

NOVEMBER 2022 BIOCHEMISTRY NEWS



CONGRATULATIONS TO...

Congratulations to **Dr. Natalia Dudareva**, Distinguished Professor of Biochemistry. Dr. Dudareva received the College of Agriculture Outstanding Graduate Mentor and Teacher, a well-deserved honor!



Congratulations to **Dr. Seema Mattoo**, Associate Professor of Biological Sciences, she is one of 6 scientists selected as the inaugural recipients of a grant from the Hypothesis Fund (HF). HF (<https://www.hypothesisfund.org/>) provides seed funding for "bold new ideas in basic research, not continuations of existing research". Their funding approach is quite innovative - they do not solicit applications; instead, they have recruited leading scientists as Scouts, who nominate people for the award.



Congratulations to **Dr. Andy Tao**, Professor of Biochemistry, who received a patent on his intellectual property from the U.S. Patent and Trademark Office.

This patent originated from a 2017 breakthrough study by the Tao group (published in [PNAS](#)) that shows, for the first time, the possibility of identifying hundreds of cancer-relevant phosphoproteins in blood through the isolation and mass spectrometric analyses of plasma extracellular vesicles (EVs). With just 1mL of plasma, the Tao group could profile more than 2,000 phosphoproteins and many of them have been previously reported to be associated with cancer.

With this patented technique, Purdue hopes to find commercial partners to translate the technology into clinics for non-invasive, early detection of breast cancer, the No.1 commonly diagnosed cancer in the world.

NEW FACES...

Larry Corne recently joined the Biochemistry Department as the new Receiving Clerk in the storeroom.

Larry is a Marine Corps. Vet. He has been with Purdue for 3yrs working in O&M as a Generalist for Zone 8. He spent half his life working in shipping/receiving and enjoys being around/meeting new people. His long-term goal is to hopefully be a Building Deputy somewhere here at Purdue.



SAYING GOODBYE...



Saleem Dar joined Dr. Gowher's lab as a postdoctoral fellow in March 2018. After completing his training lab, he secured a Research Scientist position in Vassiliki Saloura's lab in NCI in April 2022. However, due to delays in visa processing, Saleem joined Dr. Vikki Weake's lab for the past 7 months. Dr. Saleem joined his new position on Nov 21st, 2022.

In Gowher's lab, he elucidated the function of Dnmt3bas lncRNA and participated in several collaborative projects. He has co-authored 3 publications, and his major postdoctoral work is under revision in Cell Reports.

He mentored several undergraduate students in the Gowher lab, who are coauthors of his manuscript.

While at Purdue, Saleem married Shayista Dar, and they recently had a baby, Yusra Dar.

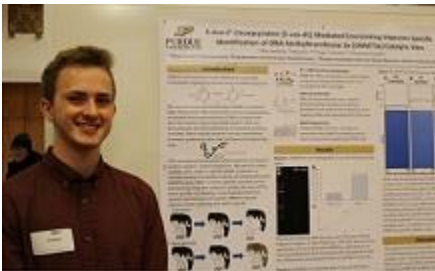
Gowher lab had a "See off" party for the family on Nov 18th (Left Picture) at Dr. Gowher's residence. Right picture with Dr. Weake and lab.

GRADUATE STUDENT NEWS...

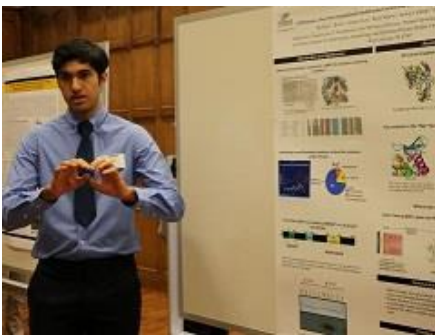
Colin Carlock won Best Poster Award for his poster on his thesis project at the 2022 Research Day for the College of Pharmacy (CoP). Nearly 100 graduate students representing each of the departments in the CoP presented their work that day. Colin's poster title is "PTEN Restoration by PRL2 Inhibition: A Therapeutic Approach for Acute Myeloid Leukemia." *Colin is a BCMH student but completed for MCMP due to his PI's appointment in the department.

UNDERGRADUATE STUDENT NEWS...

The Biochemistry Department had several students participate in the Fall Undergraduate Research Expo November 14-16, 2022.:



Ben Holland presented a poster titled: "5-Aza-dC-Mediated Crosslinking Improves Specific Identification of DNA Methyltransferase 3a Catalytic Sites". Research Mentor-Humaira Gowher, Ming He.



Rahul Saproo presented a poster titled: "GMPylation, a new post-translational modification carried out by a Fic Protein from *Bordetella bronchiseptica*". Research Mentors, Seema Mattoo, and Sherlene Brown.



Sharon Kulali gave a research talk titled: "Examining the Correlation of Brownfield and Superfund Sites with Health Outcomes in Indiana at the Census Tract Level". Research mentor, Sharon Wells.



Cameron Matthews gave a research talk titled, "Laboratory screening of sorghum lines for incompatibility, a post-attachment resistance mechanism to the parasitic weed *Striga hermonthica*". Research mentors, Patrick Rich, Gebisa Ejeta, Adedayo Adeyanju, and Nathan Bowser.

ALUMNI IN THE NEWS...

Congratulations to **Dr. Jeffrey Dean**, a 1986 graduate from Dr. Klaus Herrmann's lab, who has been named Assistant Provost and Director of the University of Georgia's Griffin campus, effective January 1, 2023.

GOING THE EXTRA MILE...

Dr. Humi Gowher, Associate Professor of Biochemistry, served on an advisory panel September 11th-14th for the New Faculty Workshop at Stowers Institute of Medical Research. The pane of 3 scientists evaluated the mock job talks and chalk talks for 4 postdoctoral fellows and provided feedback to improve their application for the job market.

SAFETY CORNER...

REM has "warned" us the main topic for audit in the coming year will be "TRAINING". Please make sure you have not only been trained for lab safety items (PPE, Bio-Hazard, Radiation, etc.) but that your PI has proof of your training!

Go to:

- 1) REM Homepage
- 2) Click on Training
- 3) Perform:
 - a. Chemical Hygiene Plan (Initial or Refresher) - PI provides lab-specific training to all new lab personnel & refresher training each year.
 - i. PPE training based on the Hazard Assessment (PI provided).
 - ii. May include fume hood training if used in your lab (online module).
 - iii. May include compressed gas training if used in your lab (PI provided).
 - iv. May include liquid nitrogen training if used in your lab.
 - b. Laboratory Safety Fundamentals – online module (can be used instead of the initial CHP training).
 - c. Laboratory Safety Refresher each year – online module.
 - d. Lockout Tagout (online module).

* Proof of ALL training must be in your training manual/ folder/ where ever you keep it the next time Judah comes!

RECENT PUBLICATIONS...

Chakravorty, S., B. Afzali, **M. Kazemian**. 2022. EBV-associated diseases: Current therapeutics and emerging technologies. *Frontiers in Immunology*. eCollection 2022.

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.

November 29 Dr. Emily Dykhuizen, Purdue University, Medicinal Chem/Molecular Pharmacology

December 12 Finals week

December 23-January 2 Winter Break, University is closed