DECEMBER 13, 2018

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MESSAGE FROM THE CHAIR



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); Dr. Michelle French (Vice Chair Academic. Undergraduate), Dr. Lu-Yang Wang (Vice-Chair Academic, Graduate), all members of the Chairs Executive and Chairs Strategic Group Committees, Dr. Stephen Matthews, Dr. Beverley Orser, Dr. Nohjin Kee (Undergraduate Coordinator), Drs. Douglas Tweed and Zhong-Ping Feng (Graduate Coordinators); the Platform Heads, Drs. Steve Prescott, Andrea Jurisicova, Anthony Gramolini and Michael Wheeler/Denise Belsham; to Paula Smellie, Jenny Katsoulakos and

our dedicated Office Team for their professional administrative support, and to Sammy Cai and GASP.

The University will be closed from 5 pm Friday, December 21, 2018 to commencement of the working day, Monday January 7, 2019 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

PHYSIOLOGY SEMINAR SERIES - TODAY @ 4pm!

~ Eligible for PSL1000H/PSL2000H Course Seminar Attendance ~

The Department of Physiology Seminar Series

Prof. Jean-Claude Béïque Department of Cellular and Molecular Medicine Faculty of Medicine University of Ottawa

Synaptic history, postnatal development and plasticity rules

Thursday, December 13, 2018 — 4:00 PM Medical Sciences Building — Room 2170

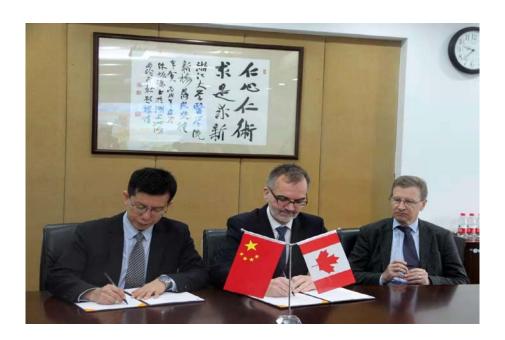
Host: Neuroscience Platform

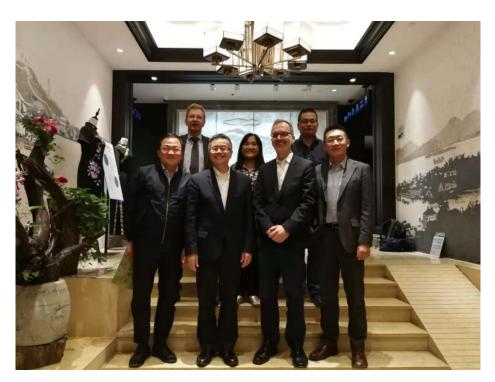


NEW PhD PROGRAM WITH ZHEJIANG UNIVERSITY

A **new PhD Program with Zhejiang University in Hangzhou, China** was officially launched in November this year. The initial phase involves neuroscientists from the Department of Physiology and colleagues from ZJU and will support a joint PhD program. The Toronto co-Director of the program, **Min Zhuo** states,

"Brain diseases have caused great suffering world-wide for patients and their families. They also cause great economy loss to modern society. It is time for us to create and educate the new generation of great minds who will help us design new medicines for these diseases, such as Alzheimer's, chronic pain, drug addition, depression and other mental disorders".





PROFESSIONAL MASTERS - COMING SOON!

After a number of years in the making, the vision of a new professional Master's program in our department is close to becoming a reality. The proposal for the **MHSc in Medical Physiology** has successfully moved through all stages of University Governance. It is anticipated that the program proposal will be submitted to the Ontario Ministry of Training, Colleges and Universities in early spring for final approval by May 2019.

Throughout the approval process, the program structure was consistently praised for its forward-thinking vision of emphasizing the emerging trends of big data in healthcare, the clinical applications of research, and bringing new discoveries to market. The program strength is largely attributed to the strong calibre of our faculty. We will need to draw on all of their expertise to contribute to new courses, to act as faculty mentors for the literature review course, and to assist in securing practicum placement opportunities for our students. Everyone coming together will ensure the successful implementation of this new program. Our department will begin to accept student applications internally in early spring.

Stay tuned for more updates as we get closer to our launch in September!

Helen Miliotis

THE BIRTH OF THE NEW MHSc PROGRAM

A very BIG thank you to everyone involved with the development of the new MHSc Program. Many people worked tirelessly to guide its creation. A special thank you to **Denise Belsham**, **Carin Wittnich**, **Alison Buchan** and **Helen Miliotis** on leading the project successfully through the various university and government approval channels.

Current Advisory Committee Members:

- Carin Wittnich
- Patricia Brubaker
- Anthony Gramolini
- Brian Cox
- Richard Horner
- Frances Skinner
- Denise Belsham
- Helen Miliotis and Lu-Yang Wang ex officio

Course Directors of the core courses:

- PSL4000Y Seminars and Graduate Professional Development (Denise Belsham and Helen Miliotis)
- PSL4010Y Mentored Literature Review Project in Physiology (Patricia Brubaker)

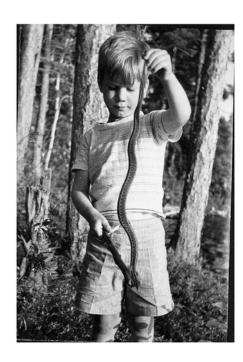
- PSL4020Y Medical Physiology Practicum (Helen Miliotis)
- PSL4030H Clinical Physiology (Adria Giacca and Steffen-Sebastian Bolz)
- PSL4040H Big Data and Health (Brian Cox)
- PSL4050H Collaboration and Commercialization in Physiology (Denise Belsham)

We are looking forward to a very successful launch of the program in September 2019!

Best,

Graham Collingridge

SPECIAL ISSUE PUBLISHED IN DR. ATWOOD'S HONOUR



We are excited to share the news that a **special** issue of the Journal of Neurogenetics has been **published in Dr. Atwood's honour** by a few of his former trainees and collaborators (Milton Charlton, Martin Wojwoticz, Robin Cooper ...). Former Physiology graduate student Jeff Dason took the lead on the project.

Amongst the articles is an essay written by Dr. Atwood's sister (Margaret Atwood) entitled "Child Harold". We also get a peek into Dr. Atwood's lab through a series of photos that will bring back many fond memories of Harold the researcher and Harold the former department Chair!

See below and link for all the details.

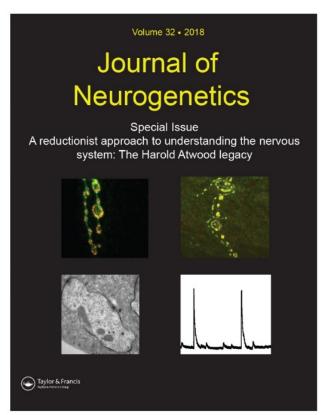
Link to special issue: https://tandfonline.com/toc/ineg20/32/3?nav=tocList

Special Issue of Journal of Neurogenetics A reductionist approach to understanding the nervous system: The Harold Atwood legacy

This special issue is in honour of Professor Harold Atwood's lifetime contributions to the fields of Neuroscience and Physiology. In addition to Harold's many important scientific discoveries, he also had a profound impact on many of his scientific colleagues and trainees. Numerous Atwood lab trainees have continued in research and developed their own research programs, in many cases, heavily influenced by their time in the Atwood lab. This special issue includes a number of perspective articles, review articles and research articles from some of these former Atwood lab trainees and collaborators. The special issue also includes an open access article by Harold's sister Margaret Atwood called "Child Harold", which describes Harold's early and formative years. With this special issue, we thank Harold Atwood for his many scientific contributions and his lasting influence on all his trainees and colleagues.

Jeffrey Dason, University of Windsor Marla Sokolowski, University of Toronto Chun-Fang Wu, University of Iowa

Link to special issue: https://tandfonline.com/toc/ineg20/32/3?nav=tocList



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er-relationships among physical dimensions, distal-oximal rank orders, and basal GCaMP fluorescence els in Ca² imaging of functionally distinct synaptic atons at Dravophila neuroemuscular junctions nomin Xing and Chun-Fang Wu

ISSN 0167-7063

- Postsynaptic Syntaxin 4 negatively regulates the efficiency
- n situ Michal Stawarski, Karlis Anthony husts, Roberto Xander Hernandez, and Gregory Talisker Macleod
- BK channels and a cGMP-dependent protein kinase (PKG) function through independent mechanisms to regulate the telerance of synaptic transmission to ac oxidative stress at the *Dranophila* larval neuromuscu
- Piclotropy of the Drosophila melanogaster foraging gate on larval feeding-related traits

 A. M. Allen, I. Arreiter, A. Vesterberg, S. J. Douglas, and M. B. Sokolovski
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Gantery
279 A look inside the Atwood lab
Jeffrey S. Dason, Maximne Hegström-Wojtowicz, and
Mark B. Sokolowski

DEPARTMENTAL TEACHING AWARDS

Congratulations to everyone all of the faculty members below on receipt of a Teaching Award at the Holiday Party.... outstanding! Your continuing dedication to the education mission of our department is enormously appreciated.

Undergraduate Large Class Teaching Award – James Scholey

Undergraduate Small Class Teaching Award - Richard Horner

Excellence in Graduate Teaching Award - Denise Belsham

Robert Goode Early Career Teaching Award - Sandeep Dhillon

Innovative Course Design Award and Excellence in Teaching Performance – PSL374H - Brian Cox, Min Zhuo, Adria Giacca, Scott Heximer, Valerie Watt, Kaori Austin

KRAICER AWARD

Congratulations to **Dr. Frances Xia** (Frankland lab) on being awarded the 2018 Jack Kraicer Award for excellence in scholarship during doctoral studies in the Department of Physiology. Frances defended her thesis in August, 2018 on "The role of parvalbumimin-positive interneurons in memory consolidation". She has recently accepted a postdoctoral fellow position at UCSF (University of California, San Francisco).

HOLIDAY RAFFLE 2018



A **tremendous THANK YOU** to all of the people who participated in this year's CP24/CHUM Christmas Wish Holiday Raffle. To the graduate students who sold tickets, all of the people who provided prize contributions, and especially those who bought tickets! We managed to raise **\$2000** even (with a magical top-up), again a tremendous amount for the charity and this demonstrates the remarkable generosity of our faculty, students and staff.

A note of appreciation from the CP24 CHUM Christmas Wish follows this message.

Congratulations and happy holidays to all!

Denise Belsham

From: CP24 CHUM Christmas Wish

Dear Department of Physiology, U of Toronto - GASP

Thank you for your gift of \$2000.00 in support of the CP24 CHUM Christmas Wish. Your generosity is greatly appreciated!

Donor

Thank you for helping to give a kid a Christmas!

Raffle Winners

Prize

NAME OF WINNER (LAB)

Prize	Donor		
1. \$20 Starbucks Gift Card	UPSA	Julia (Feng Lab)	
\$20 Starbucks Gift Card	UPSA	Evelyn Lambe	
3. \$20 Starbucks Gift Card	UPSA	Tianru Jin	
4. \$20 Starbucks Gift Card	UPSA	Liz (Matthews Lab)	
5. \$20 Starbucks Gift Card	UPSA	Bona (Matthews Lab)	
6. \$50 Eaton Centre Gift Card	GASP	Sarah (Brubaker Lab)	
7. \$50 Eaton Centre Gift Card	GASP	John (Collingridge Lab)	
8. Mega Lindt Chocolates	Belsham Lab	Michael Wheeler	
9. Mega Lindt Chocolates	Belsham Lab	Frances Skinner	
10. Gift Basket	Thermo Fisher	Jim (Belsham Lab)	
11. Starbucks Gift Card (\$25 value)	Graham Collingridge	Vanessa (Brumell Lab)	
12. Starbucks Gift Card (\$25 value)	Graham Collingridge	Takara (Administration Office)	
13. Starbucks Gift Card (\$25 value)	Graham Collingridge	Alex (Brubaker Lab)	
14. Starbucks Gift Card (\$25 value)	Graham Collingridge	Colleen (Administration Office)	

Toronto Tourism	Graham Collingridge
Denise Belsham	Melanie (Brubaker Lab)
Jenny Katsoulakos	Diego (Belsham Lab)
Helen Miliotis	Lambe Lab
Zhong-Ping Feng	Jin (Collingridge Lab)
Zhong-Ping Feng	Gaspard (Horner Lab)
Patricia Brubaker	Anita McGahan (Rotman)
Richard Horner	Sarah (Brubaker Lab)
Richard Horner	Andrew (Brumell Lab)
Richard Horner	Tina (Librach Lab)
Richard Horner	Matthew (Belsham Lab)
Chatime	Eily (Boltz Lab)
IDT	Michelle French
IDT	Sarah (Brubaker Lab)
Bev Orser	Jinyeol (Collingridge Lab)
Steffen Bolz	Anita McGahan (Rotman)
Yanchun	Dustin (Brumell Lab)
Med Stores	Calvin (Belsham Lab)
Anonymous	Michelle French & Scott (Klip Lab)
Cedarlane	Andrew (Brumell Lab)
	Jenny Katsoulakos Helen Miliotis Zhong-Ping Feng Zhong-Ping Feng Patricia Brubaker Richard Horner Richard Horner Richard Horner Chatime IDT IDT Bev Orser Steffen Bolz Yanchun Med Stores Anonymous

35. \$100 The Keg Gift card	Cedarlane	Michelle French
36. Overnight stay at Westin Harbour Castle Hotel with Breakfast (\$300 value)	Marriot International	Carlos (Belsham Lab)
37. Grand Prize: Gold Apple iPad Mini 4 with fingerprint recognition (\$500 value)	Department of Physiology	Tianru Jin

ALLIANCE FOR HUMAN DEVELOPMENT

Steve Matthews (Director of Research, AHD) and **Steve Lye** (Executive Director, AHD) met the Parliamentary Secretary to the Minister of Health: **John Oliver** at Mount Sinai on December 6th to discuss Women and Infant Health and the HeLTI program. http://ahd.ca/



FRSC Celebration Update

Thank you to everyone who joined us for the FRSC Celebration on November 27 honouring our research superstars, **Paul Frankland, Sheena Josselyn** and **Beverley Orser**. Members of the audience included other Fellows (*Harold Atwood, Min Zhuo and Mike Salter*) there to support the new members.



NEWS FROM GASP

Physiology Research Advisory Program:

This program provides you with an opportunity to mentor junior undergraduates interested in research opportunities and graduate school. As a graduate mentor, you will be paired with one or two undergrads who will shadow you in your lab for 1-2 hours in February 2019.

Register by December 24, 2018:

https://docs.google.com/forms/d/e/1FAIpQLScEgfMgu4LfFuyQp2SwBpIwIZaFFhgobt PVHFVP7X2Pme2KJA/viewform

For more information, Contact Yasaman: yasaman.mostafaie@mail.utoronto.ca

Department of Physiology Trainee Seminar Series:

DoPTSS provides the perfect opportunity for trainees to practice and receive feedback on work related to their projects. Join us for free coffee and snacks!

Next Date: January 23, 2019

Registration for all dates open: https://goo.gl/forms/NwtL2YhtvGTWZudM2
For more information, Contact Yasaman: yasaman.mostafaie@mail.utoronto.ca

RESEARCH RADIO PODCASTS

Episode 2 is now live!

What happens to our memory as we age? Join Julia, a first year PhD student, and Research Radio Toronto director and music producer, as she explores how neuroscientists use animals to study memory, and interviews Physiology Professor Dr. Paul Frankland, on how we make (and lose!) memories.

Research Radio is a podcast produced by graduate students in the Department of Physiology. Each month, we release 1-2 episodes highlighting a graduate student or faculty member's research, and talking about all things grad life and pop culture! Our second episode is now live! Check it out on Apple Podcasts, Google Play, and Soundcloud:

Apple: https://apple.co/2PxyhER
Google: https://bit.ly/2EgWzB1
Soundcloud: https://bit.ly/2UyTMsh

If you are interested in hosting an episode or want to work with us, please email us at researchradiotoronto@gmail.com

Like us on Facebook at <u>facebook.com/researchradio!</u> You can also follow us on Instagram @researchradio and on Twitter @researchradioto

Look out for our next episode in the new year! Until next time, this is Research Radio signing off.





Happy Holiday's Everyone

See you in the New Year!