

## SEPTEMBER 2022 BIOCHEMISTRY NEWS



### CONGRATULATIONS TO...

Congratulations to **Dr. Andy Mesecar**, Walther Professor in Cancer Structural Biology, who will serve as the interim director of the Purdue Center for Cancer Research during the current national search for a permanent leader. Dr. Mesecar has served as Department Head of Biochemistry from 2015 and Deputy Director of PCCR from 2010. He is a leader in basic research on the structure and function of enzymes involved in disease as well as targeting the enzymes with drugs using structure-based design approaches. His new role as Interim Director of PCCR began August 15th, 2022.

With this, we are pleased to announce **Dr. Joe Ogas**, Professor of Biochemistry has accepted the position of Interim Department Head during Dr. Mesecar's interim directorship. Dr. Ogas cares deeply about all aspects of the departmental mission and we are looking forward to his leadership as the department continues to move forward. Dr. Ogas's new role as Interim Department Head began August 8th, 2022.

**Josh Zahn**, who has taken a position in the Office of the Indiana State Chemist. He will be a lab technician, prepping samples and distributing them to labs to be tested. He won't be far though! While you won't see him in the shipping/receiving office, his new office is only down the hall.

### Biochemistry Postdocs...

The week of September 19- 23 was Postdoc Appreciation week! Our Postdocs have many outstanding achievements and wear many different hats from mentor to researcher, to innovator. Join us in thanking them for all they do!

Check them out here: <https://bit.ly/3f8BNrJ>

### GRADUATE STUDENT NEWS...

In August, the Department of Biochemistry welcomed 9 new students to our graduate program.



Sydney Beechboard  
Ball State University



Catherine (Cat) Carne  
Oklahoma State University



Ruobing Chen  
University of Michigan



Rajasi Dravid  
University of Mumbai-India



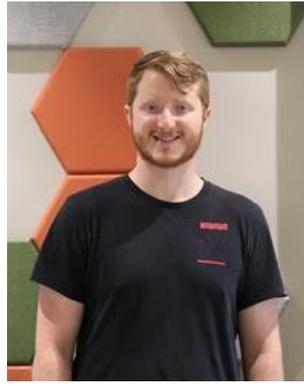
Jacob Fawley  
Purdue University



Victor Gutierrez-Schultz  
Indiana University/Serim Research Corp



Seth Lammert  
University of Indianapolis



Matthew Martin  
Grand Valley State



Kevin Velazquez-Marrero  
University of Puerto Rico

## BIOCHEMISTRY IN THE NEWS...

Agricultural Sciences Education and Communication students Kate Mattingly and Alida Jackson made a video about **Dr. Vikki Weake's** work to unlock the secrets of aging eyes by examining fruit flies.

Watch the video [here](#).

## GOING THE EXTRA MILE...

**Natalia Dudareva** attended the Botanik-Tagung, the International Conference of the German Society for Plant Sciences in Bonn Germany. She gave a keynote lecture titled: "Sense of Smell: Plant Volatile Emission, Perception and Beyond".

**Hana Hall** traveled to Sicily, Italy to a FASEB, The Transcription, Chromatin, and Epigenetics in Aging Conference where she presented a talk, titled: Proper control of R-loop homeostasis is required for maintenance of gene expression and neuronal function during aging.

**Humaira Gowher Khan** and Isaiah Mensah attended "VAI Epigenetics Symposium: 20(+2) Years of the Histone Code" at Van Andel Institute, Grand Rapids, August 1-3<sup>rd</sup>. Isaiah presented a poster titled "The role of Vezf1 in Stemness".

**Isaiah Mensah** also attended an AHA Basic Cardiovascular Sciences conference in Chicago, July 24-28, 2022 where he presented a poster “The Role of Vezf1 in cardiomyocyte development”.

**Isaiah Mensah** attended the VAI Epigenetics Workshop in Grand Rapids Michigan August 3-8, 2022.

## SAFETY CORNER...

As a reminder:

### Report Complaints to Karyn ([rodkey@purdue.edu](mailto:rodkey@purdue.edu))

- I'm too hot.
- I'm too cold.
- The toilet is flushing constantly.
- I have a green tag on my light fixture.

\*I can't help you if I don't know!!

## GRANTS...

**Natalia Dudareva** in collaboration with Dr. M. Ibdah from the Newe Yaar Research Center (Israel) received \$213,000 from the United States-Israel Binational Science Foundation for a project titled “Biosynthesis of Styrene and its analogs in *Styrax officinalis* L”.

**Natalia Dudareva** in collaboration with Dr. Nitzan Shabel from UC Davis received \$1,500,000 from NSF-IOS for a project titled “Collaborative Research: Deciphering the molecular mechanisms of hormone-like function of terpenoids”.

**Majid Kazemian** received \$11,500 supplemental grant from NIGMS to promote diversity in health-related research.

## RECENT PUBLICATIONS...

Sertori, R., J.X. Lin, E. Martinez, S. Rana, A. Sharo, **M. Kazemian**, U. Sunderam, M. Andrade, S. Shinton, B. Truong, R. M. Dunbrack, C. Liu, R. Srinivasan, S. E. Brenner, C. M. Seroogy, J.M. Puck, W. J. Leonard, D. L. Wiest. 2022. Investigation of the causal etiology in a patient with T-B+NK+ immunodeficiency. *Frontiers in immunology*. 13:928252

Rahman, N., J. Sun, Z. Li, A. Pattnaik, R. Modhallem, M. Wang, **M. Kazemian**, U. K. Aryal, O. Andrisani. 2022. The cytoplasmic LSm1-7 and nuclear LSm2-8 complexes exert opposite effects on Hepatitis B virus biosynthesis and interferon responses. *Frontiers in immunology*. 13:970130.

Li, C., J. Liu, D. He, F. Mao, X. Rao, Y. Zhao, N. A. Lanman, **M. Kazemian**, E. Farah, J. Liu, C. M. Ngule, Z. Zhang, Y. Zhang, Y. Kong, L. Li, C. Wang, X. Liu. 2020. GSTM2 is a key molecular determinant of resistance to SG-ARIs. *Oncogene*. Online ahead of print.

Signorelli, R., T. M. Giret, O. Umland, M. Hadisurya, S. Lavania, J. L. C. Richard, A. Middleton, M. M. Boone, A. B. Ergonul, **W. A. Tao**, H. Amirian, A. Iliuk, A. Khan, R. Diaz, D. B. Cortes, M. Garcia-Buitrago, H. K. C. Jacob. 2022. ALCAM: A Novel Surface Marker on EpCAMlow Circulating Tumor Cells. *Biomedicines* **10**(8):1983.

Charles, J.H.K., R. Signorelli, J. L. C. Richard, T. Kashuv, S. Lavania, A. Middleton, B. A. Gomez, A. Ferrantella, H. Amirian, J. Tao, A. B. Ergonul, M. M. Boone, M. Hadisurya, **W. A. Tao**, A. Iliuk, M. K. Kashyap,

M. Garcia-Buitrago, R. Dawra, A. K. Saluja. 2022. Identification of novel early pancreatic cancer biomarkers KIF5B and SFRP2 from “first contact” interactions in the tumor microenvironment. *Journal of experimental & clinical cancer research*. **41**(1):258.

Zhu, P., X. Wu, R.Y. Zhang, C.C. Hsu, Z. Y. Zhang, **W. A. Tao**. 2022. An Integrated Proteomic Strategy to Identify SHP2 Substrates. *Journal of proteome research*. Online ahead of print.

Du, Y., S. Xie, Y. Wang, Y. Ma, B. Jia, X. Liu, J. Rong, R. Li, X. Zhu, C.P. Song, **W. A. Tao**, P. Wang. Low molecular weight protein phosphatase APH mediates tyrosine dephosphorylation and ABA response in Arabidopsis. *Stress Biology*. **2**(1):23

## **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.

September 27	Dr. Luca Busino, (Virtual) Department of Cancer Biology, University of Pennsylvania
October 11	Fall Break, no classes
October 18	Dr. Jeffrey Rudolf, Department of Chemistry, University of Florida
October 25	Dr. Harmit Malik, Fred Hutch