

## **PhysioLINK**

June 3, 2020

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#### MESSAGE FROM THE CHAIR

I hope this message finds everyone well as we begin our plans for phased research re-start at the University. Thanks to everyone for your patience and valuable contributions throughout the shutdown and re-start planning process. Wishing everyone a safe and seamless ramping up of your research programs.

Scott P. Heximer, PhD
Ernest B. and Leonard B. Smith Chair,
Department of Physiology

#### U of T's VIRTUAL CONVOCATION CEREMONY



The University held its <u>Virtual</u> <u>Convocation Ceremony</u> yesterday. Very many Congratulations to all of our trainees and the entire Class of 2020! We are immensely proud of your accomplishments, and wish you the very best in your future endeavors!

Surname	Given Name	Program	Supervisor
Chatterjee	Antara	MSc	S Lye / O Shynlov
Fantin	Amanda	MSc	I Rogers
Gong	Haifan	MSc	HS Sun
Guet-McCreight	Alexandre	PhD	F Skinner
Inchauspe	Jeanne	MSc	S Josselyn
Khroud	Manroop	MSc	T Jin
Kim	Ryungrae	MSc	H Zhang
Markovic	Melanie	PhD	P Brubaker
Sivakumaran	Sanghavy	MSc	E Lambe
Walia	Khyati	MSc	P Monnier

#### **HONOURS & AWARDS**

Congratulations to **Michael Dewar** (MSc trainee, Heximer Lab) who was selected as this year's winner of the **Dr. John Hepburn Award.** Dr. John Hepburn 2T1, was a cardiologist and teacher at the University. The award was established by a bequest from Dr. R. Carroll Grant (2T8). First awarded in 1989, the purpose of this award is to assist in cardiovascular research. Every year, the Medical Alumni Association invites the Chair of Physiology, to recommend a deserving graduate student to receive the his year's Dr. John Hepburn Award,

#### **NEW APPOINTMENT – Dr. Z. Ivakine**

A warm welcome to **Dr. Zhenya I vakine**, who joined the department on May 1<sup>st</sup> as a primary status only faculty member. He will be participating in the Cardiovascular and Respiratory Research Platform.

Zhenya completed his PhD studies in the laboratory of Dr. Jayne Danska (University of Toronto) where he identified several insulin dependent diabetes loci (*Idd*) in spontaneously diabetic NOD mice and established sex-specific effect of *Idd4* on



disease susceptibility. During his postdoctoral training in the laboratory of Dr. Rod McInnes (Hospital for Sick Children, Toronto) he elucidated an unrecognized role of a synaptic protein Neto2 in inhibitory neurotransmission. As a senior research associate in the laboratory of Dr. Ronald Cohn (Hospital for Sick Children) he spearheaded the development of genome editing applications for the treatment of several inherited disorders.

Zhenya is currently a new investigator in the Genetics and Genome Biology Program at the Hospital for Sick Children. An overarching focus of his laboratory is development of clinically

relevant, broadly translatable treatment strategies for individuals with devastating genetic disorders, such as Niemann-Pick type C (NPC), Duchenne Muscular Dystrophy (DMD), and Cystic Fibrosis. He has deep expertise in gene editing, genome engineering, and disease modelling in both cellular and animal models. His established collaborations with various members of the Department, including Dr. Anthony Gramolini, Dr. Christine Bear, and Dr. Mike Salter, have already yielded complementary and fruitful work, advancing our knowledge of human disease. zhenya.ivakine@sickkids.ca

#### **EXCITING WORK FROM THE WHEELER LAB**

#### **Blood Test Could Predict Diabetes Years Before it Strikes**

May 21, 2020

Author: Jovana Drinjakovic



Blood markers can identify women with history of gestational diabetes who will go on to develop type 2 diabetes years after delivery.

Scientists have identified metabolites in blood that accurately predict whether a woman will develop type 2 diabetes after experiencing a transient form of illness during pregnancy. This discovery could lead to a test that would help doctors identify patients at greatest risk and help them potentially avert the disease through interventions including diet and exercise.

The research was led by **Michael Wheeler**, a professor of physiology at U of T's Faculty of Medicine, in collaboration with <u>Hannes Röst</u>, an assistant professor of molecular genetics and computer science at the Donnelly Centre for Cellular and Biomolecular Research, **Feihan Dai**, a research scientist of physiology and **Erica Gunderson**, a research scientist at the <u>Kaiser Permanente Division</u> of <u>Research</u> in Northern California. **Mi Lai**, a post-doctoral fellow in Wheeler's group performed much of the analyses.

**Keep reading**: https://thedonnellycentre.utoronto.ca/news/blood-test-could-predict-diabetes-years-it-strikes

# PHYSIOLOGY TRAINEES PUT THEIR EDUCATION TO WORK DURING THE PANDEMIC

We are immensely proud of our trainees. It is heartening to see how many of them are stepping up to the plate to assist during the COVID-19 outbreak. Here is one story!



Outside of my research, I have been a tutor for multiple years, both through independently and two companies. Due to COVID-19 pandemic, high school students have switched to an unfamiliar, online learning platform. With many families currently out of work or experiencing financial difficulties, I wanted to do a part for the community. Therefore, I reached out to old teachers and friends, and I started a free, online tutoring initiative for high school

students in need in the GTA. I am currently tutoring TCDSB and TDSB students in the mathematics and sciences, virtually via Zoom.

Alongside this initiative, I have been providing grocery shopping and deliveries to a handful of individuals in my neighbourhood who are elderly, immunocompromised, or feel unsafe to go out during this difficult time. We are all a community - a small effort goes a long way.

#### Elisabeth M. Grande

M.Sc. Candidate, Molecular Medicine, Adeli Lab

#### **GASP News**

We hope you are all doing well. As research sites gradually begin their reopening process, we will be continuing to host our events virtually over the coming weeks (and likely months). We look forward to seeing some of you at our upcoming **virtual pub night**, **on June 4th**.

Additionally, we will be hosting a trivia night toward the end of the month. All are welcome (students, postdocs, staff, faculty). Details are below:

Where: Zoom

When: Late June (Exact date and time TBA)

GASP is planning another Trivia night, this time it's happening virtually! We invite you all to come out and compete in teams of 4-6 people. Please RSVP through the google form below. If you are not on a team, please indicate so on the form and we will place you in one!

RSVP: https://forms.gle/vfKGdM93UTyK6T1w6

For questions or more information, please contact email shahin.khodaei@mail.utoronto.ca.

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## Stay well everyone!

## #weareinthistogether



Please continue to visit the central COVID-19 hub for the U of T community