



Physiology  
UNIVERSITY OF TORONTO

# PhysioLINK

**JUNE 11, 2018**

## **INSIDE THIS ISSUE**

- Message from the Chair
- Honours & Awards
- Physiology Seminar Series
- In the News
- International Exchange in Developmental Biology
- GASP News

## **MESSAGE FROM THE CHAIR**



This will be the last issue of PhysioLINK of the term. We've had a brilliant year with many outstanding achievements. I wish you all a relaxing and enjoyable summer. We will of course continue to keep you updated on important matters over the summer months. PhysioLINK will return in September.

Best wishes,

Graham

## HONOURS & AWARDS

Congratulations to all of the graduate students below who will be receiving their degrees at this month's Convocation. We wish them every success in their future endeavours!

	Program	Supervisor
Ahmadi, Saumel	PhD	Bear C / Rommens J
Charish, Jason	PhD	Monnier P
Constantinof, Andrea	PhD	Matthews S
Kwan, Melissa	PhD	Lye S
Nath, Moushumi	MSc	Frankland P
Park, Albert	MSc	Josselyn S
Rajasekeran, Harindra	MSc	Cherney D
Sekulic, Vladislav	PhD	Skinner F
Snidal, Christine	MSc	Stanley E

Congratulations to **Glory Ghamer Nasser** on receipt of the **Christopher Perumalla Physiology Major Student Award for 2018**.

Congratulations to **Mandy Kar-Wai Yuen** on receipt of the **Colin Bayliss Physiology Specialist Student Award for 2018**.

Congratulations to **Dr. Beverley Orser** on receipt of a 2018 Award for Excellence in Research from The American Society of Anesthesiologists. The award recognizes research that has had, or will likely have, an impact on the practice of anesthesiology. Dr. Orser is professor and chair in the Department of Anesthesiology and a professor of Physiology at U of T. She is also Co-director of Research in the Department of Anesthesia at Sunnybrook Health Sciences Centre.

## PHYSIOLOGY SEMINAR SERIES

~ Eligible for PSL1000H/PSL2000H Course Seminar Attendance ~

**Katalin Toth, PhD**

Cervo Brain Research Centre  
Laval University

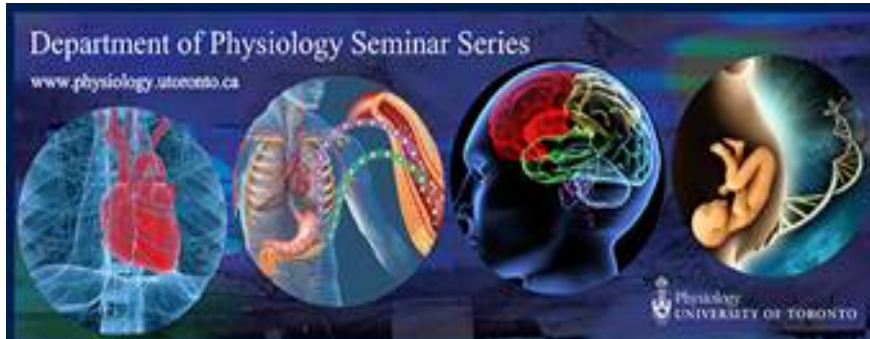
***"Mossy fiber terminals: a synapse that can count. Information coding and calcium dynamics at synapses"***

Date: Thursday, June 21<sup>st</sup>, 2018

Time: 4:00 p.m.

Location: Medical Sciences Building, Room #2170

Host: Neuroscience Platform



Department of Physiology Seminar Series  
www.physiology.utoronto.ca

**PSL THURSDAY SEMINAR SERIES**

Title: Mossy fiber terminals: a synapse that can count. Information coding and calcium dynamics at synapses

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**Katalin Toth, PhD**  
Cervo Brain Research Centre  
Laval University

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**Thursday, June 21, 2018**  
4:00 p.m. - 5:00 p.m.  
Medical Sciences Building, Room 2170  
1 King's College Circle  
University of Toronto

Hosted by: Neuroscience Platform

\*\*\*Eligible for the 1000/2000 Seminars in Physiology Course\*\*\*

A reminder that all upcoming seminars are posted on Physiology's Home Page: [www.physiology.utoronto.ca](http://www.physiology.utoronto.ca)

## IN THE NEWS

### Sundin Fellowship Program Announcement

On June 4th, **Mats Sundin** announced a further donation of \$333,000 to support the Sundin Fellowship Program in Developmental Health between the University of Toronto and the Karolinska Institute, Stockholm. Mats also announced the search for the next Sundin Fellows. **Ursula Nosi**, a PhD student in the Department of Physiology, thanked Mats on behalf of the trainees. The Sundin Fellowship builds on a longstanding Exchange Program in Developmental and Perinatal Biology between the two Institutions. At the University of Toronto, the Sundin Fellowship Program and the Exchange Program are directed by Professor **Stephen Matthews** and hosted by the Department of Physiology.

**More on this exciting announcement:**

[City TV](#)

[Toronto Star](#)



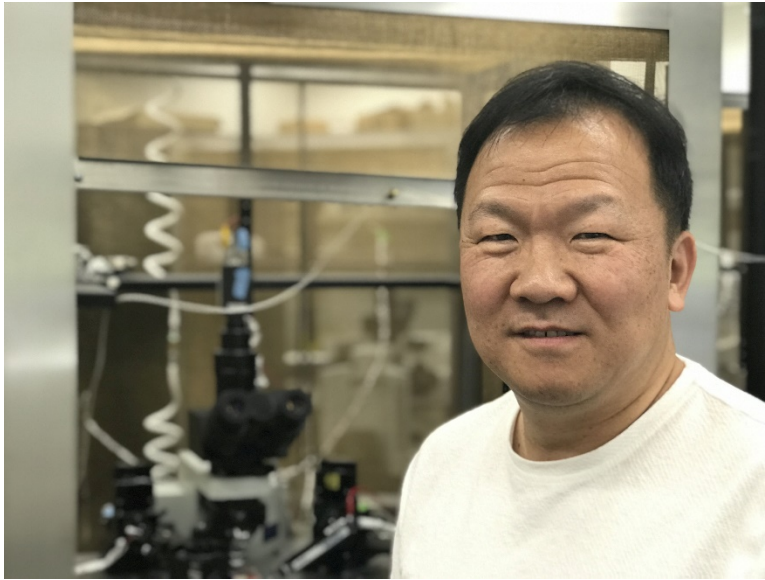
L-R: Ursula Nosi (PhD candidate, Cox lab), Mats Sundin, Dr. Stephen Matthews

# Could the Brain's Frontal Lobe Be Involved in Chronic Pain?

May 25, 2018

Author: Heidi Singer

A University of Toronto scientist has discovered the brain's frontal lobe is involved in pain transmission to the spine. If his findings in animals bear out in people, the discovery could lead to a new class of non-addictive painkillers.



Professor Min Zhou

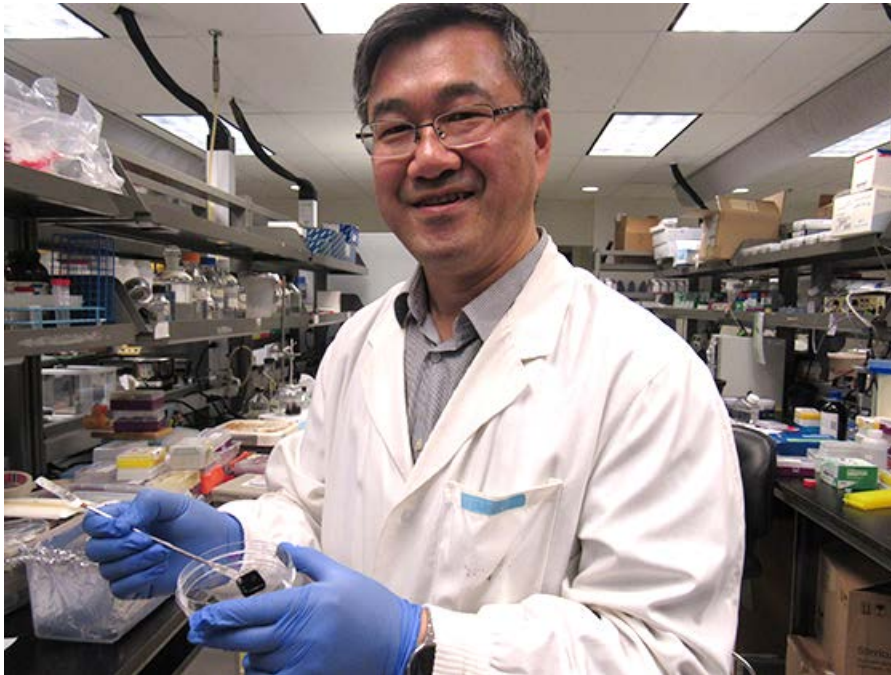
For 20 years, **Min Zhuo**, a professor of Physiology in the Faculty of Medicine, has been intrigued by invisible pain; in particular, chronic pain with no obvious cause. He has long suspected that the standard way of viewing spinal pain – it must come from injury or tissue inflammation – and the usual understanding of how to treat it – block it from entering the spinal cord – wasn't telling the whole story.

Now, Zhuo has demonstrated in mice and rats that some spinal pain actually begins in the brain's frontal lobe, an area previously thought to be uninvolved. And he has shown how treating the pain in this area could be effective at preventing chronic pain. Zhuo [published](#) his results May 16 in the journal Nature Communications.

[Keep Reading....](#)



## In a Heartbeat



*Dr. Ren-Ke Li, Senior Scientist, Toronto General Hospital Research Institute and Professor of Surgery and Physiology, Faculty of Medicine, University of Toronto, has created a new synthetic biomaterial that can help the heart beat normally. (Photo: UHN)*

A new material developed at the Toronto General Hospital Research Institute (TGHRI) by Dr. Ren-Ke Li has been found to repair irregular heartbeats in damaged heart tissue and could change the way heart attacks and heart failure are treated in the clinic. [Read more about the study »](#)

## INTERNATIONAL EXCHANGE IN DEVELOPMENTAL BIOLOGY

This annual exchange program in developmental and perinatal biology between U of T and the Karolinska Institute provides interdisciplinary training for graduate students, postdoctoral fellows, clinical fellows and residents. The course will run August 27 - 31, 2018

**APPLICATION DEADLINE: June 15**

**Registration Form:** <https://www.surveymonkey.com/r/Karolinska2018>

If you require any additional information please consult the course website (<http://www.physiology.utoronto.ca/international-exchange-developmental-biology>) or Victoria De Luca: [deluca@lunenfeld.ca](mailto:deluca@lunenfeld.ca)

## GASP News

### Kids' Passport Activity

On Saturday, June 2<sup>nd</sup>, Physiology participated in the Kids' Passport activity, as part of U of T's Spring Reunion for alumni. We highlighted how great the human body can be, teaching children about the brain, lungs, human development, and how we control our blood glucose. With interactive models, we highlighted how people perceive taste differently depending on their supertaster genetics, the role of the diaphragm and how lung volumes differs, how we develop, and how important insulin is. I would like to thank all the volunteers who helped make the day a great success: Frances Wong, Neemat Mahmud, Emma McIlwraith, Neruja Loganathan, Bradley Smither, Tao Wang, Kaitlyn Price, and Neeraja Ramakrishnan. Pictures can be seen below.





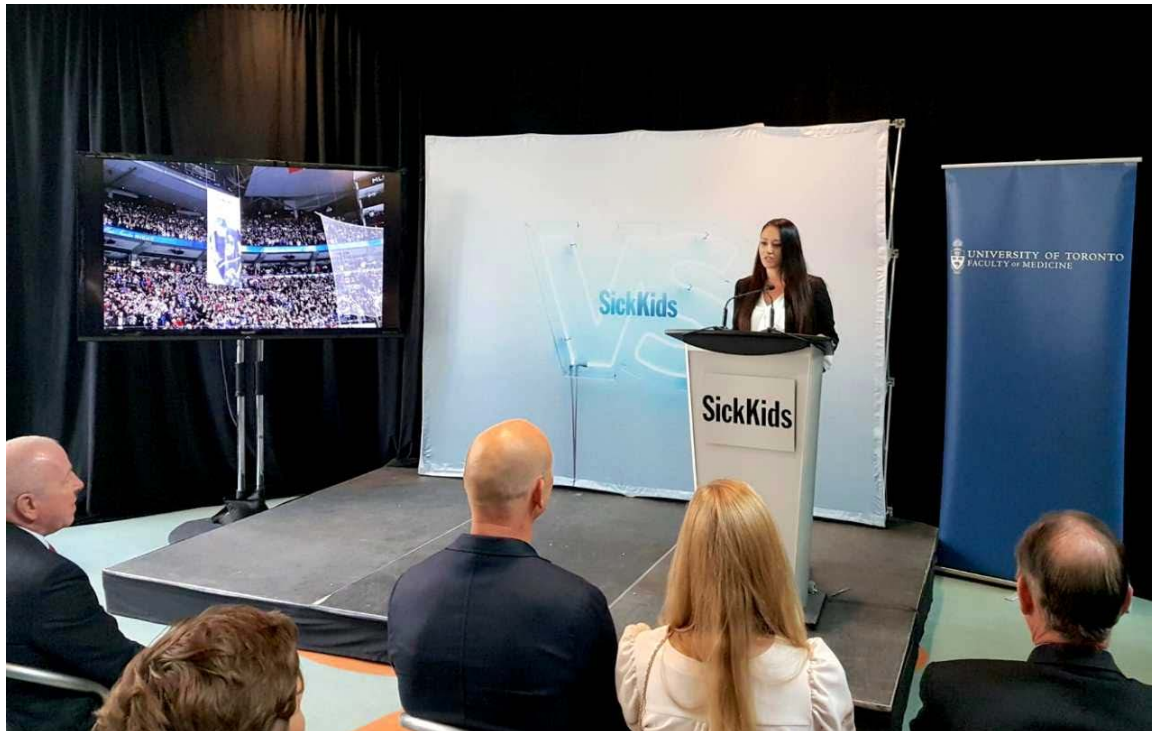




## Mats Sundin Foundation

As mentioned earlier, on June 4, the crowd gathered at the SickKids atrium as Mats Sundin announced his recently-established **Mats Sundin Foundation**, and continued contribution towards the UofT-Karolinska Institute post-doctoral fellowship and exchange program. In addition, he also presented SickKids the banner that once hung at the Air Canada Centre.

GASP would like to congratulate **Ursula Nosi** (PhD trainee, Cox lab), who gave a speech at this press conference, highlighting the importance of research done in the field of human development. She has been a part of, and an ambassador for, the Karolinska exchange.





# GASP

June 2018



Summer is here and unfortunately, GASP has to go! Stay tuned as we will be hosting one more event in July!

## "Coffee" Break

Summer is finally here! Time to enjoy the weather with refreshing lemonade on June 6<sup>th</sup>, 2-4 PM!

Schedule will be as follows:

June 13<sup>th</sup> - Coffee

June 20<sup>th</sup> - Frozen Treats

June 27<sup>th</sup> - Frozen Treats

## Toronto Islands: Park, Picnic, Beach

WHERE: Toronto Islands  
WHEN: Saturday, June 9<sup>th</sup> at 11 AM

Life's a beach!

Group will meet at the ferry terminal at around 11 AM. GASP will pay for ferry tickets and food!

Please RSVP using the attached link.

## Pub Night

WHERE: Pogue Mahone  
WHEN: June 7<sup>th</sup> at 7 PM

We will head over after the FIP reception.  
FREE apps provided courtesy of GASP!

## DoPTSS

WHERE: Physiology Seminar Room (MSB3227)  
WHEN: Tuesday, June 12<sup>th</sup>, 12 - 1:30 PM

Listen to Katie Leavey and Sheila Wang as they give their final defense presentations. Provide helpful feedback to prepare them for the real thing.

## CUPE3902 Healthcare Info Session

WHERE: TBA  
WHEN: Wednesday, June 13<sup>th</sup>, 5:30-6:30 PM

Want to know more about the TA health plan and how to claim benefits? Join Shahin, your CUPE rep, to learn more about the CUPE 3902 healthcare plan. There will be free pizza!

Questions?  
Email [Shahin.khodaei@mail.utoronto.ca](mailto:Shahin.khodaei@mail.utoronto.ca)

## Off-Campus Coffee Break

WHERE: Toronto Western Hospital  
WHEN: Wednesday, June 13<sup>th</sup>, 2-3 PM

Free Timbits and coffee!

## Honest Reading of Abstracts

Remember that FIP abstract? Blow the dust off it, because GASP is holding an honest reading of abstract event.

Stay tuned for more details.

# DoPTSS

**Department of Physiology Trainee Seminar Series**

Presented by GASP

Tues June 12  
12 noon - 1:30PM  
MSB 3227

Please come hear about the great work our colleagues in the department are working on and provide constructive feedback as they prepare of important presentations.

***Light lunch will be provided!***



**Katie Leavey**

*Dr. Brian Cox*

*PhD Candidate*

**Placental Subtypes of Preeclampsia and  
Fetal Growth Restriction**

Defense



**Sheila Wang**

*Dr. Catherine O'Brien*

*MSc Student*

**The Effect of Mdivi-1  
on Colorectal Cancer**

Defense

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**We want to hear about the great things happening in Physiology.**

Please share your accomplishments, awards...  
Send news items to the Chair's Office  
c/o e.katsoulakos@utoronto.ca