



DECEMBER 1, 2017

INSIDE THIS ISSUE

- Message from the Chair
- New Centre for Optophysiology
- Physiology Holiday Raffle
- Honours & Awards
- Healthy Life Trajectories Initiatives (HeLTI)
- Physiology Seminar Series
- Neuroscience Platform Day Update
- Charles H. Best Lecture Photos
- New Faculty Member – Dr. Oksana Shynlova
- GASP News

MESSAGE FROM THE CHAIR



Thank you to everyone who attended the Charles H. Best Lecture on November 27th. What a fantastic turnout! Our thanks to Professor Matthias Tschöp who gave an outstanding lecture on "Unimolecular Polyagonists Targeting Gut-Brain Communication Reverse Obesity and Diabetes". A few pics of the day are included in this issue.

As we approach the end of year, I would like to take this opportunity to thank everyone in the Department for all their contributions and invaluable support. Special thanks to Dr. Scott Heximer (Vice-Chair, Research); All members of the Chairs Executive Committee, Members of the Chairs Strategic Group; to Dr. Michelle French (Undergraduate Coordinator), Drs. Douglas Tweed and Zhong-Ping Feng (Graduate Coordinators); the Platform Heads, Drs. Lu Yang Wang, Andrea Jurisicova, Anthony Gramolini and Michael Wheeler; and of course to our dedicated Office Team for their professional administrative support.

The University will be closed from **5 pm Wednesday, December 20, 2017 to commencement of the working day, Wednesday, January 3, 2018** when normal activities will be resumed.

Warmest best wishes to everyone in the Department for a festive and safe Holiday Season.

Graham L. Collingridge, FRS, FMedSci, FRSB, FBPhS
Ernest B. and Leonard B. Smith Chair, Department of Physiology

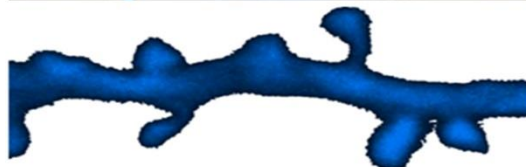
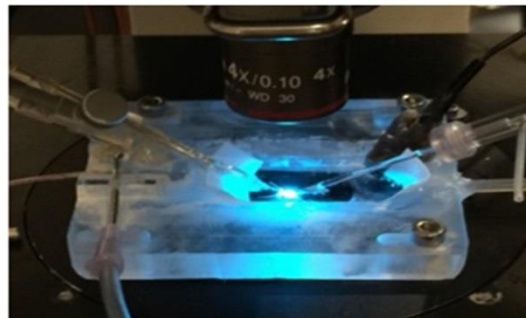
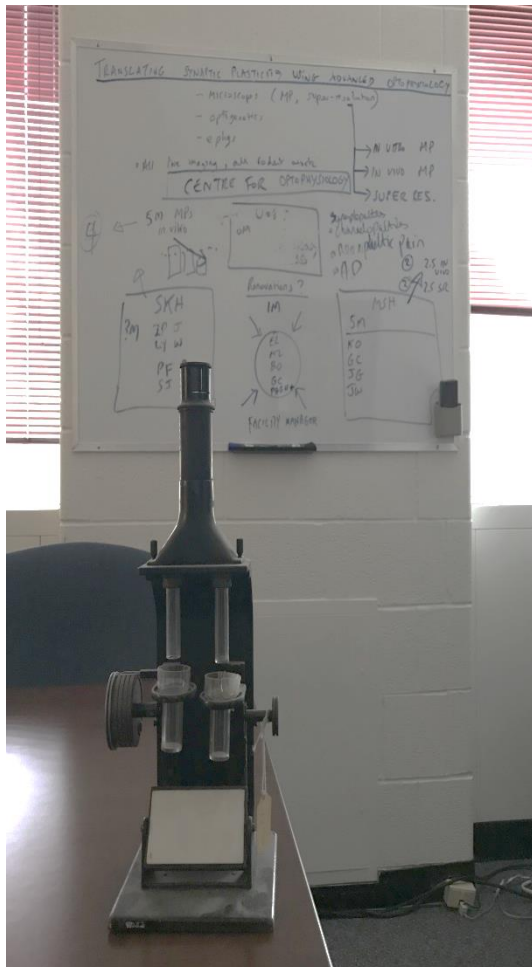
A NEW CENTRE FOR OPTOPHYSIOLOGY

We are delighted to report that scientists in Physiology will soon benefit from a new state-of-the-art centre for Optophysiology (CfO). This new Centre is made possible by new grants from the CFI and ORF for ~ \$7.5M made to a team of Physiologists comprising Graham Collingridge (PI), together with fellow Physiologists Zheng-Ping Jia, Evelyn Lambe, Bev Orser, Mike Salter, Lu Yang Wang and Min Zhuo together with Kenichi Okamoto, Peter St George-Hyslop and Jim Woodgett. It will fund a multi-user facility comprising state-of-the-art multi photon and super-resolution microscopes combined with electrophysiology apparatus at two main locations - the MSB and the TCP. The CfO is funded to support the teams research:

To understand how memories emerge from the connections between nerve cells and how errors in these processes contribute to major brain disorders.

However, the facility, once fully operational, will be available to other Physiologists and scientists from around the Toronto community to exploit the latest dynamic imaging capabilities that the CfO will enable.

The interim Scientific Director of the CfO will be Dr John Georgiou.





Left to right: Dr. John Georgiou, Dr. Graham Collingridge
Francesca Fabry, Jenny Katsoulakos, Dr. Lisa Bradley

Note the festive non-alcoholic beverages!

PHYSIOLOGY HOLIDAY RAFFLE



******* TOP PRIZE *******

**GOLD APPLE iPad mini 4 with
fingerprint recognition**

(Donated by Dept. of Physiology)

More Fantastic prizes!!! One night stay at Westin Harbour Castle Hotel with Breakfast (Marriot International); 2x \$100 KEG Gift Cards and Gift Basket (From Cedarlane, Inc.); \$100 Yorkdale Mall Gift Card (From Helen Miliotis); 4 x \$25 Starbucks Gift Cards (From Chair Graham Collingridge); \$50 Dining Card (From Pat Brubaker); Movie tickets and Jomny Book (!) (From Zhong-Ping Feng); Samsung MP3 Player (From Alex Hardy, 3D Centre); Dinner and a Movie (From Denise Belsham); 2 x \$50 Eaton Centre Cards (From GASP); 4 x \$25 Starbucks Gift Cards (From UPSA); Mystery Gift (From Thermo-Fisher); 2 x Mega Lindt Chocolates (From the Belsham Lab); and MANY MORE!!!

– Step up to the plate faculty.....donations accepted in MSB 3247A or MSB 3334

All proceeds will go to: CP24/CHUM Christmas Wish

The CP24/CHUM Christmas Wish is one of the largest distributors of toys to those in need in the GTA, as well as providing financial assistance to hundreds of agencies. For further info about the CP24/CHUM Christmas Wish please check the web site at www.thewish.ca

Tickets will be available Friday Dec 1 until Wednesday Dec 13th, 2017

Tickets available from GASP members daily!

MSB 3334, Neruja Loganathan and Ashkan Salehi (Belsham Lab – *come see the new lab and buy tickets!*); MSB 3366, Frances Wong (Cox Lab); MaRS, Julia Kim (Gramolini Lab); MSH, Sammy Cai (Collingridge Lab); St. Michael's Hosp, Patrick Meagher (Connelly Lab); Sick Kids, ScottFrendo-Cumbo (Klip Lab); TGH/TMTD, Emily McGaugh (Nostro Lab); TWH, Christine Snidal (Stanley Lab) and at the Holiday Party (so bring your cash).

Come and find us!

Look for the graduate students and be generous!!! Tickets are 1 for \$5.00, 3 for \$10.00 or 8 for \$20

Prize draw will take place at the department of Physiology Holiday Party (Dec 13)

(Don't have to be present to win – we deliver....)

HAPPY HOLIDAYS!!!!

HONOURS & AWARDS

Congratulations to all of our students below who graduated at the Fall 2017 Convocation!

Supervisor	Student	Program
Lam T	Abraham, Mona	PHD U
Caniggia I	Alahari, Sruthi	PhD
Brubaker P	Austin (Yamada), Kaori	PHD U
Wheeler M	Brandt, Sydney	MSc
Klip A / Philpott D	Chan, Kenny	PHD U
Stanley E	Chen, Robert	PhD
Gramolini A	Cosme, Jake	PhD U
Monnier P	Ellabban, Ahmad	MSc
Giacca A	Ivovic, Aleksandar	PHD U
Orser B	Kaneshwaran, Kirusanthi	MSc
Lye S	Kim, Bona	MSc
Wheeler M / Belsham D	Kim, Ja Hyun (Hanna)	MSc
Sun HS	Li, Feiya	MSc
Backx P	Oh, Ye Na	MSc
Jin T	Song, Zhuolun (Eric)	MSc
Levitan R / Matthews S	Sqapi, Maria	MSc
Belsham D	Tse, Erika	MSc
Lye S	Tyagi, Tanya	MSc
Wen XY	Yun, Junghwa (Elena)	MSc

Congratulations to **Dr Joelle Oostermann** on being awarded her PhD from the University of Amsterdam on Nov 23, 2017.



Joelle was working in the lab of Dr Denise Belsham (her co-Promoter) for two years flanked by two more years in Amsterdam. Joelle is now an MD/PhD and achieved her 5 first author publications necessary to graduate with a PhD in Amsterdam.

HEALTHY LIFE TRAJECTORIES INITIATIVE

Congratulations to **Drs Stephen Matthews and Stephen Lye** of the Departments of Physiology, Obstetrics and Gynaecology and Medicine, UofT and the Alliance for Human Development at LTRI on recently being funded through **The Healthy Life Trajectories Initiative (HeLTI) program**.



The HeLTI program was developed by the Canadian Institutes of Health Research (CIHR), Institute of Human Development, Child and Youth Health led by Dr Shoo Lee. The program represents a partnership between CIHR, the South African MRC, the Department of Biotechnology, India, the National Natural Science Foundation of China and the World Health Organization. HeLTI was developed to address the increasing burden of non-communicable diseases (including obesity, diabetes, cardiovascular disease and poor mental health) around the world. There are four separate but harmonized projects that are commencing in Soweto (South Africa), Mysore (India), Shanghai (China), and across Canada. All projects are focused towards developing evidence-based interventions that span from pre-conception across pregnancy and into the postnatal period with a goal improving maternal, infant and child health.

Dr Matthews is the Canadian lead on the HeLTI-India Project with Dr Kalyanaraman Kumaran (Holdsworth Memorial Hospital, Mysore) and Dr Lye is Canadian lead on the HeLTI-South Africa Project with Dr Shane Norris (Wits University, Johannesburg). Both projects are initially funded for 5-years and have each received \$5M. Several investigators from Toronto and across Canada are involved in the projects.

Keep reading.... [HeLTI India & HeLTI South Africa Projects](#)



Photo - Left to right:

Shoo Lee, Scientific Director, CIHR-Institute of Human Development, Child and Youth Health (CIHR-IHDCYH) & Paediatrician-in-Chief, Mount Sinai Hospital

Steve Lye, HeLTI-SA

William Fraser, University of Sherbrooke, HeLTI-China

Cindy-Lee Dennis, Professor and Canada Research Chair at UofT and St. Michael's Hospital, HeLTI-Canada

Art Slutsky: St Michael's VP of research

Bill Blair: MP for Scarborough Southwest. Parliamentary Secretary to the Min. of Justice & AGC. and Min of Health.

Steve Matthews, HeLTI-India

PHYSIOLOGY SEMINAR SERIES - January 2018

~ Eligible for PSL1000H/PSL2000H Course Seminar Attendance ~

Margaret L. Rand, PhD

Professor, Departments of Laboratory Medicine & Pathobiology, Biochemistry and Pediatrics, University of Toronto; Scientist, Division of Hematology/Oncology; Senior Associate Scientist, Translational Medicine, Research Institute, Hospital for Sick Children

Flipping and flopping and blocking procoagulant platelets

Thursday, January 11, 2018

4-5 pm

Medical Sciences Building, Room 2170

Host: Cardiovascular and Respiratory Platform

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

PHYSIOLOGY SEMINAR SERIES

~ Eligible for PSL1000H/PSL2000H Course Seminar Attendance ~

Simon Chen, PhD

Assistant Professor, Canada Research Chair in Neural Circuits and Behavior
Faculty of Medicine
Department of Cellular and Molecular Medicine
University of Ottawa

Title: TBA

Thursday January 25, 2018

4:00-5:00 pm

Location: Medical Sciences Building, Room 2170

Host: Neuroscience Platform

NEUROSCIENCE PLATFORM DAY UPDATE

The 2017 Neuroscience Platform Day was held on November 8, 2017 with 7 orals and 18 poster presentations. More than ~50 trainees and faculties came out to attend the student oral and poster sessions. Dr. Anne Wheeler from the SickKids Research Institute gave an enlightening talk on new ways to examine brain circuitry and mechanisms engaged in neuropsychiatric disorders.

I would like to take this opportunity to thank all for your contributions and to the judges: Drs. Adam Fekete, Zhong-Ping Feng, Zhengping Jia, Evelyn Lambe, Steve Prescott, Frances Skinner, Douglas Tweed, Alexander Velumian, Anne Wheeler, Min Zhuo for their tireless effort in selecting the best presentations. I would also like to thank Eva Eng for her hard work to put together an exciting program and work out all logistics for the event.

Many congratulations go to 5 outstanding trainees who gave the best oral and poster presentations. The awards will be presented at this years' Christmas Luncheon on Wednesday, December 13:

Best Poster Presentations:

Kaitlyn Price

Alexandre Guet-McCreight

Yangning Lu

John F MacDonald Award

Best Poster Award

Best Poster Award

MSc - Barr Lab

PhD - Skinner Lab

PhD - Zhen Lab

Best Oral Presentations

Mary A. Binko

Celeste Leung

John F MacDonald Award

Best Oral Award

MSc - Lambe Lab

PhD - Jia Lab

Lu-Yang Wang, PhD
Platform Head



CHARLES H. BEST LECTURE

Our thanks again to Professor Matthias H. Tschöp, Scientific Director of the Helmholtz Diabetes Center and Chair of the Division of Metabolic Diseases at Technische Universität München, Germany, on giving an outstanding lecture on November 27th.



Professor Tschöp lunches with a group of Physiology's EDRG trainees!

Left to Right: Adriana Migliorini, Yasaman Aghazadeh, Andrew Biancolin, Huize Zhong, Professor Matthias Tschöp, Yousef Manialawy, Matthew Clemenzi, Emma McIlwraith, Haneesha Mohan, Jhenielle Campbell



Left to right: Cathy Best, Charley Best, Professor Matthias Tschöp, Eileen Best, Margaret Best, Alexander Best, Dr. Graham Collingridge

NEW FACULTY MEMBER

We are delighted to introduce you to **Dr. Oksana Shynlova** who will be joining Physiology as a status-only member effective January 1st, 2018.



Dr. Oksana Shynlova is a Research Scientist and Assistant Professor dedicated to advancing the field of women's and infants' health. Dr. Shynlova obtained her PhD in Biochemistry from the Palladin Institute of Biochemistry at the National Academy of Sciences in Ukraine. She worked as a Junior Scientist at the Institute of Biochemistry where her research focused on investigating membrane mechanisms regulating uterine contractility. After moving to Canada in 1998, Dr. Shynlova joined the laboratory of Dr. Stephen Lye as a Research Scientist in the Lunenfeld-Tanenbaum Research Institute at Mount Sinai Hospital in Toronto.

In 2012, Dr. Shynlova joined the Department of Obstetrics & Gynecology at the University of Toronto as an Assistant Professor. In collaboration with colleagues from the Division of Urogynecology and Reconstructive Pelvic Surgery at Mount Sinai Hospital, Dr. Shynlova is researching the fundamental molecular mechanisms of the development of Pelvic Organ Prolapse in women. She has published eight manuscripts on this topic. Recently, Dr. Shynlova developed an innovative and highly competitive independent research program to advance basic science in the area of Urogynecology using autologous urine-derived induced pluripotent stem

cells to treat two major Pelvic Floor Disorders: Stress Urinary Incontinence and Pelvic Organ Prolapse. Dr. Shynlova has dedicated her career to advancing research that helps improve maternal fetal medicine and aims to translate her discoveries from bench to bedside. Shynlova@lunenfeld.ca

NEWS FROM GASP



Happy Holiday's Everyone – See you in the New Year!