

W DEPARTMENT of IMMUNOLOGY

NEWSLETTER — NOV. 2021



ADVANCING UNDERSTANDING OF THE FUNCTION OF THE IMMUNE SYSTEM, ENHANCING OUR ABILITY TO FIGHT INFECTIOUS DISEASE, CANCER AND AUTOIMMUNE DISEASE.



MESSAGE FROM THE INTERIM CHAIR, DR. MARION PEPPER



Marion Pepper, PhD,
Associate Professor and
Interim Chair

Dear Members and Friends of the Department of Immunology, it is an honor to write my first letter to you as Interim Chair of the University of Washington Department of Immunology. As many of you know, Joan Goverman retired as Chair on September 1, 2021 after 10 remarkable years of service. We joined together as a Department in a wonderful event at JM Cellars in Woodinville, to celebrate Joan's many contributions, including hiring 6 of our 8 primary faculty. Joan thankfully has

heard the siren song of one last intriguing research question and remains a part-time Emeritus faculty member as she pursues her science. While we continue to search for a permanent Chair, I have enjoyed the opportunity to focus on enhancing UW Immunology scientific endeavors and building our community. This has been a time of significant transition for the department, as not only has there been a change in leadership, but we also brought back the majority of the department to South Lake Union, beginning in the early fall. We have faced these challenges with flexibility and adaptability and I am very proud of our resilient community. In fact, one of the most important lessons that we have learned from this pandemic is the importance of community and how much more efficient the scientific process is when ideas can be discussed in person. I have focused many of my efforts this fall on re-building our community such that it is even stronger, more inclusive and more cohesive than it was before. With that in mind, we held two safely distanced and very successful scientific fall events: the Weiser dinner with former faculty member Dr. Sasha Rudensky as our speaker and our Departmental retreat with a seminar from former Bevan lab Post-doc Dr. Ananda Goldrath. Watching the trainees talk science at the outdoor poster session at the retreat, some meeting each other in person for the first time, made my heart sing. It has also been an extraordinary time to be in the field of immunology. Never before have so many friends, family members and colleagues from other scientific disciplines been so interested in what we do. Immunological terms like "antibodies" and "cytokines" are now used in everyday conversations and are ever-present the media. I am always proud to tell people that UW Immunology remains at the forefront of the immunological field (ranked 7th world-wide by *U.S. News*) and our small department made significant contributions to the general understanding of the COVID-19 pandemic. Our labs continue to make seminal discoveries that inform vaccine design and therapeutic development for many different types of human diseases. The pandemic has also highlighted that immunology serves as a focal point for so many other biomedical disciplines. Throughout the pandemic, novel immunology-based insights about genetics,

neuroscience and tissue homeostasis have been discovered. With this in mind, Dr. Mike Gale and I are working to create a new Center for Immune Innovation and Discovery that will build upon the strong foundation that Mike has built with the Center for Innate Immunity and Immune Diseases. This new center will work closely with our immunology- and non-immunology-focused colleagues throughout the UW and Seattle to insure that we are better prepared to face the next pandemic.

The biggest challenge we face as a community is funding. Please consider contributing to the department to support our efforts. One simple way to do this is to make a contribution to our [Fund for Excellence](#), which supports activities for students and postdocs and the many community building events. In addition, our endowed [Dr. Richard Titus Fund](#) for Graduate Student Support supports a student every other year and we would love to enhance that funding such that it provides annual support. Please consider contributing whatever you can to make a difference in the future of science, immunology and lives of students. Thank you to those who supported us over the past year.

YOUR GIFT = Direct Support of UW Immunology Science and trainees



WELCOME NEW AFFILIATE FACULTY



Dr. John P. Ray, PhD, Assistant Member at Benaroya Research Institute is the latest addition to our affiliate faculty. Dr. Ray earned his PhD in Immunobiology at Yale University in 2014. He completed his postdoctoral fellowship at the Broad Institute of MIT and Harvard in 2020 and then joined the faculty of the BRI as an assistant member.

SHURL AND KAY CURCI FOUNDATION PHD SCHOLARS PROGRAM FUNDING



Geervani
Daggupati, Grad-
uate Student,
Curci Scholar

This year, through a gift to the UW of \$1.82M the Shurl and Kay Curci Foundation PhD Scholars program will support 7 students (with one matching Provost funds). We are thrilled that one of our first year Immunology graduate students, Geervani Daggupati, is one of these scholars. The foundation has committed to a 2nd cohort starting next year and is invested in developing a cohort experience for all Curci PhD Scholars. Immunology greatly appreciates the foundation helping with the recruitment of international students and women scientists.

GRADUATE STUDENT COHORT 2021



Left to Right (top row): Dante Acenas, Madelyn Caban, Kristin Carlson, Nayvin Chew; (bottom row) Tighe Christopher, Geervani Daggupati, Alejandra Lopez, and Lauren Spector.

GRADUATE PROGRAM UPDATE

- **NEW STUDENTS:** This year we welcomed eight new graduate students in cohort 2021 (left).
- **RECENT GRADS:** Ten grad students defended their PhD degrees in the past year including: Frank Soveg (Ram Lab, Feb. 2021), Megan Maurano (Stetson Lab, MCB/MSTP, Feb. 2021), Greg Olson (Aderem Lab, MCB/MSTP, Feb. 2021), Erika Hayes (Campbell Lab, Mar. 2021), Jack McGinty (Moltke Lab, Mar. 2021), Joey Leal (Gerner Lab, Apr. 2021), Rudy Nazitto (Aderem Lab Apr. 2021), Andrey Shuvarikov (Gale Lab, MCB, June 2021), Kerri Thomas (Rawlings Lab, July 2021), Fahd Al Qureshah (Rawlings Lab Nov. 2021). Congratulations to all!



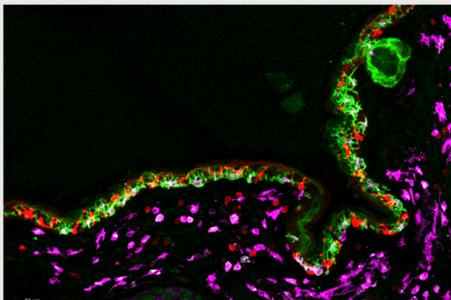
Retreat poster session at SLU Sept. 2021

POSTDOCTORAL FELLOWSHIP AWARDS



Congratulations to our amazing postdocs! (In order from LEFT to RIGHT) Joshua Ames, PhD, Rheumatology Training Grant Fellow (Oberst Lab) Julie Eggenberger, PhD, STD/AIDS Training Grant Fellow (Gale Lab) Nandan Gokhale, PhD, Helen Hay Whitney Foundation Fellow (Ram Lab) Megan Molina, PhD, Interdisciplinary Training in Cancer Rsch. Fellow (Oberst Lab) Lauren Rodda, PhD, Immunology Training Grant Fellowship (Pepper Lab)

ABOUT THE BANNER WEISER LECTURE 21'



The image depicts EpCAM+ Langerhans cells (green), CD3+ T cells and dendritic epidermal T cells (red), and MHC-II+ dendritic cells (magenta) in murine skin. Produced by Miranda Lyons-Cohen the [Gerner Lab](#).

The department was thrilled to have Dr. Alexander (Sasha) Rudensky, Chair, Immunology Program, at the Sloan Kettering Institute (SKI) and Director, Ludwig Center at MSK as our Russell S. and Rae Weiser Endowed Lecture in Immunology Speaker this fall. Sasha began his independent scientific career as an Assistant Professor in our department in 1992. The department and faculty hosted the annual Weiser dinner at Ray's Boathouse including our wonderful emeritus faculty for an excellent evening. Our graduate students, postdoctoral fellows and faculty are grateful to the Weiser Fund for providing this important opportunity for scientific exchange.

2021 RETREAT: This year's keynote and student invited speaker was Ananda Goldrath, PhD, Professor in the Molecular Biology Section, Division of Biology at UCSD and a former postdoc in the Bevan Lab.

RETREAT AWARD WINNERS: \$250 prizes for posters for above 3rd year grad student Jessica Huang, Gerner Lab; Lindsey Warner, Stetson Lab; Marija Nadjombati, Moltke Lab; \$250 prizes for posters for 3rd year and below grad student Heber Lara, Moltke Lab; Katrina Lichauco, Oberst Lab; \$250 prizes for posters from postdoc/research scientist Nandan Gokhale, PhD, Ram Lab; Alison Stanberry, PhD, Moltke Lab; \$100 prizes for posters from postdoc/research scientist Phil Domeier, PhD, Ziegler Lab; Emmanuelle Genoyer, PhD, Gale Lab; Emily Schutsky, PhD, Stetson Lab (Tied for 3rd place); \$250 prize awarded to the best graduate student oral presenter Joanna Maltbaek, Stetson Lab; \$250 prize awarded to the best postdoc oral presenter Meera Shenoy, PhD Koch Lab. Thank you to all who made this year's hybrid retreat possible!

HIGHLIGHTS FROM UW IMMUNOLOGY LABS



Moltke Lab Highlights: Enjoying a return to outdoor lab gatherings! Heber Lara, graduate student, received an Innovation Pilot Award from the Institute for Stem Cell Regenerative Medicine (ISCRM) to support his project, as well as appointment to the Cell and Molecular Biology (CMB) training grant, an Immunology retreat poster award, and an ISCRM poster award. Tyler Billipp, graduate student, received the Immunology Fellowship award. Graduate student Marija Nadsombati and postdoc Alison Stanbery received Immunology Retreat poster awards, and Marija also volunteered with the STEM Paths Innovation Network (SPIN) Girls outreach event. Jakob was an advisor for 5 students at

University Prep who are writing sci-fi stories about parasites; and received a new R01 to replace his DP2. The Moltke Lab also welcomed new postdoc Shan Kasal, PhD.



Gerner Lab Highlights: Jessica Huang, graduate student, received a perfect score on her F31 award. Way to go Jessica! Three awesome publications: 1) Cell and Microbe: TGFβ restricts expansion, survival, and function of T cells within the TB granuloma; 2) Science Immunology: Innate cell microenvironments in lymph nodes shape the generation of T cell responses during type I inflammation and; 3) Frontiers in Immunology: Multi-Parameter Quantitative Imaging of Tumor Microenvironments Reveals Perivascular Immune Niches Associated With Anti-Tumor Immunity. On the left, a lab get together, grilling cookout to celebrate Caleb Stoltzfus and Izzy Silva's departure.



Tait Wojno Lab Highlights: Graduate student turned postdoc Oyebola Oyesola, DVM, PhD, published a fantastic paper in *The Journal of Experimental Medicine* describing how the lipid prostaglandin D2 controls the intestinal changes that promote protection against parasitic helminth infection. She continues as a postdoc in the Loke lab at NIH. Acting Instructor Lauren Webb, PhD published her exciting work in *Immunohorizons* on the function of plasmacytoid dendritic cells in helminth infection. Postdoc Shuchi Smita, PhD and Research Scientists Macy Matheson and Bridget Mooney, PhD started new projects in studies of hematopoiesis, intestinal stem cell biology, and nutritional immunity. With

some COVID-related restrictions easing, we were able to have a few lab gatherings and participate in both virtual and in-person DEI and outreach events, making our year more joyful, more fun, and more focused on our community. Looking forward to more great things in 2022!



Pepper Lab Highlights: The Pepper lab celebrated our 10 year labiversary! We began 2021 with a publication in *Cell* (lead by Lauren Rodda, PhD & Jason Netland, PhD) demonstrating that functional immune memory forms and persists in individuals after SARS-CoV-2 infection. This was followed up by a collaborative effort in *The Journal of Experimental Medicine* lead by Mary Fontana, PhD on how different types of malaria antibodies function. We gained several new lab members: technicians Sam Mak and Christian Howard who are helping with our new insectary, postdocs Courtney McDougal, PhD and Derek Bangs, PhD and 1/2

grad student, Geoff Hutchinson (shared with the King lab at the IPD). Laila Shehata was awarded an NSF fellowship, Kurt Pruner and Lauren Rodda, PhD were awarded spots on the Immunology Training grant, while Geoff Hutchinson gained a position on the CMB training grant. Go Peppers!



Gale Lab Highlights: Graduate student Brittany Ulloa successfully passed her general exam and Rebecca Olsen defended her dissertation on Nov. 23. The Gale lab published 22 papers in 2021 including 16 seminal papers on SARS-CoV-2; Established a clinic to lab SARS-CoV-2 virus isolation and sequencing pipeline that

serves the CREID network; Defined and commercially licensed new innate immune therapeutics for treatment of RNA virus infection including SARS-CoV-2 infection; and created collaborative co-development and testing of second-generation RNA-based SARS-CoV-2 vaccine now in phase 2/3 clinical trials. Check out the Gale Lab at their summer BBQ!



Stetson Lab Highlights: Above, the Stetson Lab enjoyed an outing on the Electric Boats at South Lake Union, celebrating the beginning of summer! This year, the Stetson Lab welcomed two new members: Graduate student Steve Dvorkin and postdoc Dr. Erik Van Dis. MSTP Student Megan Maurano was published in the journal *Immunity*: PKR and the integrated stress response drive immunopathology caused by ADAR1 mutation. Stetson was promoted to full professor in July. And, The Stetson lab also hit first place for their group Halloween costume as The Very Hungry Caterpillar with Fruits and Veggies (see page 5).



Oberst Lab Highlights: This year, the Oberst Lab welcomed three new members: Graduate student Suny Chavarria and postdocs Dr. Josh Ames and Dr. Megan Molina. In addition to securing two new NIH awards, the lab celebrated fellowships and training support awarded to Dr. Josh Ames, Dr. Megan Molina, Suny Chavarria and Katrina Lichauco.



Ram Lab Highlights: Ten years and going strong! We were excited for postdoc Nandan Gokhale who received the Helen Hay Whitney Award. Yo Okamura joined us with a fellowship from the Japanese Society for the Promotion of Science. Frank Soveg and Johannes Schwerk, with help from others in the lab and the Seattle immunology community, discovered a critical immune gene variant that restricts SARS-CoV-2. Frank Soveg received his doctorate on this work and he is currently pursuing a post-doctoral fellowship in the Gladstone Institute. Johannes Schwerk, Matthew Hendricks, and Snehal Ozarkar moved on to chase their dreams in the industry. We thank them for making the lab a fun place and for their hard work over the years.

JOAN GOVERMAN'S RETIREMENT PARTY WAS A HIT!



THANK YOU JOAN!

HALLOWEEN COSTUME CATWALK CONTEST 2021

