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Editorial

Welcome Iris!

By Priscilla De Luca & Dr. Iris Kulbatski

The ORT warmly welcomes our new Science Writer, Dr. Iris Kulbatski, to the team. Iris is a Postdoctoral Fellow in Dr. Mark Erwin's lab at TWRI. We asked Iris to describe her journey through grad school and postdoctoral training, and her career aspirations as a science writer.

"My career as a scientist began in the laboratory of Dr. Charles Tator, here at UHN. I completed my MSc and PhD degrees under his mentorship, and I believe that these formative years were crucial to my success as a developing scientist. I was extremely fortunate to have a supportive and generous mentor, which I learned is equally as crucial to long-term success as a commitment to good science and productivity. I was exposed to the many aspects of a research career, including bench work, grant writing, presenting and networking at scientific meetings, and training summer students even as a Master's student myself.

My years as a graduate student and scientist taught me about the daily discipline and commitment needed to achieve long-standing goals. Science training presents an extraordinary opportunity to develop the intellectual skills that are both necessary for scientific research and invaluable when applied to any discipline or career. The skills I value most as a scientist are the ability to design and perform hypothesis-driven experiments, to observe, troubleshoot and brainstorm, and be precise, analytical, objective, communicative and collaborative. These skills have equipped me with the fundamental tools to be successful.

My PhD thesis examined the differentiation properties of neural precursor cells isolated from the adult rodent spinal cord and propagated in culture. The purpose of this work was to understand the

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characteristics of these cells *in vitro*, in order to standardize their transplantation into a rodent model of spinal cord injury, specifically as a strategy to regenerate the injured cord. Since obtaining my PhD, I have pursued postdoctoral research at institutions abroad, where I have explored additional cell sources for neural regeneration, including bone marrow derived mesenchymal stem cells and endothelial cells.

I am happy to be back at UHN to continue my research as a postdoctoral fellow and bridge the gap towards becoming an independent researcher. As a scientist engaged in biomedical research, I find that UHN provides an enriching environment for both academic and translational work. I bring newly acquired skills and knowledge, along with valuable insights from other scientists and research institutes I have studied at. I am thrilled to see that among the developments during my time away is the launch of the ORT. I look forward to my new role as the ORT's Science Writer and to contributing to their support of the UHN community of research trainees.

I became involved in science communication several years ago, when I began working as a part-time freelance science writer and editor for independent researchers and medical device companies. This experience has been very rewarding, especially since it has given me the opportunity to learn about medical research and technology outside my own area of specialization. I have also come to appreciate the importance of communicating science to the lay public and the influence this has on resource availability, political permissiveness, and general scientific impact.

As a postdoc returning to the UHN community, the advice I would offer about advancing after you graduate would be to inform yourself about future career options and establish good contacts with your colleagues. Through meetings and collaborations, start building your network while still a graduate student—a crucial step towards finding a good postdoc position or industry job. With your supervisor's support, participate in the exchange of skills and knowledge with other labs and set up collaborations. There is no substitute for good science, but a career in research requires additional skills that cannot be developed at the bench."



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Supervisor: Dr. Mark Erwin, TWRI

Continue the Discussion!

If you would like to comment on this article, please visit 'My ORT' at www.uhntrainees.ca

conference reports

ORT Conference Travel Awardees

This section of The ORT Times includes research highlights from recent ORT Conference Travel Awardees. In this issue, learn about the latest developments in Cystic Fibrosis and Spondyloarthritis, read about the latest discoveries in Diabetes and the latest research in non-invasive brain stimulation techniques.

Mr. Shawn Clark, a PhD student in Dr. David Hwang's lab at TGRI, recently attended the North American Cystic Fibrosis Conference held in Orlando, Florida. He had the opportunity to present his research entitled, "Longitudinal analysis of the intracolon diversity within pseudomonas aeruginosa populations during chronic CF lung infections."

[Click here to find out the latest advances in Cystic Fibrosis research.](#)



Want to know about the recent developments in diabetes research? Ms. Sally Yu, a PhD student in Dr. Minna Woo's lab at TGRI, recently presented her research entitled, "Adipocyte-specific deletion of Janus kinase 2 (JAK2) leads to increased adiposity, reduced energy expenditure and age-dependent glucose intolerance" at the 48th EASD conference in Berlin, Germany.

[Click here to read her report.](#)

Mr. Wilfred Ip is a PhD student in Dr. Tianru Jin's lab at TGRI who recently attended the Canadian Diabetes Association 15th Annual Professional Conference. He presented an abstract entitled, "Wnt Signaling and Transcription Factor 7-Like 2 (TCF7L2) Mediate the Effect of Insulin in Repressing Hepatic Gluconeogenesis."

[Click here to read about the latest advances in the field of diabetes in Canada.](#)



conference reports

CONT'D.....ORT Conference Travel Awardees

Mr. Ali Akram, a PhD student in Dr. Robert Inman's lab at TWRI, recently attended the 8th International Congress on Spondyloarthritis in Gent, Belgium. He had the opportunity to present his research entitled, "Pattern of HLA allele co-expression influences immunodominance of anti-influenza CTL responses."

[Click here to find out the latest advances in Spondyloarthritis.](#)



Want to know the link between improving patient care and disease prevention using mobile applications?

Mr. Sam Liu, a PhD student in Dr. Robert Nolan's lab at TGRI, recently attended the World Congress of Medicine 2.0: Social Media, Mobile Apps, and Internet/Web 2.0 in Health, Medicine and Biomedical Research in Boston, USA. He had the opportunity to present his research entitled, "A review of web-based interventions in reducing blood pressure."

[Click here to read his report.](#)

Dr. Robin Cash, a Postdoctoral Fellow in Dr. Robert Chen's lab at TWRI, recently attended the Synaptic Plasticity Conference in Taormina, Italy. He had the opportunity to present his research entitled, "Harnessing cortical disinhibition to promote synaptic plasticity in human motor cortex."

[Click here to find out the latest research in non-invasive brain stimulation techniques.](#)



Spotlight on: COMBIEL

By Catherine Brown, Training Coordinator

In this issue of the ORT Times, one of UHN's translational training centres, COMBIEL, is featured.

COMBIEL stands for Cancer Outcomes, Medicine, Biostatistics, Informatics, Epidemiology and Laboratory Medicine. Initiated in 2007 as an informal training initiative, COMBIEL was officially formalized in 2011 and is co-led by Drs. Geoffrey Liu (Clinician Scientist, Medical Oncologist, and Molecular Epidemiologist) and Wei Xu (Biostatistician and Statistical Geneticist). COMBIEL focuses on interdisciplinary training of clinician, biostatistician, and epidemiologist trainees by having trainee members of different disciplines work on the same projects together. This encourages each discipline to work collaboratively with each other on specific translational research projects, in addition to honing communication skills and developing a better understanding of the roles of other team members.

COMBIEL caters to both short, intense interdisciplinary experiences (interns, practicums, course work and summer students) and long-term projects (graduate studies supervision, post-doctoral fellowships and clinical fellows). It is not a specific training program; rather, its mandate is to enhance cross-disciplinary research training. COMBIEL supervisors strive to ensure that trainees have a full and rewarding experience.

Translational projects include clinical trials and translational studies, such as pharmacogenomic and biomarker analyses that produce prognostic and outcome factors in a variety of cancers, which can then be used for the assessment of health behaviour modifications that accompany cancer diagnosis. Round table discussion groups occur twice per week during the summer months and biweekly during the academic year. These sessions involve a mix of didactic and problem-solving of real case examples derived from trainee projects.

Trainees within the COMBIEL initiative are enrolled and funded through various training programs, including CIHR-funded training programs in Molecular Pathology, The Excellence in Radiation Research for the 21st century (EIRR21st) Research Training Program and the Strategic Training for Advanced Genetic Epidemiology (STAGE); the OICR Oncology Research and Methods Training Program; various graduate and post-graduate programs; and the University of Toronto Comprehensive Research Experience for Medical Students (CREMS) program, Pharmaceutical companies, and philanthropic funds.



For more information, visit the COMBIEL website.

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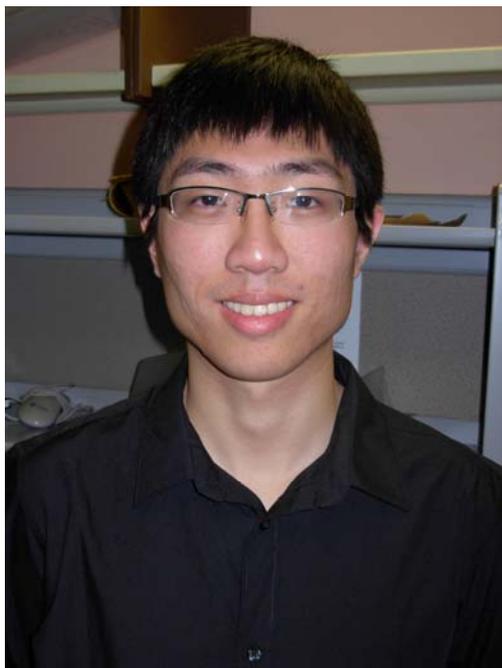
Dr. Wei Xu (biostatistics): w Xu@uhnresearch.ca

Catherine Brown (training coordinator) at

cbrown@uhnresearch.ca



Spotlight on: COMBIEL



(Above) Graduate Student:
Mr. Xiaowei Shen, MSc program
Supervisor: Dr. Wei Xu, OCI

(Below) Graduate Student:
Mr. Osvaldo Espin-Garcia, MSc program
Supervisor: Dr. Wei Xu, OCI



To get an insider's view on training in the COMBIEL program, we sat down with Mr. Osvaldo Espin-Garcia and Mr. Xiaowei Shen, both are MSc students in Dr. Wei Xu's laboratory at the Ontario Cancer Institute (OCI).

ORT: What makes COMBIEL unique?

XS: I think COMBIEL is unique in the way that it incorporates researchers from a lot of different areas and allows them to share ideas. Getting inputs from relevant areas that I am not familiar with will definitely help my research. Since I am doing statistical analysis for clinical and genetic studies, it's always good to learn some background knowledge from people in the lab.

OEG: As an interdisciplinary program you are involved in the whole research process working closely with people in other fields rather than just focusing upon your own area of expertise. Being in touch with trainees of other disciplines helps you to listen and learn from different perspectives which heighten your own understanding. Therefore COMBIEL provides the trainees a "big picture" of the research environment allowing them to be more competitive and with a solid background.

ORT: How has your involvement with COMBIEL helped you develop as a trainee?

XS: I did two presentations during regular COMBIEL meetings. There were a lot of helpful discussions regarding my presentation. To me, how to better communicate with others who know little about statistics is the most valuable thing I learned from COMBIEL. These communication skills also help me a lot when I work with clinicians and surgeons in other studies.

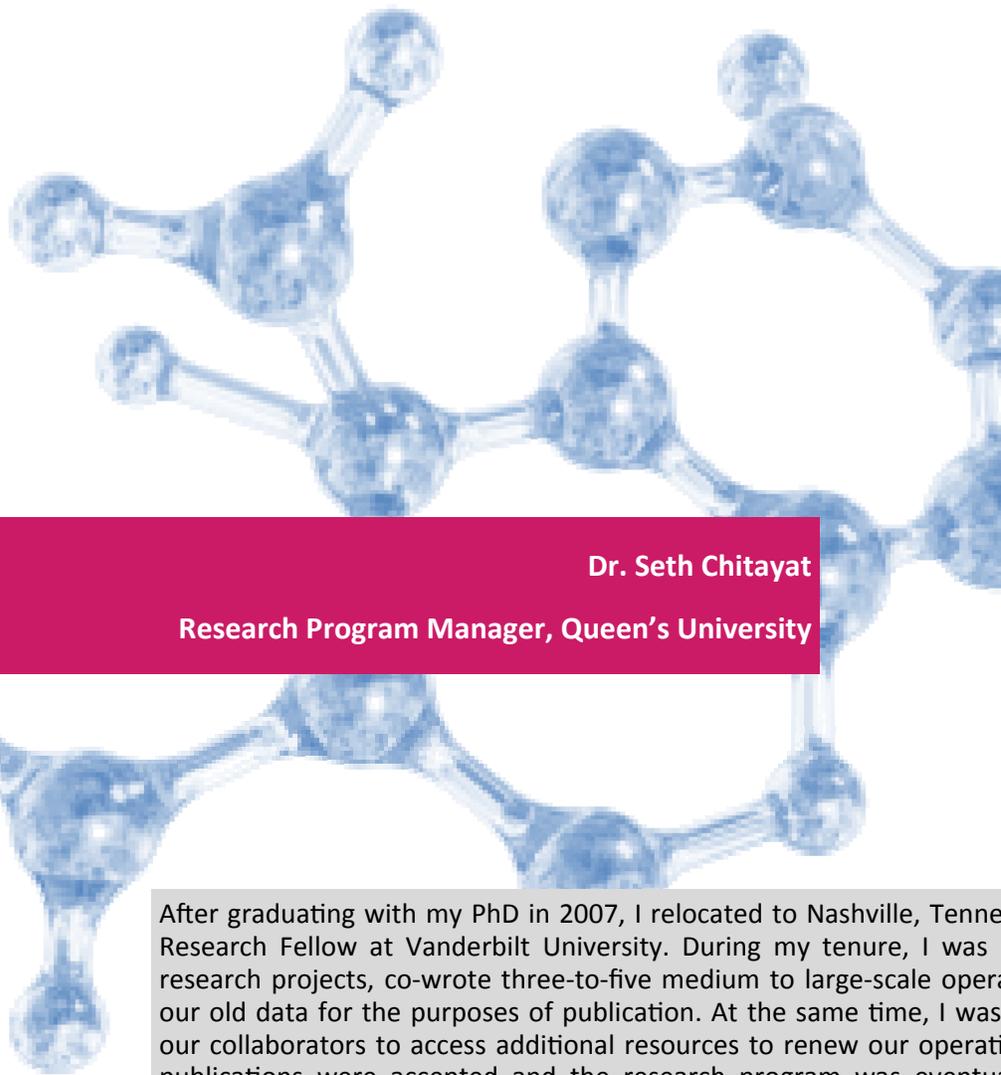
OEG: I think it has helped me a lot. One of the major challenges in my field (biostatistics) is to communicate effectively the results and modeling behind any study, most of the time to people with non-statistics or basic statistics backgrounds. During my time as a trainee, interacting with students from different disciplines has helped me to improve my communication skills, which is a great advantage of this program.

ORT: How important do you think having this initiative benefits the advancement of research at UHN?

XS: I think more and more interdisciplinary research is going on at UHN. A typical project from the lab usually involves clinicians, biostatisticians as well as people from lab who are conducting experiments or collecting the original data. Therefore, how to work well with people from other areas becomes much more important than before. From this point of view, COMBIEL is a very helpful experience to have and definitely benefits the advancement of research at UHN.

OEG: In my opinion, at UHN these kinds of initiatives are of utmost importance because they are preparing the future researchers in the development of a better understanding of the research process, and the ability to effectively communicate with fellows of other disciplines. With this in mind, the more researchers formed under this scope the ability to develop new ideas will be successfully enhanced.

alumni focus



Dr. Seth Chitayat

Research Program Manager, Queen's University



After graduating with my PhD in 2007, I relocated to Nashville, Tennessee where I assumed a position as a CIHR Research Fellow at Vanderbilt University. During my tenure, I was primarily responsible for one of the main research projects, co-wrote three-to-five medium to large-scale operational grants and realized the potential of our old data for the purposes of publication. At the same time, I was conducting experiments and working with our collaborators to access additional resources to renew our operating grant. As a result of my efforts, several publications were accepted and the research program was eventually funded. These experiences were very positive, and highlighted my strengths in scientific writing, proposal development, research project management, budgeting and working as part of a team.

In 2010, I transferred to Dr. Cheryl Arrowsmith's Laboratory at UHN as a CIHR-funded Post-Doctoral Fellow. There, I leveraged my experiences at Vanderbilt to seek the best possible outcomes: I contributed to her research programs in p53 research by overseeing collaborative work with Dr. Rob Bristow at OCI and also in NMR methodology development. In addition to the resources available to me at UHN, Dr. Arrowsmith was always supportive of my decisions and willingness to try new things, which encouraged independent thought and insight. This provided me with an excellent training environment that was key to my career development, experiences that have been instrumental in my role as a Research Program Manager at Queen's University in 2011.

I believe the changing landscape in biomedical research necessitates business-trained professionals to lead scientific initiatives. In this spirit, I decided to pursue an MBA at the Rotman School of Management while working simultaneously in research. My goal is to find a career that combines my science and business training to help organizations strengthen their biomedical research programs.



UPCOMING EVENTS & FUNDING CALENDAR:

11/15 Funding Opportunity.

The ORT is pleased to offer the Knudson Fellowship Program for Postdoctoral Fellows conducting cancer research at OCI/Princess Margaret. For the application form, see link.

11/15 Conference.

The MaRS Future of Medicine Conference will be held at the MaRS Centre Auditorium in Toronto. Click here for more details.

11/16 TWRI Seminar Speaker Series.

Dr. Evelyn K. Lambe, from the University of Toronto, will be speaking on the topic of "Nicotinic acetylcholine receptors and developmental vulnerability in prefrontal attention circuitry". It will be held at TWH Main Auditorium, Rm WW 2-401.

11/19 CIHR Training Opportunity.

CIHR's Strategic Training for Advanced Genetic Epidemiology (STAGE) program offers new training and career development opportunities. Next application deadline is Nov 19th. See link for more details.

12/03 Funding Opportunity.

The US Department of Defense is offering a Postdoctoral Fellowship in breast cancer research for up to \$100,000 for three years. Click here for more details.

Visit www.uhntrainees.ca for more

QUESTIONS?

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The ORT encourages trainees and scientists to send us pictures of the lab, departmental events, or eye-catching scientific images. Your submission may appear in *The ORT Times'* next issue.

(Photo: Courtesy of C. Bros, Penn Lab, OCI/PMH)

RECORDED AT A SECRET FACULTY MEETING:

THERE ARE 47 PERCENT OF GRAD STUDENTS IN THIS COUNTRY WHO WILL NOT GRADUATE NO MATTER WHAT.

ALRIGHT, 47 PERCENT WHO ARE DEPENDENT ON THEIR PROFESSORS; WHO BELIEVE THAT THE DEPARTMENT HAS A RESPONSIBILITY TO CODDLE THEM AND GIVE THEM FREE FOOD.

47 PERCENT WHO THINK THEY ARE ENTITLED TO HALF-DECENT HEALTH CARE, SUNLIGHT, SLEEP, YOU NAME IT.

AN ACADEMIC TITLE HAS BECOME AN ENTITLEMENT, LADIES AND GENTLEMEN.



THESE ARE PEOPLE WHO PAY NO INCOME TAX. GRANTED, WE DON'T PAY THEM ENOUGH TO QUALIFY FOR INCOME TAX, BUT STILL.

WE'RE NEVER GOING TO CONVINCHE THEM TO WORK 80-100 HOURS A WEEK. TO GIVE UP HOPE FOR A NORMAL LIFE.

SO, MY JOB IS NOT TO WORRY ABOUT THOSE PEOPLE. MY JOB IS TO WORRY... ACTUALLY, I DON'T HAVE TO WORRY ABOUT ANYTHING. I HAVE TENURE.

NOW, BRING OUT THE BINDERS FULL OF PROSPECTIVE STUDENTS.

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