



MESSAGE FROM THE CHAIR

DR. JEN GOMMERMAN

Happy Year of the Dragon! I hope you have had a restful holiday break and are returning to the lab/clinic/classroom/office refreshed and ready to do some Immunology.

You may have noticed that we are reducing the frequency of these newsletters to come out once per term. Important announcements that need timely attention will be communicated at Monday seminars and if necessary, also by email. Speaking of seminars, we have moved to offering Easton's as hybrid delivery. So far so good – we typically have a good in person turnout, and for those who cannot make it in person, they are now able to participate. While it's great to see everyone in person, it is not always possible. We will be monitoring how this goes and revisit at the spring faculty meeting.

We had a productive Faculty Meeting on November 6th, 2023. We managed to get done in 1.5 hours – a record. This is because we will be alternating agenda items between fall and spring meetings. While we have been asked to hold off on strategic planning until the new Dean, Professor Lisa Robinson, is installed, rest assured we are preparing in the background for this upcoming exercise, including a full education retreat to happen in Q1 of 2024.

Save the date: The next faculty meeting will be held at the Faculty Club on **Monday March 25th at 11:10AM sharp!** Details (and old-fashioned in-person announcements) to follow.

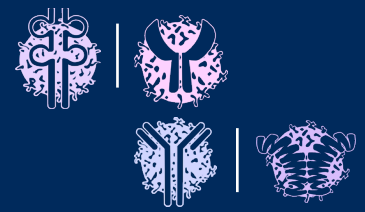
We also had a fabulous Holiday Party run by our highly skilled students, notably the IGSA co-presidents Martin Mak and Steve Lee. We had a guest appearance from Taylor Swift and Travis Kelce (thanks Matt Buechler and Sonia

MacParland.....respectively). A ceremonial totem from the previous chair was passed on by JC to myself and I would like to ease the minds of the immunology community that this totem has been put in a safe place. It was very fitting that this year, JC also won the Gill E. Wu Graduate Mentorship award, and it was very special to have Dr. Wu at the party to present the award. We also had some incredibly talented students win awards listed below.

- The Hardi Cinader Prize – Carolina de Amat Herbozo
- The Richard G Miller Award – Baweleta Isho
- Sportsperson of the year – Mohammad Khakpoor Koosheh
- Science Outreach Award – Jawairia Atif
- Applied Immunology MSc Award – Cora Geiger
- The Undergraduate Immunology Prize – Aly Muhammad Al-Karim Ladak

Lastly, I would like to congratulate all of our graduate and undergraduate students for getting through exams in December. I am very excited to see what all our first-year graduate students will be up to in their thesis projects – make sure to come to student seminars to find out!

It hasn't been much of a white winter as of yet – I personally would like to see the snow come in abundance although I may be alone in this respect. Nevertheless, the days are already getting longer and before we know it, Spring will be here as well as the 5k/8k [Spring Run-Off](#) in High Park, **April 6th 2024**. The IGSA is putting together a team. Do join – it is a lot of fun and motivation to keep moving by training through the winter months. I'll be there bringing up the rear 😊. Here's to peace and prosperity in 2024.



UPCOMING DEPARTMENT SEMINARS

EASTON SEMINARS

Mondays, 11:05 – 12:00 at MSB 2170

Monday, January 8, 2024

Ashley Moseman, PhD

[Assistant Professor of Immunology](#)
[Assistant Professor of Cell Biology](#)
[Member of the Duke Cancer Institute](#)
[Duke University School of Medicine](#)

Talk Title: "Scents of Danger – What infections reveal about olfactory immunity and CNS barriers"

Host: David Brooks, PhD

Monday, January 15, 2024

Aereas Aung, PhD

[Assistant Professor](#)
[Institute of Biomedical Engineering](#)
[University of Toronto](#)

Talk Title: "Understanding the role of vaccine delivery on humoral response"

Host: Jen Gommerman, PhD

Monday, January 22, 2024

Alissa Rothchild, PhD

[Department of Veterinary and Animal Sciences, University of Massachusetts Amherst](#)

Talk Title: "Alveolar macrophages and the innate sentinel response to *Mycobacterium tuberculosis*"

Host: IMM WIDE Committee

Monday, January 29, 2024

Irah King, PhD

[Associate Professor](#)
[Canada Research Chair in Barrier Immunity](#)
[Director, McGill Centre for Microbiome Research, McGill University](#)

Talk Title: "Immune-stromal interactions that promote disease tolerance during intestinal infection".

Host: Arthur Mortha, PhD

Lunch with Easton Speakers

There are still available spots. Immunology Trainees, please sign up for this amazing opportunities.



SPECIAL SEMINARS

Friday, January 5, 2024

11:30 a.m. - 12:30 p.m.

In Person only: MSB 7231

Dr. Christopher Sturgeon

[Associate Director, Centre for Advancement of Blood Cancer Therapies](#)
[Associate Professor, Department of Cell, Developmental, and Regenerative Biology](#)
[Icahn School of Medicine at Mount Sinai, NY](#)

"Defining the origins of embryonic blood development using human pluripotent stem cells"

Host: JC Zúñiga-Pflücker, PhD

Friday January 12, 2024

11:30 a.m. - 12:30 p.m.

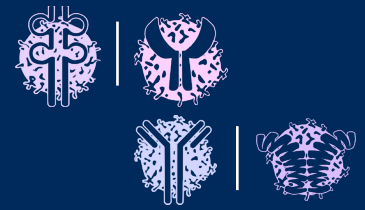
In Person only: MSB 7231

Dr. Barbara Kee

[Professor, Department of Pathology](#)
[University of Chicago](#)

"Transcriptional programming of innate-like lymphocytes"

Host: Dr. Jen Gommerman



PhD Research SEMINARS

Friday, January 5, 2024

2:00 - 3:00 p.m.

In Person only: MSB 7231

Ashton Trotman-Grant

"Development of a Stromal Cell-Free Platform for the Generation of Human T-Lineage Cells from Multiple Sources of Stem Cells"

Supervisor: Dr. JC Zúñiga-Pflücker

Wednesday, January 10, 2024

9:00 - 10:00 a.m.

Hybrid delivery

In Person: MSB 3278

Douglas Chung

"Investigating Immune Landscape of Epithelial Ovarian Carcinoma"

Supervisor: Dr. Pam Ohashi

Friday, January 12, 2024

2:00 - 3:00 p.m.

Hybrid delivery

In Person: MSB 7231

Albert Nguyen

"Cooperation Between Retinoic Acid and Lymphotoxin Signals Maintains Type 2 Conventional Dendritic Cell Homeostasis"

Supervisor: Dr. Jen Gommerman

STUDENT SEMINARS

Mondays at 10:00 – 11:00 am at MSB 2172

January 8, 2024

Deeva Uthayakumar

(Wang / Julien Labs)

Yangmin (Clay) Qiu

(Zúñiga-Pflücker Lab)

January 15, 2024

Robyn Loves

(Grunebaum Lab)

Zhewei Liu

(Mallevaey Lab)

January 22, 2024

Siran Liu

(Brooks Lab)

Melissa Liu

(Brooks Lab)

January 29, 2024

Wei Ting (Jonah) Lin

(Gehring Lab)

Manjula Kamath

(Mallevaey / Zúñiga-Pflücker Labs)

GRADUATE PROGRAM UPDATE

CONGRATULATIONS!

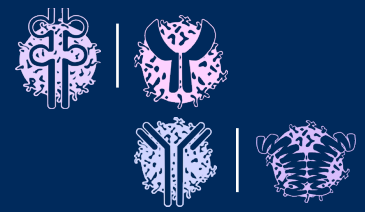
PhD Grads

Dr. Kenneth Ting (Cybulsky/Jongstra-Bilen labs) – September 7, 2023

Dr. Eric Cao (Gommerman/Mortha labs) – September 13, 2023

Dr. Nathaniel Winsor (Girardin lab) – October 26, 2023

Dr. Rysa Zaman (Epelman lab) – November 24, 2023



MSc Grads – November 2023 convocation

Fasial Abdul Razzaq (Woo lab)
Johanne Audouze-Chaud (Crome lab)
Eryn Bugbee (Gommerman lab)
Felice Chun (Woo lab)
David Croitoru (Piguet lab)
Oliver De Sa (Philpott lab)
Riley Dow (Cybulsky/Jongstra-Bilen labs)
Lauren Fernandez (Gehring lab)
Alvin Han (Gommerman lab)
Ingrid Hsieh (Serghides lab)

Mariane Jeong (Mortha lab)
Maddy Kern-Smith (Watts lab)
Kameel Khan (Rojas lab)
Zhenyu Li (Mallevaey lab)
Ammarah Naseer (Treanor lab)
Eric Sun (Julien lab)
Carmen Ucciferri (Dunn lab)
Adriana Vukosich (Sacher lab)
Clare Wang (Yeung lab)
Thomas Zhou (Zúñiga-Pflücker lab)

PhD Qualifiers

Wei Ting (Jonah) Lin (Gehring lab) – October 5, 2023
Miki Gams (Guidos lab) – November 16, 2023

ADMISSIONS

Applications are now being accepted for our graduate programs – get your applications in!

PhD and Applied Imm MSc (Standard Entry) – September 2024 start – Deadline: January 15, 2024

Applied Imm MSc (Advanced Standing Entry)* – May 2024 start – Deadline: March 1, 2024

*Undergraduate students in IMM450Y1 could be eligible for Advanced Standing entry to the Applied Immunology MSc program

Please visit [our website](#) for detailed information on admission requirements and application procedures.

AWARD DEADLINES

Current graduate students and undergraduate students hoping to begin a graduate program in 2024 are encouraged to apply for the Ontario Graduate Scholarships (OGS) and the QEII Awards!

- **OGS (Domestic and International)**

For more information on this competition, please visit the [SGS website](#)

Deadline: March 1, 2024

- **QEII / Aventis Pasteur (Dept. of Immunology students only)**

Complete an [OGS application](#) and you will be automatically considered for this award

Deadline: March 1, 2024

- **QEII / Dr. Dina Gordon Malkin (graduate students studying in haematology AND oncology whose supervisors are members of the Temerty Faculty of Medicine)**

Complete an [OGS application](#), and the Malkin cover page*

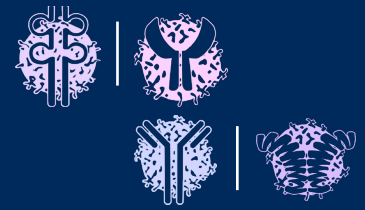
Deadline: March 1, 2024

*please email graduate.immunology@utoronto.ca for details

- **QEII / Temerty Faculty of Medicine (all Faculty of Medicine students)**

Complete an [OGS application](#), and this Faculty of Medicine [cover page](#) (this is an online form which will be submitted directly to Faculty of Medicine)

Deadlines: Application due March 1, 2024; Faculty of Medicine cover page due April 5, 2024 @ 5:00pm



UPDATES FROM IGSA

Happy New Year, fellow Immunologists!

Welcome to 2024! We hope everyone had the opportunity to relax over the holidays following our annual Department of Immunology Holiday Party! At the party we raised over \$280 in support of Nellie's, a local organization dedicated to the shelter, education, and advocacy of all women and children, and as such we wanted to thank all the donors and sponsors for their support, and congratulations to all with successful bids at the Silent Auction! Hope the event was a blast for everyone!

For the upcoming year, IGSA has quite a few events and activities planned for everyone. To start, IGSA would like to let everyone know that we will begin co-hosting IMM Town Hall meetings alongside the WIDE committee, which will be a regular occurrence taking place on the first Monday of every month. Here, we aim to establish a safe space for open communication and offer support on challenges that anyone may be experiencing. The first is taking place on January 8th from 12-1PM in the 7th floor conference room. No signups are required - feel free to drop in whenever you can!

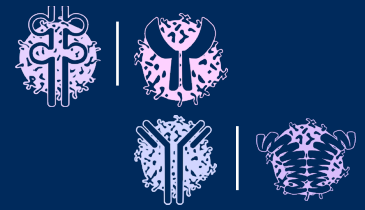
Social events are also in the works for the department! Our social reps are putting together an indoor roller-skating night for January, so bring your friends and get ready to show off some sick moves! Join us for an action packed night on the skate floor with food and drink as well. Speaking of, IGSA is also planning a hotpot social in February as well - come and shake off the cold with some good food, banter and soup with everyone! Sign ups for both will be shared soon.

Don't forget to keep your eyes peeled for our annual Valentine's Day Candygram as well! Preparations are being made, so be sure to express your heartfelt emotions for your fellow DOI members. Furthermore, the return of our Dog Therapy Night is also being planned! Come and relax with some adorable puppies, with exact time and details to be announced.

IGSA is also hard at work planning career events for the department. We would like to let everyone know that an upcoming workshop featuring panelists from industry R&D is being organized, and sign-up instructions will follow soon! Be sure to keep an eye out if this is something you are considering!

As the New Year begins, our mentorship program will also be checking back in after the break. We will be having a return of our Mentorship Coffee Chats, which is a great opportunity for mentees to ask for advice on topics now that rotations are over, such as integrating into the lab, getting started with your project, or handling the first-year course load. All drinks will be reimbursed by IGSA with the presentation of a valid receipt.

Finally, we would like to end the newsletter with some sporty announcements! Firstly, we would also like to let everyone know about the High Park Spring Run Off which will take place on April 6th! This is an annual event that members of our department participate in, and early bird registration details will be coming soon. Secondly, we would like to let everyone know we are



once again kicking off our intramural sports for the winter season. We currently have departmental teams registered for both volleyball and dodgeball, so remember to sign up on IMLeagues if you're interested in taking part! If you would like to participate but don't know how to sign up please message us! The season will last from January to March, and games will be held on Monday evenings at the University of Toronto Athletic Centre (55 Harbord St.). No prior volleyball/dodgeball experience is required (although if you do have any, we would very much welcome it). During the dark and cold winter this is an excellent way to keep active, and there's also free bubble tea offered after games!

From all of us at IGSA, we would like to welcome everyone back. Here's hoping everyone successfully completes their New Years' resolutions, and that this year be filled with high-impact publications!

Martin and Steve
IGSA Co-Presidents 2023-2024
Website: <https://www.igsaimm.com/>

UPDATE FROM IMMSA

Hey Immunologists!

We hope you were able to recharge this winter break with family and friends and are ready for the new semester. IMMSA has been planning many exciting events for the new year, and we hope you will join us!

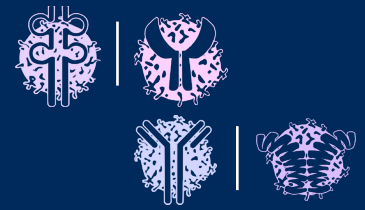
We are happy to announce the Ontario-Quebec Undergraduate Immunology Conference (OQUIC) dates for May 9-10 in-person. We hope those who have done immunology-related research (cough cough IMM450 and IMM385 students) apply and get a chance to present their research to students and researchers across Canada. OQUIC is an excellent chance to practice your presentation skills, interact with judges, and win cash prizes! We will update you on the details and application process soon; information will be posted on our Instagram page.

Lastly, our first event for January will be a Graduate Studies Talk with Professor Mallevaey and members of the Immunology Department. This event will allow undergraduate students to ask our department about the graduate programs it has to offer. Additionally, it will allow for any remaining questions to be answered for those applying this month. We hope to see you there!

Happy New Year to everyone! We wish you all the best for the new semester.

Best,

Catherine Chi and Jason Yang
Immunology Students' Association (IMMSA) Co-Presidents 2023/24
Website: <http://immsauoft.com> | Instagram: @immsta



UPDATE FROM the WIDE Committee

Happy New Year! We hope everyone had a wonderful winter break and that you're feeling recharged and ready to start the new term.

WIDE would like to recognize and commemorate several days of importance as the new year rolls in:

- **January is Tamil Heritage Month!** Did you know Toronto is home to one of the largest Tamil-speaking communities outside of Asia? This month we celebrate the over 200,000 Tamil-Canadians we call our friends and neighbours. To learn more, check out: <https://tamilheritagemonth.com/>
- Happy Lohri! On **January 14th** the harvest festival **Lohri** is celebrated in Northern India and across the world with bonfires, gazak, rewari, and drums.
- Happy New Year! The **Orthodox New Year** or Old New Year is **January 14th**. Today we commemorate the start of the New Year by the Julian calendar. Celebrated mainly in Europe, this holiday is filled with music, fireworks, and delicious food with family and friends.
- **January 21st is World Religion Day.** Did you know there are over 4,000 religions around the world. Interested in learning more about new religions, and discovering the intersections of faith, religion and university life? Visit the Multi-Faith Centre at UofT: <https://studentlife.utoronto.ca/departments/multi-faith-centre-for-spiritual-study-practice/>
- We observe **International Holocaust Remembrance Day** on **January 27th**. On this day, we honour the 6 million Jewish people who lost their lives during World War II and work together as a community to end anti-Semitism today. Want to learn more? Visit the Holocaust Museum of Toronto: <https://torontoholocaustmuseum.org/>

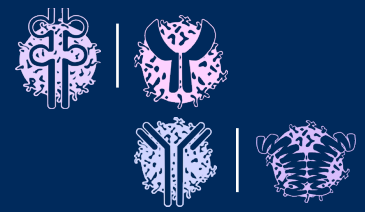
We would also like to highlight some workshops offered by the Anti-Racism and Cultural Diversity Office this month:

- **January 10th:** Understanding your responsibility to preventing racial discrimination & harassment in the work environment for faculty and staff. To register, visit: <https://antiracism.utoronto.ca/training-workshop/>
- **January 17th:** Addressing Racial Microaggressions: Tools, Strategies and Discussions for faculty and staff. To register, visit: <https://antiracism.utoronto.ca/training-workshop/>

Additionally, join us on **January 22nd**, when the WIDE committee is hosting our second Easton Speaker, **Dr. Alissa Rothchild**. Dr. Rothchild's research focuses on the innate immune responses in the lung, studying how alveolar macrophages regulate inflammation at the airway-tissue interface during Mycobacterium tuberculosis (Mtb) and other respiratory infections. Learn more: <https://rothchildlab.com/>

With warm wishes for 2024,

-Your WIDE Committee

**PUBLICATIONS (January – November 2023)***

*as indexed by webofscience.com as of January 5, 2024

Thai E, Murugan R, Binter S, Aschner CB, Prieto K, Kassardjian A, Obraztsova AS, Kang RW, Flores-Garcia Y, Mathis-Torres S, Li K, Horn GQ, Huntwork RHC, Bolscher JM, de Bruijini MHC, Sauerwein R, Dennison SM, Tomaras GD, Zavala F, Kellam P, Wardemann H, Julien JP. 2023. Molecular determinants of cross-reactivity and potency by VH3-33 antibodies against the Plasmodium falciparum circumsporozoite protein. *Cell Reports*. **42(11)**.

Bei KF, Moshkelgosha S, Liu BJ, Juvet S. 2023. Intragraft regulatory T cells in the modern era: what can high-dimensional methods tell us about pathways to allograft acceptance? *Frontiers In Immunology*. **14**.

Man HSJ, Moosa VA, Singh A, Wu LC, Granton JT, Juvet SC, Hoang CD, de Perrot M. 2023. Unlocking the potential of RNA-based therapeutics in the lung: current status and future directions. *Frontiers In Genetics*. **14**.

Dunn SE, Perry WA, Klein SL. 2023. Mechanisms and consequences of sex differences in immune responses. *Nature Reviews Nephrology*. Online ahead of print.

Pouyababar D, Chung SW, Pezzutti OI, Perciani CT, Wang XL, Ma XZ, Jiang C, Camat D, Chung T, Sekhon M, Manuel J, Chen XC, McGilvray ID, MacParland SA, Bader GD. 2023. A rat liver cell atlas reveals intrahepatic myeloid heterogeneity. *iScience*. **26(11)**.

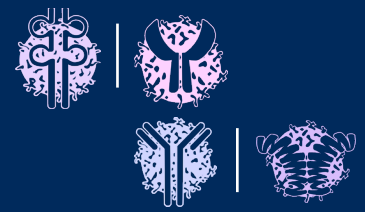
Ucciferri CC, Wyeth RC. 2023. Chemosensory afference in the tentacle nerve of Lymnaea stagnalis. *Invertebrate Biology*. Online ahead of print.

Van Steenwinckel J, Bokobza C, Laforge M, Shearer IK, Miron VE, Rua R, Matta SM, Hill-Yardin EL, Fleiss B, Gressens P. 2023. Key roles of glial cells in the encephalopathy of prematurity. *Glia*. Online ahead of print.

Li YR, Zuniga-Pflucker JC. 2023. Thymus aging and immune reconstitution, progresses and challenges. *Seminars In Immunology*. **70**.

Genshaft AS, Subudhi S, Keo A, Vasquez JDS, Conceição-Neto N, Mahamed D, Boeijen LL, Alatrakchi N, Oetheimer C, Vilme M, Drake R, Fleming I, Tran N, Tzouanas C, Joseph-Chazan J, Villanueva MA, van de Werken HJG, van Oord GW, Groothuismink ZMA, Beudeker BJ, Osmani Z, Nkongolo S, Mehrotra A, Spittaels K, Feld J, Chung RT, de Knecht RJ, Janssen HLA, Aerssens J, Bollekens J, Hacohen N, Lauer GM, Boonstra A, Shalek AK, Gehring AJ. 2023. Single-cell RNA sequencing of liver fine-needle aspirates captures immune diversity in the blood and liver in chronic hepatitis B patients. *Hepatology*. **78(5)**:1525-1541.

Hassel JC, Piperno-Neumann S, Rutkowski P, Baurain JF, Schlaak M, Butler MO, Sullivan RJ, Dummer R, Kirkwood JM, Orloff M, Sacco JJ, Ochsenreither S, Joshua AM, Gastaud L, Curti B, Piulats JM, Salama AKS, Shoushtari AN, Demidov L, Milhem M, Chmielowski B, Kim KB, Carvajal RD, Hamid O, Collins L, Ranade K,



Holland C, Pfeiffer C, Nathan P. 2023. Three-Year Overall Survival with Tebentafusp in Metastatic Uveal Melanoma. *New England Journal of Medicine*. Online ahead of print.

Genta S, Lajkosz K, Yee NR, Spiliopoulou P, Heirali A, Hansen AR, Siu LL, Saibil S, Stayner LA, Yanekina M, Sauder MB, Keshavarzi S, Salawu A, Vornicova O, Butler MO, Bedard PL, Razak ARA, Rottapel R, Chruscinski A, Coburn B, Spreafico A. 2023. Autoimmune Panels as Predictors of Toxicity in Patients Treated with Immune Checkpoint Inhibitors (ALERT). *Journal Of Experimental & Clinical Cancer Research*. **42(1)**.

Matveev VA, Mihelic EZ, Benko E, Budylowski P, Grocott S, Lee TRY, Korosec CS, Colwill K, Stephenson H, Law R, Ward LA, Sheikh-Mohamed S, Mailhot G, Delgado-Brand M, Pasculescu A, Wang JH, Qi FD, Tursun T, Kardava L, Chau S, Samaan P, Imran A, Copertino DCC, Chao G, Choi Y, Reinhard RJ, Kaul R, Heffernan JM, Jones RB, Chun TW, Moir S, Singer J, Gommerman J, Gingras AC, Kovacs C, Ostrowski M. 2023. Immunogenicity of COVID-19 vaccines and their effect on HIV reservoir in older people with HIV. *iScience*. **26(10)**.

Santos AF, Riggioni C, Agache I, Akdis CA, Akdis M, Alvarez-Perea A, Alvaro-Lozano M, Ballmer-Weber B, Barni S, Beyer K, Bindslev-Jensen C, Brough HA, Buyuktiryaki B, Chu D, Del Giacco S, Dunn-Galvin A, Eberlein B, Ebisawa M, Eigenmann P, Eiwegger T, Feeney M, Fernandez-Rivas M, Fisher HR, Fleischer DM, Giovannini M, Gray C, Hoffmann-Sommergruber K, Halken S, Hourihane JO, Jones CJ, Jutel M, Knol E, Konstantinou GN, Lack G, Lau S, Mejias AM, Marchisotto MJ, Meyer R, Mortz CG, Moya B, Muraro A, Nilsson C, de Oliveira LCL, O'Mahony L, Papadopoulos NG, Perrett K, Peters RL, Podesta M, Poulsen LK, Roberts G, Sampson HA, Schwarze J, Smith P, Tham EH, Untersmayr E, Van Ree R, Venter C, Vickery BP, Vlieg-Boerstra B, Werfel T, Worm M, Du Toit G, Skypala I. 2023. EAACI guidelines on the diagnosis of IgE-mediated food allergy. *Allergy*. Online ahead of print.

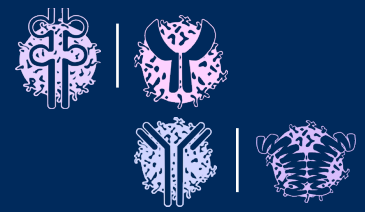
Barayan D, Khalaf F, Knuth CM, Abdullahi A, Rehou S, Screatton RA, Jeschke MG. 2023. Reply to Lund et al. *American Journal of Physiology-endocrinology And Metabolism*. **325(4):E423-E424**.

Audouze-Chaud J, Mathews JA, Crome SQ. 2023. Efficient and stable CRISPR/Cas9-mediated genome-editing of human type 2 innate lymphoid cells. *Frontiers In Immunology*. **14**.

Li JE, Karakas D, Xue F, Chen YY, Zhu GH, Yucel YH, Macparland SA, Zhang HB, Semple JW, Freedman J, Shi QZ, Ni HY. 2023. Desialylated Platelet Clearance in the Liver is a Novel Mechanism of Systemic Immunosuppression. *Research*. **6**.

Touil H, Li R, Zuroff L, Moore CS, Healy L, Cignarella F, Piccio L, Ludwin S, Prat A, Gommerman J, Bennett FC, Jacobs D, Benjamins JA, Lisak RP, Antel JP, Bar-Or A. 2023. Cross-talk between B cells, microglia and macrophages, and implications to central nervous system compartmentalized inflammation and progressive multiple sclerosis. *eBiomedicine*. **96**.

Zheng CX, Snow BE, Elia AJ, Nechanitzky R, Dominguez-Brauer C, Liu SF, Tong Y, Cox MA, Focaccia E, Wakeham AC, Haight J, Tobin C, Hodgson K, Gill KT, Ma W, Berger T, Heikenwälder M, Saunders ME, Fortin



J, Leung SY, Mak TW. 2023. Tumor-specific cholinergic CD4⁺ T lymphocytes guide immunosurveillance of hepatocellular carcinoma. *Nature Cancer*. **4(10)**:1437-.

Costiniuk CT, Singer J, Lee TRY, Galipeau Y, Mccluskie PS, Arnold C, Langlois MA, Needham J, Jenabian MA, Burchell AN, Samji H, Chambers C, Walmsley S, Ostrowski M, Kovacs C, Tan DHS, Harris M, Hull M, Brumme ZL, Lapointe HR, Brockman MA, Margolese S, Mandarino E, Samarani S, Vulesevic B, Lebouché B, Angel JB, Routy JP, Cooper CL, Anis AH. 2023. Antibody neutralization capacity after coronavirus disease 2019 vaccination in people with HIV in Canada. *AIDS*. **37(12)**:F25-F35.

Guo MD, Abd-Rabbo D, Bertol BC, Carew M, Lukhele S, Snell LM, Xu WX, Boukhaled GM, Elsaesser H, Halaby MJ, Hirano N, Mcgaha TL, Brooks DG. 2023. Molecular, metabolic, and functional CD4 T cell paralysis in the lymph node impedes tumor control. *Cell Reports*. **42(9)**.

Khan OF. 2023. Best practices for characterizing RNA lipid nanoparticles. *Nature Reviews Methods Primers*. **3(1)**.

Vaswani CM, Varkouhi AK, Gupta S, Ektesabi AM, Tsoporis JN, Yousef S, Plant PJ, da Silva AL, Cen YC, Tseng YC, Batah SS, Fabro AT, Advani SL, Advani A, Leong-Poi H, Marshall JC, Garcia CC, Rocco PRM, Albaiceta GM, Sebastian-Bolz S, Watts TH, Moraes TJ, Capelozzi VL, dos Santos CC. 2023. Preventing occludin tight-junction disruption via inhibition of microRNA-193b-5p attenuates viral load and influenza-induced lung injury. *Molecular Therapy*. **31(9)**:2681-2701.

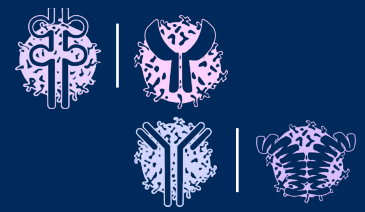
Fang KKL, Lee J, Khatri I, Na Y, Zhang L. 2023. Targeting T-cell malignancies using allogeneic double-negative CD4-CAR-T cells. *Journal For Immunotherapy of Cancer*. **11(9)**.

Kim SC, Wallin JJ, Ghosheh Y, Zahoor MA, Vasquez JDS, Nkongolo S, Fung S, Mendez P, Feld JJ, Janssen HLA, Gehring AJ. 2023. Efficacy of antiviral therapy and host-virus interactions visualised using serial liver sampling with fine-needle aspirates. *JHEP Reports*. **5(9)**.

Mohan H, Nguyen J, Mackenzie B, Yee A, Laurette EY, Sanghvi T, Tejada O, Dontsova V, Leung KY, Goddard C, De Young T, Sled JG, Greene NDE, Copp AJ, Serghides L. 2023. Folate deficiency increases the incidence of dolutegravir- associated foetal defects in a mouse pregnancy model. *eBiomedicine*. **95**.

Dontsova V, Mohan H, Blanco C, Jao J, Greene NDE, Copp AJ, Zash R, Serghides L. 2023. Metabolic implications and safety of dolutegravir use in pregnancy. *Lancet HIV*. **10(9)**:e606-e616.

Barayan D, Abdullahi A, Knuth CM, Khalaf F, Rehou S, Screatton RA, Jeschke MG. 2023. Lactate shuttling drives the browning of white adipose tissue after burn. *American Journal of Physiology-endocrinology And Metabolism*. **325(3)**:E180-E191.



Wilton-Clark H, Al-aghbari A, Yang J, Yokota T. 2023. Advancing Epidemiology and Genetic Approaches for the Treatment of Spinal and Bulbar Muscular Atrophy: Focus on Prevalence in the Indigenous Population of Western Canada. *Genes*. **14**(8).

Mak ML, Reid KT, Crome SQ. 2023. Protective and pathogenic functions of innate lymphoid cells in transplantation. *Clinical And Experimental Immunology*. **213**(1):23-39.

Yeung RSM. 2023. What's in a Name? That Which We Call JIA, by Any Other Name, Would It Still Be the Same Childhood Arthritis? *Journal Of Rheumatology*. **50**(7):2-6.

Matsumoto Y, Rottapel R. 2023. PARsylation-mediated ubiquitylation: lessons from rare hereditary disease Cherubism. *Trends In Molecular Medicine*. **29**(5):390-405.

Ludwig J, Scally SW, Costa G, Hoffmann S, Murugan R, Lossin J, Prieto K, Obraztsova A, Lobeto N, Franke-Fayard B, Janse CJ, Lebas C, Collin N, Binter S, Kellam P, Levashina EA, Wardemann H, Julien JP. 2023. Glycosylated nanoparticle-based PfCSP vaccine confers long-lasting antibody responses and sterile protection in mouse malaria model. *NPJ Vaccines*. **8**(1).

Shah P, Beattie TS, Kabuti R, Liku J, Kungu M, Babu H, Jama Z, Kaul R, Weiss HA, Kyegombe N, Medley GF, Devries K, Gafos M, Nyariki E, Kimani J, Seeley J. 2023. Syndemic of factors that shape the early lives of women who enter into sex work: a qualitative methods study from Nairobi, Kenya. *BMJ Open*. **13**(4).

Marschner CA, Thavendiranathan P, Gustafson D, Howe KL, Fish JE, Iwanochko RM, Wald RM, Abdel-Qadir H, Epelman S, Cheung AM, Hong R, Hanneman K. 2023. Myocardial Inflammation at FDG PET/MRI and Clinical Outcomes in Symptomatic and Asymptomatic Participants after COVID-19 Vaccination. *Radiology-cardiothoracic Imaging*. **5**(2).

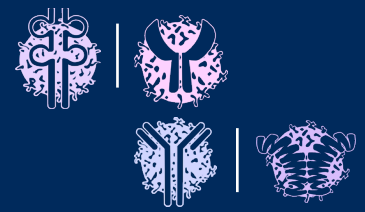
Eiwegger T, Bendien SA. 2023. Defining the questions to be asked in severe asthma trials: data from the COMSA working group. *European Respiratory Journal*. **61**(4).

Amano S, Haniuda K, Fukao S, Aoki H, Ueha S, Kitamura D. 2023. Commensal Bacteria and the Lung Environment Are Responsible for Th2-Mediated Memory Yielding Natural IgE in MyD88-Deficient Mice. *Journal Of Immunology*. **210**(7):959-971.

Upton JEM, Correa N, Eiwegger T. 2023. Oral immunotherapy for food allergy: What's age got to do with it? *Allergy*. **78**(3):626-628.

Yadav J, Philpott DJ. 2023. A gut bacterial strain rescues stunted growth. *Science*. **379**(6634):756-757.

MacDonald KM, Nicholson-Puthenveedu S, Tageldein MM, Khasnis S, Arrowsmith CH, Harding SM. 2023. Antecedent chromatin organization determines cGAS recruitment to ruptured micronuclei. *Nature Communications*. **14**(1).



Wong D, Luo P, Znassi N, Arteaga DP, Gray D, Danesh A, Han M, Zhao EY, Pedersen S, Prokopec S, Sundaravadanam Y, Torti D, Marsh K, Keshavarzi S, Xu W, Krema H, Joshua AM, Butler MO, Pugh TJ. 2023. Integrated, Longitudinal Analysis of Cell-free DNA in Uveal Melanoma. *Cancer Research Communications*. **3(2)**:267-280.

Fortin J, Chiang MF, Meydan C, Foox J, Ramachandran P, Leca J, Lemonnier F, Li WY, Gams MS, Sakamoto T, Chu MY, Tobin C, Laugesen E, Robinson TM, You-Ten A, Butler DJ, Berger T, Minden MD, Levine RL, Guidos CJ, Melnick AM, Mason CE, Maka TW. 2023. Distinct and opposite effects of leukemogenic Idh and Tet2 mutations in hematopoietic stem and progenitor cells. *Proceedings Of the National Academy of Sciences Of The United States Of America*. **120(4)**.

Nkongolo S, Mahamed D, Kuipery A, Vasquez JDS, Kim SC, Mehrotra A, Patel A, Hu C, McGilvray I, Feld JJ, Fung S, Chen DA, Wallin JJ, Gaggar A, Janssen HLA, Gehring AJ. 2023. Longitudinal liver sampling in patients with chronic hepatitis B starting antiviral therapy reveals hepatotoxic CD8+T cells. *Journal Of Clinical Investigation*. **133(1)**.

Costiniuk CT, Singer J, Lee T, Langlois MA, Arnold C, Galipeau Y, Needham J, Kulic I, Jenabian MA, Burchell AN, Shamji H, Chambers C, Walmsley S, Ostrowski M, Kovacs C, Tan DHS, Harris M, Hull M, Brumme ZL, Lapointe HR, Brockman MA, Margolese S, Mandarino E, Samarani S, Vulesevic B, Lebouché B, Angel JB, Routy JP, Cooper CL, Anis AH. 2023. COVID-19 vaccine immunogenicity in people with HIV. *AIDS*. **37(1)**:F1-F10.

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