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Newsletter – Winter 2005

UBC MD/PhD Student Research Forum & Open House - 12 September 2005

The sixth annual UBC MD/PhD Student Research Forum and Open House was held on Monday, 12 September 2005, at the UBC Brain Research Centre. Opening remarks by **Dr. Anthony Chow**, Director, UBC MD/PhD Program, set off the exciting half-day event. The forum had an excellent turnout, with faculty members, students, guests, and potential applicants in attendance.



Our distinguished guest speaker, **Dr. Stuart Lipton**, (left) Professor & Scientific Director,

Center for Neurosciences & Aging, The Burnham Institute, La Jolla, CA, USA delivered a talk on “The experience of a clinician-scientist”. **Dr. Lynn Raymond**, Co-Director, MD/PhD Program, and **Aaron Joe**, Year 3 MD/PhD student, presented talks on “Training and career opportunities for clinician scientists/investigators”. Potential applicants had some excellent questions and good discussion with the current MD/PhD students.



Special thanks go to **Inna Sekirov**, Year 3 MD/PhD student, for organizing the Open House and taking some great photos for us.

MD/PhD Advisory/Admissions Committee

The MD/PhD Advisory/Admissions Committee consists of clinician-scientists, basic scientists, graduate program advisors, student research supervisors and a student representative. Membership is appointed and reviewed annually by the Program Director and Program Co-Director. In order to ensure that the MD/PhD Committee may benefit from maximum faculty involvement and has a healthy turn-over rate, members who have completed a 3-year term will automatically be rotated off the Committee, but can serve additional terms after a 3-year hiatus. The Committee meets at least once a year to review the admissions process and to finalize the ranking of MD/PhD applicants. 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.

MD/PhD Advisory/Admissions Committee 2006



Anthony Chow, MD

Director, MD/PhD Program, UBC

Professor, Infectious Diseases, Department of Medicine, UBC

Director, CIHR-UBC Strategic Training Program for Translational Research in Infectious Diseases



Lynn Raymond, MD, PhD

Co-Director, MD/PhD Program, UBC

Professor, Neurosciences, Department of Psychiatry, UBC



Neil Cashman, MD

Professor, Neurology, Department of Medicine, UBC

Director, Amyotrophic Lateral Sclerosis (ALS) Centre, Vancouver Coastal Health



Stephen Chung, MD, PhD

Professor and Head, General Surgery, Department of Surgery, UBC

Head, CIHR/MSFHR Strategic Health Training Program in Transplantation



John Church, MD, PhD

Professor, Department of Cellular & Physiological Sciences, UBC



Sandra Dunn, PhD

Assistant Professor, Department of Pediatrics, UBC



Blair Leavitt, MD

Assistant Professor, Department of Medical Genetics, UBC

Director, CMMT/CGDN Transgenic Core Facility, UBC



Torsten Nielsen, MD/PhD

Assistant Professor, Department of Pathology & Laboratory Medicine, UBC



Isabella Tai, MD, PhD

Assistant Professor, Gastroenterology, Department of Medicine, UBC

Head, Gastrointestinal Cancer Research, Genome Sciences Centre, BC Cancer Agency

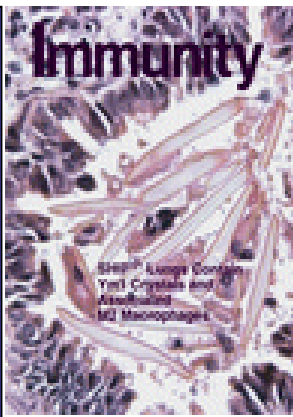
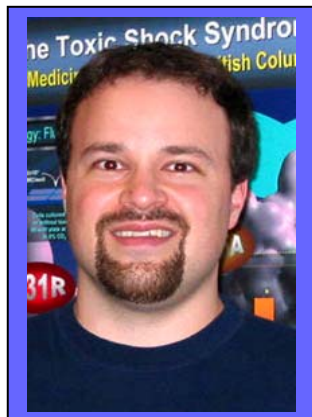


Bryan Coburn

Year 5 MD/PhD Student, UBC

UBC MD/PhD PROGRAM

Michael Rauh



Michael Rauh, Year 7 MD/PhD student, has his first cover. One of Michael's recent first-authored publications was chosen as the cover article in the journal 'Immunity', October, 2005: 23(4) issue. **Rauh MJ** et al. [SHIP represses the generation of alternatively activated macrophages](#). Immunity 23(4):361-74. 2005.

Left: An H & E-stained cross-section of a SHIP^{-/-} mouse lung revealing a bronchiolar lumen occluded with M2 macrophage-associated Ym1-containing eosinophilic crystals.

Congratulations, Mike! That is an awesome cover, the article is also brilliant.

Research

Congratulations!!

Thesis

Claire Sheldon

Claire Sheldon, Year 7 MD/PhD student, won the **Canadian Association for Graduate Studies (CAGS) - UMI Distinguished Dissertation Award 2005**, in the category of engineering, medical sciences and natural science. The CAGS/UMI Distinguished Dissertation Awards are some of the most prestigious national awards available to doctoral students. The awards recognize doctoral students whose dissertations make an original contribution to their academic field. The award includes a \$1,000 prize, a citation certificate and travel expenses to attend the 2005 CAGS annual conference. Two awards are offered each year: one in engineering, medical sciences and natural sciences; and one in fine arts, humanities and social sciences.

In 2005 Claire won the UBC Alumni Association Outstanding Student Award, she also won the Dr. Alan William Baird Brydon Memorial Scholarship and the Douglas & Jean Bailey Scholarship, both were awarded on the basis of academic achievement by the Faculty of Medicine.

Claire defended her PhD thesis entitled, "Anoxia and Na⁺/H⁺ exchange activity in rat hippocampal neurons" on 24 September 2004. Her PhD research supervisor is Dr. John Church, Department of Cellular & Physiological Sciences. Claire's thesis is available in the UBC Library.



Congratulations, Claire!



A list of UBC MD/PhD student publications is available at: <http://www.med.ubc.ca/mdphd>

Claire Sheldon and Clara Tan - Outstanding Student Award



Congratulations, Claire and Clara!!
We are so proud of you!



Claire Sheldon (MSc '99)

- 7th-year student of combined MD/PhD program in the Department of Cellular and Physiological Sciences
- PhD thesis is definitive work on anoxia-induced changes in intracellular pH and sodium ion concentration in neurons that has led to publishing her findings in several influential journals and participating in international meetings
- member of British Columbia Medical Association, UBC Chapter of Students Interested in Neuroscience, Society for Neuroscience, and Canadian Physiological Society
- volunteer with Community Health Initiative by University Students, which provides health care in Vancouver Downtown Eastside
- marathon runner, finished among top 100 females in 2003 and 2004 Vancouver Sun Run
- fitness instructor at UBC Bird Coop Fitness Centre from 1999 to 2001
- mentor with Pacific Legal Education Association from 1999 to 2001
- recognized in 1998 with UBC Teaching Assistant Teaching Award for performance as teaching assistant in human neuroanatomy, advanced human physiology, and human physiology laboratory courses
- awarded Laura Jasch Memorial Prize by UBC Department of Anatomy in 1998 for research skills and personal accomplishments

Clara Tan (MSc '02)

- 6th-year student of combined MD/PhD program in the Department of Biochemistry and Molecular Biology
- conducting research on integrin-linked kinase as a diagnostic tool and therapeutic target in cancer treatment
- clinic supervisor in Vancouver Downtown Eastside since 2001 at Community Health Initiative by University Students and Programming Committee co-leader of its Women and Children Programs
- member of Board of Governors of Canadian Cancer Society since 2004
- volunteer team assistant with Vancouver Lodge of Canadian Cancer Society
- member of British Columbia Medical Association, Canadian Medical Association, American Society for Cell Biology, and Canadian Network for International Surgery
- co-choirmaster and singer in UBC Medical and Dental Choir since 2000
- cellist in UBC Black and Blues Band and UBC Medicine Chamber Music Group since 2004
- UBC Medicine Spring Gala Art Gallery Coordinator
- member of UBC 3rd Year Medicine Women's Hockey Team since 2004
- received Outstanding Trainee Award from Vancouver Coastal Health Research Institute in 2004

CSCI/CIHR Joint Program: Young Investigators Forum 2005

UBC was very well represented at the CSCI Young Investigator Forum 2005 in Vancouver. Ten current MD/PhD students were selected to present their outstanding research projects!

☆☆☆ Congratulations go to **Liam Brunham** who won the Best Oral Presentation Award! ☆☆☆

UBC MD/PhD students graciously hosted a picnic lunch for MD/PhD students from other medical schools, CIP trainees and faculty in attendance at the CSCI meeting in Vancouver from across the country. The picnic lunch was held in the beautiful Vancouver Stanley Park during the lunch break on Thursday, 22 September 2005.

This informal picnic created a memorable and valuable opportunity for trainees and faculty from the various programs to enjoy a free lunch in a beautiful informal setting and discuss successes and challenges they faced in their training. It was a beautiful day with lots of sunshine, and all participants had a very enjoyable time.



Above: UBC MD/PhD Student Representative, Liam Brunham, thanked the participants at the picnic.

MD/PhD Picnic Lunch 22 September 2005, Vancouver, BC



Above: MD/PhD students from the Uof Toronto.



Left to right: Drs. Lynn Raymond, Morley Hollenberg Anthony Chow.



2nd Annual MUS Medical Student Research Forum - 17 November 2005

The second Annual MUS Medical Student Research Forum, hosted by the MD/PhD students, was held on Thursday, 17 November 2005, 7:00 – 10:00 pm, at the UBC Medical Student Alumni Centre. Three guest speakers presented talks on their lives in clinic and in research: **Dr. Karim Khan**, Department of Family Practice and School of Human Kinetics, gave a very interactive presentation about tendonopathy and ‘tendonitis’, intended to illustrate why he went into research and to excite medical students about research. **Dr. Brian Kwon**, Department of Orthopaedics, gave a presentation describing important points and tools required to enter research and medicine, and the pros and cons of each field. **Claire Sheldon**, Year 7 MD/PhD Student, presented her research over her last few years as a PhD Student. The event was a great success, with a huge turn-out!!

There were a total of 25 posters presentations; 8 in the MD category, 17 in the open category.



Event Co-organizers:
Aaron Joe & Clara Tan

Judges were: Drs. Angela Towle, Brian Kwon, Lynn Raymond, Brian Conway, Karim Khan and Claire Sheldon. Thanks for your great work!

MD winners: Joanne Yeung and Sharlene Kolesar.

Open winners: Shaila Merchant and Jacqueline Trudeau.

Runners up: Junella Lee and Inna Sekirov. Congratulations!!

Great job, Aaron and Clara! Thanks!



Dr. Lynn Raymond, Co-Director, MD/PhD Program, and Dr. Brian Conway, Department of Pharmacology & Therapeutics, at the poster session. Thank you for your great work!!



Big thanks go to Dr. Karim Khan, Department of Family Practice and School of Human Kinetics, who presented a talk and acted as one of the judges at the poster session.



Big thanks go to Dr. Brian Kwon (right), Department of Orthopaedics, who presented a talk and acted as one of the judges at the poster session.



Big thanks go to Dr. Bruce Fleming, Associate Dean, Student Affairs, Medicine Undergraduate Program, who did a great job of wrapping up the event, as in 2004.



The annual event has a huge turn-out with faculty and students in the Medicine Undergraduate Program.

Congratulations to Our Award Winners!!



Congratulations go to the followings:

Kathryn Potter and **Fiona Young** were awarded the Graduate Entrance Scholarship (GES) for the first year of their MD/PhD studies. GES awards are intended for the recruitment of outstanding incoming graduate students for full-time graduate study at UBC.

Brennan Eadie and **Fiona Young** were awarded the William, Sadie & Edwin Rowan Scholarship in Medicine. **Claire Heslop** was awarded the Faculty of Medicine 50th Anniversary Scholarship. **Kathryn Potter** was awarded the Gwynne-Vaughan Memorial Award in Medicine. They were awarded on the basis of academic achievement by the Faculty of Medicine at UBC.

Fiona Young has been offered the Walter and Jessie Boyd & Charles Scriver MD/PhD Studentship Award, for a period of six years (\$21,000 per year) beginning 1 March 2006. Fiona is interested in studying the role of ABCA1 in the Central Nervous System. Her PhD research supervisor is Dr. Michael Hayden, Department of Medical Genetics.

Bryan Coburn - MD/PhD Student Representative

Bryan Coburn, Year 5 MD/PhD student, is the student representative and **Inna Sekirov**, Year 3 MD/PhD student, who will succeed Bryan as the next student representative is the alternate student representative for 2005-2006. One of the responsibilities of the student representative is to organize the MD/PhD monthly student meetings. Another major duty of the student representative is to sit on the MD/PhD Advisory and Admissions Committee.

Bryan Coburn is pursuing his PhD in Dr. Brett Finlay's laboratory at the Michael Smith Laboratories at UBC. He is studying enteropathogenesis of *Salmonella* infection (although has been known to respond 'diarrhea – bloody diarrhea' when asked what his scientific interest is). He also likes food, wine and cycling, usually in combination.



Bryan Coburn

Here are a few of Bryan's recent publications:

Coburn B. Osteoarthritis? Try asporin. *Clin Genet* 67(5):394-5. 2005. [[PMID 15811005](#)]

Coburn B. Beating congenital heart defects with embryonic stem cells. *Clin Genet* 67(3):224-5. 2005.

Coburn B, Li Y, Owen D, Vallance BA, Finlay BB. *Salmonella enterica* serovar Typhimurium pathogenicity island 2 is necessary for complete virulence in a mouse model of infectious enterocolitis. *Infect Immun* 73(6):3219-27. 2005. [[PMID 15908346](#)]

Coombes BK, **Coburn B**, Potter AA, Gomis S, Mirakhur K, Li Y, Finlay BB. Analysis of the contribution of salmonella pathogenicity island 1 and 2 to enteric disease progression using a novel bovine ileal loop model and a murine model of infectious enterocolitis. *Infect Immun* 73:7181-9. 2005. [[PMID 16239510](#)]

* Upcoming Events *

UBC will be very well represented at this year's Western Student Medical Research Forum, Carmel, CA, 1–5 February 2006. Seven current MD/PhD students have been selected to present their outstanding research projects!

- ◆ **Paul Yong** (Year 7), Experimental Medicine – supervisor: Dr. Wendy Robinson
 - PROTEIN KINASE EXPRESSION PROFILING IN HUMAN TRISOMY: GENE DOSAGE AND AMPLIFIED INSTABILITY
- ◆ **Clara Tan** (Year 6), Biochemistry & Molecular Biology – supervisor: Dr. Shoukat Dedhar
 - TREATMENT AND OUTCOMES OF MERKEL CELL CARCINOMA AT UCSF
 - COMMUNITY HEALTH INITIATIVE BY UNIVERSITY STUDENTS: SYSTEMIC CHART REVIEW 2006
- ◆ **Aaron Joe** (Year 3), Experimental Medicine – supervisor: Dr. Fabio Rossi
 - A CLONAL, HIGH-THROUGHPUT ASSAY FOR THE OPTIMIZATION AND CHARACTERIZATION OF MESENCHYMAL STEM CELLS
- ◆ **Heather Heine** (Year 3), Pathology & Laboratory Medicine – co-supervisors: Drs. B McManus & T Podor
 - INTRAVENOUS AND DIRECT MYOCARDIAL INJECTION OF SIDE POPULATION STEM CELLS LABELED WITH GREEN FLUORESCENT PROTEIN INTO A MURINE MODEL OF MYOCARDIAL INFARCTION C57BL/6 MOUSE HEARTSION *TTT*: TRACKING CELLS IN TRANSPLANT VASCULAR DISEASE
- ◆ **Inna Sekirov** (Year 3), Microbiology & Immunology – supervisor: Dr. Brett Finlay
 - CHARACTERIZATION OF SECRETED PROTEINS OF NON-O157:H7 ENTEROHEMORRHAGIC ESCHERICHIA COLI SEROTYPES AND THEIR USE IN BOVINE VACCINE STUDIES
- ◆ **Susan Berkhout** (Year 2), Experimental Medicine – supervisor: Dr. Mark Tyndall
 - LIFE AT THE MARGINS: UNDERSTANDING THE SOCIAL DETERMINANTS OF HIV/AIDS IN WOMEN'S HEALTH THROUGH MULTIDISCIPLINARY TRANSLATIONAL RESEARCH
- ◆ **Claire Heslop** (Year 2), Pathology & Laboratory Medicine – supervisor: Dr. John Hill
 - BIOMARKERS OF OXIDATIVE STRESS: RELATIVE PREDICTIVE VALUE FOR CARDIOVASCULAR MORTALITY

Aaron Joe, Year 3 MD/PhD student,
Vice President, Academic Affairs, UBC Medical Undergraduate Society

Signs of a Pre MD/PhD

- Research and curiosity driven
- Embrace translational research
- Enjoy working in teams/collaborations
- Enjoy working in clinical environment
- Goal oriented
- Busy schedules don't faze you
- Desire to break new ground
- See yourself working in leadership roles
- Know how to relax



Important Tips to Our Applicants

- Identify research area and potential research supervisor during the application process
- Learn about the UBC MD/PhD Program
- Learn about the MD/PhD career
- Speak with current students
- Aspire to be a clinician-scientist!

Edited by Jane Lee, Program Co-ordinator, MD/PhD Program, UBC.