admitted to candidacy.

The MD/PhD Comprehensive Examination format consists of two parts:

- a CIHR style research grant proposal in an area of research
- an oral examination.

Philip's research co-supervisors are **Dr. Christopher Nguan** and **Dr. Robert Rohling**. The topic of his research project is "Augmented Reality Elastography Navigation Aid (ARENA) for robotic-assisted laparoscopic surgery".

Victor's research supervisor is **Dr. Yu-Tian Wang**. The topic of his research project is "Peptide-mediated clearance of beta-amyloid for alzheimer's disease therapy".

Cynthia's research co-supervisors are **Dr. Kevin Eva** and **Dr. Dan Pratt**. The topic of her research project is "The role of task knowledge in performance and self-assessment".

## CSCI/CITAC Annual Conference and Young Investigators Forum

UBC was very well represented at the Canadian Society for Clinical Investigation (CSCI) / Clinician Investigator Trainee Associate of Canada (CITAC) Young Investigators Forum, 24-26, November 2014, in Toronto, Ontario. Seven MD/PhD students were selected to present their outstanding research projects!

**Victoria Baronas**, Year 2, “Use-dependent activation of Kv1.2 channel complexes”.

**Philip Edgcumbe**, Year 4, “Pico lantern: A pick-up projector for surface reconstruction, blood vessel detection and augmented reality during minimally invasive surgery”.

**Parker Jobin**, Year 2, “Tryptophanyl tRNA synthetase as an antiangiogenic target of matrix metalloproteinase processing”.

**Andrea Jones**, Year 2, “Mortality among marginally housed adults in Vancouver, Canada”.

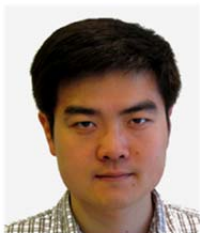
**Cynthia Min**, Year 4, “Does quality assurance lead to quality improvement? A critical analysis of physician performance review programs”.

**Long Nguyen**, Year 6, “Barcoding reveals an unexpected sequence of malignant change by normal human mammary cells”.

**Eric Zhao**, Year 2, “A mutation signature analysis of BRCA1/2 deficiency and cisplatin sensitivity”.

Good job, everyone.

**Eric Zhao**  
serves as the  
VP Internal Affairs (elected)  
at the CITAC.



**Andrea Jones**  
serves as the Chair of the  
Membership Committee  
which oversees the management  
of the CITAC membership issues.



## Comments and Suggestions

We welcome comments and suggestions to the UBC MD/PhD Program and to our newsletters. Please send comments to the MD/PhD Program office, 2894 Detwiller Pavilion, 2255 Wesbrook Mall, UBC, Vancouver, BC, Canada V6T 2A1. Phone: 1-604-822-7198 Fax: 1-604-822-7917  
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Edited by Jane Lee, Program Coordinator, MD/PhD Program, UBC