The ORT Times

A monthly newsletter featuring UHN Trainees

www.uhntrainees.ca

For information on UHN training courses, scholarships, seminars happening around the city and so much more, visit www.uhntrainees.ca.

Tutorial series

"I'm going to a conference! Now what?"

By Carolyn Goard

The new year is a great time to re-assess research goals and progress. One important part of most trainees' experiences is discovering how their work fits in with "The Big Picture" of research. A great opportunity to do this is by attending a conference. While research budgets are often tight, the responsibility falls on trainees to seek out appropriate conferences and maximize their conference experiences.

Before the Conference:

- *Know the deadlines.* Ensure that you have ample time to compose your research abstract, receive feedback from your supervisor and/or lab members, submit and register.
- *Get the best deal on registration.* Check for early bird registration and student/fellow rates. Becoming a member of the conference's sponsoring association can also entitle you to a registration rate that offsets the membership fee.
- *Apply for travel awards,* through the conference, funding agencies like CIHR, or academic departments. In this issue, the UHN Office of Research Trainees (ORT) announces the recipients of the first ORT Conference Travel Awards (see page 03).
- *Book accommodations and travel.* For large conferences it is recommended to book accommodations as early as possible, and these bookings usually have reasonable cancellation policies if plans change.
- *Review the program and poster abstracts.* Get an idea of the most important sessions to attend. It is normal to feel

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"saturated" with information at certain points and it may be more beneficial to schedule some short breaks. Take note of any posters that describe techniques you are troubleshooting or are new to, in addition to those of conceptual interest.

Photo courtesy of: Stock.xchng

At the Conference:

- *Take effective notes.* Note key concepts and references that you can check later. Take more detailed notes on specific unpublished data of interest. You can always contact the speaker for clarification of a point as a follow-up to the conference; you may be surprised at how many keynote speakers will respond!
- *Expand your network.* Networking receptions or poster sessions provide more great opportunities to follow up on questions from sessions and build connections to the scientific community. Finding posters from labs whose work interests you can give you great insight into what the lab is really like or who is recruiting.
- *Take a break.* One of the advantages of being a trainee in science is the opportunity to travel for conferences. Usually at least some evenings or time after the conference closes can be taken to play tourist and discover a bit of the city you are in.

After the Conference:

- *Follow up with new contacts.* You never know when follow-up emails may open a discussion leading to a great experimental idea or collaboration.
- *Review your notes and present a conference report.* It is best to review notes while the conference is still fresh in your memory. Many labs also encourage trainees to summarize their experience in a short conference report, highlighting the main points of a few good talks or posters, the main themes from each session, and overarching themes that emerged out of the conference as a whole – where the field is at and where it is going. All ORT Conference Travel Awardees will have the opportunity to present a conference report of this nature to UHN colleagues, which often promotes further networking with local labs that you may have not known were interested in your field of study.

More great resources are available online, such as that below.
"Mastering Your PhD: Making the Most of a Conference", by Bart Noordam and Patricia Gosling at Science Careers. Available online: http://www.sciencemag.org/

Enjoy the conference!

About the author: Carolyn Goard is the ORT science writer and a PhD candidate in Dr. Linda Penn's Lab at OCI. Contact info: cgoard@uhnres.utoronto.ca

Continue the Discussion!

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

success

recent awardees

ORT Conference Travel Awardees

From Left to Right: Isaac Harris, Cornelia McCormick, Shaalee Dworski, Hilda Mujcic, Azusa Maeda, and Dr. Chiara Gorrini

Missing: Ali Akram, Hyunhee Kim, Manpreet Kalkat, Shengqing Gu, Dr. Zahi Touma, Dr. Ziqiang Yang, and Dr. Shrivani Sriskathadevan.

The ORT is pleased to offer a limited number of conference travel awards to enable graduate students and postdoctoral fellows to participate in national and international conferences at which they are presenting an oral and/or poster presentation. The objective of the ORT Conference Travel Awards is to advance research, enable knowledge translation and contribute to the career development of UHN research trainees. The Awardees of the ***November 2011*** competition are listed below along with the conference they will be participating in and the title of their research presentation. Awardees will present conference highlights upon their return at special ORT Lunch'n'Learn events. These will be announced through email and will also be posted on the ORT website: www.uhntrainees.ca.

Congratulations to our Awardees!

MSc Program

- Ms. Azusa Maeda—Drs. Brian Wilson & Ralph DaCosta Labs, OCI. ICTR-PHE 2012 Conference, Geneva Switzerland, "Photoacoustic imaging for monitoring vascular oxygen saturation in response to ionizing radiation"

PhD Program (alphabetical order):

- Mr. Ali Akram—Dr. Robert Inman Lab, TWRI. 14th International Conference on Lymphocyte Activation, Newport Beach, CA, "Pattern of HLA allele co-expression influences immunodominance of anti-influenza CTL responses"
- Ms. Cornelia McCormick—Dr. Mary P. McAndrews Lab, TWRI. Cognitive Neuroscience Meeting 2012, Chicago, IL, "The functional importance of fMRI resting state connectivity"
- Ms. Hilda Mujcic—Dr. Brad Wouters Lab, OCI. Keystone Symposia: Advances in Hypoxic Signaling, From Bench to Bedside, Banff, AB, "Hypoxia activation of the unfolded protein response promotes metastasis through induction of LAMP3 expression"
- Ms. Hyunhee Kim—Dr. Mingyao Liu Lab, TGRI. ISHLT 32nd Annual Meeting, Prague, Czech Republic, "Acute inflammatory response and cell death in human epithelial cells induced by hypothermic ischemia and reperfusion"
- Mr. Isaac Harris—Dr. Tak Mak Lab, OCI/CFIBCR. Keystone Symposia: Cancer & Metabolism, Banff, AB, "PTPN12 promotes resistance to oxidative stress and supports tumorigenesis by regulating multiple signaling cascades"
- Ms. Manpreet Kalkat—Dr. Linda Penn Lab, OCI. SUMO, Ubiquitin, UBL Proteins: Implications for Human Diseases, Houston, TX, "Characterizing post-translational mechanisms of Myc deregulation"
- Ms. Shaalee Dworski—Dr. Jeffrey Medin Lab, TGRI/OCI. The LDN's 8th Annual World Symposium 2012, San Diego, CA, "Gene expression profiling of a mouse model of Fabry disease"
- Mr. Shengqing Gu—Dr. Benjamin Neel Lab, OCI. AACR Annual Meeting, Chicago, IL, "Shp2 is required for CML initiation and maintenance"
- Dr. Zahi Touma—Dr. Dafna D. Gladman Lab, TWRI. Canadian Rheumatology Association Annual Meeting 2012, Victoria, BC, "Development & assessment of user satisfaction of the systemic lupus erythematosus disease activity index 2000 (SLEDAI-2K) Responder Index-50 (SRI-50) website with computer-adaptive training and examination modules"; "Systemic lupus erythematosus disease activity index 2000 (SLEDAI-2K) responder index (SRI) at 6 and 12 months."

Postdoctoral Fellow Program (alphabetical order):

- Dr. Chiara Gorrini—Dr. Tak Mak Lab, OCI/CFIBCR. Gordon Research Conference on DNA Damage, Mutation & Cancer, Ventura Beach, CA, "BRCA1 regulates an NRF2-dependent antioxidant response in the mammary gland"
- Dr. Shrivani Sriskathadevan—Dr. Aaron Schimmer Lab, OCI. AACR Annual Meeting, Chicago, IL, "AML cells have low reserve capacity in their respiratory chain complexes leading to increased sensitivity to palmitate induced cell death"
- Dr. Ziqiang Yang—Dr. Benjamin Neel, OCI. AACR Annual Meeting, Chicago, IL, "Gab1 regulates epithelial cell polarity and scattering by acting as a platform for PAR proteins"

iRhom2 regulation of TACE controls TNF-mediated protection against *Listeria* and responses to LPS.

McIlwain DR[1], Lang PA[1], Maretzky T, Hamada K, Ohishi K, Kumar Maney S, Berger T, Murthy A, Duncan G, Xu HC, Lang KS, Häussinger D, Wakeham A, Itie-Youten A, Khokha R, Ohashi PS, Blobel CP, Mak TW. *Science*, 2012;335:229-232.

[1] These authors contributed equally to this work.

Ontario Cancer Institute (OCI) */ Campbell Family Institute for Breast Cancer Research (CFIBCR)*

While shedding of the Tumour Necrosis Factor-α (TNFα) cytokine from the plasma membrane of blood cells is essential for innate immunity, overproduction of TNFα can lead to inflammatory diseases. A complete understanding of TNFα regulation may therefore identify novel therapeutic targets for the management of diseases, like sepsis and rheumatoid arthritis.

Dr. David McIlwain, a current postdoctoral fellow in Dr. Tak Mak's lab, and Dr. Philipp Lang, a former PhD student in Dr. Pam Ohashi's lab, spearheaded a study of the role of the iRhom2 protein in TNFα regulation, published in January in *Science*. Using iRhom2-deficient mouse and cell models, they showed that iRhom2 was necessary for proper maturation and trafficking of the TNFα convertase (TACE), the protease that induces TNFα shedding. Without iRhom2, TACE was unable to induce TNFα shedding, leading to suppression of the innate immune response and protection from sepsis. iRhom2 may therefore be an effective therapeutic target in TNFα-mediated inflammatory disease.

Click to read: http://www.ncbi.nlm.nih.gov/pubmed/22246778

We were able to catch up with Dr. David McIlwain to discuss this exciting venture.

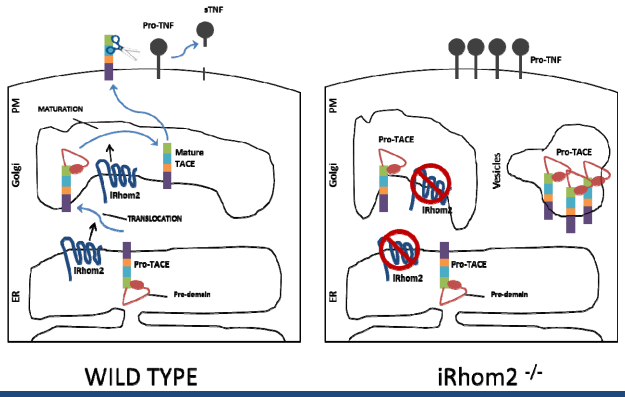
ORT: At what point did you realize that this project would have high-impact implications?

DRM: We were excited when we saw that a phenotype suggested by a functional genetic screen *in vitro* was also evident *in vivo*, but had been guardedly optimistic about the potential of the project from its outset.

ORT: As someone who has completed a successful and productive PhD at UHN, what advice can you give early-stage trainees?

DRM: It is very easy to get lost and isolated in a research project. Collaborations, both internal and external, are very rewarding and offer outside perspectives that I feel are necessary to both effectively prioritize experiments, and keep your work grounded

TACE maturation in hematopoietic cells requires iRhom2



career profile

Dr. Kevin Da Silva, Associate Editor for *Nature Medicine*

In June 2009, University of Toronto alum Kevin Da Silva (PhD, 2009) traded in his pipette for a red pen when he moved from a postdoctoral fellowship at Sunnybrook Hospital to his current position as a manuscript editor at *Nature Medicine* in New York. Kevin spent ten years at the University of Toronto, first as an undergraduate in the Department of Pharmacology and Toxicology, and later in the Department of Laboratory Medicine and Pathobiology (LMP) as a PhD student in Dr. JoAnne McLaurin's lab. His PhD project focused on vaccine development for Alzheimer's disease. The interdisciplinary nature of his dissertation and the broad focus of the LMP weekly seminar series played an important part in preparing him for a job in academic publishing.

On securing a job at Nature Publishing Group, Kevin says, "It's important that you read broadly (outside of your specific field of interest) and demonstrate that you can think constructively and critically about manuscripts in a range of fields. During the interview, you may be asked to read three articles on different topics, within one hour, and afterwards be able to describe each study, identify its strengths and weaknesses, and make a decision as to whether you would send it out for review." This represents the bulk of the work done by a manuscript editor. Journals receive many more manuscripts than they can publish. They employ full-time editorial staff to make the first cut, and decide which papers are novel, interesting, and scientifically rigorous. This also requires an understanding of what research is up and coming on the horizon. One perk of the job is the opportunity to travel to conferences and labs, where editors have the chance to speak with scientists about their data before it's published. "If you enjoy reading and learning about different areas of science, editing other people's work to tell a clear story, and interacting with interesting and intelligent people, it's a great career. You'll use every ounce of knowledge you ever gained as part of your education, and constantly be cramming in more."

UPCOMING EVENTS CALENDAR:

02/15 **Science to Business Award.** The CIHR Science to Business program encourages students with a PhD in a health-related field to pursue an MBA. www.researchnet-recherchenet.ca

02/15-17 **Grant Workshop.** An intensive three-day grant proposal workshop held at Ryerson University & sponsored by The Grant Training Center. http://granttrainingcenter.com

02/22 **Banting & Best Diabetes Postdoctoral Fellowship.** One year fellowships offered to PDFs to be used for full-time research training in diabetes. Due February 22nd. http://www.bbdc.org

02/23 **UHN New Trainee Orientation.** ORT hosts a monthly orientation for new graduate students and postdoctoral fellows. Talk to your supervisor's administrative assistant to sign up on the events calendar located on the Research Intranet. http://intranet/

02/27-28 **Epigenetics of Cancer & Stem Cells Symposium.** This symposium is co-organized by the Structural Genomics Consortium (SGC) & the Ontario Cancer Institute (OCI). http://www.sgcepigenetics2012.org/

03/01 **ORT Conference Travel Award Deadline.** Please request an application by emailing ort.admin@uhnres.utoronto.ca

QUESTIONS?

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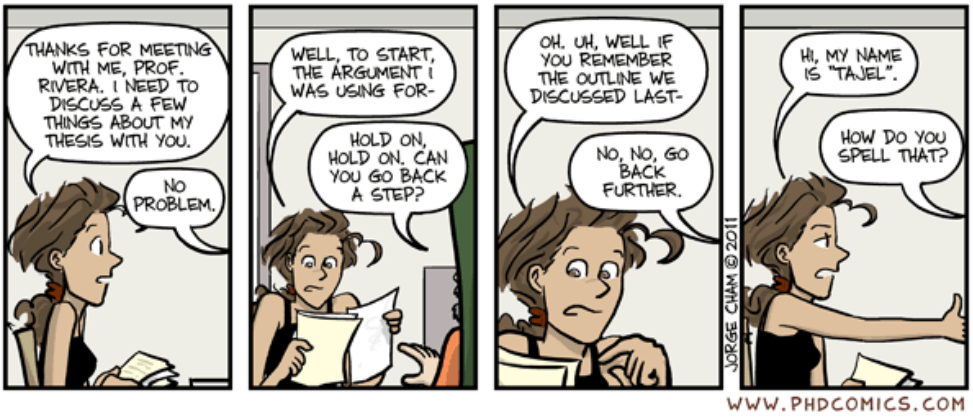
HELPFUL TIPS FOR GRAD SCHOOL

- Be curious enough to ask important questions throughout your studies and test the 'crazy' ideas you come up with that challenge the norm.
- Don't do experiments to keep yourself busy. Do experiments that matter to you, your supervisor, and the scientific community.
- Always appreciate how lucky you are to get to learn for a living.
- Don't fear committee meetings, they are there to help you progress.
- Grad school is all about the balanced life – try to have one; it will go a long way.
- Don't "just do it". Think, plan, and then do it.
- Create an environment in the lab that is both supportive and challenging.
- Always devise and ask good questions, rather than solely focusing on answers.
- Your lab is like an extended family –you will both love them and push their buttons.
- Don't be afraid of a challenge – grad school is hard.
- Always be prepared to answer the following questions:
  - -What is your working model?
  - -Where is the diagnostic and/or therapeutic relevance?
  - -What is the next experiment?
  - -What is the 100th experiment?
- Think and daydream about your science when you're having fun, because sometimes the best ideas come at those times.
- "Fly like a butterfly but sting like a bee." Be imaginative and take liberty in building your working models/hypotheses, but also be very critical when designing your experiment to test your hypothesis.
- Enjoy the ups and downs of graduate school – these are some of the best years of your life.



"Piled Higher and Deeper" by Jorge Cham
www.phdcomics.com