



[www.uhntrainees.ca](http://www.uhntrainees.ca)

For information on UHN training courses, scholarships, seminars happening around the city and so much more, visit [www.uhntrainees.ca](http://www.uhntrainees.ca).

## UHN Immunization and N95 Respirator Requirements

All UHN staff and trainees must be proactive about protecting their health as well as the health of those around them, including patients and their family members. Although UHN provides safety training and equipment, trainees are obligated to work diligently, use appropriate protective gear and procedures, and take all the necessary precautions while working in the laboratory.

It has been brought to the ORT's attention that many trainees are unfamiliar with UHN's immunization and N95 respirator fit testing requirements, which were implemented to prevent trainees from catching or spreading infections. To help address this issue, the ORT has assembled a short FAQ on this topic.



Image courtesy of Deborah Cartagena, 2012. Image #1453, [Public Health Image Library, CDC](#)

October 2013

Inside this issue....

**01**

UHN OH&S requirements

**05**

ORT travel awards

**06**

awards and scholarships

**08**

latest and greatest

**09**

alumna career profile



Click [here](#) to access past issues from our archive.

Cont'd, see PAGE 02

Cont'd from PAGE 01

## IMMUNIZATIONS/VACCINATIONS

### What immunizations do all trainees require to work at UHN?

All trainees must ensure that they have all the following immunizations, ideally before they begin their research at a UHN site:

**Measles/Mumps/Rubella**—Documentation of two doses of MMR vaccination OR laboratory evidence

**Tetanus/Diphtheria/Pertussis (whooping cough)**—Proof of immunization in the past 10 years

**Hepatitis B**—Proof of immunity

**Varicella (chicken pox)**—Proof of diagnosis or verification of typical varicella or shingles by a healthcare provider OR laboratory evidence of immunity OR documentation of two doses of varicella vaccination

**Tuberculosis**—Negative two-step test OR negative one-step test within the last year if documentation of previous two-step test is provided. If the test is positive, negative chest X-ray are required every 2nd year and a yearly note from their doctor stating the trainee is free from the signs and symptoms of active tuberculosis

### How do new trainees provide evidence to UHN Occupational Health and Safety (OH&S) that they have met the immunization requirements?

All trainees receive an Immunization Status Record form in their engagement package that must be completed and signed by a healthcare provider and returned to the OH&S clinic at their UHN institute. Trainees are expected to obtain all necessary vaccinations and complete the Immunization Status Record form, prior to or not long after their arrival at UHN. Testing for immunity and receiving vaccinations takes time. As soon as trainees receive their engagement package, they should visit a healthcare provider to complete the Immunization Status Record form and receive any missing vaccinations.

### Where can trainees go to have their Immunization Status Record form completed and receive any missing vaccinations?

**Graduate Students** are expected to visit their family doctor, a walk-in clinic or the University of Toronto Health Services.

**Postdoctoral Fellows** are encouraged to visit their family doctor or a walk-in clinic. UHN OH&S clinics will also provide these services to fellows, especially international postdoctoral fellows, given differences in regional vaccination programs. When visiting a UHN OH&S clinic, fellows must bring their ID badge and be on the UHN payroll system to be served.

**Research Summer Students** are expected to visit their family doctor, a walk-in clinic or their university health clinic.

**Visiting Postdoctoral Fellows and Graduate Students**, who are not paid through UHN, are expected to visit the health clinic at their home institute or university, prior to their arrival in Canada. They can also visit a family doctor or walk-in clinic while here in Canada. It is not UHN OH&S's responsibility to complete the Immunization Status Record form or provide missing vaccinations to trainees who are not paid through UHN.

Cont'd, see PAGE 03

Cont'd from PAGE 02

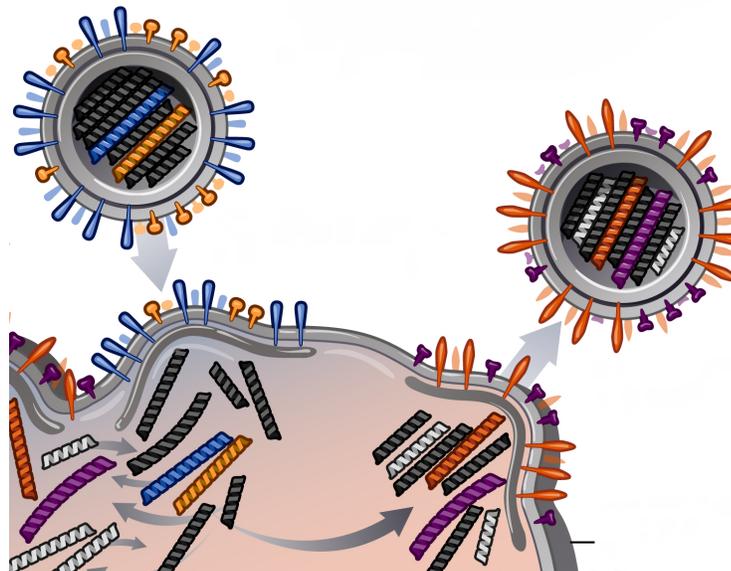
### Who should receive the seasonal influenza vaccine (seasonal flu shot)?

UHN encourages all of its trainees, whether they are paid through UHN or visiting, and staff to receive the seasonal flu shot every year, especially those working directly with patients and animals.

### Where and when can trainees receive the seasonal flu vaccine?

The flu vaccine is available, free of charge, from your family doctor, most pharmacies, walk-in clinics and public health vaccination clinics during the flu season. Starting at the end of October, UHN OH&S will conduct their annual flu campaign, to vaccinate as many trainees and employees as possible. Vaccinations will be available at all UHN OH&S clinics and from the roaming flu carts. Dates, times and locations of the roaming carts will be available on the UHN corporate website homepage.

The seasonal flu vaccine is only available from October to April every year, at which point the Public Health Agency of Canada recalls all unused vials of vaccine. Consequently, any trainees or summer students who will work at UHN in the spring or summer of 2014 should receive the seasonal flu vaccine before April 2014.



National Institute of Allergy and Infectious Diseases (NIAID). derivative work: Dexter (AntigenicShift\_HiRes.png) [Public domain], via Wikimedia Commons

### Where can I find more information about the seasonal flu vaccine?

[http://www.health.gov.on.ca/en/public/programs/publichealth/flu/about\\_flu\\_shot.aspx](http://www.health.gov.on.ca/en/public/programs/publichealth/flu/about_flu_shot.aspx)

### Are there additional vaccination requirements subject to a trainee's research?

Indeed. Trainees working with vaccinia or other viruses such as hepatitis C must visit a UHN OH&S clinic and make an appointment to have a health assessment specific to the products they will be handling. [The Pathogen Safety Data Sheets and Risk Assessment](#), assembled by the Public Health Agency of Canada, provides information to trainees on how to protect themselves while working with particular human pathogens. The Canadian Food Inspection Agency has compiled similar information for people working with other animal pathogens (follow this [link](#)).

### Who can I contact for additional information on immunization?

Trainees should contact the OH&S clinic at their site for more information.

TGH: Eaton Building, 2nd Floor, Rm 260; Tel: 416-340-4800 x3267

TWH: Main Pavillion 9th Floor, Rm209; Tel:416-603-5101 x5121

PMH: Floor 3B-203; Tel: 416-946-2000 x 2090

Clinic hours: 7:30am - 3:30pm (M-F)

TRI University: Rm 5-145; Tel: 416-597-3422 x3051

For TRI clinic hours and locations, please call the number above.

Cont'd, see PAGE 04

Cont'd from PAGE 03

## N95 RESPIRATORS

### Who should be fit tested ?

Not all research trainees need to be fit tested for an N95 respirator, only those who are in close contact with patients infected with an airborne pathogen—like tuberculosis or chicken pox. Trainees can contact the following personnel to be fit tested:

Jane Trinh (jane.trinh@uhn.ca, 416-340-4800 x5035)—Respirator Fit Testing Technician for Princess Margaret and Toronto General 2

Teresa Salvador (teresa.salvador@uhn.ca, 416-603-5800 x2539)—Respirator Fit Testing Technician for Toronto Western

Dave Wong (dave.wong2@uhn.ca, 416-597-3422 x3615)—Safety Coordinator Toronto Rehab

Thank you to Karon Kersey (Manager of Occupational Health, OH&S, TGH) Craig Parsons (Manager of Safety, OH&S, TGH) and Richard Bilan (Director, Safety and Occupational Hygiene, TGH) for providing information and editing this document.

Author: Dr. Carrie-Lynn Keiski, Interim Coordinator, ORT

## Success—UHN Alumnus Receives Prestigious NIH Award



**Dr. Jonathan F. Lovell, a UHN alumnus, is one of fifteen recipients of the 2013 NIH Director's Early Independence Award (EIA).** Dr. Lovell completed his PhD under the supervision of Dr. Gang Zheng (Princess Margaret Cancer Centre/TECHNA), at the University of Toronto. This award was created to help exceptional trainees become independent investigators faster, without doing a traditional postdoctoral fellowship. To be eligible for the EIA, trainees must be within one year of finishing their PhD or clinical residency.

Click here to learn more about the [EIA](#).

After graduating in 2012, Dr. Lovell was offered an Assistant Professor position at the State University of New York, University at Buffalo, where he has continued his graduate work, developing and studying optical-based therapeutics.

Click [here](#) to read more about Dr. Lovell's research and his new group at SUNY Buffalo.

# conference reports

**Trainee:** Dr. Ayda Shahidi, postdoctoral fellow  
**Supervisor:** Dr. John Flanagan (TWRI)  
**Conference:** Association for Research in Vision and Ophthalmology (ARVO) Annual Meeting, May 5-9, 2013, Seattle, WA.  
**Abstract Title:** Assessment of Total Retinal Blood Flow under Systemic Hypercapnia and Hypocapnia

Click [here](#) to read Ayda's conference report.



**Trainee:** Isuri Weekakkody, MSc candidate  
**Supervisors:** Dr. Gary Rodin (Princess Margaret Cancer Centre)  
**Conference:** 12th Australian Palliative Care Conference, September 3-6, 2013, Canberra, Australia  
**Abstract Title:** Death Awareness and Acceptance in Patients with Terminal Cancer

Click [here](#) to read Isuri's conference report.



**Trainee:** Eric Gracey, PhD candidate  
**Supervisor:** Dr. Robert Inman (TWRI)  
**Conference:** 15th International Congress of Immunology, August 22-27, 2013, Milan, Italy  
**Abstract Title:** The Macrophage Serves as a Gate-Keeper for the Induction of Protective Host Immunity and Bacterial Dissemination during Chlamydia Infection

Click [here](#) to read Eric's conference report.



**Trainee:** Dr. Jessica Yue, postdoctoral fellow  
**Supervisors:** Dr. Tony Lam (TGRI)  
**Conference:** American Diabetes Association 73rd Scientific Sessions, June 21-25, 2013, Chicago, IL  
**Abstract Title:** Glycine Sensing in the Dorsal Vagal Complex Lowers Food Intake

Click [here](#) to read Jessica's conference report.

# trainees awarded scholarships

## Canadian Breast Cancer Foundation

The Canadian Breast Cancer Foundation (CBCF) funds doctoral and postdoctoral fellowships for trainees conducting research in the areas of breast health and breast cancer. This year, CBCF awarded 17 fellowships to trainees across Canada, including five from the Princess Margaret Cancer Centre who are highlighted below.

Click on the project title to read abstracts from UHN trainees that were selected for a CBCF Award in this past competition.



**Dr. Purna Joshi**—postdoctoral fellow in Dr. Rama Khokha's lab

**Project Title:** [Progesterone-driven Regulation of Progenitor Cells in the Human Breast](#)



**Dr. Ken Kron**—postdoctoral fellow in Dr. Mathieu Lupien's lab

**Project Title:** [Investigating the Role of EZH2 and its Binding Partners in Establishing Epigenetic Silencing Marks](#)



**Manpreet Kalkat**—PhD candidate in Dr. Linda Penn's lab

**Project Title:** [Identifying Novel Therapeutic Targets of the Myc Oncogene in Breast Cancer](#)



**Elizabeth Koch**—PhD candidate in Dr. Brad Wouters's lab

**Project Title:** [Hypoxic DICER1 Repression Affects Tumour Initiation in Breast Cancer](#)



**Pirashaanthi Tharmapalan**—MSc candidate in Dr. Rama Khokha's lab

**Project Title:** [The Role of Progesterone Receptor Isoforms in Hormone-Driven Mammary Stem Cell Regulation](#)



Canadian  
Breast Cancer  
Foundation

Fondation  
canadienne du  
cancer du sein

Cont'd, see PAGE 07

# TGRI Postdoctoral Fellowship Support Award

Cont'd from PAGE 06

Last June, five TGRI postdoctoral fellows were selected to receive a TGRI Postdoctoral Fellowship Support Award, each worth \$25,000. All awardees will be presenting at the TGRI 2013-14 Seminar Series. The next TGRI Postdoctoral Fellowship Support Award competition will be announced in April 2014. Congratulations to the successful applicants!



**Dr. Dzana Dervovic**—  
postdoctoral fellow in Dr. Li  
Zhang's lab

**Project Title:** Adoptive Cellular  
Immunotherapy for Non-Small  
Cell Lung Cancer



**Dr. Frank Duca**—postdoctoral  
fellow in Dr. Tony Lam's lab

**Project Title:** Role of Intestinal  
Leptin Sensing in Glucose  
Homeostasis



**Dr. Makon-Sebastien Njock**—  
postdoctoral fellow in Dr. Jason  
Fish's lab

**Project Title:** Combating Vascular  
Inflammation by Delivering  
MicroRNAs to Inflammatory Cells



**Dr. Hakimeh Mohammadi**—  
postdoctoral fellow in Dr. Lena  
Serghides' lab

**Project Title:** Impact of  
Combination Antiretroviral  
Therapy (cART) on Placenta  
Formation and Pregnancy  
Outcome



**Dr. Sue Tsai**—postdoctoral fellow  
in Dr. Dan Winer's lab

**Project Title:** Defining  
Mechanisms of Bowel  
Inflammation in Obesity Related  
Insulin Resistance

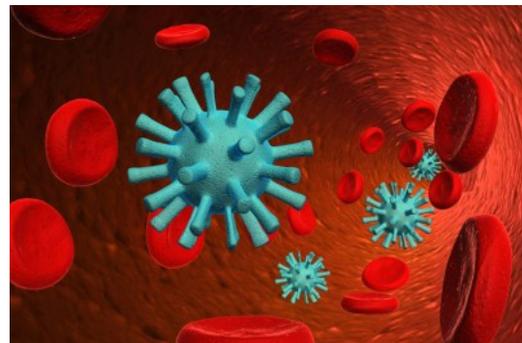


Image courtesy of [ddpavumba; image ID: 10057589 ]  
FreeDigitalPhotos.net

# latest and greatest trainee publications



## Hypothalamic glucagon signaling inhibits hepatic glucose production.

Mighiu P.I., Yue J.T., Filippi B.M., Abraham M.A., Chari M., Lam C.K., Yang C.S., Christian N.R., Charron MJ, Lam T.K. 2013. [Nature Medicine 19\(6\):766-72.](#)

Our bodies have evolved complex regulatory mechanisms to maintain our blood sugar levels within a healthy range. In a fed state our blood sugar levels are high causing the pancreas to secrete insulin, a peptide hormone. Insulin promotes the uptake of sugar from the blood into tissues, where it will be stored as energy or used to build molecules. In a fasting state our blood sugar levels are low causing the pancreas to secrete glucagon. This prompts the liver to produce and secrete sugar into the bloodstream, ensuring that our brain has an adequate supply of energy.

In diabetes and obesity, sugar homeostasis is disrupted: relative insulin deficiencies lead to unhealthy fuel surfeits that are inappropriately stored as fat in visceral organs and skeletal muscle, thereby damaging these vital tissues.

Dr. Tony Lam's group at TGRI published an article in the June issue of Nature Medicine, showing for the first time that glucagon also acts on the brain to curb glucose production in the liver. Two UHN trainees—former MSc student Patricia Mighui and postdoctoral fellow Dr. Jessica Yue—are co-first authors on this publication.

Using a combination of Western blots, immunohistochemistry and euglycemic clamp studies in healthy rats, the authors showed that glucagon binds to its corresponding G-protein-coupled receptor on the surface of cells in the hypothalamus. Binding to the receptor activates protein kinase A (PKA) and initiates a signal transmitted through the hepatic vagus nerve that decreases glucose production in the liver. They further demonstrated that this regulatory mechanism (glucagon->brain->liver->decreased glucose production) is impaired in a diabetes rat-model, leading to unusually high concentrations of sugar in the blood and an inability to regulate blood sugar levels, as is observed in diabetes and obesity. Notably, the authors also showed that brain glucagon resistance in the diabetic rat model could be circumvented by infusing PKA activators directly into the brain of rats.

These results suggest that glucagon resistance in the brain contributes to the high blood sugar levels observed in diabetes and obesity, and that PKA in hypothalamic cells could be a new drug target for the treatment of these ailments.

Follow this [link](#) to access a Nature Medicine podcast during which Randy Levinson, a senior editor at Nature Medicine, discusses Dr. Lam's latest publication.

ORT asked Dr. Jessica Yue a few questions related to her new paper. Click on the questions to read Dr. Yue's answers.

[What are some of the challenges of developing such a drug to treat diabetes?](#)

[What was the biggest technical challenge that you overcame for this research?](#)

Author of this summary: Dr. Carrie-Lynn Keiski, ORT

# alumna career profile



**Dr. Stéphanie Heyraud**

English and French Medical Writer and Editor

The Hospital for Sick Children

## **Describe your education and training.**

I did my undergraduate degree in biochemistry at the University of Burgundy (Dijon, France). Then I moved to Grenoble (yep, still in France) where I studied viruses during my MSc and vascular biology during my PhD. Finally, I moved to this beautiful city—i.e. Toronto—for a 4+ year postdoctoral fellowship in immunology at UHN.

## **What is a Medical Writer?**

The title “Medical Writer” harbours lots of different jobs under its umbrella, in fields as diverse as Regulatory Affairs, Continuing Medical Education, Grant Proposal Writing, Medical Communication, Advertisement and Patient Education. I work in Patient Education, creating resources for patients and their family. I use plain language and avoid medical jargon so they can understand diseases, treatments and procedures. And since I speak French, I also manage the French version of our website.

## **What is a typical day like for you?**

Half of the time I research and write about topics either chosen by our team or brought to us by clinicians or members of the hospital staff. It is like writing a short review: I perform searches on PubMed and other databases, I read some specialized books and I even interview patients, doctors and nurses if needed. I spend the rest of my time managing the French web site: I coordinate our translation workflow; I make sure the French translations make sense; I liaise with our translation vendors.

## **What is the best part of your job?**

I have the feeling that I am finally doing something that matters. We help people in their everyday struggle with their disease; we answer their questions; and we make science and medicine understandable. The results are tangible and rewarding

Click [here](#) to read the remainder of Stéphanie’s interview and learn what advice she has for trainees interested in pursuing a similar career path.



## UPCOMING EVENTS & FUNDING CALENDAR:

**10/24**

**CAFÉ SCIENTIFIQUE**

**Don't Push Me Around!**

**Limiting the Causes and Consequences of Bullying**

Come join health research experts for a discussion about the scope of bullying, its negative effects on the victim as well as the tormentor, and steps that should be taken to try to rectify the situation. This free event is hosted by CIHR. Click [here](#) for more information

**11/01**

**MITACS STEP**

**Skills of Business Etiquette**

Learning outcomes of this day-long workshop include: Interpersonal Communication Skills, Business Meal Etiquette, Techno-Communication Etiquette, Workplace Best Practices, Professional Appearance. Click [here](#) for more information

**11/13**

**TIPS TO HELP TRAINEES SEARCH, APPLY AND SECURE A FACULTY POSITION**

The Office of Research Trainees (ORT) is organizing a two hour information session to help UHN trainees search and apply for faculty positions. Register for this event through the Research Community Calendar, as space is limited. All UHN trainees are welcome! Follow this [link](#) for more information.

**11/15**

**CIHR FELLOWSHIP APPLICATION DEADLINE**

CIHR fellowships provide support for highly qualified candidates in all areas of health research at the post-PhD or post-health professional degree stages to add to their experience by engaging in health research either in Canada or abroad. Click [here](#) for more details.

## QUESTIONS?

**Please contact:**

Carrie-Lynn Keiski, ORT Interim Coordinator  
University Health Network  
[ort.admin@uhnres.utoronto.ca](mailto:ort.admin@uhnres.utoronto.ca)  
t. 416-946-2996



### FOOD FOR THOUGHT

A hot bowl of soup is the perfect pick-me-up on a cold, grey November day. Konichiwa is a small Japanese restaurant that offers a lunch combo consisting of soup, with udon or soba noodles, an avocado roll and shrimp and vegetable tempura. All of this for \$9.95.

Check out their website: <http://konnichiwa.ca/>

Enjoy!

### Graduate school propaganda according to PhD Comics.



"Piled Higher and Deeper" by Jorge Cham [www.phdcomics.com](http://www.phdcomics.com)