

FEBRUARY 2022 BIOCHEMISTRY NEWS



CONGRATULATIONS TO...

The Biochemistry Department earned re-accreditation status by the ASBMB through 2028.

Isaiah Mensah who received the 2022 PCCR Graduate Student Training and Travel Scholarship.

GRAD STUDENT SPOTLIGHT... Steven McKenzie (Puthiyaveetil Lab)



Steven McKenzie was raised in a southwestern Michigan farming community where he lived on a small family farm. His interest in plant science stems from working on the farm as a child and realizing how essential plant health is to the productivity of the farm. He received his Bachelor's degree in cell and molecular biology with a minor in chemistry from Grand Valley State University. During his undergraduate career he also gained research experience in the lab of Dr. Matthew Christians where he studied the role of plant hormones on protein turnover. "My undergraduate research experience was very positive, and helped me realize my interest in pursuing a career in academic research." After graduating with his undergraduate degree, Steven joined the PULSE (Purdue Interdisciplinary Life Sciences) program in the fall of 2018. He completed rotations in four labs knowing that he wanted to continue basic research in the plant sciences. In spring of 2019 he joined the Puthiyaveetil lab where he studies the regulation of photosynthesis in the model plant species *Arabidopsis thaliana*. "I was drawn in by the wide-variety of interesting techniques used in the lab, as well as the friendly environment." His current research goal is to better understand the dynamic turnover of the key protein complex, Photosystem II, which is required for oxygenic photosynthesis. "Efficient light use in photosynthesis is one of the final challenges for improving agricultural crop yield. Optimizing light-harvesting in plants requires detailed knowledge of Photosystem II function." Last year Steven was awarded a NIFA-AFRI EWD predoctoral fellowship to study the role of reactive oxygen species on

Photosystem II turnover. “Despite being the source of Earth’s atmospheric oxygen, little is known about the damaging reactions between Photosystem II and reactive oxygen species.” Steven intends to pursue a career in academia after completion of his Ph.D., and hopes to continue studying photosynthetic processes.

GRANTS...

Jim Forney received \$263,866 from NSF for his REU proposal “Genetic and Biochemical Analysis of Proteins”.

Humaira Gowher received \$5,000 from the Purdue Center for Cancer Research.

Mark Hall received \$12,030.75 from Indiana CTSI-PDT for his proposal “*Cdc14 phosphatase - novel roles in drug resistance, virulence, and the response to cell wall stress in fungal pathogens*”.

Andy Tao received \$330,000 from Tymora Analytical Operations, LLC for his proposal “*Development of Liquid Biopsy-based Phosphorprotein Panel for Bladder Cancer Diagnostics*”.

Beth Tran received \$327,927 from NIH for her proposal “*The Roles of DEAD-box Proteins in Gene Expression*”.

RECENT PUBLICATIONS...

Conart, C., N. Saclier, F. Foucher, C. Goubert, A. Rius-Bony, S. N. Paramita, S. Moja, T. Thouroude, C. Douady, P. Sun, B. Nairaud, D. Saint-Marcoux, M. Bahut, J. Jeauffre, L. H. Saint-Oyant, R. C. Schuurink, J. L. Magnard, B. Boachon, **N. Dudareva**, S. Baudino, J. C. Caissard. Duplication and Specialization of NUDX1 in Rosaceae Led to Geraniol Production in Rose Petals. 2022. *Molecular Biology and Evolution*. **39** (2).

Escobedo, S., S. C. Stanhope, Z. Dong, **V. M. Weake**. 2022. Aging and Light Stress Result in Overlapping and Unique Gene Expression changes in Photoreceptors. *Genes (Basel)* **13** (2): 264.

IMPORTANT DATES...

Please join us for the Department of Biochemistry Seminar Series - All seminars will begin at 3:30 pm, in WSLR 116, unless noted virtual. In-person and virtual seminars will be available via zoom.

Join Zoom Meeting

[HTTPS://PURDUE-EDU.ZOOM.US/J/94513824090](https://PURDUE-EDU.ZOOM.US/J/94513824090)

March 1** Natalia Dudareva, Distinguished Professor Seminar, Purdue University, Department of Biochemistry

March 8 Jikui Song, (Virtual) University of California, Riverside, Department of Biochemistry

March 14-19 Spring Break

March 22 Eun Joong Oh, Purdue University, Department of Food Science

March 29 Suming Huang, Pennsylvania State University, Department of Pediatrics & Pharmacology

** Distinguished Professor Seminar will be in the Dean’s Auditorium, Pfendler Hall