



IMMUNOBIOLOGY NEWSLETTER

Spring 2022

From the Department Chair

In this issue:

- Faculty Promotions
- 2021-22 Graduates
- Awards and Laudatory Notes
- Events
- In the Public Spotlight
- Grants and Patents
- Presentations
- Publications
- Outreach
- IIDA T32 Grant
- Changes in IMB Personnel
- General Announcements

We are happy to reinstate the departmental newsletter. As the first point of order, I want to recap our immediate past period and where we currently are.



Since February 2020, IMB has engaged all of its strengths to help UArizona and UAHS control the COVID-19 pandemic via new scientific discoveries and comprehensive strategies to test, trace and treat and to ensure UArizona's reentry and near-normal operation during the pandemic. On all these fronts, IMB faculty, trainees and staff have achieved remarkable success via innovation, basic and applied solutions and practical involvement, including the traditional academic measures of new impactful publications, grants, educational programs and patents.

I am deeply grateful to all of our personnel at all levels for this wonderful effort. We look forward to sustaining it as we increasingly return to our prepandemic scope of activities.

- Janko Nikolich-Zugich, MD, PhD

Director, the Aegis Consortium for Pandemic-Free Future
Bowman Professor and Head, Department of Immunobiology
Co-Director, University of Arizona Center on Aging

Faculty Promotions

Assistant Professors Michael Johnson and John Purdy have been promoted to Associate Professors with Tenure! Congratulations!!



Dr. Johnson joined our UA faculty in 2016. The primary aim of his research is to identify innovative therapeutic strategies against bacterial infections by studying how bacteria interact with metals during infections.



Dr. Purdy joined our UA faculty in 2015. His research is aimed at the development of novel antiviral therapies by studying virus-host metabolism interactions.

Hats Off to our 2021-22 Graduates!!



Joshua Kochanowsky, PhD
Winter 2021
Josh is joining Patricia Johnson's Lab at UCLA in June



Sanjay Menghani, PhD
Spring 2022
Sanjay is completing the final two years of his MD training

Joel Lorne Allen
MMI Certificate
Fall 2021

Awards and Laudatory Notes

Faculty

Deepta Bhattacharya, PhD, received the 2021 COM-T Faculty Excellence—Basic and Translational Investigator Award

Felicia Goodrum, PhD, was named co-Editor-in-Chief to the *Journal of Virology* by the American Society for Microbiology

David Harris, PhD, received a 2021 Leader of the Year award in the COVID-19 Response & Management category from the *Arizona Capitol Times*

Michael Johnson, PhD, was honored with the 2021 Duke Alumni Changemaker Award

- awarded the William A. Hinton Award for Advancement of a Diverse Community of Microbiologists by the American Society of Microbiologists for creating the National Summer Undergraduate Research Project (NSURP)
- received the 2022 COM-T Faculty Excellence in Diversity, Equity, and Inclusion Award

Janko Nikolich-Žugich, MD, PhD, was named the 2021 Gerontologist of the Year by the Arizona Geriatrics Society

- named Arizona Bioscience Researcher of the Year by the Arizona Bioindustry Association for his work on aging, immunology, and COVID-19 testing and prevention
- honored by the College of Medicine –Tucson 43rd Annual Founders Day Lecture which recognizes faculty for their scientific accomplishments

Post-Docs

Sanna Loppi, PhD (Doyle Lab), received a BIO5 Postdoctoral Fellowship Award *Driving deep inside the brain to investigate mechanisms of post-stroke immunometabolism*, 01/01/2022 – 12/31/2022 (\$4,996)

Students

Danielle Bechtel (GPMM, Doyle Lab) received a Travel Award from Brain to attend their 2022 Brain and Brain PET Conference in Glasgow

Advait Jeevanandam (MCB Accelerated Master's Program, Campos Lab) received the merit based Galileo Circle Scholarship awarded annually to 3-5 graduates in each of the college of science departments

Trevor Tankersley (Undergrad, Nikolich Lab) received the Nugent Award by the Dean of Students in recognition of his achievements as an outstanding senior

Isabelle Tobey (CBIO, Campos Lab) was awarded first place for her poster presentation at the Cancer Biology Symposium

Events

Frontiers in Immunobiology & Immunopathogenesis Symposium

The 17th annual symposium was held virtually on March 11, 2022 and featured plenary speakers Dr. Breck Duerkop, Dr. Erika Pearce, and Dr. Daniel DiMaio. Oral presentations were given by **Pierce Longmire, Kristen Zarella, Lucas D'souza, PhD, Caleb Kim, and Kate Rhodes, PhD**. In addition, there were 17 poster presentations with awards going to **Isabelle Tobey** and **Emily Merritt**. Thank you to Dr. Johnson, Dr. Wilson, and their organizing committee for another successful symposium!

Joint Biology Retreat

The annual Joint Biology Research Retreat was held on April 22-23, 2022 at Biosphere 2. From our department, **Christine Bradshaw, Dakota Reinartz, and Kristen Zarella** gave oral presentations; and **Advait Jeevanandam, Caleb Kim, Ian Kline, Pierce Longmire, Bao Thai, Trevor Tankersley, and Stephanie Tribble** presented posters.

Research Day

Research Day aims to stimulate collaboration among basic scientists and clinicians across the College of Medicine. This year, **Dr. Nikolich** and **Dr. Bhattacharya** started things off with a presentation on "T and B Cell Responses to SARS-CoV-2" in the Opening Spotlight. Data blitzes occurred throughout the day and IMB personnel who participated included: **Sangeetha Senthil Kumar, PhD, Pierce Longmire, John Purdy, PhD, Tyler Rippberger, Bao Thai, and Kristen Zarella**.

GPMM Celebration

A social was held on May 13 at Dr. Bhattacharya's to celebrate the 2022 program graduates and welcome incoming students. Thank you for your hospitality, Dr. Bhattacharya!

In the Public Spotlight

Deeptha Bhattacharya, PhD, was featured in the following articles:

Jan. 6 New York Times, “Will ‘Forever Boosting’ Beat the Coronavirus?”

Jan. 13 CBC, “If You Got Omicron Post-vaccination, Medical Experts Advise Not to Rush out for a Booster Shot”

Jan. 21 Forbes, “What You Need to Know About How Well Vaccines Protect You Against Omicron”

Jan. 22 CBC News, “Why Omicron Shows It’s time to Update Our COVID-19 Vaccines…”

Feb. 2 Nature, “What the Omicron Wave is Revealing About Human Immunity”

Feb. 27 Washington Post, “For Many Immunosuppressed, Churches Stopped Being a Safe Place”

Feb. 28 New York Times, “Pfizer Shot is Far Less Effective in 5– to 11-Year-Olds than in Older Kids, New Data Show”

March 1 New York Times, “Vaccine Protection Against Moderate Illness Waned Among Adolescents, New C.D.C. Data Suggest”

March 1 KOLD News 13 report, “How Effective is COVID Vaccine in Kids?”

March 22 Forbes, “Do You Need a Second Covid Booster Shot? Experts are Divided”

April 4 Forbes, “We Cannot ‘Boost Our Way Out’ of the Covid Pandemic, Experts Warn”

April 7 FactCheck.org, “Q&A on Second COVID-19 Boosters for Older People”

April 20 CBC, “What could ‘COVID season’ actually look like?”

April 23 CBC, “Almost half of Canadians may have caught COVID”

April 27 New York Times, “Did Faulty Assumptions Dash Parents’ Hope for an Under-5 Vaccine?”

May 4 The Atlantic, “America is Starting to See What COVID Immunity Really Looks Like”



Kristian Doyle, PhD, was featured on the Feb. 14 KOLD Channel 13 news report, “UA researchers discover promising treatment to prevent post-stroke dementia.”



Felicia Goodrum, PhD, was featured in the May 5 Arizona Republic “Viruses Hiding” series, “There’s a good chance you have a virus called CMV. It might seem to have no effect—or it might be life-changing.”

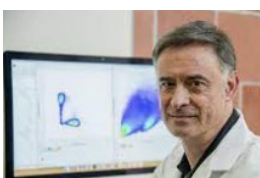
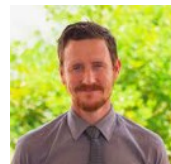


Felicia Goodrum, PhD, and **Koenraad Van Doorslaer, PhD**, were featured in the May 5 Arizona Republic “Viruses Hiding” series, “He got throat cancer even though he was never a smoker. The cause? An HPV infection.”

Pierce Longmire, GPM, Goodrum Lab was featured in the Feb 28 Health Sciences Connect article, “Student Views of Racism in Medicine a Catalyst for Change”



Richard Simpson, PhD, was featured in the May 5 Arizona Republic “Viruses Hiding” series, “Scientists want to understand the immune system. To do it, they’re looking to fake space.”



Janko Nikolich-Zugich, MD, PhD, was featured in: March 1 UAHS article, “The Immunity, Inflammation and Aging Link: Building Better Defenses Against Disease” May 4 KJZZ 91.5 radio story, “Arizona’s COVID-19 Long-haulers Face Exhaustion and Uncertainty” May 5 Arizona Republic “Viruses Hiding” series, “Why do people get long COVID? A virus called EBV, which causes multiple sclerosis, may hold clues.”

Grants and Patents



Anthony Bosco, PhD

Granted US Patent 11,186,640 B2, Nov 33, 2021

Lesterhuis WJ, Lake RA, Bosco A. A method for the identification of immunotherapy-drug combinations using a network approach. US Patent 11,186,640 B2. WO/2016/015095; PCT/AU2015/000458

Provisional Patent Application, AUS 2021903424, Oct 26, 2021

Bosco A, Read JF. Methods for determining respiratory infection risk. IP AU: 2021903424

Doyle Laboratory

Funding to help detect aging biomarkers as part of a U19 Award led by Dr. Carol Barnes, *Precision Aging Network: Closing the gap between cognitive healthspan and human lifespan*

Felicia Goodrum, PhD

R01 grant A1169728 *Virus-host interactions regulating innate signaling for human cytomegalovirus latency*

Renewed: P01 grant A1127335 *Human Cytomegalovirus Dysregulation of Host Hematopoietic Progenitor Cell Signaling Pathways to Modulate Latency, Reactivation and Hematopoiesis During Transplantation*

Michael Johnson, PhD

NSF 2149582, *REU Site: The National Summer Undergraduate Research Project*, 02/15/2022 – 01/31/2025 (\$935,426)

Michael Kuhns, PhD

NIH/NCI R21CA267071, *Adapting 5MCAR technology for the treatment of peripheral T cell lymphoma*, 01/01/2022 – 12/31/2023 (\$409,491)

NIH/NIDDKD R01DK132537, *Engineering 2nd generation 5MARS to monitor and treat Type-1 Diabetes*, 04/01/2022 – 03/31/2026 (\$3,325,791)

Sanna Loppi, PhD (Doyle Lab)

BIO5 Postdoctoral Fellowship Award, *Driving deep inside the brain to investigate mechanisms of post-stroke immunometabolism*, 01/01/2022 – 12/31/2022 (\$4,996)

Kathryn McGovern, Research Scientist (Nikolich Lab)

BIO5 Institute Rapid Grant, *Reducing Beta-Amyloid Burden in the Brain by Targeting CMV Infection*, 01/01/2022 – 07/31/2022 (\$50,000)

Presentations

Deepta Bhattacharya, PhD, presented the Jan 20 UA webinar, “Omicron Variant and COVID-19 Vaccines”

Deepta Bhattacharya, PhD, presented the Mar 15 provider education COVID Grand Rounds CME webinar, “Immune Responses to SARS-CoV-2 Infections and Vaccines”

Deepta Bhattacharya, PhD, will present at the May 16 Tomorrow is Here Lecture Series, “A New Era for Science,” discussing key biomedical research discoveries connected to COVID-19 and how they are driving new pathways of scientific pursuit to create defenses against disease

Christine Bradshaw (Nikolich Lab) presented at the Apr 22 Joint Biology Research Retreat, “Human ACE2 (hACE2) Gene Copy Number Impacts SARS-CoV-2 Disease Outcomes in a hACE2 Transgenic Mouse Model”

Kristian Doyle, PhD, presented at the Mar 30 FASEB Catalyst Conference *B Cells in Injury and Regeneration*, “The Role of B-lymphocytes in Stroke Recovery: Taking the Bad with the Good”

Lucas D’souza, PhD, (Bhattacharya Lab) presented at the Mar 11, 17th Annual Frontiers in Immunobiology & Immunopathogenesis Symposium, “Genetic Evidence that Uptake of the Fluorescent Analog 2NBDG Occurs Independently of Known Glucose Transporters”

Meredythe Durckel (Johnson Lab) presented a poster at the Mar 11, 17th Annual Frontiers in Immunobiology & Immunopathogenesis Symposium, “Testing the Activity of a Novel Copper-Dependent Antimicrobial Against Streptococcus Pyogenes”

Felicia Goodrum, PhD, presented seminars at Indiana University, Mt. Sinai, Tulane University, and University of Virginia

Presentations, Continued

Felicia Goodrum, PhD, and John Purdy, PhD, presented at the Feb 11 Friday Frontiers in Biomedical Science, “A Virus-Guided Tour Through the Cell”

Advait Jeevanandam (Campos Lab) presented a poster at the Apr 22 Joint Biology Research Retreat, “The Canonical and Non-Canonical Roles of cGAS in HPV Immunity”

Caleb Kim (Kuhns Lab) presented at the Mar 11, 17th Annual Frontiers in Immunobiology & Immunopathogenesis Symposium and a presented a poster at the Apr 22 Joint Biology Research Retreat, “The Unique TCR α Domain Regulates T-Cell Development, Homeostasis, and Responses to Agonist Peptide-MHC”

Ian Kline (Purdy Lab) presented a poster at the Mar 11, 17th Annual Frontiers in Immunobiology & Immunopathogenesis Symposium and at the Apr 22 Joint Biology Research Retreat, “Human Cytomegalovirus Promotes de novo Phosphatidylcholine Synthesis”

Anita Koshy, MD, presented at the Mar 11 Friday Frontiers in Biomedical Science, “New Insights into the Parasites in your Brain”

Pierce Longmire (Goodrum Lab) presented at the Mar 11, 17th Annual Frontiers in Immunobiology & Immunopathogenesis Symposium and presented a poster at the Apr 22 Joint Biology Research Retreat, “Human Cytomegalovirus Hijacks Host Translesion Synthesis Repair for Genome Integrity”

Sanna Loppi, PhD, presented a poster at the Mar 11, 17th Annual Frontiers in Immunobiology & Immunopathogenesis Symposium, “Brain Metabolism is Disturbed for at Least 12 Weeks After Ischemic Stroke”

Emily Merritt (Koshy Lab) presented a poster at the Mar 11, 17th Annual Frontiers in Immunobiology & Immunopathogenesis Symposium, “Using 3-D, Whole Neuron Reconstructions to Probe Neuronal Capabilities for Parasite Clearance”

Melissa Moy (Goodrum Lab) presented a poster at the Mar 11, 17th Annual Frontiers in Immunobiology & Immunopathogenesis Symposium, “Complex Interplay Between UL36-33kDa and UL135 Coordinate the Switch Between Human Cytomegalovirus Latency and Reactivation”

Dakota Reinartz (Wilson Lab) presented a poster at the Mar 11, 17th Annual Frontiers in Immunobiology & Immunopathogenesis Symposium, “Investigating the Role of AIM2 in Head and Neck Squamous Cell Carcinoma”

Dakota Reinartz (Wilson Lab) presented a poster at the Apr 22 Joint Biology Research Retreat, “Role of AIM2 in Head and Neck Squamous Cell Carcinoma”

Kate Rhodes, PhD, (So Lab) presented at the Mar 11, 17th Annual Frontiers in Immunobiology & Immunopathogenesis Symposium, “Identification of Host Interaction Factors Required for Asymptomatic Carriage of Neisseria”

Trevor Tankersley (Nikolich Lab) presented a poster at the Mar 11, 17th Annual Frontiers in Immunobiology & Immunopathogenesis Symposium, “Dysregulation of the Immune System: The Role of the Gut Microbiota in Immune System Function”

Trevor Tankersley (Nikolich Lab) presented a poster at the Apr 22 Joint Biology Research Retreat, “Modeling Disease: The Aging Immune System and Mouse-Adapted SARS-CoV-2”

Bao Thai (Bhattacharya Lab) presented a poster at the Mar 11, 17th Annual Frontiers in Immunobiology & Immunopathogenesis Symposium, “Overcoming the Barriers in Differentiation of Stem Cells to B Lymphocytes”

Bao Thai (Bhattacharya Lab) presented a poster at the Apr 22 Joint Biology Research Retreat, “Engineering Stem Cells for Durable Immunity”

Isabelle Tobey (Campos Lab) presented a poster at the Mar 11, 17th Annual Frontiers in Immunobiology & Immunopathogenesis Symposium, “HPV Inhibition of the cGAS/STING Pathway”

Stephanie Tribble (Wilson Lab) presented a poster at the Mar 11, 17th Annual Frontiers in Immunobiology & Immunopathogenesis Symposium and at the Apr 22 Joint Biology Research Retreat, “The Innate Immune Sensor, AM2, Promotes Type 2 Inflammation by Enhancing Tuft Cell Differentiation in the Small Intestine”

Kristen Zarella (Goodrum Lab) presented at the Mar 11, 17th Annual Frontiers in Immunobiology & Immunopathogenesis Symposium and at the Apr 22, Joint Biology Research Retreat, “HCMV Latency Protein UL138 Modulates STAT1 Signaling for Latency”



Publications

Ashley, S., Jones, A., Anderson, D., Holt, P., **Bosco, A.**,* Tang, M.* “Remission of Peanut Allergy is Associated with Rewiring of Allergen-Driven T Helper 2-Related Gene Networks.” *Allergy*, 2022.

Becktel, D. A., Zbesko, J. C., Frye, J. B., Chung, A. G., Hayes, M., Calderon, K., Grover, J. W., Li, A., Garcia, F. G., Tavera-Garcia, M. A., Schnellmann, R. G.,⁴ Wu, H. J., Nguyen, T. V., **Doyle, K. P.** “Repeated Administration of 2-Hydroxypropyl- β -Cyclodextrin (HP β CD) Attenuates the Chronic Inflammatory Response to Experimental Stroke.” *Journal of Neuroscience*, vol. 42, no. 2, Jan 2022, pp. 325-348.

Goodrum, F., Britt, W., Mocarski, E. “Cytomegaloviruses.” *Fields Virology*, edited by D. M. Knipe, P. M. Howley, 7th edition, Wolters Kluwer, 2022, Ch 12: 389-444.

Goodrum, F. “The Complex Biology of Human Cytomegalovirus Latency and Reactivation.” *Adv. Virus Res*, vol. 112, 1 Aug 2022.

Lee, K. H., **Bosco, A.**, O’Sullivan, M., Song, Y., Metcalfe, J., Yu, K., Loh, R., Zhang, G. “Identifying Gene Network Patterns and Associated Cellular Immune Responses in Children with or without Nut Allergy.” *World Allergy Organization Journal*, 2022.

Menghani, S. V., Cutcliffe, M. P., Sanchez-Rosario, Y., Pok, C., Watson, A., Neubert, M. J., Ochoa, K., Wu, H. J., **Johnson, M. D. L.** “Dimethyldithiocarbamate Elicits Pneumococcal Hypersensitivity to Copper and Macrophage-Mediated Clearance.” *Infect Immun*, 21 Mar 2022, pp. e0059721.

Nguyen, T. V., Crumpacker, R. H., Calderon, K. E., Garcia, F. G., Zbesko, J. C., Frye, J. B., Gonzalez, S., Becktel, D. A., Yang, T., Tavera-Garcia, M. A., Morrison, H. W., Schnellmann, R. G., Longo, F. M., **Doyle, K. P.** “Post-Stroke Administration of the p75 Neurotrophin Receptor Modulator, LM11A-31, Attenuates Chronic Changes in Brain Metabolism, Increases Neurotransmitter Levels, and Improves Recovery.” *Journal of Pharmacology and Experimental Therapeutics*, Dec 2021, JPET-AR-2021-000711.

Tilsed, C. M., Casey, T. H., de Jong, E., **Bosco, A.**, Zemek, R.M., Salmons, J., Wan, G., Millward, M. J., Nowak, A. K., Lake, R. A., Lesterhuis, W. J. “Retinoic Acid Induces an IFN-Driven Inflammatory Tumour Microenvironment, Sensitizing to Immune Checkpoint Therapy.” *Front Oncology*, 2022.

Troy, N. M., Strickland, D.H., Serralha, M., de Jong, E., Jones, A. C., Read, J. F., Galbraith, S., Islam, Z., Kaur, P., Mincham, K. T., Holt, B. J., Sly, P. D., **Bosco, A.**,* Holt, P. G.* “Protection Against Severe Infant Lower Respiratory Infections by Immune Training: Mechanistic Studies.” *J Allergy Clin Immunol*, 2022.

Tu, X., Kim, R. Y., Brown, A. C., de Jong, E., Jones-Freeman, B., Ali, M. K., Gomez, H. M., Budden, K. F., Starkey, M. R., Cameron, G. J. M., Loering, S., Nguyen, D. H., Nair, P. M., Haw, T. J., Alemao, C. A., Faiz, A., Tay, H. L., Wark, P. A. B., Knight, D. A., Foster, P. S., **Bosco, A.**, Horvat, J. C., Hansbro, P. M., Donovan, C. “Airway and Parenchymal Transcriptomics in a Novel Model of Asthma and COPD Overlap.” *J Allergy Clin Immunol*, 2022. *Accepted*.

Zhang, H., Rice, M. E., Alvin, J. W., Farrera-Gaffney, D., Galligan, J. J., **Johnson, M. D. L.**, Cusanovich, D. A. “Extensive Evaluation of ATAC-Seq Protocols for Native or Formaldehyde-Fixed Nuclei.” *Genomics*, vol. 23, no. 1, 17 Mar 2022, pp. 214.

Outreach

Felicia Goodrum, PhD, contributed “An Endemic COVID Doesn’t Mean We Stop Fighting.” *The Hill*, 11Feb 2022, OpEd.

- Volunteered as a student project mentor for the Catalina Foothills School District in March 2022

David Harris, PhD, presented “Biobanks and Biomarkers” to the College of Public Health in Feb 2022

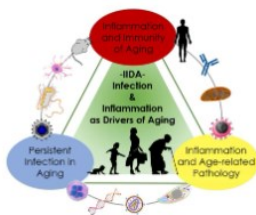
Michael Johnson, PhD, discusses science issues on Twitter (@blacksciblog) with over 13k followers

Mike Kuhns, PhD, Jennifer Uhrlaub (Nikolich Lab) and **Caleb Kim** (Kuhns Lab) served as judges for the 2022 Southern Arizona Regional Science and Engineering Fair

Jennifer Uhrlaub (Nikolich Lab) presented “Immunity to Covid” to the Catalina Rotary Club on February 4, 2022



IIDA T32 Grant



Symposium

The 2nd Annual Symposium on Infection and Inflammation as Drivers of Aging was held virtually on January 13. The symposium gives our grant recipients a chance to showcase their research and get feedback from members of the external academic community. This year's presentations:

Christine Bradshaw: "Building Better Mouse Models to Understand SARS-CoV-2 Disease Progression in Advanced Age"

Ian Kline: "Human Cytomegalovirus Infection Promotes de novo Phosphatidylcholine Lipid Synthesis"

Pierce Longmire: "Human Cytomegalovirus Regulates Host DNA Damage Response for Replication and Latency"

Kristen Zarella: "Human Cytomegalovirus Regulates the Innate Immune Response for Latency"

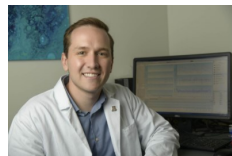
William Pederson: "Unraveling the Mechanism of Menopause Asthma"

Data Blitz

The spring data blitz was held on May 5 at the Barrio Brewing Company. A total of 9 trainees from three T32 programs gave short 5 minute presentations of their research. The trainees enjoyed hearing about research going on in different disciplines and asked great questions.

In the News

William Pederson, Physiological Science, Ledford Lab was featured in the March 31 UAHS article, "Addressing a Research Gap in Menopausal Asthma"



2022-23 Applications

Applications for the 2022-23 IIDA T32 grant will open in June. Be looking for an email announcement.

Changes in IMB Personnel

WELCOME to the following who have joined our department since December 2021:

Anthony Bosco, PhD, Associate Professor (IMB) and Associate Research Scientist (A2DRC)

Nian Yu Chi, CMMMS/Volunteer, Campos Lab

Nicholas Cusick, Undergrad/Volunteer, Ahmad Lab

Adela Diaz, Undergrad/Volunteer, Ahmad Lab

Martha Dua-Awereh, PhD, Postdoc, Bothwell Lab

Colin Fields, MD/PhD Program, Bhattacharya Lab

Matt Huntley, GPMM, Goodrum Lab

Diona Lumia, Research Technician, Kuhns Lab

Haley Marcarian, CBIO, Bothwell Lab

Anissa McKenna, Research Professional, Purdy Lab

Anutr Sivakoses, CBIO, Bothwell Lab

Allison Steedman, Student Worker, Goodrum Lab

Zach Williamson, Plant Sciences, Campos Lab

FAREWELL to the following who left our department in 2022:

Thuy-Vi Nguyen, Doyle Lab

Andrew Johnson, So Lab

Adela Diaz, So Lab

General Announcements

COMING THIS FALL

**AZ Online Microbiology and Immunity
Graduate Certificate**



DONUT TUESDAYS

Take the donut magnet if you plan on bringing donuts. On Tuesday, send out an email letting everyone know the donuts have arrived and where they can be found. Enjoy!!

Land Acknowledgment

We respectfully acknowledge the University of Arizona is on the land and territories of Indigenous peoples. Today, Arizona is home to 22 federally recognized tribes, with Tucson being home to the O'odham and the Yaqui. Committed to diversity and inclusion, the University strives to build sustainable relationships with sovereign Native Nations and Indigenous communities through education offerings, partnerships, and community service.