# NEWSLETTER



VOL IX – ISSUE VII March 2021

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

The quote "Hope springs eternal...", from one of my favourite Popes (Alexander Pope), keeps coming to mind as we continue to wish for better times to come, which we all know are soon to arrive along with the Spring, or early Summer. Pope meant for us to focus on humankind's ability to enact positive change within a great unexplained universe, it was the 18<sup>th</sup> century after all. But nevertheless, it is a view that still applies today as immunology helps us explain and address what is currently inexplicable.

I look forward to our upcoming Faculty meeting, and to discussing how we have adapted and how we will continue to adapt to the current circumstances. We will also be reflecting on the changes we have made and will be making to our graduate programs, including the new 1<sup>st</sup> year PhD graduate course (IMM1200, Scientific Skills for Immunologists), which I hear is going really well and is having the anticipated impact we had hoped. My thanks to Prof. Jasty Singh, Nana Lee and Stuart Berger for making this course a reality.

I would like to thank the dedication and hard work of our Graduate Committee members, who recently met to go over the large number of student applications to join our graduate programs. This is never an easy task and we rely on their insights and judgement to maintain and continue to elevate the academic excellence that our Department has achieved.

The Department continues to reach out to our Postdocs so that we can provide not only a sense of community, but also offer networking and training opportunities. With this in mind, if you a new Postdoc in your lab, please have them connect with Prof. Tania Watts directly to have them included.

## **UPCOMING EVENTS**

DOI FACULTY MEETING – via Zoom March 29, 2021 11:05 am – 1:00 pm

(Zoom link to be sent directly to faculty and student/trainee leadership)

EASTON SEMINARS – Zoom Webinar 11:05 - noon

March 8, 2021 – Gwendalyn Randolph, PhD

Emil R. Unanue Professor,

Department of Pathology & Immunology, Washington
University School of Medicine St.Louis

"Mechanism that limit dissemination of microbial signals from the intestine"

Host: Slava Epelman, MD, PhD, FRCPC

### March 22, 2021 - Robert Thimme, PhD

Medical Director,

Department of Internal Medicine II, Medical Center –

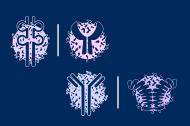
University of Freiburg

"Success and failure of CD8+ T cell immunity to HCV and SARS-CoV2"  $\,$ 

Host: David Brooks, PhD



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

#### March 1, 2021

Influence of the microbiota on innate T cell lineages and its effect in IBD

Meggie Kuypers (Mallevaey Lab)

In vitro generation of human CD4 T lineage cells from stem cells

Julius Landas (Zuniga-Pflucker Lab)

### March 8, 2021

#### title TBD

Seungwoo Lee (Watts Lab)

Understanding the effects of microbiome-derived indole compounds on CD8+ T cells in PDAC

Kitty Liu (McGaha Lab)

#### March 15, 2021

#### title TBD

Nayanan Nathan (Girardin Lab)

<u>Development of SS1 CAR-T cells with enhanced persistence through scFv humanization</u>

Yota Ohashi (Hirano Lab)

### March 22, 2021

Maisha Fiti: defining the role of gender-based violence in HIV susceptibility

James Pollock (Kaul Lab)

#### title TBD

Annie Pu (Gommerman Lab)

#### March 29, 2021

#### title TBD

Juan Diego Sanchez Vasquez (Gehring Lab)

Elucidating cytotoxic mechanisms in DN T cells for enhanced AML therapy

Enoch Tin (Zhang Lab)

### **GRADUATE PROGRAM UPDATES**

### PhD QUALIFYING EXAMS

2021 Qualifying Exams will take place in May.

Second year PhD students who are going forward with a Qualifying Exam are reminded of the following dates:

By April 1 – supervisor approves proposal; student sends proposal to supervisory committee members

By April 15 – supervisory committee members approve proposal

(Proposal approval forms should be sent to graduate.immunology@utoronto.ca)

Scheduling of exams and assigning of examiners is underway – your exam date, time, and exam committee composition will be communicated to you in the coming weeks.



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## **IGSA**

Dear Immunologists,

We hope that you're having a wonderful start to the New Year so far.

This month marks approximately 1 year since the start of the COVID-19 pandemic. It was this time last year that we began staying home to keep ourselves safe, as well as our loved ones and the vulnerable members of our community especially. Although these efforts were and still are necessary, we recognize that the pandemic has also brought with it a disruption to our personal lives, mental health, and the progress of our research.

As trainees, this may be particularly stressful, and we want you to know that you are not alone and are welcome to reach out to faculty and staff in the department with any of your thoughts or concerns. Remember that your lab mates and supervisor are also there to support you. And the graduate student community is always here for you if you ever feel lonely – so please reach out to members of IGSA whenever you need to! We are here for <u>you</u>.

IGSA continues to hold events to help you stay connected!

- Stay tuned for more virtual fitness classes! Itching to get back to the gym already? We have been hosting virtual yoga and high-intensity interval training classes with personal trainers and will continue doing so for the rest of the year.
- Have fun with friends and meet new people! In February, we had events like our Valentine's Day Games Night and PowerPoint Battle Night, and shared a lot of laughs! In March, you can look forward to events like our Interdepartmental St. Patrick's Day Trivia Night on March 17<sup>th</sup>, and our new Cooking with Tiffany series, with its first class beginning on March 12<sup>th</sup>.
- Improve your academic prowess! For those of you with PhD Qualifying Exams this spring, we will be having a virtual Q&A session with Dr. Jennifer Gommerman and a panel of senior students on March 3<sup>rd</sup> you won't want to miss it!

Our students continue to be hard at work in the community, as well:

- Outreach to high school students! Season 2 of IMMspire and Immunology Day is under way, as our student teams continue to interact with high school students around Toronto and the GTA about immunology.
- **Student voices for equity!** Our students are working hard on the next issue of IMMpress featuring equity and accessibility in STEM. Keep your eyes peeled for the release date of this upcoming instalment of our student magazine.
- Wellness personified! The Graduate Peer Support Network, our student-run mental health and wellness
  initiative, will hold its next workshop on March 19<sup>th</sup>, titled Responding to Discrimination through Allyship and
  Reporting.

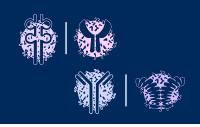
Please reach out to <a href="mailto:utgsu.immunology@gmail.com">utgsu.immunology@gmail.com</a> if you ever need to.

With love,

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



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## **IMMSA**

Hi everyone,

We'd like to thank those of you who came to join us for our games night; we hope you had fun!

This month, we will be collaborating with the Molecular biology and Immunology Student Association (MIMSA) from UTSC for the Beyond Med School: Careers in Research and Industry event! It will feature Dr. Warren Chan, Dr. Boris Hinz and Dr. Harold Wodlinger as the panelists. If you are interested in learning about what other career options there are other than medicine, please come to the event! It will be held on March 12th at 5pm on Zoom.

We also invited Dr. Bryan Coburn as the speaker for our immunotherapy seminar, which will be held on March 23rd 11-1pm. Feel free to join if you are interested in the relationship between microbiome and immunotherapy.

In addition, IMMSA will be holding our spring elections! From March 10th to the 24th, you can submit your application to run for the following positions: co-presidents (2), vice president (1), secretary (1), Sr. treasurer (1), Sr. events coordinator (1), 4th year representative (1), 3rd year representative (1), ASSU representative (1), graphic designer (1), webmaster (1). Running for co-president requires at least one year of experience on IMMSA. Voting will take place on March 29th to April 6th. Please look for more information and the links to apply in the coming weeks on our social media.

We hope to see you all at our events this month!

Best regards,

Anita Tia and Phoebe Liu

IMMSA 2020-2021 Co-Presidents

<a href="http://facebook.com/IMMSA.UofT">http://facebook.com/IMMSA.UofT</a>

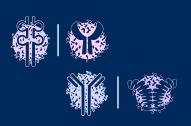
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<a href="http://facebook.com/IMMSA.UofT">http://facebook.com/IMMSA.UofT</a>



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### **PUBLICATIONS**

Mai L, Asaduzzaman A, Noamani B, Fortin PR, Gladman DD, Touma Z, Urowitz MB, Wither J. 2021. The baseline interferon signature predicts disease severity over the subsequent 5 years in systemic lupus erythematosus. Arthritis Research & Therapy. 23(1).

Paranavitana L, Walker M, Chandran AR, Milligan N, Shinar S, Whitehead CL, Hobson SR, Serghides L, Parks WT, Baschat AA, Macgowan CK, Sled JG, Kingdom JC, Cahill LS. 2021. Sex differences in uterine artery Doppler during gestation in pregnancies complicated by placental dysfunction. Biology of Sex Differences. **12(1).** 

Han JX, Zuniga-Pflucker JC. 2021. A 2020 View of Thymus Stromal Cells in T Cell Development. Journal of Immunology. **206(2):**249-256.

Ramaglia V, Florescu A, Zuo M, Sheikh-Mohamed S, Gommerman JL. 2021. Stromal Cell-Mediated Coordination of Immune Cell Recruitment, Retention, and Function in Brain-Adjacent Regions. Journal of Immunology. 206(2):282-291.

Chakraborty M, Chu K, Shrestha A, Revelo XS, Zhang XY, Gold MJ, Khan S, Lee M, Huang C, Akbari M, Barrow F, Chan YT, Lei H, Kotoulas NK, Jovel J, Pastrello C, Kotlyar M, Goh C, Michelakis E, Clemente-Casares X, Ohashi PS, Engleman EG, Winer S, Jurisica I, Tsai S, Winer DA. 2021. Mechanical Stiffness Controls Dendritic Cell Metabolism and Function. Cell Reports. 34(2).

Dwyer Z, Chaiquin M, Landrigan J, Ayoub K, Shail P, Rocha J, Childers CL, Storey KB, Philpott DJ, Sun HY, Hayley S. 2021. The impact of dextran sodium sulphate and probiotic pre-treatment in a murine model of Parkinson's disease. Journal of Neuroinflammation. **18(1)**.

Dittel BN, Rojas OL. 2021. B Cell Subsets and Mechanisms Involved in Immune Regulation in Health and Disease. Journal of Molecular Biology. 433(1).

Wang AA, Gommerman JL, Rojas OL. 2021. Plasma Cells: From Cytokine Production to Regulation in Experimental Autoimmune Encephalomyelitis. Journal of Molecular Biology. 433(1).

Morgan BP, Gommerman JL, Ramaglia V. 2021. An "Outside-In" and "Inside-Out" Consideration of Complement in the Multiple Sclerosis Brain: Lessons From Development and Neurodegenerative Diseases. Frontiers in Cellular Neuroscience. 14.



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Wang M, Yang YL, Cansever D, Wang YM, Kantores C, Messiaen S, Moison D, Livera G, Chakarov S, Weinberger T, Stremmel C, Fijak M, Klein B, Pleuger C, Lian ZX, Ma WT, Liu QZ, Klee K, Handler K, Ulas T, Schlitzer A, Schultze JL, Becher B, Greter M, Liu ZY, Ginhoux F, Epelman S, Schulz C, Meinhardt A, Bhushan S. 2021. Two populations of self-maintaining monocyte-independent macrophages exist in adult epididymis and testis. Proceedings of The National Academy of Sciences of The United States Of America. 118(1).

McMullen M, Karakasis K, Rottapel R, Oza AM. 2021. Advances in ovarian cancer, from biology to treatment. Nature Cancer. 2(1):6-8.

Zhou Q, MacArthur MR, He XL, Wei XS, Zarin P, Hanna BS, Wang ZH, Xiang X, Fish EN. 2021. Interferonalpha 2b Treatment for COVID-19 Is Associated with Improvements in Lung Abnormalities. Viruses-basel. 13(1).

Pfaller B, Yepes-Nunez JJ, Agache I, Akdis CA, Alsalamah M, Bavbek S, Bossios A, Boyman O, Chaker A, Chan S, Chatzipetrou A, du Toit G, Jutel M, Kauppi P, Kolios A, Li C, Matucci A, Marson A, Bendien S, Palomares O, Rogala B, Szepfalusi Z, Untersmayr E, Vultaggio A, Eiwegger T. 2021. Biologicals in atopic disease in pregnancy: An EAACI position paper. Allergy. **76(1):**71-89.

Penninger JM, Grant MB, Sung JJY. 2021. The Role of Angiotensin Converting Enzyme 2 in Modulating Gut Microbiota, Intestinal Inflammation, and Coronavirus Infection. Gastroenterology. **160(1):**39-46.

Law JC, Koh WH, Budylowski P, Lin J, Yue FY, Abe KT, Rathod B, Girard M, Li ZJ, Rini JM, Mubareka S, McGeer A, Chan AK, Gingras AC, Watts TH, Ostrowski MA. 2021. Systematic Examination of Antigen-Specific Recall T Cell Responses to SARS-CoV-2 versus Influenza Virus Reveals a Distinct Inflammatory Profile. Journal of Immunology. 206(1):37-50.

Tran CW, Gold MJ, Garcia-Batres C, Tai K, Elford AR, Himmel ME, Elia AJ, Ohashi PS. 2020. Hypoxia-inducible factor 1 alpha limits dendritic cell stimulation of CD8 T cell immunity. Plos One. 15(12).

