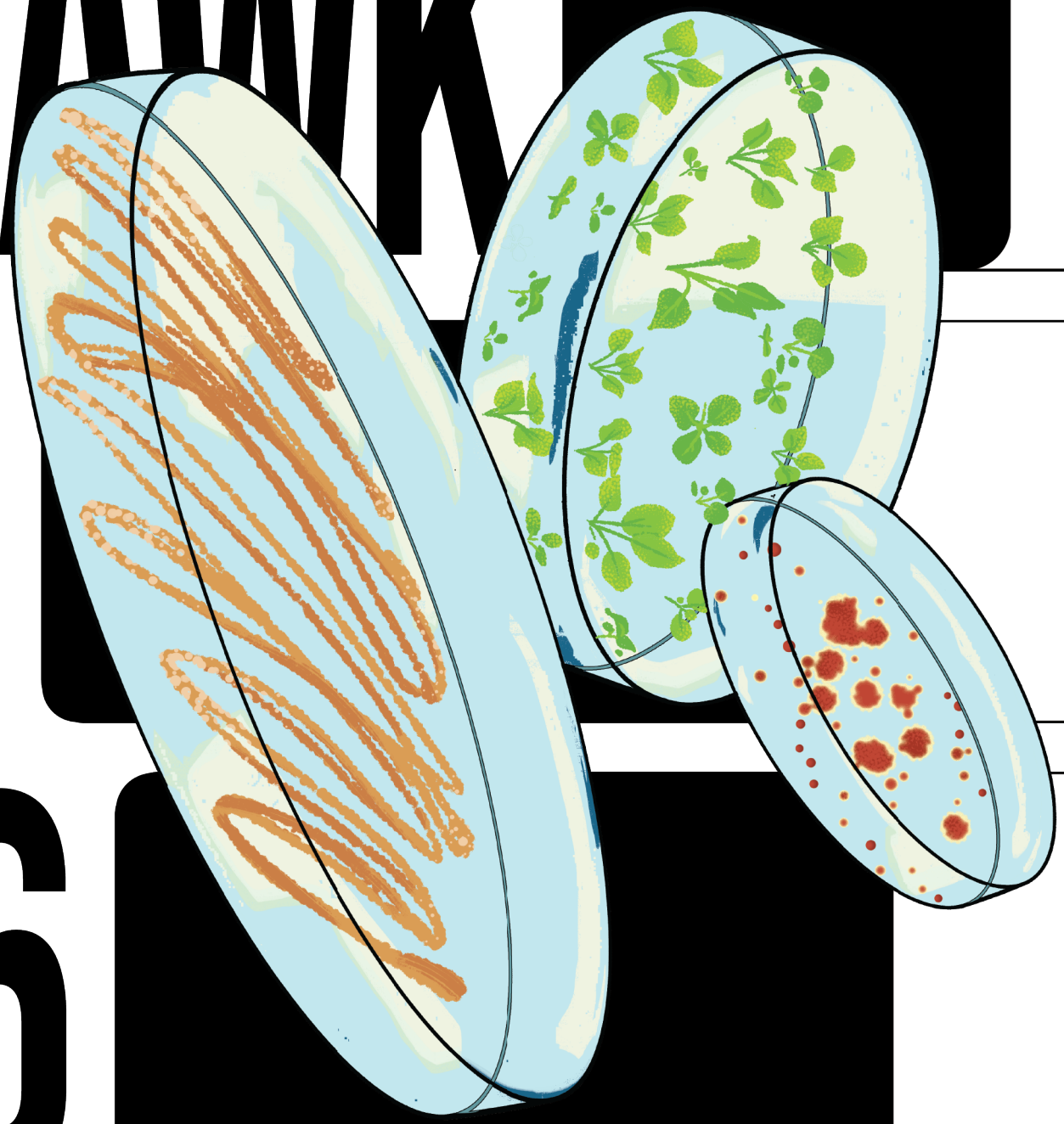
# BIOHAWK FALL 2026



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LAWRENCE, KS

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THE UNIVERSITY OF KANSAS

The BioHawk is published annually for alumni and friends of the University of Kansas Biological Sciences.

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# LETTER FROM THE CHAIRS

Welcome to the 2026 issue of the BioHawk—the KU Biology Newsletter! The BioHawk is our way to update you on all the things happening in the Biology units at KU; the Departments of Ecology & Evolutionary Biology and Molecular Biosciences, and the Undergraduate Biology Program. The last year has been another fantastic year for Biology at KU. We continue to see an increase in students pursuing studies in biology. As of fall 2026, we have 1993 students choosing to pursue their degree in one of our eleven available undergraduate majors. We also have an ever-increasing number of students involved in research. Among about 340 graduates this past year, we estimate about 30% participated in research. And again, we broke another record for the number of students completing an Honors Thesis. Twenty students presented their work for the Honors Biology Symposium on topics ranging from coronavirus function to Kansas lake ecosystems. These successes were only possible because of the efforts of our dedicated faculty, staff, and students. Below we will let you know about the changes going on here and celebrate the many accomplishments and awards of the past year.

In the last year, the Molecular Biosciences department are thrilled to announce the promotions of Dr. Erik Holmstrom to the rank of Associate Professor, and Drs. Josie Chandler, Robert Unckless and Anthony Fehr to Full Professor. Drs. Susan Egan and Berl Oakley retired and we are incredibly appreciative of their immense efforts and contributions that have greatly influenced our students and department. The department welcomed fifteen new graduate students this year, including two Self Fellows (Ananda Kalukin and Michelle Woolridge). We are thrilled for our many graduate student accomplishments which included ten graduate students earning their Ph.D. in 2026. Among the many research grants acquired by our fantastic faculty members included some prestigious training and research center grants: Drs. Kristi Neufeld, Stuart MacDonald, and Paulyn Cartwright (EEB) were awarded an NIH IRACDA post-doctoral training grant, Drs. Brian Ackley and Rebecca Whelan (Chemistry) were awarded an NIH graduate training grant (Chemical Biology), Dr. Lisa Timmons was awarded an NSF REU grant (Stressed Life of Cells), and Dr. Scott Hefty was awarded an NIH Phase III CoBRE (Chemical Biology of Infectious Disease). Dr. Lynn Hancock was also awarded the Steve Benedict most impactful professor.

The Ecology and Evolutionary Biology department welcomed our newest faculty member, Dr. Victor Gonzalez Betancourt, the Charles D. Michener Assistant Professor and Assistant Curator of Bee Diversity and Evolution. Excitingly, this position was made possible through the generosity of an anonymous donor to establish the position in recognition of Professor Charles D. Michener who made an exceptional impact on our knowledge of global bee biodiversity. We are happy to announce the promotion of Dr. Joecelyn Colella to the rank of Associate Professor with tenure. We welcome our 2026 class of nine graduate students, all poised for exciting research adventures. We are excited for the next adventures of our graduate students who completed degrees in the last year, eight Master's and two Ph.D, and for two of our current EEB graduate students, Daniel Ibanez IV and Molly Kennedy, received Self Fellowships. Adding to the training grants noted above, Dr. Paulyn Cartwright, with Drs. Adam Smith (Pharmacology & Toxicology) and Gustavo Blanco (Molecular & Integrative Physiology, KUMC), was awarded an NIH PREP post-baccalaureate training grant , and Dr. Paulyn Cartwright with Dr. Stuart Macdonald, was awarded an NIH MARC undergraduate student training grant at KU. These, with the awards noted above, and training grants in place from previous years, make KU a leader in biomedical workforce training. In the last year, we said goodbye to Dr. Gerry de Boer upon his retirement. He has contributed immensely to the education of undergraduate biology students at KU over his career. We also said goodbye to Dr. Bryan Foster, who is now directing the Michigan State University W. K. Kellogg Biological Station. We wish them both well in their new adventures.

Also impressive are the many biology professors who recently won teaching awards in recognition of their excellence and innovation in the classroom. Dr. Eileen Hotze was awarded a K-INBRE CURE award to develop an undergraduate virology research class. Dr. Gerrit de Boer received the Kemper Fellowship for Teaching Excellence, Dr. Bruce Lieberman received the Outstanding Honors Teaching Award ,and Drs. Julie Campbell and Trevor Rivers both received the Chris Haufler KU Core 34 Award for their work in developing engaging teaching approaches and resources for undergraduates.

Please read along, and enjoy highlights of the remarkable things our students, staff, and faculty have done this year. We hope you too are celebrating your successes, and we are always delighted for you to share them with us. Get in touch, let us know what is new, or reminisce about your time at KU. We all thank you for your continued support of our work, which helps us foster a vibrant and dynamic educational environment where students can thrive and be prepared for the next stages of their lives.

Rock Chalk!
Lena, Scott, Brian, Justin


**Lena Hileman**


**Scott Hefty**


**Brian Ackley**


**Jusin Blumenstiel**

# UNDERGRADUATE BIOLOGY

## Biology Kicks off the Semester

The 2025/2026 Academic year started on a high note on August 17, 2025, with the fourth annual Biology Welcome Event. This event, as part of KU's Hawk Week, was held on Academic Sunday, and helped introduce incoming freshmen to their biology faculty, classrooms and labs spaces, and their fellow students through a number of biology themed games and challenges.

Students were given a 'Lab Notes' booklet detailing instructions for a Scavenger Hunt based challenge scattered throughout Haworth. They completed a number of stations where they could meet Faculty, Staff, Academic Advisors, and Graduate and Undergraduate Teaching Assistants. While participating, the freshmen were able to learn about the three Study Abroad opportunities facilitated by Biology Faculty, visit the Haworth Greenhouse where they could choose a free plant propagation, and play various trivia and icebreaker games. Each station gave out a stamp for completion, and the games promoted collaboration between student attendees. Two new stations were added this year, including Meet with your Intro Bio Professor and Meet with your Genetics Professors! There are now ten different biology themed stations for students to choose from, and those who obtained four stamps were rewarded with a KU Biology T-shirt!

The Biology Welcome Event was a huge success, with an immense turnout of well over 375 students. The event was joined by 31 volunteers and 13 student organizations!






**These Jayhawks kicked off the Fall 2025** semester with the Biology Welcome Event! This Hawk Week Event allows new Jayhawks to meet other students within their majors, get to know their new professors, and learn about different opportunities provided by KU Biology.





## Career and Community

Last academic year, Undergraduate Biology sponsored a total of 31 events and continued its work in creating a wide variety of career exploration opportunities for students. New opportunities included guest speakers from the National Bio and Agro-Defense Facility (NBAF), which is the nation's only large animal BSL-4 facility built to safely handle pathogens that do not currently have treatments or countermeasures.

**Undergraduate Biology also offered four new career-related sessions, hosted by KU Biology faculty, that featured topics such as:**

- Applying to National Science Foundation (NSF) Graduate Research Fellowship Program (GRFP)
- Applying to Graduate School (offered twice)
- CV + Writing Professional Email Workshop
- BRAINstorming Your Future (offered twice)



Additional career opportunities included four panels; the two fall semester panels offered insights into careers in healthcare, and also highlighted opportunities in biology careers outside of healthcare and academia. Of the two panels offered in the spring semester, one focused on careers outside of healthcare and academia, and the other an info session about Med School Applications.

**Panelists for the fall biology career panel included:**

- Matthew Deaver, Senior Manager, Commercial Drug Product MS&T, Biocryst Pharmaceuticals*
- Megan McKinney, Product Management Specialist, ThermoFisher Scientific *
- Courtney Masterson, Executive Director and Ecologist, Native Lands Restoration Collaborative*

**Panelists for the fall healthcare career panel included:**

- Caroline Mcfeeters, PA-C
- Krista Whitney, MD
- Alana Ryan, DO*
- Kristi Rowland, DVM

**The spring biology career panel featured:**

- Jack Lapin, Stream Monitoring Scientist, Kansas Department of Health and Environment*
- Shelli Nauman, Microbiology Lab Coordinator, University of Kansas
- Steven Witte, Director Biologics Development Module, USDA National Bio and Agro-Defense Facility*
- Amelia Wyndrum, Chemist, Algal & Environmental Toxins Unit, USGS Central Plains Water Science Center*

**The Applying to Med School seminar featured:**

- Dr. Alanna Ryan, KU Biology Alumni and Family Medicine Practitioner.*

**Interested in connecting with current KU biology students to discuss your career? We would love to connect students with you! If you know you'll be in Lawrence or would like to be part of a virtual option, please email Lauren Spain-Eddington (lse@ku.edu) We would love for students to learn from you about your career path.**

## BIOL 100 Poster Party

On November 11, 2025, Principles of Biology students turned their class period into a poster party bringing biology facts to life with color and creativity. Students were assigned the task of creating a lesson plan and poster which illustrated the synthesis of three diverse themes from the syllabus topics.




## 2025-2026 Events

Undergraduate Biology Welcome Event

Applying to Graduate School (Focus on Fellowships)

Coffee & Chromosomes

NBAF Visit

CV + Writing Professional Email Workshop

What is Graduate School?

Haworth Haunt

Pre-Health Career Panel

NSF GRFP Info Session with Jenny Gleason

Applying to Graduate School

Science and Pre-Health Careers Expo

Biology Career Panel

Popcorn Popup

Spring Welcome

BRAINstorming Your Future with Dr. Ackley

Med School Application Event with Dr. Alanna Ryan

Biology Career Panel

Demystifying Graduate School

Biology Recognition Ceremony

# STUDENT RESEARCH HIGHLIGHTS



**Katherine 'Kate' Welch** is a double majoring in Ecology, Evolutionary and Organismal Biology, & Environmental Studies. She does research in the Wagner Lab.

"I am essentially making a root soup, which is a simpler name for a 'homogenate root growth assay. This root soup is made with various maize roots and I'm combining that root content with thesoil inoculum to observe the microbial growth within the mixture. This go around, I'm testing if there is a dierence in microbiota of the soups from dierent maize genotypes. I'm using three dierent inbred genotypes, and the hybridizations from the crossed inbreds. In the future I can test this with dierent plants, dierent soil inoculum, dierent growth conditions, and so on, using this root soup protocol."



**Rigel Parker** is a student researcher in the Sikes Lab and is in his final year pursuing a major in Microbiology and a minor in Philosophy.

"[The Sikes lab] is a soil ecology lab with a focus on fungi. We study communities in soil. We have fungal cultures, but we also look at plant and soil microbe interactions. We do a lot of plant-focused work, too, like surveying plants in the field to see what's growing there and also growing plants in the greenhouse. We change properties of soil; we'll do experiments with sterile and non-sterile soil treatments to see how the plants react. This research has implications for prairie restoration. [...] We're studying how the old dirt interacts with the new dirt in these dierent post-agricultural fields. The transplanted experimental dirt came from a native prairie that was then turned into a highway. Edges made the best of that. We're trying to see if the native prairie microbiome migrates outwards, or if the generally less diverse microbes and biotic properties of the post-ag soil migrate inwards. [Which is important] because if you can put native prairie soil into a place with degraded soil and it makes the soil around it more like prairie, then that has huge implications for our research goals."



**Kristina Sim** is a graduating senior majoring in Human Biology and works in Dr. Josephine Chandler's Lab. She is minoring in Chinese (East Asian Languages & Cultures) and is on the Pre-Medicine Track.

"My research is in microbiology, specifically bacterial communication. I study quorum sensing, which is a communication system that bacteria use to regulate gene expression and behavior. My work focuses on a bacteria called Chromobacterium subtsugae, where a protein called CviR acts as a transcriptional activator. Through this research, I investigate how bacteria use information from their environment to make decisions that influence their survival, adaptation & interactions with other organisms."



**Avery Johnsmeyer** is a Microbiology major & is minoring in environmental studies.

***How did you get started on DIY Labs and what kind of projects do you do currently?***
"It all started when I got a decent microscope with photography capabilities and started looking at what was living in my aquariums. Then I thought 'Okay, what's actually out there around Kansas?' I decided to go to various bodies of water and collect samples and see what's living in them. For whatever reason, Lawrence especially is a really good spot to look for unusual protozoans and algae and other micro fauna.

I've done a little bit of my own field research, and I found a few pretty robust populations of Triodopsis neglecta, also known as the Ozark Three Tooth Snail, which I found in Johnson County in 2022. It's classified as vulnerable, so it's particularly interesting to find, and according to some researchers, I'm the first to observe it [in the area] which contradicts the surveys done in 2018, so I've given the data to the kind folks at the Kansas National Heritage Inventory at the KS biological survey."

## Biomedical Research and Public Health in Western Europe

**Grace Bannister,** *Honors Student at the University of Kansas, Human Biology and Biochemistry writes:*

"I recently returned from a 3-week study abroad program, Biomedical Research and Public Health in Western Europe, led by Dr. Scott Hefty where we traveled to London, Paris, Brussels, Würzburg, Heidelberg, and Geneva. This experience was incredibly fruitful and impactful in ways that I know I've yet to even realize. The program allowed us to tour and learn from a variety of organizations conducting research in the academic, commercial, and governmental sectors. This information has been incredibly helpful as I begin my search for graduate school programs to further my own career goals in research.

I can't even begin to express my gratitude for my peers, the KU faculty, and all of the scientists and leaders who made my experience so enriching. I particularly enjoyed our visits to EMBL, Roche, and Institut Pasteur, given my interest in computational biochemistry, drug design, and translational sciences.

My favorite site we visited during study abroad was Hoffman-La Roche in Basel, Switzerland. Prior to this trip I had heard of Roche in passing, but I was unaware of their key leadership in the pharmaceutical industry. I found it fascinating to learn about how the company is structured into two divisions-- diagnostics and pharmaceuticals-- and the advantages and disadvantages that came with this model. This visit rounded out a few recurring themes of our program really well, such as the importance of scientific communication and that all health is public health. It was also interesting to see how different research sectors intersect, with governmental interests funding commercial entities, and much of the underlying science coming from academic institutions. Also, as someone interested in doing computational research and structural biology, learning about their drug screening protocols and discovery pipelines was very interesting.

Beyond the academic and professional growth, this opportunity gave me the privilege to experience so many new cultures. I've been enjoying reflecting on my role as a global citizen and how I want this trip to influence my contributions to the international science community as a future researcher."





## Marine Biology in Bonaire

**Lydia Thieman**, *Excellence Scholarship winner and Ecology, Evolution, and Organismal Biology major writes:*

My experience during the 2026 Bonaire study abroad trip was nothing short of breathtaking. To be quite honest, I was not planning on signing up for this trip in fear of my first year of college being too soon to study abroad; pushing past that thought was one of the best decisions I could have made. I am looking to become a marine life conservationist, and this trip gave me more motivation than I had started with. I feel beyond lucky to have experienced this trip, it truly reinforced my long desire to study and protect marine life.

Our trip to Bonaire was over spring break. We planned about three to four dives in each day, none of which were mandatory (though I would recommend it). I had to miss out on the first two days of group diving due to me needing to finish my dive certification. When doing this I was able to see some more of Bonaire's culture through the people that I had met! My dive instructor along with other employees at their shop were very friendly and had similar motivations to myself. Being from the Midwest, I never had the opportunity to talk with people who truly care about ocean conservation and protection. After getting certified I was able to dive with the rest of my group, which brought the experience to a whole different level.

Our main assignment was to learn how to identify different aquatic life and then make an ID list. This was slightly more difficult than I had expected, not because finding the different species was hard, but because there was so much to see and take in while diving! It really is like a whole different world under the water, and depending on how cold you get, it feels like you could stay down there forever. No matter how often you dive, the excitement still stands.

My favorite dive wasn't a typical day-time dive, but the night dive I participated in. I was honestly very nervous about this, but despite my fears I had an amazing time. Dr. Rivers took me and a few other students to a new diving site, in hopes that we would be able to watch a light show made possible by a certain type of ostracod. Ostracods are small crustaceans that can be found in marine and freshwater, but specific groups can be bioluminescent. We swam out into the ocean following our professor until he signaled for us to stop and sit. Which in case you wondered, sitting under the ocean is harder than you would think. We waited in the complete dark with no flashlights for a few minutes and then slowly a few blue lights became visible. We swam to a slightly different angle and that is when the environment really started to change. All around us there were blue lights floating, dancing around and creating patterns. Everything else around us was still and dark, making the glowing ostracods that much more captivating. It was something I could have sworn I watched in the movies. The easiest way to describe it is to simply call it magic. That is exactly what it felt like, and one day I hope to experience that again.

Visiting Bonaire was incredible. After earning a degree, my profession is one that will help keep ecosystems like theirs thriving. My passion and love for the ocean have grown immensely, and I owe that to the amazing KU Study Abroad program. This testimonial was only a few of the great memories I made, from the people to the food, and of course the diving, I am so glad I chose to participate in this program. I strongly encourage that anyone, regardless of their professional goals, who gets the chance to study abroad takes it! It is truly life changing and I can only hope I receive the opportunity to do it again.

**Photos by Dr. Trevor Rivers**










## KU Botany Club

**Avery Johnsmeyer,** *Microbiology major (class of 2027), K-INBRE, the University Honors Program, and Biology Departmental Honors writes:*

KU Botany Club's core mission is to bring students together through generating an interest in botanical sciences, prioritizing access to plants and information regarding their care and biology. Club membership is inclusive of more than just science students, and this diversity helps bring beneficial perspectives to the value of plants in our community. Due to their modular nature, plants lend easily to sharing via propagation. Teaching students how to take care of plants provides ample opportunity for experimentation, trial and error, and instills genuine interest in how a species' natural history and ecology impacts its growth requirements in a house or apartment. Every person who grows a houseplant is conducting a small experiment, requiring careful observation to maximize the plant's success.



The current iteration of KU Botany Club began in late 2023, and has been expanding its reach ever since. The group holds regular meetings twice a month during the academic year, in addition to hosting hikes, plant sales, tabling events, and native plantings. Among the most popular meetings have historically been the terrarium building workshops, propagation tutorials in the Haworth Greenhouse, movie nights, plant exchanges, and herbarium tours. The club has also engaged in collaborations with other KU student clubs, both within and outside of the sciences. The club remains completely free for students as it is sustained by plant sales and student propagations.

In the last couple years, the club has made several visits to The Fern Dells, a privately managed site near Princeton, KS that is host to the highest bryophyte biodiversity in the state.

Guided by Dr. Steven Boese of Ottawa University and Kansas moss expert Brad Williamson, the club has been graciously allowed the privilege of visiting the land. Many of the McGregor Herbarium's prized specimens of rare wild orchids, ferns, mosses, liverworts, lichens, and more hail from these verdant cliffs. During Botany Club's Spring 2026 visit, we helped discover one of the first known hornworts documented in Kansas, confirmed by microscopy. The Dells are a beloved site that are unrivaled in their diversity. The club has also visited nearby trails, and has aided in efforts to maintain Monarch Waystations and Prairie Acre on campus. A central tenet of Botany Club is maintaining its close relationship with the Haworth Greenhouse and its diverse teaching collection, a living library of plant taxa from around the world.

Despite belonging to a university that does not currently offer a Botany major for undergraduate students, the club has proved to be wildly successful, and has contributed to growing interest in botany in the KU student body and the local community. We extend our deepest gratitude to our club sponsor, Dr. Jenny Archibald, greenhouse manager, Dan Ruffing, Caleb Morse and Craig Freeman of the McGregor Herbarium, Haworth Hall staff, and all of our members for helping contribute to making the club engaging, free, and accessible. We hope to continue Botany Club for many more years to come.

*-Avery Johnsmeyer, President of KU Botany Club (2024-2027)*



## American Society for Biochemistry and Molecular Biology at KU

**Jim Kretzel,** *KU MARC Program, biochemistry, Business minor, writes:*



In the fall of 2023, members of KU ASBMB (the American Society for Biochemistry and Molecular Biology at KU) decided to redefine our vision for the club's future. A few enthusiastic students wanted to build a community expanding STEM opportunities at KU and the surrounding areas. Since then, we have connected with people who share our passion, growing KU ASBMB significantly and attracting a dedicated team of student scientists working toward our goal. Along the way, our opportunities have multiplied, but our vision has stayed the same: fostering connection through science.

A major focus of our group is sparking excitement for science through STEM outreach in communities beyond Lawrence. Last year, we participated in six outreach events, four fully organized by KU ASBMB volunteers. We kicked off the fall semester helping the Girl Scouts earn Home Scientist badges. We then returned to Lecompton Elementary, introducing new objectives like earth science, evolution, and astronomy, featuring a planetarium. We also organized Wanamaker Elementary's first outreach day. During the Carnival of Chemistry, our volunteers featured spice art and turmeric invisible ink. Later, we explored Oobleck and homemade lava lamps at Hillcrest Elementary. We concluded the year by bringing students from KCA, a virtual school, to Gray-Little Hall. They made Prince Rupert's drops and iodine clocks, enjoying a rare chance to get hands-on with science. Together, our efforts have expanded access to hands-on science in Douglas County, strengthening scientific curiosity in students and impressing educators with their newfound enthusiasm.

Additionally, KU ASBMB strives to support our members' development into well-rounded scientists and leaders. This year, we aimed to broaden members' scientific knowledge with research showcases from KU students. We designed resume/CV and cold-emailing workshops to expand members' professional toolkits and give a head start in career involvement. We also supported scientific exploration by sharing scholarship information and providing funding for the ASBMB annual meeting. With this support, four of our members traveled to Washington, D.C., where they presented their research and our growing outreach program to scientists from around the world. We also host yearly bowling and movie nights around finals week to encourage members to de-stress with friends. KU ASBMB takes pride in being a resource for students in molecular biosciences to find community and make lasting friendships with others in their major.

Looking forward to next year, KU ASBMB has large ambitions. We already have plans to help a new group of Girl Scouts become Home Scientists and are developing ways to introduce high school students to biology research at KU. As always, we plan to continue offering creative professional development events to our members and community.

To get involved or follow our work, reach out at kuasbmb@gmail.com or find us on Instagram at @kuasbmb.

**Photos taken by Isabelle Thebeau, current ASBMB outreach chair**



## American Society of Microbiology

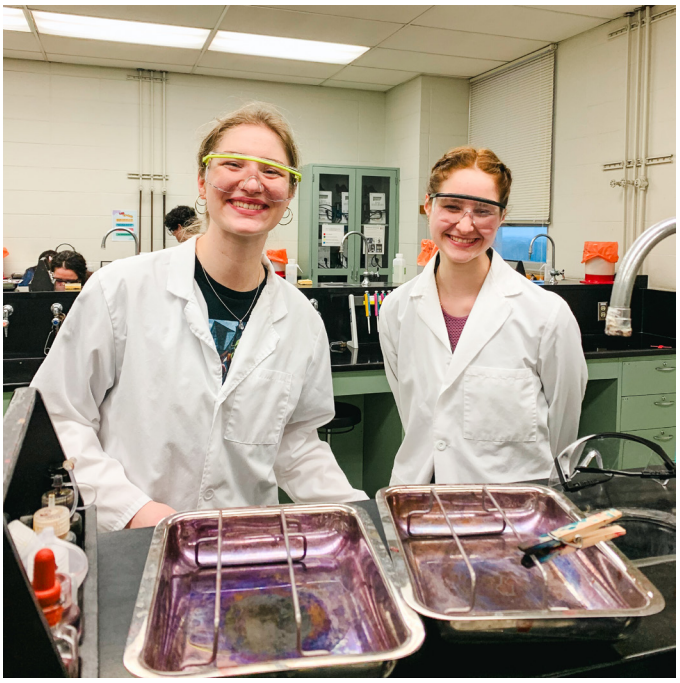
**Jacob Shipman,** Molecular, Cellular, and Developmental Biology major, writes:




The University of Kansas Chapter of the American Society of Microbiology prides itself on giving a place for those who are professionally and personally interested microbiology to interact and enjoy the science itself. While smaller and somewhat more niche than other clubs on campus, the community we've spurred is nothing short of passionate.



Our meetings are every 2-3 weeks, with many of them being in the labs at Haworth to safely and properly handle the fascinating microbes we work with. Our previous year saw the return of our most popular and beloved meeting, agar art. The chemical and biological process is explained briefly before members are given multiple types of bacteria with fluorescent properties and tasked with streaking those microbes on multiple agar plates, after a day has passed the fluorescents of the microbe's shine and pictures of their masterpieces are posted across our social media! Last year we also held multiple meetings detailing how to get into research, as well as a tutorial for building Winograd sky columns and how to pickle vegetables at home! We have many more exciting meetings planned for this year, and we can't wait to see more new faces!



We would like to thank the continued support of our club sponsor, Shelli Nauman, the staff of Haworth Hall, and the American Society of Microbiology who all continue to work hard to make our meetings a possibility.

**Photos taken by Shelli Nauman & Club Members**



In the Fall of 2025 and the Spring of 2026, thirty-six students received more than $37,800 in awards and scholarships from the Undergraduate Biology Program, which was made possible from contributions to the Undergraduate Biology Fund, Undergraduate Biology Scholarships fund, and the Awards listed below.

These scholarships are instrumental in reducing the financial burden of obtaining a degree and ensuring that a diverse range of students have access to a world-class education and can share unique gifts and perspectives with the University community and the world.

## Undergraduate Awards:

### Erma Reed Peterson Scholarship for Pre-Medicine Seniors

- Alexandra Coveney
- Avery Van Der Wege

### Jeanne Ellermeier Undergraduate Award in Biochemical Research

- Laia Terencia Hernandez
- Liz Mays
- Christine Nguyen

### Lance Foster Outstanding Junior in Biology Award

- Aarjo Roy

### The Smiley Gilligan Family Fund for the Biosciences

- Cali Sharp

### Ken and Helen Nelson Opportunities in the Biosciences Award

- Lydia Dexter
- Reed Hodges

### Robert Tweed Hersh Memorial Scholarship Award in Human Biology

- Martha Arvanitakis
- Rohan Joseph
- Julia McDonald

### Howieson Biological Sciences Undergraduate Research Opportunity

- Kendall Cranor
- Joyce Cortez
- Kayvon Fardipour
- Nehemiah Gomendoza
- Jim Krentzel
- Avery Johnsmeyer
- Anjali Singh
- Katherine Welch
- Rahe Williams

### Pauline Kimball Prize in Zoology

- Jack Benton Bandy
- Trinh Nguyen

### Paul A. Kitos Opportunity in Molecular Biosciences Research Award

- Yesem Hailemariam
- Danny Jack
- Kelsea Kilmer
- Sarayu Pentapati
- Larissa Rockenbach
- Udita Shah
- Maya Welcher

### Nathan B. Parker Ph.D. Student Award in Biology

- Sophia Chacon Araya

## The Bioscholarship Program

### Robert and Lillian Bell Bioscholar

- Rose Lagergren

### Haller Silva Biosciences Merit Scholarship

- Kathryn Glaser

### Howieson Bioscholar

- Kavinavashri Chidambaranathan
- Rakshan Ossen
- Madeline Martinez
- Grace Wilson
- Eera Venkatesh Prasad,
- Su Aung

### Jim A Orr Bioscholar

- Om Pande

### Elio Schaechter Bioscholar

- Lydia Dorton

## Graduate Teaching Awards:

### Robert H. Ammar Graduate Teaching Award

- Anam Shaikh
- Rayssa Teixeira

### Richard H. Himes Graduate Teaching Award

- Taiye Adewumi
- Eric McClosky

### Sally K. and Kenneth Mason Excellence Award

- Ekta Mohanty

# Other Awards & Scholarships

## 2025 Millenium Fellowship

Beatriz Viejo Garcia, a junior in microbiology from Madrid, Spain was selected for the 2025 Millennium Fellowship, a leadership development program overseen by the Millennium Campus Network (MCN) in partnership with United Nations Academic Impact (UNAI).

## Class of 1913 Award

Laia Terencia-Hernàndez received the Class of 1913 Award as a senior in Biochemistry from Sabadell, Spain.



"The University of Kansas gave me a place to grow into myself," Terencia-Hernàndez said. "In return, I have tried to give KU my effort, my care and my commitment to others. I am deeply grateful for this community, and I (am) honored to be recognized alongside students who share the same dedication to serving the university and the people within it."

## The Donald K. Alderson Award



Emmanuel Saama received the The Donald K. Alderson Award as a senior in Molecular, Cellular & Developmental Biology from Overland Park.

"As my time at the university draws to a close, I find myself feeling a deep sense of gratitude and fulfillment," Saama said. "KU will forever and always hold a special place in my heart."

"This institution has invested immensely in me during my time here, and in return, I have been able to give back to the place that has given me so much. Although much of my academic journey still lies ahead, I know with certainty that KU has laid a strong foundation upon which future blessings will be built."

## Undergraduate Research Award

Meghan Arias for receiving an Undergraduate Research Awards from KU Center for Undergraduate Research & Fellowships.



Meghan is a senior studying Microbiology, currently researching how a host protein called PARP14 impairs various strains of Herpes Simplex Virus 1 (HSV-1). She started work in the Davido Lab in August of her Junior year after spending one semester observing graduate student research. Her research is funded by the Kansas IDeA Network of Biomedical Research Excellence (K-INBRE) alongside two CURF Undergraduate Research Awards (UGRA) and the McNair Scholars Program. She has completed the McNair Scholars Summer Research Internship and plans to pursue a Ph.D. in immunology, researching autoimmune diseases at an institution dedicated to public health.



## Departmental Honors in Biology

Seventeen graduates received Departmental Honors in Biology in Spring 2026, making them the largest class of recipients in more than ten years. These students go above and beyond what is required for their degree. They complete additional coursework, conduct research with a faculty mentor, write a thesis, and present this thesis to a panel of faculty for review.The following students earned Departmental Honors in May 2026:




**Meghan Arias** Mentor: David Davido, '*Determining if PARP14 Impairs HSV-1 in a Strain-Specific Manner'*

**Marion Berzansky** Mentor: Allie Graham, '*Investigation of Genetic Diversity and Differentiation in Olfactory Receptors across Four Tibetan Dog Breeds'*

**Kendall Cranor** Mentor: Anthony Fehr, '*Chimeric Murine Hepatitis Virus (MHV) with Mac1 Proteins from Multiple Coronaviruses Indicates Virus-SpecificDivergence of Mac1'*

**Sofía Chacón-Araya** Mentor: P. Scott Hefty, '*Transferrin-ection: a Novel approach to genetically modify Chlamydia'*

**Steven Conejo Gutierrez** Mentor: P. Scott Hefty, '*Predictive Approach to Chlamydia trachomatis' Regulator of Sigma B System Protein Interactions'*

**Alexandra Coveney** Mentor: Ted Harris, '*Macrophyte beds in a shallow freshwater system influence diel migration of mesozooplankton taxa'*

**John Folscroft** Mentor: Roberto De Guzman, '*Investigating Possible Novel ADP-Ribosehydrolase Macrodomain in Salmonid Herpes Virus-1'*

**Yesem Hailemariam** Mentor: P. Scott Hefty, '*Searching for the Signal: Studying the CtcB Sensor Domain in Chlamydia trachomatis'*

**Laia Terencia Hernadez** Mentor: Kristi Neufeld, '*The role of Adenomatous Polyposis Coli in Reactive Oxygen Species-induced DNA damage response'*

**Maya Hull** Mentor: Hans Dalton, '*The GPI Anchor Biosynthesis Pathway Has Conserved Duplications that are Expressed in Humans'*

**Darsh Lad** Mentor: Lynn Hancock, '*Role of the Transcriptional Regulator YesN in Host Glycan Metabolism by Enterococcus faecalis'*

**Katherine Lenz** Mentor: Coral Zhou, '*Effects of ploidy on the establishment of heterochromatin in Xenopus embryos'*

**Alexa Magstadt** Mentor: Jennifer Davis, '*Potential interactions of tirzepatide, SIRT1, and KRAS mutation in colorectal cancer'*

**Lloyd McLaughlin** Mentor: Justin Blumenstiel, *'Heat Shock Exacerbates the Dysgenic Phenotype and Characterization of the Two-Oocyte Phenotype in D. melanogaster During IR Dysgenesis'*

**Deeshana Nilaweera** Mentor: Brian Ackley, '*When Presenilin Goes Wrong: Tau Aggregation in a C. elegans Model of Familial Alzheimer's Disease'*

**Vanessa Nguyen** Mentor: Liqin Zhao, *'Clusterin (CLU) Deficiency Disrupts Excitatory/Inhibitory Neuronal Balance'*

**Maggie Ridgway** Mentor: Stuart Macdonald, '*Characterizing the role of chloride channel, pHCl-2, in metal toxicity responses in Drosophila melanogaster'*

**Udita Shah** Mentor: Josie Chandler, '*Characterizing the translation accessory factor EF-G1B (FusA2) in Pseudomonas aeruginosa – biological function and role in antibiotic resistance'*

**David Wiseman** Mentor: Trevor Rivers, '*The Zoolander Effect: Behavioral Handedness in Photeros Ostracod Courtship'*

**Kai Smith** Mentor: Elisabeth Mills, '*Prebiotic chemical survey of Young Star-Forming Region Cloud C in the Galactic Center and its chemical differences from larger star-forming galactic center clouds'*



**Top Photo:** Alexandra Coveney, Laia Terencia Hernandez, Steven Conejo Gutierrez, Sofia Chacón-Araya, Yesem Hailemariam
**Bottom Photo:** Alexa Magstadt, Maggie Ridgway, Katherine Lenz, Maya Hull




*Interview with a Biologist*, a podcast from the University of Kansas's Undergraduate Biology Department, is dedicated to talking about science research in a way that anyone can understand.

Episodes feature guests ranging from faculty to current students, who speak about their recently published research, or hands on experiences in research focused KU classes. The episodes dive deep into what experiments scientists did, the results of their research, and the greater impact that research has on the world.

Interview with a Biologist was the brainchild of by Maria Losito, Communications Coordinator for the Undergraduate Biology Program, and aired January 27, 2026, and is hosted. She has been joined by guests from the Department of Molecular Biosciences and Department of Ecology and Evolutionary Biology, and beyond, the podcast strives to share scientific information and recent research in a way that is accessible to listeners of all backgrounds and knowledge bases.

**SPOTIFY**

**YOUTUBE**

## Promotions & Tenure

Chancellor Douglas A. Girod has approved the promotion and award of tenure, where indicated, for 50 individuals at the University of Kansas Lawrence and Edwards campuses and 96 individuals at the KU Medical Center campuses.

**To associate professor with tenure:**



Erik Holmstrom, molecular biosciences

**To associate professor wit tenure/associate curator:**



Jocelyn Colella, ecology & evolutionary biology/associate curator, Biodiversity Institute

**To full professor:**



Josie Chandler, molecular biosciences



Anthony Fehr, molecular biosciences



Robert Unckless, molecular biosciences

## Trevor Rivers named 2026 Textbook Hero

*by Wendy Conover*

Trevor Rivers, associate teaching professor of biology, has been named KU Libraries 2026 Textbook Hero for extending his student-centered, curiosity-driven teaching style into the creation of open educational resources (OER). Rivers' efforts have reshaped how nearly 2,000 students each year will encounter introductory biology at the University of Kansas, and replaced an $80 commercial text with a free, easily accessible, multimedia resource, creating significant financial savings for students.

In a lecture hall full of BIOL 100 students, Rivers is encouraging and engaging, presenting slides punctuated with exclamation points and real-world examples that point to unexpected philosophical questions. He describes "how bacteria talk to each other," or the way an "adorable" squid can illuminate aspects of the human immune system and asks the students, "why do we care about this?"

The creation of his open textbook, "Biology for an Informed World," has allowed Rivers to organize the introductory biology class for non-majors with an eye for increased engagement and enhanced learning. After a year of preparatory work, Rivers launched use of the textbook at the beginning of the spring semester.

"I've been asking questions in class and what I've been noticing is that the students are able to pick up on what they've learned in previous classes and previous readings to inform them for what I'm asking," Rivers said. "They've got a better handle on how everything works together instead of being siloed or disparate when I taught it in the traditional order."

Taking a scaffolded approach that helps students master unfamiliar, complex concepts by building on what they already know, the text connects foundational biological concepts to real-world issues and everyday decision-making, building scientific literacy by linking fundamental concepts to real-world decisions and societal issues. The digital format incorporates various educational aspects such as YouTube videos and other links incorporated directly into the written material, all available on the learning management system students can easily access.

One of the advantages of OER is that they are highly adaptable and versatile, and Rivers already has changes and improvements in mind as he continues to identify the most effective content and formats. The textbook itself is a multifaceted example of the expansive possibilities of open education, as Rivers created it using existing open-source materials for BIOL 100, synthesizing and organizing the information for his purposes, and adding question pools to facilitate learning.

"I actually mapped out five different online textbooks and looked at what was overlapping and then pulled in things from different sources, which was a bit of a haul," Rivers said. "I am already finding things that I would like to change, but I can, which is the best part. I can keep tailoring it to both compliment and supplement my classes and what I'm teaching lecture-wise."

Rivers' interest in OER was fueled by KU Libraries Open Education Week programming last year, including the honoring of 2025 Textbook Hero, Lisa Sharpe Ellis from KU Chemistry, who encouraged him in his exploration of libraries connections. Rivers applied for and received a grant from the libraries and worked with librarians to find the best paths to achieving his goals.

"What kickstarted this whole thing was the libraries, for sure," Rivers said.

He hopes his own recognition can inspire similar efforts, or prompt colleagues to learn more.

"I'm honored to receive the award, but I think it's more important that people are aware that these opportunities exist," he said. "You can move the needle in terms of the pedagogical, taking the reins of your class to the level of creating your own textbook, and that is doable, as well as being more cost effective for the students."

Rivers' approach to OER is grounded in his approach to teaching, which stems from his own educational experiences.

"My professional direction was the result of educators in community college, undergraduate, and graduate school, and the people that had the biggest influence on me were the ones that were focused on student learning and harnessing failure as a process and not a punishment," he said. "And so that's kind of my guiding idea. We're supposed to teach people something they don't know, and they shouldn't be punished for not knowing it when you start. My whole structure is trying to figure out how I can do that, both with assignments and with the readings and other things, where they are able to fail successfully into learning the material by the end of the semester. And I think having a better hand in the material I'm presenting to the students gives me a better ability to succeed with that."

Rivers' work exemplifies the goals of Open Education Week, which celebrates the impact of open educational resources (OER) and practices on teaching and learning. KU Libraries advocate for and support the use of open textbooks and other OER year-round, through a variety of initiatives, including grants, consultations, presentations, events, the new Deans' OER Incentive, and other outreach. Since its launch, the OER Grant Initiative has awarded 46 awards to KU instructors with an estimated annual savings of more than $1.3 million for KU students. The libraries support OER publishing via the Pressbooks platform, collaborating with co-authors to publish their work openly, with 25 titles in the KU Pressbooks catalog and more than 20 in development.

# ECOLOGY & EVOLUTIONARY BIOLOGY

## KU Ichthyology collection reaches milestone with Missouri Department of Conservation partnership

*By Andrew Bentley | May 1, 2026, KU Biodiversity Institute and Natural History Museum*



The University of Kansas Ichthyology Division at the Biodiversity Institute & Natural History Museum has reached a milestone of more than 45,000 cataloged lots, aided by a substantial collection from the Missouri Department of Conservation.

Unlike most natural history collections, which catalog specimens individually, ichthyology collections are organized by lots, in which all specimens of a single species collected at the same place and time are preserved together in a single jar. These collections function as research libraries of preserved fish specimens and tissues.

As a result, the 45,000 lots represent more than 555,000 freshwater and marine specimens acquired through field collections, donations and the incorporation of orphaned collections.

The most recent acquisition came from an orphaned collection assembled by the Missouri Department of Conservation through statewide stream surveys conducted between 1980 and 1996. The addition strengthens KU Ichthyology's Missouri holdings and its standing as one of the most important repositories of Midwestern freshwater fishes.

Once fully identified and digitized, the Missouri collection is estimated to add more than 78,000 additional specimens.

The specimens are being incorporated into the collection through the coordinated efforts of the division's curator, collection manager and a graduate student, with additional assistance from a staff member at the Kansas Department of Health and Environment who oversees the state's stream survey program. Seven undergraduate students have been hired to assist with sorting and identification, while alumni and volunteers also contribute through a weekly collaborative event called "Fish Sort Friday."



The milestone lot, KUI 45000, is a specimen of Brook Silverside, Labidesthes sicculus, collected in August 1994 from the Spring River in Jasper County, Missouri. This fish species lives in slow moving, clear rivers and lakes from the Great Lakes to the Mississippi Basin and Gulf Coast plains.

The survival of these and other freshwater fishes is increasingly threatened by habitat destruction, pollution from agricultural runoff and damming of riverways. Natural history collections, including KU's, are increasingly used to monitor habitat changes associated with pollution, climate change and biodiversity loss.

**Photo Left:** Specimen KUI 45000, a brook silverside (Labidesthes sicculus), represents the 45,000th lot in the KU Ichthyology collection.

**Photo Right:** KU undergraduate student Logan Penny sorts and identifies fish in the wet lab at the KU Biodiversity Institute.

# KU's hidden bee collection

*By Chihiro Kai, The University Daily Kansan*

The world's largest research collection of bees is quietly tucked away in the back of the University of Kansas Public Safety Building at 1501 Crestline Drive. Behind a nondescript door, more than half a million specimens, representing 70% of the roughly 20,000 identified bee species worldwide, are stored inside deep rows of floor-to-ceiling cabinets.

For Victor Gonzalez, associate teaching professor of biology and founder of the Journal of Melittology, these drawers hold both beauty and mystery. Each bee is pinned and barcoded, its story cataloged but often incomplete.

According to Gonzalez, scientists know nothing about most bees. He said they can guess things from their biology, but mystery is the universal truth within these cabinets of curiosities.

**A Halloween menagerie of bees**

Many of Gonzalez's specimens could double as characters from a Halloween story: parasitic, vampiric, skeletal and even giant. Among them are orchid bees, glimmering in rich, iridescent shades; the specimens resemble gemstones more than insects.

"I named this orchid bee after my son, Oliver," Gonzalez said, holding up an Eufriesea oliveri specimen and studying its deep navy blue color. Their vivid hues mimic the orchids they pollinate, disguising them from predators. Some bees can take a darker turn. Gonzalez gestures toward another bright blue species, this one more metallic than jeweled and twice the size of E. oliveri.

"And this is Aglae caerulea. They are parasitic bees," he said. "They parasitize orchid bees." Gonzalez said. Aglae caerulea are a type of "cuckoo bee," and like the bird, these parasitic species sneak their eggs into the nests of other bees just before the host seals them shut. Uninvited larvae hatch first, often sprouting mandibles like vampires to devour the host's eggs or larvae before feeding on the pollen stores.

Some cuckoo bees even sport skeletal markings, as if nature dressed them fit for a graveyard. Found across Asia, Europe, Africa and the Americas, the origin of their bone-like patterns remains a mystery.

**The giant and the miniature**

The next specimen Gonzalez unveiled was unnervingly large, nearly half the length of his thumb. Chalicodoma pluto, the world's largest bee, was first documented in 1858 and presumed extinct for more than a century before being rediscovered by accident in 1981. An American entomologist stumbled upon a solitary female building her nest inside a termite colony in Indonesia.

"What you see between the mandibles is like a plate," Gonzalez said. "They use their plate as a bulldozer to manipulate resin from a tree."

The bee then gathers the resin with its mandibles to form a ball and carries it back to the termite nest to fortify her cells. Gonzalez said scientists are still in the dark about how and why these giant bees share living space with termites and noted that it's uncommon for bees to nest with ants or termites.

The rare and endangered status of the world's largest bee makes it difficult to study. Even with KU's extensive holdings, the collection houses only one specimen of the rare C. pluto. The smallest bee in the world, by contrast, is nearly invisible. Gonzalez slides a specimen card under the microscope, revealing Perdita minima, a tiny, sand-yellow species measuring just 0.3 millimeters long, about the size of a grain of salt.

Native to hot, arid regions like the southwestern United States and the Mediterranean, these bees specialize in feeding from Euphorbia plants, shrub-like desert flowers that hug the ground, Gonzalez said.

**The bee behind the pumpkin**

Gonzalez's final specimen is fitting for Halloween: Peponapis pruinosa, the only squash bee species native to Kansas. Though neither parasitic nor distinct in size, P. pruinosa is crucial to the fall harvest. Without squash bees, there would be far fewer pumpkins for pies, lattes, soups, and jack-o'-lanterns.

"These are summer bees," Gonzalez said. "Apparently, they can detect the squash, the flower, the smell, from a distance up to, like, 5 miles."



Females dig burrows roughly 6 inches underground at the base of squash plants, where they lay a single egg in each cell, sealing it off before building the next one.

"There is only one generation per year," Gonzalez said. "The larvae remain inside the ground until the next summer, and sometimes, depending on the conditions, it could remain dormant for two years or so."

Adult squash bees live only a few weeks, disappearing by the time the pumpkins they pollinate are ready to carve. While their vampiric counterparts play the role of the monster in the holiday, these humble pollinators ensure Halloween itself can take shape.

**A photo of Peponapis pruinosa,** the only squash bee found in Kansas. Photo provided by Victor H. Gonzalez Betancourt.

## Faculty Kudos!

**K. Christopher Beard** (senior curator of vertebrate paleontology at the Biodiversity Institute and Foundation Distinguished Professor of Ecology & Evolutionary Biology) elected as 2025 American Association for the Advancement of Science (AAAS) fellows, a distinct honor within the scientific community.

**Gerrit de Boer** (Associate Professor) is a 2026 Chancellors Club Career Teaching Award honoree and received the William T. Kemper Fellowship for Teaching Excellence.

**Rafe M. Brown** (Professor & Curator-in-Charge, Herpetology Division, Natural History Museum and Biodiversity Institute) received the PagHONRA Award, Tribute to Research Development and Extension Partners and Stakeholders, Partido State University, Goa, Silver Charter Anniversary (presented 2 March 2026, by Dr. Arnew B. Zarcedo, PSU President).

**Victor H. Gonzalez** (Assistant Professor & Curator) received the Career Achievement Award on December 3, 2025, at the XIV Mesoamerican Native Bee Meeting in San Jose, Costa Rica, in recognition of his contributions to research on bee biodiversity, systematics, and evolution.

**Katya Mack** (Assistant Professor) was named on the Museum of Vertebrate Zoology's (MVZ) 40under40 list for her work in synthesizing population genetics, systems biology, and using statistical genomics approaches to address fundamental evolutionary questions.



**John Kelly** (Professor) was celebrated as part of the KU Spotlight on Faculty Excellence at halftime during the Oct. 10, 2025 KU Volleyball game, for his outstanding contributions to research and education. Dr. Kelly's work spans quantitative trait evolution in plant populations, molecular evolution, viral evolution and kin selection. He was honored on court, escorted by Tara Welch, Associate Dean in the College of Liberal Arts & Sciences.



**Bruce Lieberman** (Professor and Senior Curator at the University of Kansas Biodiversity Institute and Natural History Museum) has been selected as the recipient of an outstanding honors teaching award for the departmental honors course Biology 101. The selection committee was impressed with student feedback about Lieberman's course and steps he's taken to relaunch and further develop Biology 101 as an honors course for non-biology majors. The committee stated that student feedback they received and course activities illuminated how Lieberman encourages deep scientific thinking among students from a range of academic disciplines. Biology 101 encourages students to immerse themselves in the course content and to bring their own academic interests to it. The committee reiterated that this form of learning has tremendous value for KU Honors and the broader university.



**A. Townsend Peterson** (University Distinguished Professor) received the Louise Byrd Graduate Mentor Award for his exceptional commitment to graduate student support and mentorship.

**Deborah Smith** (Professor) is a 2026 Chancellors Club Career Teaching Award honoree and received the Chancellors Club Career Teaching Award. At the Annual Meeting of the American Arachnological Society (July 12-16, Lincoln, NB) and was made an Honorary Member of the society.



Christopher Beard



Rafe Brown



Victor H. Gonzalez



Katya Mack



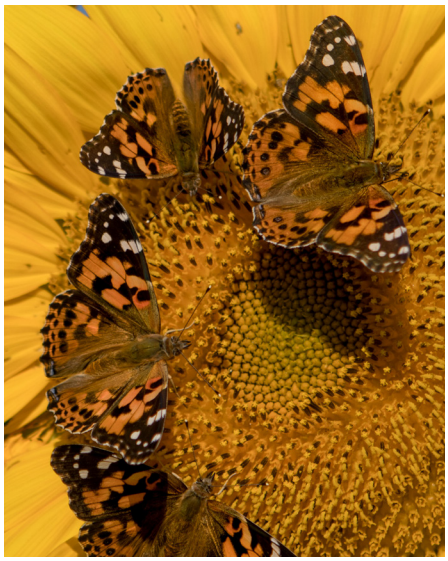
Deborah Smith

## Undergraduate Student Research Support Fund in Ecology & Evolutionary Biology



Professor Michael Breed and Dr. Cheryl Ristig established a new Undergraduate Student Support Fund for students pursuing research in ecology or evolutionary biology.

Breed was inspired to support KU biology undergraduate research through his experiences at KU studying bee biodiversity with Charles Michener. This fund will expand opportunities for biology undergraduates to engage in lab and field research that enhances their success while at KU and in the next stages of their careers.



# GRADUATE STUDENT NEWS

**Ben Wiens** (Colella Lab), was awarded KU's Graduate Student Distinguished Service Award. Wiens was nominated for this award by his advisor (Dr. Jocelyn Colella, assistant professor in EEB) and peers for his efforts in near-peer teaching and mentorship in molecular and computational sciences (e.g., BIMOL, Genomics Working Group, Mammal Coffee Hour) and his significant direct contributions to the growth and maintenance of KU Mammalogy Research Collections.

**Cailin Kessen** (Baum Lab) received John M. Deal Scholarship (Entomology), the Best Poster Award (Wildlife Category) at the Kansas Natural Resources Conference, Manhattan, KS, and 1st place Graduate Student Oral Presentation (from CSES) at the Kansas Academy of Science (KAS) & Central States Entomological Society (CSES) Annual Meeting, Lawrence, KS.

**Austin T. Nguyen** won a $10,000 research award from the Donald R. Kaplan Dissertation Award in Comparative Morphology from the Botanical Society of America. He also received a $1,500 award from the KU Doctoral Student Research Fund. Austin also received a Leaman D. Harris Biodiversity Award from the KU Biodiversity Institute. "The Kaplan provides me with the funding to expand the scope of my research, mainly to another species, which allows me to a get a more holistic understanding of organ polarity across conifers rather than just in one family."

**Danny Ibanez IV** (Colella Lab) received the Outstanding Thesis Project Award from the Committee on Graduate Studies in 2026.

**Rashmi E. Liyanage**, (Sikes' Lab) Best Graduate Poster Award at the Kansas Academy of Science Annual Meeting on April 11, 2026, for poster, "Precipitation and relatedness control plant–soil feedback effects on prairie plants."

**Linh Nguyen** (Choi Lab), received 3rd place in GSA Population, Evolutionary, and Quantitative Genetics (PEQG conference) 2026 poster award for graduate students.

**Morgan Mathison** (Matsunaga Lab) recipient of the Isabel Cookson Award at the 2026 Annual Botanical Society of America Conference / Botany

**Anjali Gupta** (Unckless Lab), received the Graduate Student Excellence Award from the Society for Molecular Biology & Evolution (SMBE), which funded her travel to the SMBE 2026 meeting in Copenhagen, Denmark. Where she gave a talk at the Fitch / Graduate Student Excellence Award symposium at this year's meeting in Copenhagen in July 2026

**Holly Andres** (Sikes' Lab) received the KBS-CER Student Research Award, Travel Award from the Val and Marilyn Smith Graduate Student Support Fund in EEB, Gaylord Atkinson Memorial Scholarship from the Grassland Heritage Foundation, and the Bill and Shanthi Eckert scholarship from the Warhawk Family of Scholarships, Military-Affiliated.

### Graduate Fellowships

**Abid Ali** was awarded a University Graduate Fellowship.

**Danny Ibanez IV** was awarded a Self Graduate Fellowship.

**Molly Kennedy** was awarded a Self Graduate Fellowship.

**Morgan Mathison** was awarded KU's Chancellor's graduate fellowship

**Kaitlyn Savoy** was awarded a Self Graduate Fellowship

**Zane Walker**, received a Chancellor's Doctoral Fellowship

## Hooding and Graduation

### Spring '25
Vaishnavi Verma

Ashley Bowman, PhD

Ceyda Kural, PhD

### Summer '25
Dilshini Herath Mudiyanselage

Daniel Ibanez

Alexander Hey

Arezoo Fani

### Fall '25
Taylor Gardner

Hannah Som

Jack McGeehee

### Spring '26
Sarah Flynn, PhD

Christian Supsup, PhD

Keana Tang, PhD

Kathleen Rust, PhD

### Summer '26
Rebekah Bryant, PhD

Taylor Conway, PhD

Sydnie McMahan, PhD

Saymé Pérez Martínez, PhD

Kelly Pfeiler, PhD

Ben Wiens, PhD

**Top Left:** Reb Bryant& Jim Bever

**Top Center:** Christian Supsup, Jocelyn Colella, Ben Wiens, Rafe Brown

**Center:** Rafe Brown & Christian Supsup

**Bottom Left:** Kathleen Rust

**Bottom Center:** Peggy Schultz, Reb Bryant, Jim Bever

**Bottom Right:** Ben Wiens & Jocelyn Colella.



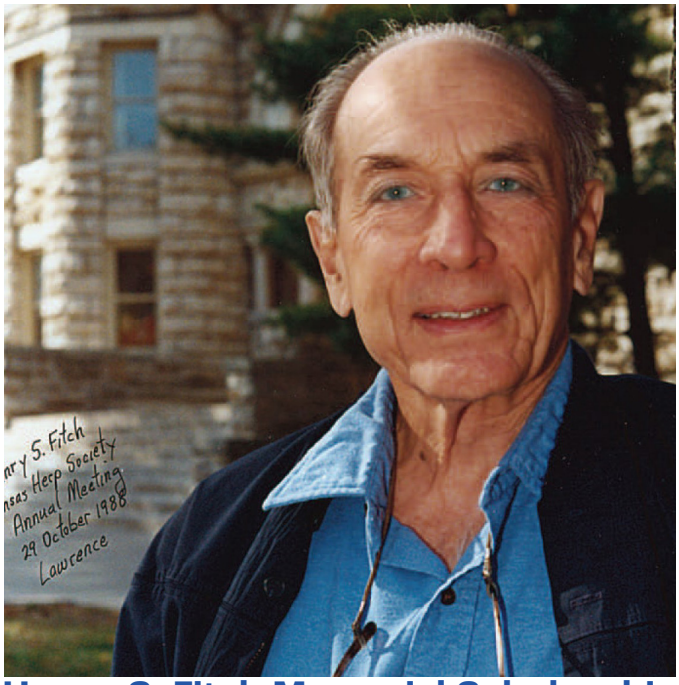













## Henry S. Fitch Memorial Scholarship in Biology

Through a generous donation from Biology alumnus Jim Mason, the Henry S. Fitch Memorial Undergraduate Scholarship has been established to support students pursuing studies in the fields of ecology and evolution. Mason was inspired to establish this scholarship by the dedication that Dr. Fitch showed to student learning in the classroom and in the field. Dr. Fitch (1909-2009) was a KU professor with a research focus in Herpetology from 1948 to 1980. He was well known for instilling in students an appreciation and enthusiasm for the diversity of organisms found locally, for example at the 590-acre Fitch Natural History Reserve north of Lawrence, and globally. This scholarship gift is a wonderful tribute to his life and passions. It will contribute to the continued education of natural history enthusiasts following in the traditions established by Dr. Fitch. You can contribute to the Fitch Memorial Scholarship fund at eeb.ku.edu/giving. *EEB Thanks our generous donors!*

## Monarch Watch

*by Jessica Anderson*

Monarch Watch is celebrating 35 years of our tagging program! We've reached exciting milestones this past year in addition to joining new tagging initiatives.

During the 2025 tagging season, one of our collaborators recovered a tag that we traced back to Wamego, Kansas, from 1997 – the oldest Monarch Watch tag ever recovered! We interviewed the former student and teacher from Wamego High School, the latter of which led record-breaking tagging efforts at the school for many years. (Full story at monarchwatch.org/blog2)

Additionally, we participated in Project Monarch Collaboration in fall 2025, an initiative led by Cape May Point Arts and Science Center and Cellular Tracking Technologies (CTT). We deployed solar-powered radio tags, developed by CTT, on migratory monarch butterflies and received near-real-time data on their detected locations via the Project Monarch Science app (available to download for mobile devices). Ten of 30 of our radio-tagged monarchs made it to Mexico, with one migrating back to Oklahoma in the spring. This new technology is game-changing in further understanding monarch migration dynamics, complementing continued tagging efforts by community scientists through our tagging program.

Director Kristen Baum continued radio-tagging efforts this spring to study movements of first-generation monarchs. After deploying radio-tagged monarchs in Texas, Oklahoma, and Kansas, the monarch that moved the farthest was a female from Kansas that was detected as far north as Manitoba, Canada! (More details at monarchwatch.org/radiotag)

There's still much to learn about monarchs. Starting this year, we've added a ruler to our tagging kits for tagging



participants to measure monarch wing length, which can provide information about larval development and has been related to migratory success. The data gathered from measuring wing length will give us information about the condition of monarchs during the fall migration to help inform conservation efforts.

We're excited to see what the rest of this year brings for monarch research and tagging efforts.

**Top:** Henry S. Fitch
**Right:** Radio-tagged monarch butterfly at Monarch Waystation #46833 in Lawrence, Kansas, tagged by Dr. Kristen Baum this spring to study movement of first-generation monarchs.

# MOLECULAR BIOSCIENCES

## Tony Fehr named recipients of University Scholarly Achievement Award



Dr. Anthony Fehr was one of four midcareer faculty member recipients of the annual University Scholarly Achievement Award. This annual award recognizes significant research or scholarly achievement across the Lawrence and KU Medical Center campuses and is typically presented in each of four categories.

Professor Fehr's research is at the forefront of understanding how coronaviruses cause disease in humans, where he focuses his efforts on the interplay between the host immune response and how coronaviruses overcome this response. In particular, his research focuses on how our bodies respond to viral infections through cellular modifications. These modifications in response to viral infections prime the immune response to block viruses from spreading within the body. Fehr's work was the first to establish a connection between a cellular modification referred to as ADP-ribosylation and protection from viral infection.

This modification targets host proteins to activate them into better countering viral replication in host cells, which limits the ability of the virus to multiply in host cells. The virus has developed its own counterpunch to these cellular modifications through a protein called Mac1, that removes the cellular modification, thus dampening the immune response, allowing the virus to replicate unchecked where it eventually causes tissue damage and disease. By understanding this interplay, Fehr's research team has developed novel inhibitors that block the activity of the Mac1 viral protein to restore the immune response to clear the infection. His research has also developed important tools to genetically alter the virus. One such alteration involves removing the virus's ability to make the Mac1 protein, and this modified virus is unable to cause disease, highlighting its potential use as an attenuated vaccine. This novel vaccine should result in lasting immunity to the virus and require far fewer vaccine booster shots.

**Top Left:** Chancellor Douglas A. Girod and Tony Fehr



## 'This Week in Virology' podcast recorded at KU

The University of Kansas Center for Chemical Biology of Infectious Disease (CBID) hosted Vincent Racaniello on April 3 2026, for the recording of an episode of the podcast, "This Week in Virology."

Racaniello is the Higgins Professor of Microbiology and Immunology at Mount Sinai School of Medicine of CUNY. He studies picornaviruses, RNA-containing viruses that cause a variety of human diseases including paralysis (e.g., poliomyelitis), myocarditis, conjunctivitis and the common cold, with special focus on the interaction of viruses with the innate immune system, viral pathogenesis and viral discovery in wild animals.

Seeing a way to boost scientific communication, Racaniello entered the world of social media in 2004 with virology blog and headlines numerous podcasts.

He is the host of the "This Week in Virology," a "podcast about viruses ... the kind that make you sick." The goal of TWiV is to have informal yet informative conversations about viruses that are accessible to everyone, no matter their science background.

The TWiV podcast was hosted at KU as part of a seminar series shared between the Center for Chemical Biology of Infectious Disease (KU) and National Center for Emerging and Zoonotic Infectious Disease (KSU). Racaniello interviewed a panel of KU and KSU virologists about their research and addressing some questions from the audience.

The panel consisted of CBID Center affiliates Robin Orozco, Anthony Fehr, Rob Unckless and Jürgen Richt. Orozco, Fehr and Unckless are faculty members in the Department of Molecular Biosciences at KU. Richt is a faculty member from the College of Veterinary Medicine at Kansas State University and director of the COBRE Center on Emerging and Zoonotic Infectious Diseases.



Research topics discussed during the podcast inccoronaviruses, viral immune responses, novel fly viruses, influenza virus and other emerging pathogens.

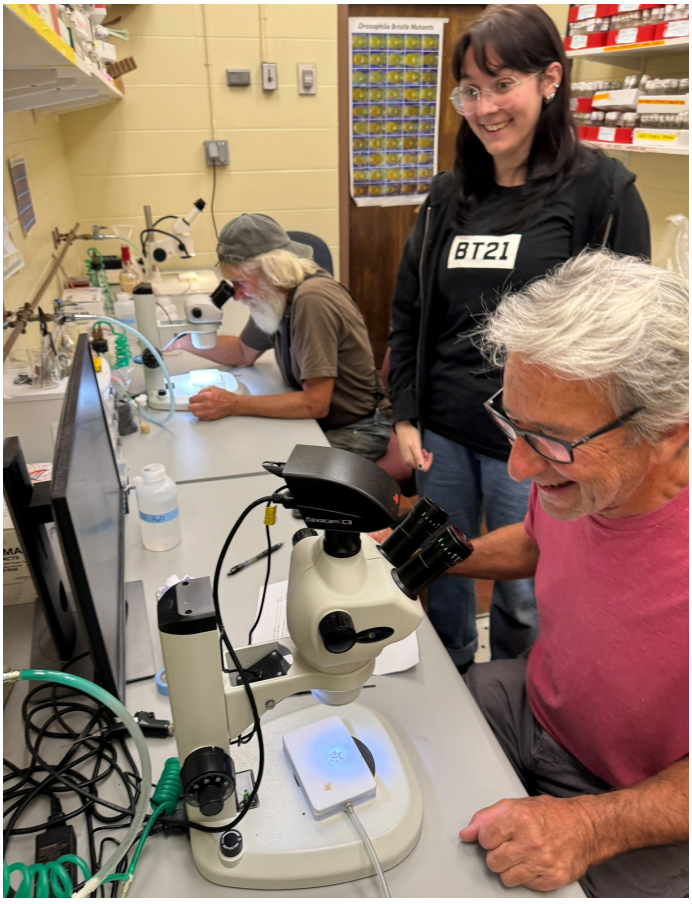
"We were thrilled to host Dr. Racaniello and showcase his podcast at KU. His podcast is a well renowned and engaging media for the public to learn from many diverse experts as they discuss recent and important scientific topics. We are especially excited for our outstanding KU and KSU panel scientists to highlight their innovative research, much of which is performed by undergraduate and graduate students as key components of their education and professional development," said Scott Hefty, chair of KU's Department of Molecular Biosciences and director of CBID.

**Left:** Drs. Jürgen Richt, Robin Orozco, Vincent Racaniello, Robert Unckless, Tony Fehr.

## Science Night for Farmers

On the evening of September 29th, the Unckless Lab hosted a group of Kansas farmers to demonstrate the use of three different types of microscopes. This group of individuals was brought together due to a shared grant between Drs. Stuart Macdonald, John Kelly and Robert Unckless, that requires collecting thousands of fruit flies, and one of the farmers (red shirt) volunteered his farm.

Todd Farmer (postdoc), Ashley Bentz (technician), Brian Ackley (Professor) and Robert Unckless (Professor) demonstrated the use of three different types of microscopes (dissecting, compound, and confocal). They looked at fruit flies, worms and some prepared slides, but also some samples the farmers brought with them.



## Faculty Kudos

**Brian Ackley** (Professor) and **Rebecca Whelan** (Associate Professor, Chemistry) successfully renewed their NIH T32 "Graduate Training at the Biology-Chemistry Interface" $2.1 M award for five years. The award will provide support for graduate students in their 2nd and 3rd years of PhD training, during which time they will also complete a graduate certificate in Chemical Biology.

**Anthony Fehr** (Professor of Molecular Biosciences and Director of Research Operations) was awarded the 2026 Barbara Schowen Undergraduate Research Mentor Award and the annual University Scholarly Achievement Award. He was appointed as a standing member of the NIH Drug Discovery and Molecular Pharmacology Study Section (DMPA) in June 2026.

**Rosana Ferreira** (Assistant Professor of Molecular Biosciences) was a recipient of the Spring 2026 KU College Research Product Award.

**Robin Orozco** (Assistant Professor) was interviewed in September 2025 by 'The Immunology Podcast' as a special guest. She spoke about her lab's research into specific allelic variants affect immune responses and talked about what we can learn from mouse models and the role of PTPN22 in antiviral immunity.

**Ilya Vakser** (Professor of Molecular Biosciences and Director of the KU Center for Computational Biology) was a recipient of the Fall 2025 College Research Product Award.

**Xiaoqing (Sarah) Wu**, (associate research professor, Department of Molecular Biosciences) received the Steven F. Warren Research Achievement Award. Dr. Wu's work at KU helped expand the understanding of molecular cancer therapy through her work on developing new cancer therapies by targeting three RNA-binding proteins known to play key roles in tumor growth: HuR, Musashi-1 and Musashi-2.

**Hans Dalton** (Assistant Professor, Department of Molecular Biosciences) was awarded the KU J. Michael Young Academic Advisor Award, which requires nomination by an undergraduate student and recognizes CLAS faculty for exemplary advising of undergraduates.

**Rosana Ferreira** (Assistant Professor of Molecular Biosciences and **Eileen Hotze** (Associate Teaching Professor of the Undergraduate Biology program) received the Christopher H. Haufler KU Core 34 Innovation Award in the fall of 2025.

**Lynn Hancock, Patrick Lansdon, Kristi Neufeld** were each honored with "Stephen Benedict Most Impactful Professors Awards" at the Undergraduate Biology Graduation Recognition Ceremony May 16, 2026.

# CONGRATULATIONS GRADUATES



### Spring '26 Graduates:

Vedant Jain
Anika James

### Summer '26 Graduates:

Gabby Perkins
Jessica Pfannenstiel
Sutton Stegman
Jacob Kroh
Kervens Accilien

### Fall '25 Graduates

Samalee Banerjee
Bryan Jimenez
Vaishnavi Kulkarni

**Picture (Left to Right):** Vaishnavi Kulkarni, Dr. Erik Lundquist, Bryan Jimenez (back), Vedant Jain, Dr. Kristi Neufeld (back), Anika James, Dr. Erik Holmstrom (back), Samalee Banerjee, Gabby Perkins (back), Dr. Josie Chandler

## Researchers unveil evolutionary effects on mammalian species due to extreme environments

*by Maria Losito*



Picture yourself on vacation, hiking up the steep side of a mountain trail. The sun is warm, the air thin and dry, and your sense of smell seems to be less sharp than normal.

For high-altitude mammals, that reduced sense of smell is typical, new research from the University of Kansas shows. Lead author Allie Graham, assistant professor and integrative biologist with the Department of Molecular Biosciences and Center for Genomics, has recently discovered that numerous high-altitude species, such as mountain goats or pika, have had a genetic shift toward olfactory receptors with limited functionality.

Put more simply, through evolution, these animals have developed a worse sense of smell.

Graham and her fellow researchers looked at 17 high-altitude species' genomes and more than 100 lowland species to compare them and see whether there was any correlation between animals that had been invading high-altitude locations and genes within their genomes becoming nonfunctional.

"I've been working on high-altitude research since 2012, while working toward my Ph.D. But it's always been through the lens of genes functioning optimally. As I've gone through my career, I've discovered certain elements of nonfunctionality that might actually be beneficial. This nonfunctionality might actually be useful in evolving tolerance to low oxygen at altitude," Graham said.

Though Graham's recently published paper in the journal Cell Biology, "Convergent reduction of olfactory genes and olfactory bulb size in mammalian species at altitude," focuses on changes within olfactory receptors, Graham's research did not begin that way.

"When I started this particular project, olfactory receptors weren't even on the table. I was looking for patterns, and I had some thoughts about what might end up being potential lines of research, but I was letting the data speak for itself, and the only thing that came out as a significant correlation was the olfactory receptors," she said.

"In this paper, I'm playing around with a thought experiment of, 'What are the possibilities?' For example, when hikers or mountaineers go up high, there is a loss of general smell because there's sinus inflammation. Hikers also experience low barometric pressure and aridity — it's very dry. Plus, the fact that odorants don't travel as far.

"The research paper shows it could be some combination of those effects. Either, being the inflammation and aridity, which causes the sense of smell to disappear over time, or because the way things smell or the landscape of smells at altitude is different or less important," Graham said.

Loss of a sense is not uncommon evolutionarily, according to Graham. Often certain senses become less important than others, especially when an animal is living in an extreme environment like a cave system, deep ocean or at high altitude. Cavefish, or other cave-dwelling animals, for example, lost their sense of sight in exchange for developing better senses of smell or hearing.

"It could be that vision, or taste, or hearing, is more important for high-altitude animals. But that, again, is just a hypothesis, because we can't answer that with the data that we have. It opens up more questions," Graham said, "In the future, I want to look at other types of analyses or do more counts that involve gustatory receptors, or vision-related studies with cone and rod genes, to see if they are actually under positive selection."

For her current research, Graham uses large-scale genomic data that she has generated from her own experiments but also the wealth of available sequence data in public repositories like NCBI. Future research is likely to use facilities at the KU Natural History Museum and the Micro CT facilities at the Lawrence campus.

By taking measurements using endocranial casts, Graham will be able to look at different measurements, like ocular shape or the curve of an ear canal and compare them across species to see if other senses are compensating for a lack of smell in high-altitude animals.

This chance to continue research is a thrilling possibility for Graham, who said, "Something philosophical for me that results from this paper is that when you're coming up as a scientist and you're taking classes and hearing people talk about science inadvertently, it kind of feels like, 'Oh, well, I'm coming too late into the game on this, everything that there is to know about it has already been found.'

"I don't know if that's naivete, but that's what I remember feeling. [...] There's been a couple of times both as a grad student, and in my postdoctoral work, where I found an interesting pattern nobody had found before and it seemed very big and obvious, and it completely changed how I thought. Changed how the field potentially thinks about that particular thing, and it opens up all these new questions that nobody was thinking about prior to that particular result.

"At the beginning starting a career in research, it feels like there's *(CONT.)*

only one pie and you're trying to fight for a tiny slice, but in reality, there are multiple pies. You just don't see those pies yet, you're focused on the one pie, and then you realize there's a whole buffet that nobody's touched. All the possibilities make me feel excited about continuing science."

Photo illustration of a pika commissioned by the research team. The blue highlights the endocranial cast. Credit: Michelle A. Leveille, Artifact Graphics



## Graduate Travel Award Recipients

### Bell Travel Award

**Kiana Hajiarbabi (**Ferreira Lab) and **Erick McCloskey** (Davido Lab) each received a Bell Travel award to attend workshops in July.

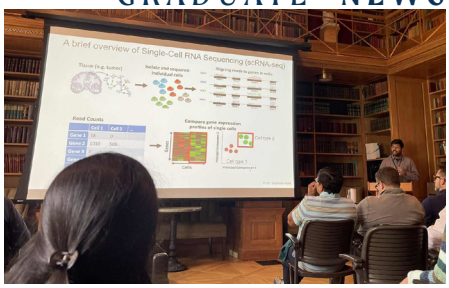
Hajiarbabi attended the Essential Staphylococcal Genetics and Metabolism Workshop in Nebraska from July 13-18, 2025. Hajiarbabi said "It was a valuable experience. I had the opportunity to discuss my research with experts in the field and receive helpful feedback, as well as connect with scientists working on similar questions. These discussions and connections will help shape where I take my project next. I'm truly grateful for the support from the Molecular Biosciences Travel Award Committee, which made this experience possible."

**Erick McCloskey** presented his research "HSV-1 ICP0 Dimer Mutants Impair Its Activities and Viral Replication" at the International Herpesvirus Workshop (IHW) held in Berlin, Germany, on July 26-30, 2025. McCloskey said "at the conference, I was able to present my research in the form of a talk as well as a poster. I met many other fantastic researchers (fellow grad students, postdocs, and professors) in my field and was able to expand my network. I even met with labs on the campus of Hannover Medical Institute after the conference to discuss my work and what it would be like to be a postdoc in those labs. Overall, the travel award helped to fund my attendance to an amazing conference where I was able to build my network and plan for my future career."

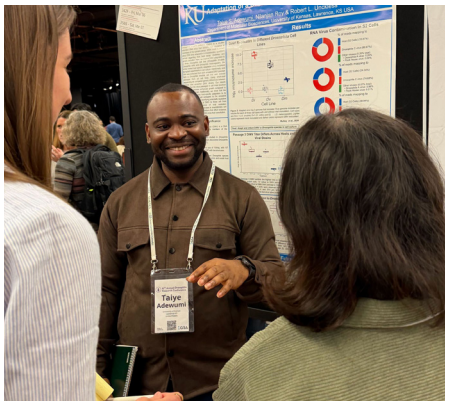



**Gabby Perkins** (Holmstrom Lab) presented a talk entitled "Influence of Polycationic Peptides on the Thermodynamics of Nucleic Acid Folding" at the 39th Gibbs Conference on Biothermodynamics in Carbondale, IL. Perkins said "Attending this conference allowed me to network with biophysical researchers who have broad biological interests and methodological approaches but are all tied together by a love of nature and thermodynamics. I am truly grateful to have been able to meet with other scientists and discuss how all our niche, fundamental research can work together on a much larger scale with the beautiful backdrop of the Southern Illinois woods. Thank you to the Molecular Biosciences Travel Award Committee for awarding me with this wonderful opportunity."

**Nilanjan Roy** (Unckless Lab) presented a talk entitled "Fly Viral Atlas: Cellular Tropism of Drosophila RNA Viruses and Their Impact on the Host" at the Midwest Drosophila Conference, in Monticello, IL. Roy



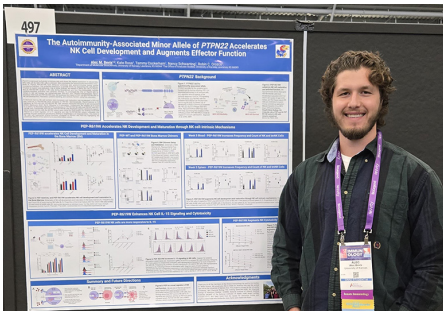

said "The award supported my travel to the meeting, where I had the chance to share my research and connect with other scientists in the Drosophila community. I also networked with conference organizers and former KU undergraduates who are now pursuing their PhDs at various institutions across the country. The experience was extremely rewarding and has positively contributed to my professional development."



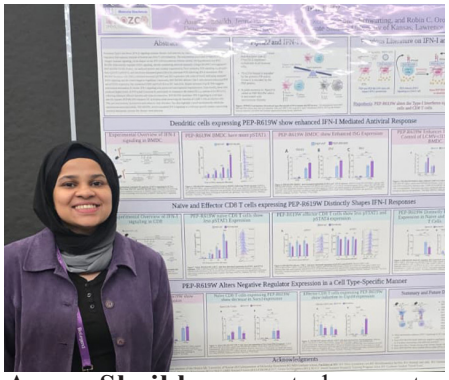

**Taiye Adewumi** (Unckless Lab) presented a poster titled "Adaptation of a DNA Virus to Drosophila Species" at the 67th annual Drosophila conference (Dros26) held in Chicago from March 4 - 8, 2026. Adewumi said "I had the privilege of engaging with faculty, staff scientists, postdoctoral researchers, graduate, and undergraduate students, receiving positive feedback and discussing potential future directions for my research. Through this conference, I have expanded my network within the scientific community, fostering collaborations and exchanging ideas on exciting research topics."

**Alec Bevis** and **Anam Shaikh** (both Orozco Lab) each received a Bell Travel award to attend the 2026 Immunology Conference held in Boston, MA, on April 15-19, 2026, which is the annual national

meeting of The American Association of Immunologists (AAI).

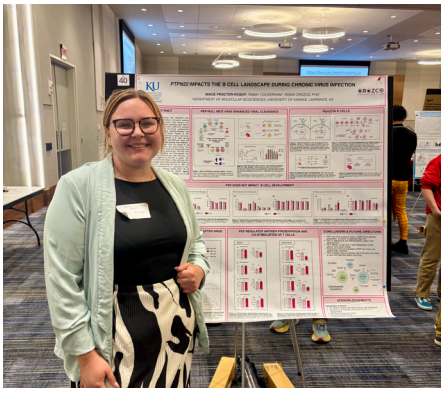



**Alec Bevis** presented a poster titled "The Autoimmunity-Associated Minor Allele of PTPN22 Accelerates NK Cell Development and Augments Effector Function." Bevis said "During the conference, I was able to attend multiple talks from leaders in the field across the broad spectrum of immunology research, network and connect with fellow graduate students, and attend professional development workshops, including a deep dive into how to interview for a job. I was also able to present some of my recent work during a poster session. Through discussions at my poster, I met a few graduate students who were able to provide great feedback on my work, as well as send some protocols to help troubleshoot the next experiments I want to perform. Overall, I had an awesome time in Boston at Immunology 2026, and I want to thank the Molecular Biosciences Department for their support in helping fund my travel to this conference."



**Anam Shaikh** presented a poster titled "PEP-R619W Differentially Modulates IFN-I Signaling to Enhance Antiviral Immunity." She said "The MB Travel Award helped me present my work to other Immunologists. Through this award, I was able to build meaningful connections that will support my professional growth and help me further excel in my career after graduation. It also gave me the opportunity to showcase my research at KU, receive valuable feedback, and gain thoughtful suggestions from experts working in related areas. Overall, this award strengthened my confidence in my work and encouraged me to continue growing as a researcher."

## American Association of Immunologist Travel Award



**Macie Proctor-Roser** (Orozco Lab) was awarded an American Association of Immunologist (AAI) Travel Award to attend the national Immunology 2026 Meeting being held April 15-19, 2026, in Boston, MA. She was also selected to do an oral presentation at a block symposium section of that meeting.

**Alec Bevis** (Orozco Lab) was also awarded an AAI Travel Award to attend the national Immunology 2026 Meeting.

## 2025 KU Molecular Biosciences Symposium

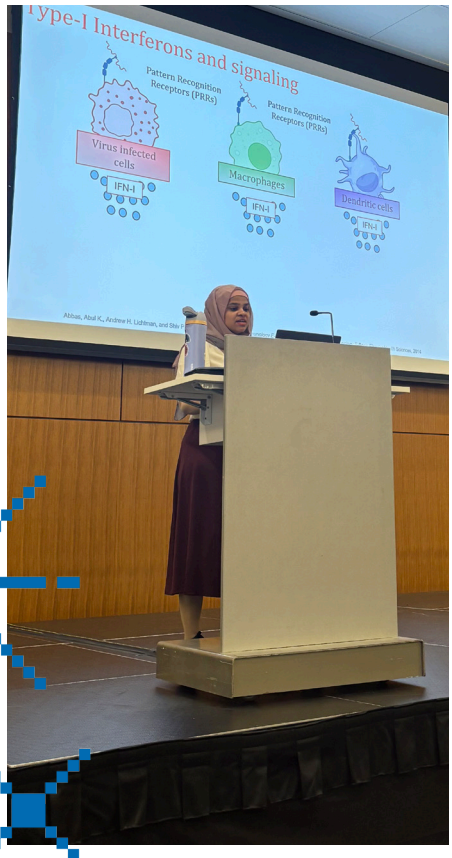
This annual symposium is organized and hosted by the 4th-Year Molecular Biosciences graduate students. The keynote speaker this year was Dr. Heba Mostafa from the Johns Hopkins School of Medicine. Seven MB graduate students received awards at the symposium that were sponsored by the Dr. Stanley L. Twomey Memorial Award Fund.

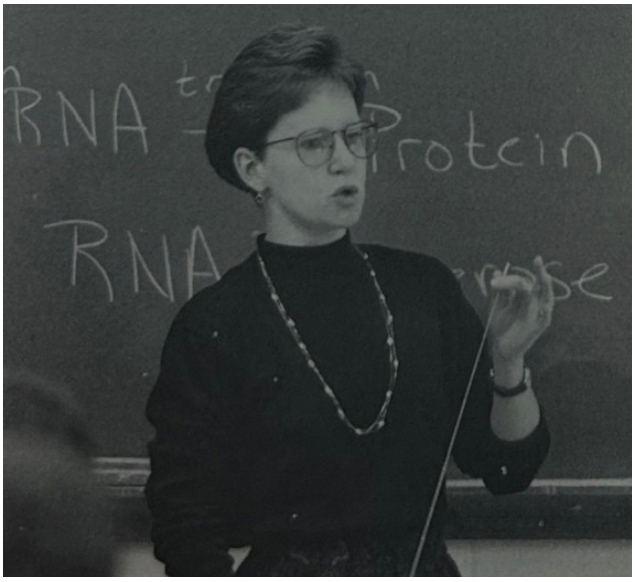
### Best Oral Presentation Award:

- Anam Fatima Shaikh (Orozco lab)

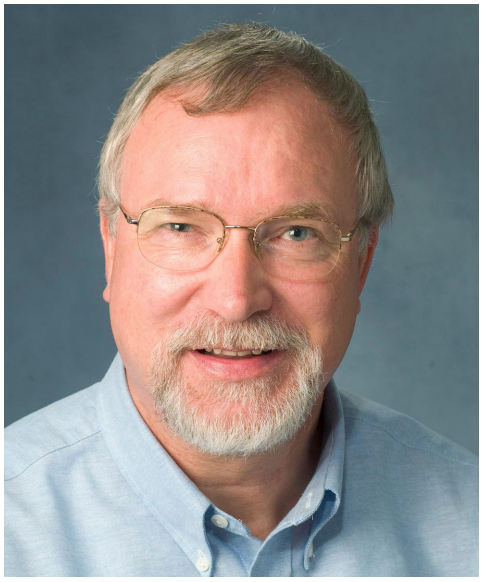
### Best Poster Awards:

- Gabby Perkins (Holmstrom lab)
- Anika James (Neufeld lab)
- Eryk Yarkosky (Chandler lab)
- Zach Opoka (Graham lab)
- Macie Proctor-Roser (Orozco lab)
- Priyani Hapugaswatta (Mizuki Azuma lab)






**Susan Egan** (Professor) retired this past May after 32 years as a faculty member at the University of Kansas. She came to KU in 1994 as an Assistant Professor and Franklin D. Murphy Scholar of Molecular Biology in the department of Microbiology which later merged into the current department of Molecular Biosciences. Susan considers herself lucky that her teaching efforts were primarily focused on her greatest scientific passion – bacterial genetics – where she taught the lecture, laboratory, and graduate level courses for multiple decades and to thousands of students. Susan also developed a new Biotech Careers seminar course to connect students interested in learning about this field with alumni in the field who wanted to give back to and connect with KU students. Students hear directly from biotech professionals about the subdisciplines and career pathways within biotech. Ultimately, multiple alumni of her course became course presenters! Over her career, Susan provided training and mentorship in her research laboratory to more than 100 graduate students, undergraduate students and postdoctoral researchers. Her research was focused on the molecular mechanisms that efficiently regulate the expression of genes in response to a cell's environment with a concentration on the AraC family of transcriptional activator proteins. Her group's research was among the first to identify the specific amino acid interactions between a transcriptional activator protein and RNA polymerase required to activate transcription. Despite the paucity of structural data available for AraC family proteins, her group also grew several protein crystals that enabled their crystallographer collaborators to generate high resolution protein structures. Susan was a co-PI for the Beckman Foundation program which generously supported exceptional undergraduate students. Susan's current goals for her retirement are to spend more time with her daughter and 3 grandchildren, to continue developing her painting skills, and to maintain her health through daily cardio/ strength Jazzercise workouts plus at least an hour of walking.



**Gerrit de Boer** (Professor) It is difficult to summarize the immense positive impact Professor Gerry de Boer has had on the learning of KU students over his 40 years of teaching excellence in Biology. Earlier in his career, Dr. de Boer made major contributions to our understanding of the diverse ways insects experience their environments in ways that impact their feeding and fitness. His work not only impacted the field, but student experiences through his mentorship in research. Grounded in insect physiological responses, Dr. de Boer shifted his attention from research to teaching excellence in our general biology and physiology courses. A back of the envelope calculation shows that in just the last five years, Dr. de Boer's courses helped prepare approximately 4,000 biology undergraduates for the next stages of their careers—often medical training including nursing and physical therapy. Dr. de Boer retires on the strongest possible note. He received the 2026 William T. Kemper Fellowship for Teaching Excellence. Well-deserved! We wish him the very best in retirement!





## Berl Oakley

Professor Berl R. Oakley, the Irving S. Johnson Distinguished Professor of Molecular Biology in the Department of Molecular Biosciences, has had a long and productive career making fundamental contributions to understanding microtubule organization and function. Berl and his research team, including Berl's wife Liz, discovered and characterized the gamma-tubulin protein, which is the key nucleator of microtubules in the mitotic spindle and other microtubule organelles. In addition, Berl was central to establishing genome editing in the fungus Aspergillus nidulans, which he used to modify secondary metabolite genes to coax the production of novel compounds with potential biomedical significance. Berl was also an active mentor of undergraduates, graduate students, and post-doctoral scholars over his career. Berl is a Fellow of of the American Society of Cell Biology and a Fellow of the American Association for the Advancement of Science. Berl's remarkable career includes over 150 peer-reviewed papers and book chapters that have been cited over 27,000 times. Berl's research has been supported by multiple research grants from the National Institutes of Health, the National Science Foundation, and other federal and private agencies. While Berl's contributions to KU and Molecular Biosciences will be missed, we wish him well in a very well-deserved retirement (which we assume will include many hours of birdwatching).



## Kandi White

, and Haworth Hall went hand-in-hand for the last 40 years. We all recognize problems in the aging infrastructure of Haworth, but as building manager, Kandi served as keystone for ensuring that the building functioned so we could continue our learning, teaching and research pursuits. None of us can imagine how difficult her job was. Mainly because she tackled projects with diligence and a positive attitude that protected us from some of the crumbling realities of Haworth Hall. Upon her retirement, it was a huge pleasure to see colleagues from across campus and relatives from far and wide come to Haworth to celebrate Kandi and her many years of excellent service to KU and biology. Kandi, we appreciate you!



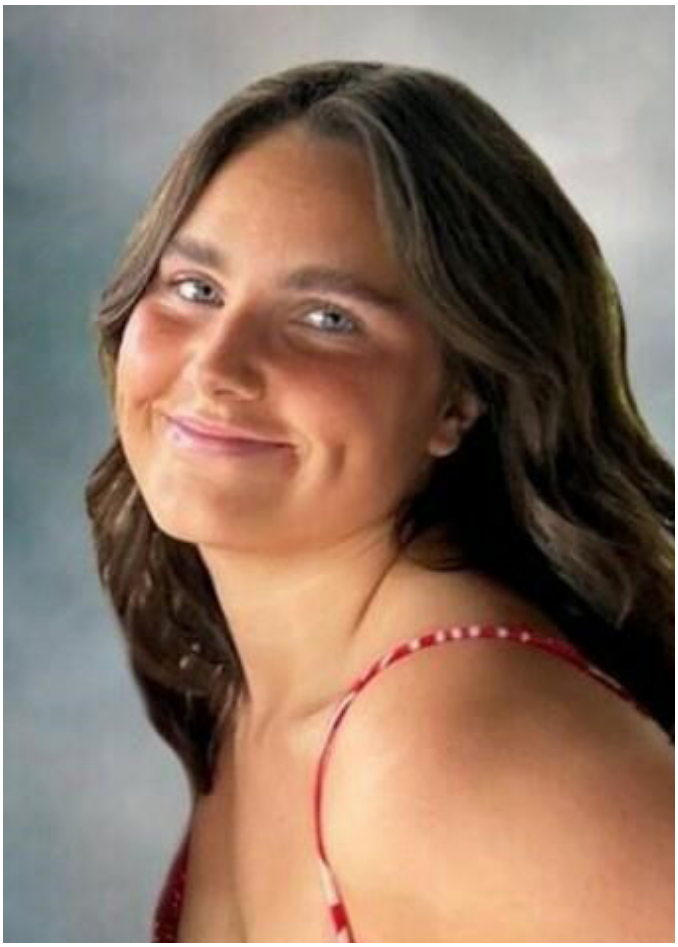
Kandi White with Dr. Scott Hefty & Dr. Lena Hileman.



Watch Susan Egan's retirement surprise on KUbiology Instagram

# Elsa Reese McGrain

May 13, 2005 - November 6, 2025



Elsa Reese McGrain was born on May 13, 2005, in Omaha, Nebraska. Growing up surrounded by the love and support of her family, she was the cherished daughter of Anna Chartrand McGrain and Jordan McGrain, the beloved stepdaughter of Ashley McGrain, and a loving sister to Luke, Kyra, and Wolf. She was also the granddaughter of Jeanne McGrain and Nick McGrain, and Margie Chartrand, and the late Dr. Stephen Chartrand. Deeply connected to her family, she embodied the very essence of love and loyalty.

An extraordinary student, Elsa graduated from Elkhorn South High School in 2023, excelling academically and earning accolades such as the Omaha Rotary Scholar and the prestigious Chancellor Scholar at the University of Kansas, where she pursued her dream of becoming a physician. Her vibrant spirit and sharp intellect were evident in her quiet confidence and unwavering discipline, leading her to inspire her peers as a devoted campus leader and a proud member of the Chi Omega Sorority.

Elsa was not only passionate about her studies but also deeply devoted to her faith. A passionate member and leader at Life. Church, she lived out her beliefs, believing fervently in the power of community and connection. Her nurturing nature and selflessness shone through in her interactions with others; she had a unique gift for making people feel seen, safe, and valued.

Her leadership was evident in so many ways, one of which was Summer Nights, a young adult ministry she helped create and lead. Summer Nights gave young adults the opportunity to learn and grow in their faith, to connect deeply, and to find belonging. She brought sunshine, light, and laughter to so many. Supportive and never judgmental, she celebrated everybody's differences and lived with a heart that was wholly selfless.

Deeply committed to her family and friends, Elsa always made time for those she cherished, whether it was through spirited conversations or shared laughter. As an avid supporter of Kansas Athletics, particularly basketball (#RockChalk), she enjoyed the community that came with cheering on her beloved teams while forging deep relationships with her peers.

Tragically, Elsa's life was cut short on November 6, 2025, in Lawrence, Kansas. Though her time with us was brief, her impact is indelible. In lieu of flowers, the family has established a legacy fund in her honor to continue the good she inspired.

KU Biology has purchased a memorial tree in honor of Elsa McGrain which has been successfully planted at Michigan State Forests and installed a memorial bench outside of Haworth Hall (pictured below) in her mermory. KU Biology will be joining with Chi Omega Sorority to plant and maintain flowers around the bench.





## Jeremy Tiemann,

BS - Biology in Systematics & Ecology, 1998. He currently works as a Research Scientist at the University of Illinois.

"I am a co-author of the recently published book: Freshwater Mussels of Central America, Publisher: Routledge, a Taylor & Francis Group.

This body of work was the cumulation of a multi-year project addressing the global conservation concern of a critically imperiled group of animals in an understudied region of the world. This internationally collaborative project also provides a framework for researchers to begin to test hypotheses regarding the evolution of freshwater mussels in Central America."

Freshwater Mussels of Central America is available through the University of Kansas Library.



## Ryan Bartlett,

BS - Genetics and a Ph.D. Biochemistry and Biophysics, 2003. He is currently Chief Technology Officer at Pairwise Plants.

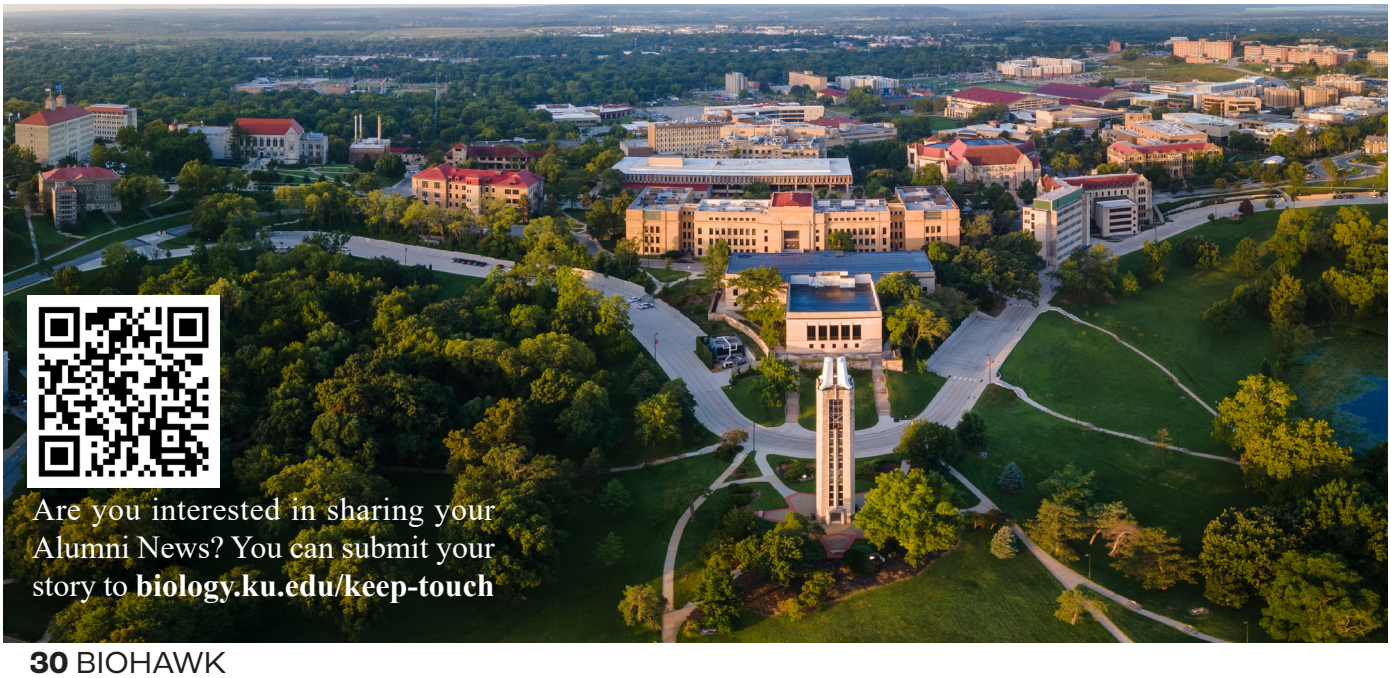
"I would appreciate the opportunity to share how my learnings and degrees from KU have propelled me along my career in life sciences and provide exciting updates regarding how Pairwise is utilizing cutting edge CRISPR technology to create next-generation crop products focused on making plants easier to grow and eat."



## Camille Delavaux,

Ph.D. in Ecology & Evolutionary Biology, 2021. Senior Researcher at the Netherlands Institute of Ecology.

The 2025 New Phytologist Tansley Medal for Excellence in Plant Science has been awarded to Camille S. Delavaux. The Tansley Medal is awarded annually in recognition of an outstanding contribution to research in plant science by an individual in the early stages of their career. Delavaux received her Ph.D. in Ecology & Evolutionary Biology from the University of Kansas in 2021. Camille came to KU to join the Bever/Schultz Lab as a Self Graduate Fellow in pursuit of her Ph.D. She received KU's Argersinger Dissertation Award. After graduation, she joined ETH Zürich as a Swiss National Science Foundation Postdoctoral Fellow and a Smithsonian Tropical Research Institute Fellow. Camille, recently appointed as a Senior Researcher at the Netherlands Institute of Ecology (NIOO-KNAW), studies plant–mutualist interactions and their consequences for biogeography, diversity and invasion in a changing world.





## Steven Witte

Class of '94

**Tell us about what fills your time now? Professionally and otherwise?**

"As the BDM Director, my time is spent managing staff, collaborating with the scientists at NBAF and our research partners, determining the strategic scientific direction of the BDM, and spreading the word about NBAF and the BDM at various conferences and stakeholder events around the country. When not working, I enjoy reading, movies and spending time with my family and two grandsons, ages 4 and 2."

**How did your academic experience at KU prepare you for your professional life?**

"KU prepared me for my career by giving me a solid foundation in basic biology, chemistry, and science that I still use today. My coursework also prepared me to think critically and communicate complex ideas clearly, which has served me well throughout my career."

**What was a favorite class you took and why?**

"One of my favorite courses was Human Genetics, which I have always found fascinating. Studying the causes and extent of human variation and the foundations of our biology was very interesting. Before I found my way into veterinary vaccinology, I assumed I would pursue a career in genetic counseling."

**What extracurricular activities were you involved in, if any?**

"I was involved in residence hall governance during my time at KU. My friends and I also enjoyed attending football and basketball games, playing board games and going to midnight movies in the student union."

**Do you have a favorite KU memory?**

"One of my favorite memories at KU was walking down the hill, through the Campanile, during graduation. The entire weekend was a fantastic experience, and the feeling of accomplishment I felt during that walk was great."

**Did you have any research/internship opportunities and/or professor/mentor relationships that influential?**

"Dr. Dean Stetler was my academic advisor, as well as the Chair of the Undergraduate Biology program. He was an excellent mentor. I was also influenced by Drs. Ken and Sally Mason, two inspiring professors and mentors in the biological sciences."

**What advice do you have for current or prospective University of Kansas students?**

"Enjoy your time at KU and learn as much as you can! Your job while you're at the university is to explore new knowledge, find what inspires you and learn as much as you can about yourself and how you want to make your mark on the world. The time I spent at KU made me the person I am today, and I always look back fondly at that time. You'll never have another time like this in your life, so make the most of it!"

**Rock Chalk! Go Jayhawks!**

**-Steven Witte**

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Share your meaningful experiences from college, and how KU impacted your professional and personal paths after graduation at **biology.ku.edu/alumni-spotlight-questionnaire**



## CONTRIBUTORS

- James Adams & Katherine Parker-Adams
- Kristine Aldrich
- Helen & David Alexander
- Robin Anderson
- Laura Andrews
- Roger & Lee Ann Hartwick
- Caetano Antunes &Rosana Ferreira
- Katie Armitage
- Emily Arsenault
- Linda Austin
- Sara Baer
- Barbara Bailey
- Cynthia & W. Howard Baker
- Michael Baker
- Mitchell Baker
- Judith Balaskovits
- Kristen Baum
- Mahala Beams
- K. Christopher Beard & Sandra Olsen
- Emily Beck
- Patrick Bell
- Charlotte Bell and John Loeffler
- Theresa Kitos & Andrew Bennet
- Mary Bennett
- Kathleen Beveridge
- Justin Blumenstiel & Lena Hileman
- Laura & Rolf Borchert
- Dawn Bowman
- Michael Breed & Cheryl Ristig
- Elaine Brown
- Denise Brubaker
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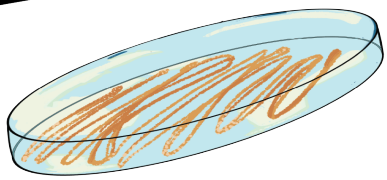
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