# DEPARTMENT OF IMMUNOLOGY NEWSLETTER VOL XI – ISSUE II



October 2022

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

Fall is a wonderful time in our academic life, it has that feeling of new beginnings and fresh starts. Indeed, our recent Department of Immunology Annual Retreat at Fern had all those sentiments.

Below, in the IGSA letter, you can find a summary of the Retreat. Huge thanks to our IGSA co-presidents, Tiffany and Kitty, and all IGSA members for bring us together in such a splendid fashion. Also, my heartfelt congratulations to all of the talk and poster award winners. I am looking forward to seeing their posters in the MSB 7<sup>th</sup> floor hallway.

As you will note, top of right column, Immunology faculty members will be gathering for our first Retreat, and my thanks go to Profs. Philpott and McGaha for organizing the event.

Lastly, preparations for the upcoming 5-year Departmental review continues, including requests for feedback, with specific surveys sent to all at UofT Immunology. Please take a couple of minutes to complete these surveys, so we can have the fullest perspective from our community members.

Department of Immunology Annual Retreat:



### **UPCOMING EVENTS**

# **DOI Faculty Retreat- All day**

October 7, 2022 at Hart House Get to know our new colleagues (and old!) Find out who is working on what with the goal to foster new collaborations. Check in at 8:15 am with talks starting at 9 am. Your can see the full program information <u>here.</u> See you there!

Dana and Tracy

# **CHARLES GOULD EASTON SEMINARS**

Monday, October 3, 2022 11:05 am at MSB 2170 <u>Kate Jeffrey, PhD</u> Executive Director, Moderna Seminar Title: "Immune epigenetic reader SP140 loss of function drives Crohn's disease" Host: Tracy McGaha, PhD

Monday, October 17, 2022 11:05 am at MSB 2170 Donna Farber, PhD

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<u>George H. Humphreys II Professor of Surgical</u> <u>Sciences, Professor of Microbiology & Immunology</u> Columbia University Medical Centre

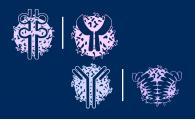
Seminar Title: TBD Host: Sarah Crome, PhD

Monday, October 24, 2022 11:05 am at MSB 2170 <u>Arthur Mortha, PhD</u>

Assistant Professor

Department of Immunology, University of Toronto

Seminar Title: "Remote Regulation of Local and Peripheral Immunity by Gut Commensal Protozoa."



Host: Drs. David Brooks and Tracy McGaha

Monday, October 31, 2022 11:05 am at MSB 2170 Andre Nussenzweig, PhD Cheif, Laboratory of Genome Integrity Head, Molecular Recombination Unit NIH National Cancer Institute Seminar Title: Linking Cell Fate Specification and the DNA damage response Host: Alberto Martin, PhD

#### **OCTOBER STUDENT SEMINARS**

Mondays, 10:00-11:00 at MSB 2172

October 3, 2022 Influence of the microbiota on iNKT cells and its effect in IBD Meggie Kuypers (Mallevaey Lab)

The impact of SARS-CoV-2 infection on the clinical and pathological presentation of experimental autoimmune encephalomyelitis Baweleta Isho (Gommerman Lab)

October 17,2022 Human primitive macrophages enhance cardiac contractile function and calcium handling in a human heart-on-a-chip Homaira Hamidzada (Epelman Lab)

#### Title TBD

Seungwoo Lee (Watts Lab) October 24,2022 "Investigating the aryl hy

"Investigating the aryl hydrocarbon receptor as a mechanism of CD8+ T cell modulation by the microbiome in pancreatic ductal adenocarcinoma." Kitty Liu (McGaha Lab)

Title TBD Nayanan Nathan (Philpott/Girardin Labs)

October 31,2022 Optimization of anti-Mesothelin CAR-T cells through scFv engineering Yota Ohashi (Hirano Lab)

**Defining the impact of gender-based violence on mucosal HIV susceptibility** James Pollock (Kaul Lab)

#### **GRADUATE PROGRAM UPDATES**

**Upcoming Award Deadline** CGS-M applications are due December 1, 2022 at 8:00 PM 1st year graduate students and 4th year undergraduates planning to apply to grad programs for 2023 are encouraged to apply!

#### Graduate Student Health and Wellness

Temerty Faculty of Medicine has <u>two dedicated on-</u><u>location counsellors</u> available exclusively to FacMed graduate students. These services are entirely confidential and the wait for an appointment will not be very long at all. Please reach out if you are in need of support!



### **IMMSA**

Hi Immunologists,

We hope the first month of school went well for everyone. We hope you've met new friends and gotten more familiar with campus.

To recap, a lot of exciting events happened in September. IMMSA's In-person events, including the Clubs Fair, Mentorship meetup, and the Welcome Back Lunch, were all very successful. We were extremely thrilled to see such high turnout at our events. We are glad that everyone is supportive of IMMSA. This motivates us to organize more in-person events to create a warm and welcoming community within the IMM department.

Going into October, you may find yourself busy with exams and assignments. During the meantime, we hope everyone can still take breaks and pursue some other cool activities. Therefore, on Friday October 7th 4:30 ~ 6:00 pm, IMMSA and UPSA are holding a board game night at OI2295. There will be food, board games and a RAFFLE! Our prize is a \$10 gift card of your choice. There will be tons of board games to choose from, including Cards Against Humanity, Jenga, Uno, Monopoly, and more! Don't forget to check out our socials to signup for the event.

Next, there will be a virtual research info seminar, where an academic or industrial professor will introduce their research or company. If you are interested or unsure of your post-grad career, make sure to join and chat with the professor 1-on-1! The professor may give you insights that will be very helpful in the future.

Finally, another mentorship meetup will be held for mentors and mentees to bond more. Since October is midterm season, mentees can seek advice or study tips from their mentors or peers. Besides, it is simply a great way to distress after long hours of studying!

That's it for October. We believe all of you will fight through exam season, and we look forward to seeing you at our events!

Cheers,

Vicky Xie and Momo Lin IMMSA Co-presidents 2022-2023 Immunology Students' Association (IMMSA) Co-Presidents 2022/23 Website: <u>http://immsauoft.com</u> | Instagram: @immsta



### <u>IGSA</u>

Hello fellow Immunologists!

As we settle into the academic year, we'd like to extend a warm welcome to new and familiar faces. We wish all our first years the best of luck during rotations!

This past month, the Department of Immunology had our first in-person departmental retreat in three years at Fern Resort. We were excited to feature talks from two keynote speakers discussing the role of pathogens in B cell development and the use of rare genetic diseases to better understand human immunology from Dr. Keke Fairfax (University of Utah) and Dr. Janet Markle (Vanderbilt University), respectively. We are incredibly thankful for the community of students, staff, and faculty for fostering an environment that allowed immunocompromised and immunosuppressed students in the department to safely attend. As the next IGSA council plans for the next retreat, please let us know what you thought of this year's retreat by completing our feedback form, linked here (https://forms.gle/ouWrizHWj5BArwiu8)!

This past month, our department was able to gather for another in-person tradition: the Orientation Pub Night! This patio pub night welcomed all incoming students and returning trainees, staff, and faculty. We saw an incredible turnout and we wish everyone the best for the upcoming school year.

In preparation for the new year, our sports representative, Natalia, is bringing back our previous Immunodominator teams in dodgeball and volleyball and has also set up a basketball team! Let's cheer on our team for this upcoming season and we hope everyone on the team has a great time!

As the final events for the year, our social representatives Meggie, Kameel, and Robyn will be hosting our widely anticipated annual Wonderland trip, and our career representative, Salma, will be hosting a career panel featuring graduates from our very own department! You'll have the opportunity to sign up and ask about why these Dol graduates chose their paths and how they navigated their journey to get there. A diverse panel of fields will be represented, so make sure you keep your eyes open for the email!

As our final newsletter to the student body, we'd like to thank everyone for their participation in this year's IGSA events. Despite the uncertainties, we hope that everyone was able to use IGSA events and opportunities to boost their professional, social and personal wellness. We'd like to thank the 2021-2022 IGSA team (Bobby, Meggie, Kameel, Robyn, Salma, Ammarah, Robbie, Natalia, and Baweleta) for their incredible work. This year's events required building a variety of new infrastructure to make events accessible, safe, and reflective of the student body, and we are incredibly thankful for their contributions that made this year a success.

If you'd like to be a part of next year's IGSA team, we would love for you to be involved. Please note that applications for the 2022-2023 are now open, and that details are in your emails! We're looking forward to handing the reins over to a new IGSA team.

Tiff & Kitt for the last time, IGSA Co-Presidents 2021-2022 Just Some Students 2022-2023 and onwards



### PUBLICATIONS (August 2022)

Upton JEM, Grunebaum E, Sussman G, Vadas P. Platelet Activating Factor (PAF): A Mediator of Inflammation. *Biofactors*. Online ahead of print.

Tsoukas P, Yeung RSM. Kawasaki disease and MIS-C share a host immune response. *Nature Reviews Rheumatology*. Online ahead of print.

Shiraishi Y, Maehama T, Nishio M, Otani J, Hikasa H, Mak TW, Sasaki T, Honma T, Kondoh Y, Osada H, Yoshida M, Fujisawa M, Suzuki A. N-(3,4-dimethoxyphenethyl)-6-methyl-2,3,4,9-tetrahydro-1H-carbazol-1-amine inhibits bladder cancer progression by suppressing YAP1/TAZ. *Genes to Cells*. Online ahead of print.

Du HX, Bartleson JM, Butenko S, Alonso V, Liu WF, Winer DA, Butte MJ. Tuning immunity through tissue mechanotransduction. *Nature Reviews Immunology*. Online ahead of print.

Kothari A, Hirschmugl B, Lee JS, Pfaller B, Schmidthaler K, Szepfalusi Z, Wadsack C, Eiwegger T. The impact of maternal-fetal omalizumab transfer on peanut-specific responses in an ex vivo placental perfusion model. *Allergy*. Online ahead of print.

Killackey SA, Bi YT, Soares F, Hammi I, Winsor NJ, Abdul-Sater AA, Philpott DJ, Arnoult D, Girardin SE. 2022. Mitochondrial protein import stress regulates the LC<sub>3</sub> lipidation step of mitophagy through NLRX1 and RRBP1. *Molecular Cell*. **82(15)**:2815.

Yoganathan K, Yan AQ, Rocha J, Trotman-Grant A, Mohtashami M, Wells L, Zúñiga-Pflücker JC, Anderson MK. 2022. Regulation of the Signal-Dependent E Protein HEBAlt Through a YYY Motif Is Required for Progression Through T Cell Development. *Frontiers in Immunology*. **13**.

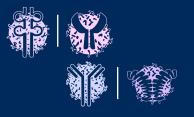
Anderson MKK. 2022. Shifting gears: Id<sub>3</sub> enables recruitment of E proteins to new targets during T cell development and differentiation. *Frontiers in Immunology*. **13**.

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Atif J, Thoeni C, Bader GD, McGilvray ID, MacParland SA. 2022. Unraveling the Complexity of Liver Disease One Cell at a Time. *Seminars in Liver Disease*. **42(3):**250-270.

Zahoor MA, Kuipery A, Mosa AI, Gehring AJ, Feld JJ. 2022. HepG2-NTCP Subclones Exhibiting High Susceptibility to Hepatitis B Virus Infection. *Viruses-Basel*. **14(8)**.

Richard L, Nisenbaum R, Liu M, McGeer A, Mishra S, Gingras AC, Gommerman JL, Sniderman R, Pedersen C, Spandier O, Jenkinson JIR, Baral S, Mejia-Lancheros C, Agarwal A, Jamal AJ, Ostrowski M, Dhalla I, Stewart S, Gabriel M, Brown M, Hester J, Hwang SW. 2022. Ku-gaa-gii pimitizi-win, the COVID-19 cohort study of people experiencing homelessness in Toronto, Canada: a study protocol. *BMJ Open.* **12(8)**.



Andrews TS, MacParland SA. 2022. Untangling the web: The complex parenchymal-immune interface in endotoxemia. *Journal of Hepatology*. **77(2)**:296-298.

Feng YQ, Martin A. 2022. Mutagenic repair during antibody diversification: emerging insights. *Trends in Immunology*. **43(8)**:604-607.