

MARCH 2022 BIOCHEMISTRY NEWS



CONGRATULATIONS TO...

Jim Forney was awarded an IU School of Medicine 2022 Trustee Teaching Award. The award was established to recognize outstanding teaching and to emphasize the importance of learning. Nominations were made by students, postdoctoral fellows, residents, staff and faculty.

Humi Gowher joined the board of the Epigenetics Society where she was also nominated to serve as Secretary.

Humi Gowher joined the faculty as an adjunct professor at the Centre for Interdisciplinary Research & Innovations, University of Kashmir.

Majid Kazemian received the National Heart, Lung, and Blood Institute Division of Intramural Research Orloff Science Award for his work on the role of Intracellular Complement in Inflammatory Human Diseases.

Isaiah Mensah, (Gowher Lab) is in the top ten 2022 Say It in 6 competition. Say It In 6 is a competition that challenges graduate and professional students, non-degree students and postdoctoral fellows at Purdue to tell a story about their Purdue experience by using only six words and a visual aid.

Dr. Rossie won second place in a contest by ASBMB for her short essay on "meaningful connections developed at a science meeting". You can read her essay [here](#).

Bingyu Yan (Kazemian lab) was recently awarded a 2022 AAI Trainee Abstract Award from the American Association of Immunologists.

BIOCHEMISTRY IN THE NEWS...

That cherry flavor you enjoy in candy and soda is likely a combination of aromatic and flavor compounds discovered through the study of plants in laboratories far from cherry trees. Researchers in **Natalia Dudareva's** lab recently discovered a coveted molecular recipe. Learn more [here](#).

Simran Kadadi (Kazemian lab) was featured in "Pursuing computational biology research, hoping to

change the way we fight cancer”. Read the full article [here](#).

Fruit Flies give insight into age-related changes in human vision. A team of researchers discovered the circadian clock plays a significant role in protecting eyes from retinal degeneration. **Vikki Weake** led the team, along with co-author **Hana Hall**. Read the full article [here](#).

Ana Pascual-Garrigos (May 2021 grad) co-authored a paper with Mohit Verma which has received a lot of media attention. Read the paper [here](#)

GRAD STUDENT NEWS...

The GSO finished the first half of its BioBridge outreach program. A 4th grade classroom was supplied with individually packaged ‘experiment kits’ that allowed them to dye celery xylem, grow bacteria on LB agar plates, and extract DNA from strawberries! Each week graduate student volunteers held video calls with the classroom and presented mini-lessons that introduced concepts such as GMOs, coding, and DNA. Students also engaged in Q&A sessions and reported their experiment results and conclusions to our volunteers. The program has received very positive responses and we are delighted to be able to make a direct impact on the K-12 community. The program will be starting with a second 5th grade classroom in the coming weeks!

The GSO would like to acknowledge and thank the following volunteers:

Robert Auber (Organizer)

Matt Russon (Organizer)

Shannon Stirling

Sarah Stanhope

Bobby Cheng

Josh Trujillo

Kate Eastman



UNDERGRAD NEWS...

Colin Hemme and Rina Jiang were inducted to the ASBMB Honor Society, Chi Omega Lambda.

The ASBMB Honor Society recognizes students for their scholarly achievement, research accomplishments and outreach activities.

The following undergraduate students have been nominated into Phi Beta Kappa Honor society:

Grace Charpentier
Corrin Davis
Mikayla Hubbard
Adam Schluttenhofer

Phi Beta Kappa is the oldest and most prestigious academic honor society in the United States. It was established in 1776 to foster the pursuit of education in the Liberal Arts and Sciences.

SAFETY CORNER...

March Safety Moment is about the basics of **First aid**. Accidents happen anywhere and anytime. In its most basic form, first aid is initial emergency care given to an ill or injured person. In some cases, it may be the only care someone needs, while in others, it may help them until a professional medical service arrives in place. It can help save lives, hinder temporary and long-term disabilities, and prevent any emergency situation from becoming worse. The best way to prepare for these events is to get official first aid training, but until you are able to do so, you can learn some basic life-saving steps. Here are [10 first aid "must-knows"](#) that you may use to treat a broad array of injuries:

1. Remember the "Three P's."

- Preserve life
- Prevent further injury
- Promote recovery

2. Check the scene for danger before you provide help.

- Take a moment to analyze the area and spot anything that could injure you

3. To treat cuts and scrapes, apply gentle pressure, disinfectant, and bandages.

4. To treat sprains, apply ice and compression at intervals and keep the limb elevated.

5. To treat heat exhaustion, use cool fluids, cool cloths, and shade.

6. To treat hypothermia, use warm fluids and warm covering.

7. To treat burns, determine the burn type and severity. Cover the wound with loose cloth to prevent infection.

8. Use an EpiPen to treat allergic reactions.

9. To treat fractures, keep the fractured area stable and immobilized, and apply a cold pack.

10. Perform CPR if an injured person stops breathing.

Useful links:

What is First Aid? : <https://www.osha.gov/medical-first-aid/recognition>

Basic First Aid. Provides basic first aid response procedures: <https://nasdonline.org/958/d000799/basic-first-aid.html>

Basic First Aid: Script. Intended to be used as a refresher safety awareness session.

<https://nasdonline.org/301/d000105/basic-first-aid-script.html>

5 Basic First Aid Tips for the Workplace: <https://www.esafety.com/5-basic-first-aid-tips-for-the-workplace/>

9 First Aid Tips You'll Actually Use: <https://www.verywellhealth.com/first-aid-tips-youll-actually-use-1298445>



[The basics of First Aid - March Safety Moment.pdf](#)

GRANTS...

Saleem Dar (postdoc, Gowher lab) received a Postdoc Travel Grant to present his work in the "Regulatory & Non-Coding RNAs" meeting held at Cold Spring Harbor Laboratory May 17-21.

Natalia Dudareva, in collaboration with Dr. Chao Cai (PI), received \$402, 971 from NSF-DBI for their proposal "REU site: Purdue Undergraduate Research Experiences for Plant Biology and Data Science".

Marco Hadisurya received a travel stipend and attended the US Human Proteome Organization in Charleston, South Carolina, February 26 - March 2. He also gave an oral presentation "Urinary Extracellular Vesicle Phosphoproteome Profiling by Data-Independent Acquisition Mass Spectrometry for Renal Cell Carcinoma Subtype Differentiation".

Humi Gowher received \$60,000 from NSF for the project titled "Role of divergent lncRNAs in transcriptional and enhancer-mediated activation of nearby genes".

RECENT PUBLICATIONS...

Huang X-Q, R. Li, J. Fu, **N. Dudareva**. 2022. A Peroxisomal heterodimeric enzyme is involved in benzaldehyde synthesis in plants. *Nature Communications*. **13**(1):1352.

Ray, S., B.M. Savoie, **N. Dudareva**, **J.A. Morgan**. 2022. Diffusion of volatile organics and water in the epicuticular waxes of petunia petal epidermal cells. *The Plant Journal*. Online ahead of print.

Boersma, M. R., R. M. Patrick, S. L. Jillings, N. F. M. Shaipulah, P. Sun, M. A. Haring, **N. Dudareva**, Y. Li, R. C. Schuurink. 2022. ODORANT1 targets multiple metabolic networks in petunia flowers. *The Plant Journal*. **109**(5):1134-1151.

Diaz, S. K. Wang, B. Sjögren, **X. Liu**. 2022. Roles of Cullin-RING Ubiquitin Ligases in Cardiovascular Diseases. *Biomolecules*. **12**(3):416.

IMPORTANT DATES...

Please join us for the Department of Biochemistry Seminar Series.

April 5 No seminar

April 12-13* Ning Zheng, University of Washington, Department of Pharmacology, PFEN 241

April 20** Charles Sanders, Vanderbilt University, Department of biochemistry-MJIS 1001 or zoom link [here](#).

*Axelrod Lecture Series

** Frontiers in Biophysics Seminar