

BIOCHEMISTRY

MOLECULAR MATTERS

September 2025

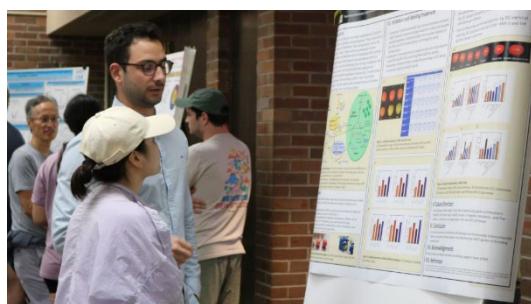
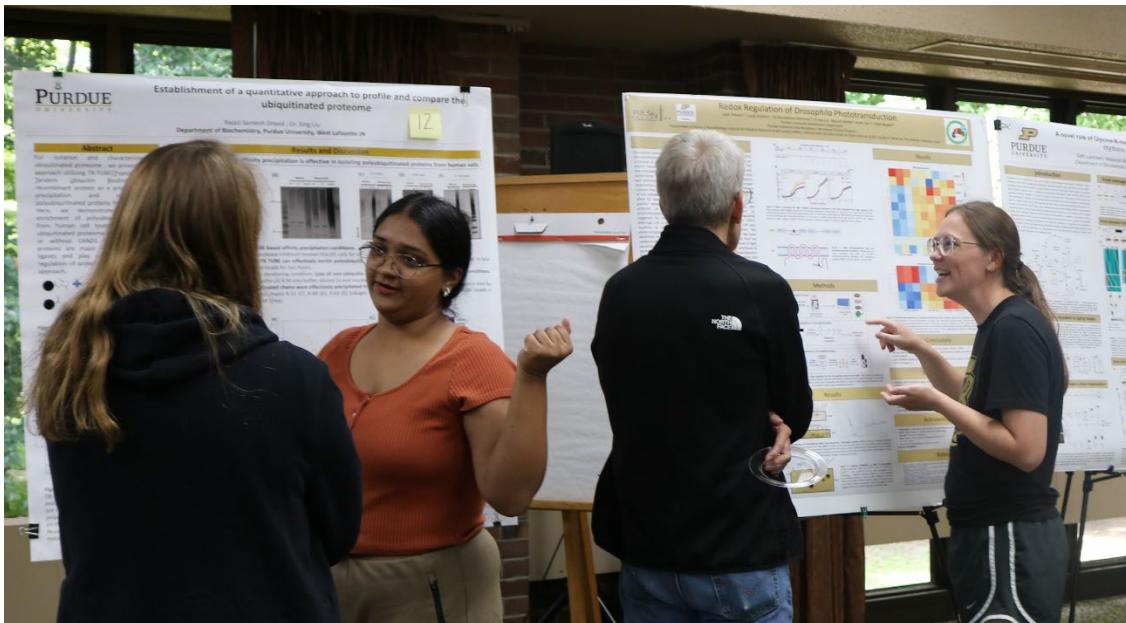


The **Biochemistry Department Annual Retreat** recently took place at Turkey Run State Park. The day featured an invited speaker, breakfast, science sessions, hiking, and more.

CONGRATULATIONS TO...

Rajasi Dravid, Xing Liu lab 1st Place
Brielle Skrutskie, Mark Hall lab 2nd place
Manuel Bellucci, Dudareva lab 3rd place

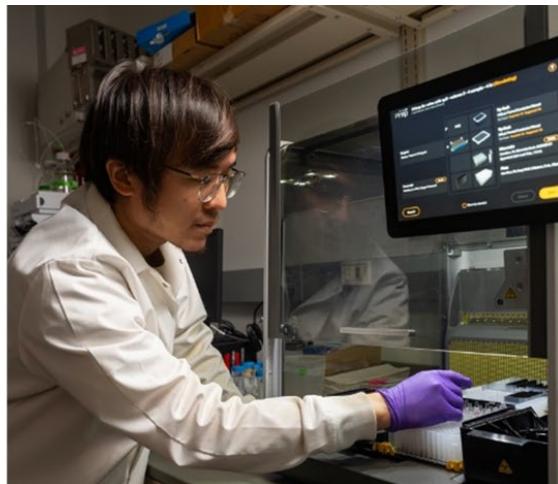
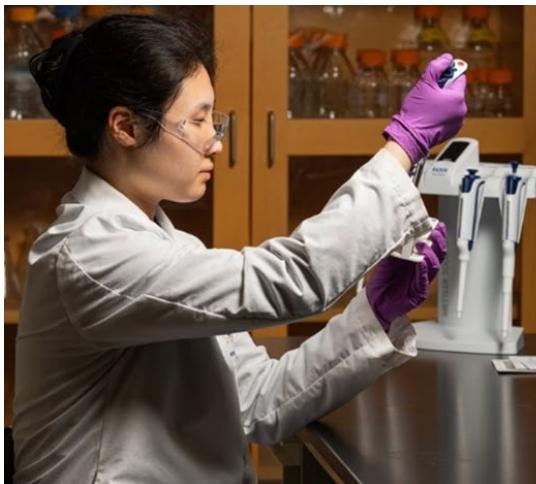
The poster session featured 30 posters from our graduate students and postdocs. Attendees voted for their favorite poster and the top three received Amazon gift cards. Rajasi Dravid received the most votes for Best Poster, followed by Brielle Skrutskie in second and Manuel Bellucci in third.



BIOCHEMISTRY IN THE NEWS...



W. Andy Tao, Zheng Zhang, postdoc (*pictured above*) and grad students **Lois Luo** and **Yi-Kai Liu** (*pictured below*) were featured in a COA news article, "[New method probes cancer cell messengers that weaken immune system](#)" This research is a part of Purdue's presidential **One Health initiative** that involves research at the intersection of human, animal and plant health and well-being.



Tao and 10 co-authors **published the details** of their new method in the Aug 1 issue of the *Journal of the American Chemical Society*. Their work provides a system for tracking and identifying the various types of proteins and an unheralded but widely secreted class of bioparticles called extracellular vesicles (EVs) that can compromise immunotherapy.

NEW FACES...



Joseph (Joe) Roman recently joined the **Mesecar** lab as a biomolecular structure staff scientist.

He received his PhD from Loyola University-Chicago and completed a postdoctoral fellowship at the University of Michigan.

"My research interests consist of mechanistic enzymology/kinetics with a focus on biological sulfur chemistry and how it pertains to human health and disease. A fun fact about me, I enjoy cooking almost as much as science!"

GOING THE EXTRA MILE...

Natalia Dudareva, Matthew Bergman and Ruy Kortbeek attended the TERPNET 2025 conference in Brisbane, Australia from August 4-8. Natalia Dudareva gave a featured lecture: “Breaking Barriers: How the IPP Transporter Shapes Terpenoid Metabolic Crosstalk” which was announced as one of the highlights at the conclusion of the conference.

Matthew Bergman and Ruy Kortbeek, postdocs in the Dudareva lab, presented posters on their projects. **Ruy Kortbeek** received a best poster award.

GRANTS...

Mark Hall was selected by the Indiana CTSI Strategy Committee to receive a **Core Pilot award** of \$7,470 for his project titled “Using genomics to characterize antifungal drug resistance and identify novel antifungal drug targets”

W. Andy Tao and Co-PI Zhong-Yin Zhang received \$353,306 **NIH Grant** for the project titled “Structure/Function of Protein Tyrosine Phosphatases” Project Period: 04/01/2025 to 03/31/2026

RECENT PUBLICATIONS...

Zheng Zhang, Zhuojun Luo, Yikai Liu, Subhransu Sekhar Sahoo, Vamara Dembele, Meng-Ju Wu, Nabeel Bardeesy, Fang Huang, Majid Kazemian, Kyle A. Cottrell, W. Andy Tao. Proteomic Tracking Extracellular Vesicle RNA Interactors in Recipient Immune Cells through Orthogonal Labelings. PMID: 40746261 DOI: 10.1021/jacs.5c07631 J Am Chem Soc 2025 Aug 13

Cassandra N Smoak, Estelle N Gardner, Renee N Chua, Kyle A Cottrell ZYS-1 is not an ADAR1 inhibitor. PMID: 40957655. DOI:[10.1261/rna.080721.125](https://doi.org/10.1261/rna.080721.125)

IMPORTANT DATES...

Please join us for the Department of Biochemistry Seminar Series. All seminars will begin at 3:30 pm, in WSLR 116, unless otherwise noted.
***Axelrod Lectures will be held in Pfendler Hall 241.**

Oct 07 **Yini Li**, Purdue University, MCMP

Oct 21 **Nicholas Brown**, UNC North Carolina, School of Medicine

Oct 28 **Mark Knepper**, NIH Intramural Research, Molecular Cellular & Developmental Biology

Nov 04 **Karlene Cimprich**, Stanford University, Chemical & Systems Biology

***Axelrod Lecture Series – TUE November 11, WED November 12**

Keji Zhao, PhD, National Heart, Lung & Blood Institute / Epigenome Biology

Nov 18 **Mike Axtell**, Penn State University, Biology and Sternberg Chair, Plant Biology

Dec 02 **Vikki Weake**, Purdue University, Biochemistry

ATTENTION BCHM ALUMS...

We would love to hear from you! If you have any alumni news to share or had a change of address, please let us know! Updates can be sent to bchm-alumni-friends@purdue.edu.

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Our mailing address is:
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