

## MESSAGE FROM THE CHAIR, DR. JUAN CARLOS ZUNIGA-PFLUCKER

Today, November 2, members from our undergraduate and graduate student leadership, staff and faculty from Department of Immunology gathered for our semi-annual meeting, which was held online like our March meeting. As we continue to implement our departmental [Strategic Plan](#) (2019-2023), we discussed a number of new initiatives to improve the educational mission serving our undergraduate and graduate students, as well as postdoctoral fellows affiliated with our department. These included plans: to create a new course to enhance how we carry out Qualification Exams; increase our outreach for summer research student placements; offer new undergraduate courses; and, provide engaging career advice to postdocs in Immunology.

During the meeting, we also had the pleasure to welcome new faculty members to our Department. We are delighted to have Drs. **Omar Khan** (Institute of Biomedical Engineering) and **Chao Wang** (Sunnybrook Research Institute) as our newest faculty members. With more additions on the horizon, the Department continues to grow and increase its research capacity and training opportunities.

We were also impressed and inspired by the wonderful initiatives that our undergrad and grad students have carried out in support of their classmates during these challenging times. You can read more about some of their current and future plans in the IGSA and IMMSA sections below.

## UPCOMING EVENTS

### EASTON SEMINARS – Zoom Webinar – 11:00-noon

November 16, 2020

- "Regulatory Intestinal IgA Plasma cells: Big Gut-Small Brain"

**Olga Rojas MD, PhD**

Host: Juan Carlos Zúñiga-Pflücker, PhD

November 23, 2020

- "Learning the rules of human immune system from pathogens and cancer"

**Nir Hacohen, PhD**

Host: Tracy McGaha, PhD

November 30, 2020

- "Autophagy modulation as an example of precision cancer (immune)therapy"

**Lorenzo Galluzzi, PhD**

Host: Tracy McGaha, PhD

### STUDENT SEMINARS – Quercus - 10:00-11:00

November 2, 2020

- "Defining the Epigenetic and Developmental Basis of Cardiac Macrophage Heterogeneity" - **Anthony Wong (Epelman Lab)**

- "Selective IGF-1 production by resident cardiac macrophages orchestrates adaptive cardiomyocyte growth during hypertensive stress" - **Rysa Zaman (Epelman Lab)**

November 9, 2020

- "The NOD-like receptor protein NLRP6 regulates the colonic mucus layer during *Tritrichomonas* infection" - **Nate Winsor (Girardin Lab)**

- **Anthony Zhao (Guidos Lab)**

November 16, 2020

- **Philip Barbulescu (Martin Lab)**

- **Carolina De Amat Herbozo (Mallevaey Lab)**

November 23, 2020

- "The Immuno-Targeting Approach to a SARS-CoV-2 Vaccine" - **Audrey Kassardjian (Julien Lab)**

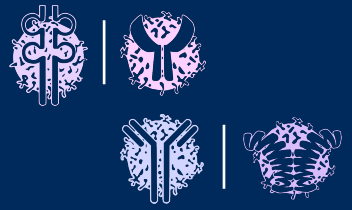
- "The effects of human gut microbial products on mucosal immunity in Type 1 Diabetes" - **Tiffany Kong (Danska Lab)**

November 30, 2020

- "ChAT+ T cells in mediating inflammation and cardiac function during viral myocarditis" - **Julia Lin (Epelman Lab)**

- "Influence of early life Western diet on susceptibility to colitis" - **Alec Luchak (Croitoru Lab)**





## GRADUATE PROGRAM UPDATES

### **Award Deadline Approaching**

CGS-M applications are due **December 1, 2020 at 8:00 PM (ET)**

1<sup>st</sup> year graduate students and 4<sup>th</sup> year undergraduates planning to apply to grad programs for 2021 are encouraged to apply.

### **Committee Meetings**

2<sup>nd</sup> year PhD students are reminded to complete their second committee meeting by **December 31, 2020**. [Committee Meeting form](#) and [Qualifying Exam Planning form](#) should be submitted to Kate as soon as possible after the meeting.

## FEATURED CAMPUS RESOURCE

### **NEW! Health & Wellness Peer Support**

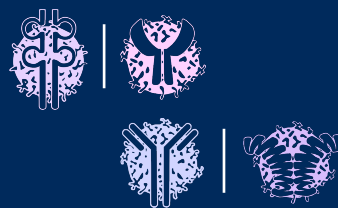
If you're ever confused or struggling and need a friend to:

- hear you out
- support you
- connect you with useful resources

Health & Wellness peer support is here to help. With a single click, chat with a trained University of Toronto student peer about whatever is on your mind, right away. Support is offered in a one-on-one, drop-in, non-judgmental, confidential and accessible virtual space.

<https://studentlife.utoronto.ca/service/peer-support/>





## IGSA

Dear Immunologists,

This past month of October, we are reminded of resilience. With our foreseeable future becoming clouded with the uncertainty of the COVID-19 pandemic extending into the winter months, it may feel like too much is happening, and too fast. We urge you to hold onto hope, though it may at times be frail. We'll persevere together.

And you are not alone! Our student leaders in IGSA have kept their hands busy this past month with providing fun, interactive, and constructive events to keep the graduate student community alive, including:

- A virtual advice panel for first-year rotation students selecting their lab;
- a virtual movie night, where we had a blast watching Netflix films in small groups;
- a virtual yoga session led by a health and wellness instructor;
- a virtual career development seminar that featured diverse speakers, including Department of Immunology alumni Clare So and Helen Luck;
- and finally, a virtual Halloween Games Night complete with a costume party and online games, in lieu of our traditional interdepartmental Halloween Dance at The Boat in Kensington Market!

The key word here is: *virtual*. Safety remains IGSA's top concern for students, and we would like to assure faculty and students that safety will not be compromised. That being said, IGSA has welcomed the challenge of the additional creativity and resourcefulness associated with planning and executing online events.

Separately, programming for various community outreach and wellness initiatives is also underway and on track for November:

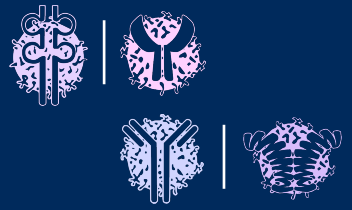
- The Graduate Peer Support Network (GPSN), a health and wellness program funded by the GLSE, will hold its first graduate life seminar this month.
- IMMspire, a community outreach initiative, will launch its first round of virtual events with Toronto high schools in mid-November.
- Our internal departmental mentorship program, in which mentors should have completed their training and have reached out to their mentees.

Resilience comes in many forms. Important conversations were had this month in response to the "Picture a Scientist" documentary and follow-up discussion spearheaded by Dr. Nana Lee. We are reminded of and must never forget the barriers and obstacles that some of us face as scientists due to the intrinsic inequities of greater society. Women in STEM fields have historically been underrepresented, ostracized, and at times, abused by their superiors or colleagues and in many instances, have not been given the same opportunities as their male counterparts despite being equally deserving of them – simply due to their gender. IGSA is dedicated to equity between our male and female peers in the student community and will continue to strive to raise women up in our community. We hope you do the same.

As always, please take care to stay safe and healthy.

Anthony Wong and Rashi Gupta  
IGSA Co-Presidents 2020-21





## IMMSA

Hello everyone!

We hope everyone now has a better understanding on COVID-19 after attending the seminar given by Dr. Watts! For those who are considering graduate school, we hope the grad seminar was very informative and gave you a better idea of how you want to approach it.

This month, we will be hosting a virtual games night! We will have multiple breakout rooms with different games including Among Us, Codenames and Skribbl.io. So, if you are looking for a way to relax and have fun for once, please join us on Nov. 6th from 6-8:30pm! You can come alone and meet new people or you can come with friends.

There will also be a virtual seminar coming up on Nov. 23rd from 5-6:30pm. We have invited Dr. Benjamin Di Francesco, an applied scientist from Cyclicarx, who will be talking about the importance of machine learning and artificial intelligence in biomedical research. Cyclicarx is a biotechnology company that has global recognition and has roots in UofT. Dr. Di Francesco is a UofT alumni, holding a PhD in Biological Chemistry and has an interest in developing drug candidates against treatment-resistant targets in lung cancer.

Be sure to come to these events as we will also be raffling off multiple Starbucks gift cards! In addition, our raffle for the chance to have a virtual chat over coffee with an immunology professor of your choice is still ongoing! The list of professors has been posted on the IMMSA Facebook page. You can earn a raffle entry each time you come to one of our events throughout the semester. The winner will be chosen in late November or early December. This will be a great opportunity to get to know a professor better, get advice, and ask questions!

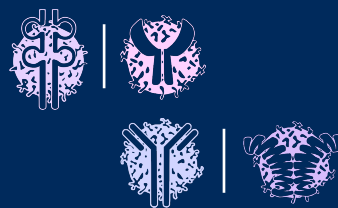
All the best,

Anita Tia and Phoebe Liu

IMMSA 2020-2021 Co-presidents

<http://immsauoft.com> | [@immstauoft](https://twitter.com/immstauoft) | <http://facebook.com/IMMSA.UofT>



PUBLICATIONS

Breiteneder H, Peng YQ, Agache I, Diamant Z, Eiwegger T, Fokkens WJ, Traidl-Hoffmann C, Nadeau K, O'Hehir RE, O'Mahony L, Pfaar O, Torres MJ, Wang DY, Zhang L, Akdis CA. 2020. Biomarkers for diagnosis and prediction of therapy responses in allergic diseases and asthma. *Allergy*. (Online Ahead of Print)

Kent OA, Saha M, Coyaud E, Burston HE, Law N, Dadson K, Chen SJ, Laurent EM, St-Germain J, Sun RX, Matsumoto Y, Cowen J, Montgomery-Song A, Brown KR, Ishak C, La Rose J, De Carvalho DD, He HH, Raught B, Billia F, Kannu P, Rottapel R. 2020. Haploinsufficiency of RREB1 causes a Noonan-like RASopathy via epigenetic reprogramming of RAS-MAPK pathway genes. *Nature Communications*. **11(1):4673**.

Rajakumar SA, Papp E, Lee KK, Grandal I, Merico D, Liu CC, Allo B, Zhang L, Grynpsas MD, Minden MD, Hitzler JK, Guidos CJ, Danska JS. 2020. B cell acute lymphoblastic leukemia cells mediate RANK-RANKL-dependent bone destruction. *Science Translational Medicine*. **12(561)**.

Aguilar OA, Tanaka M, Balaji GR, Berry R, Rossjohn J, Lanier LL, Carlyle JR. 2020. Tetramer Immunization and Selection Followed by CELLISA Screening to Generate Monoclonal Antibodies against the Mouse Cytomegalovirus m12 Immuno-evasin. *Journal Of Immunology*. **205(6):1709-1717**.

Baranek T, Lebrigand K, Herbozo CD, Gonzalez L, Bogard G, Dietrich C, Magnone V, Boisseau C, Jouan Y, Trottein F, Si-Tahar M, Leite-de-Moraes M, Malleveay T, Paget C. 2020. High Dimensional Single-Cell Analysis Reveals iNKT Cell Developmental Trajectories and Effector Fate Decision. *Cell Reports*. **32(10):108116**.

Agache I, Rocha C, Pereira A, Song Y, Alonso-Coello P, Sola I, Beltran J, Posso M, Akdis C, Akdis M, Brockow K, Chivato T, del Giacco S, Eiwegger T, Eyerich K, Gimenez-Arnau A, Gutermuth J, Guttman-Yassky E, Maurer M, Ogg G, Ong P, O'Mahony L, Schwarze J, Werfel T, Canelo-Aybar C, Palomares O, Jutel M. 2020. Efficacy and safety of treatment with omalizumab for chronic spontaneous urticaria: A systematic review for the EAACI Biologicals Guidelines. *Allergy*. (Online Ahead of Print)

Vinaik R, Barayan D, Auger C, Abdullahi A, Jeschke MG. 2020. Regulation of glycolysis and the Warburg effect in wound healing. *JCI Insight*. **5(17)**.

Vinaik R, Barayan D, Jeschke MG. 2020. NLRP3 Inflammasome in Inflammation and Metabolism: Identifying Novel Roles in Postburn Adipose Dysfunction. *Endocrinology*. **161(9)**.

Jeschke MG, Chung KK, Shupp JW. 2020. Why Are Infections Important in Burn Patients?. *Surgical Infections*. (Online Ahead of Print)

Choi Y, Salit I, Grech S, Sano M, Weiss E, Kovacs C, Paquette R, Claudio M, Gibbons S, Severini A, Kaul R. 2020. Anal dysplasia and HIV shedding in ART-treated men. *Sexually Transmitted Infections*. **96(6):399-401**.

St Paul M, Ohashi PS. 2020. The Roles of CD8(+) T Cell Subsets in Antitumor Immunity. *Trends In Cell Biology*. **30(9):695-704**.

