

# January 2018

## **DEPARTMENT NEWS**

## **Awards and Recognition**

**Dr. Barbara Golden** was elected Councilor for the Biological Chemistry Division of the American Chemical Society. This ACS Division of Biological Chemistry has a membership of nearly 7000 members who share the goal of using chemistry to develop a better understanding of biological processes and to harness these processes for the common good. The objectives of the Division are to promote knowledge and research in the field of biological chemistry and to advance the relations of this discipline to other branches of science. Dr. Golden was also named to the "Faculty of 1000" which was founded in 2000 by publishing entrepreneur Vitek Tracz, a scientific publishing pioneer and founder of the BioMed Central and Current Opinions journals. The company is part of the Science Navigation Group, which also owns Web of Stories.

**Dr. W. Andy Tao** received an award in the amount of \$29,801 as a Co-PI for a proposal entitled "Novel Type IV Effectors from Helicobacter Pylori". The award was given by the National Institute of Allergy and Infectious Diseases. The principal investigator on the proposal is Daoguo Zhou, Professor, Department of Biology, Purdue University. This project period is 12/1/2016 – 11/30/2018.

A Canadian radio station for the blind and visually impaired recently interviewed Assistant Professor **Vikki Weake**. During her interview, available as a podcast titled "What steps do you take to protect your eyes and eyesight?" Dr. Weake explained how her recent study on vision loss in fruit flies can help further our understanding of human ocular diseases. For more information and to hear the podcast, visit <a href="http://bit.ly/2CRaqdw">http://bit.ly/2CRaqdw</a>.

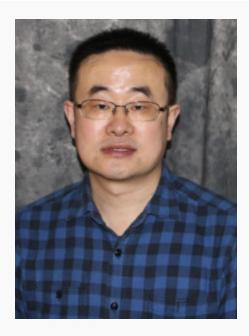
**Dr. Weake** was also featured in an article in PurdueToday on December 18, 2017 entitled "Fruit fly breakthrough may help human blindness research". The article focused on Dr. Weake's research proving

that blue light kills cells in flies eyes which could prove a useful model for understanding human ocular diseases such as macular degeneration. The original research paper was published in NPG Aging and Mechanism, a partner of the journal Nature and can be found at <a href="http://go.nature.com/2rgdAGA">http://go.nature.com/2rgdAGA</a>. To read the full article click on the link: <a href="http://bit.ly/2rpbRij.">http://bit.ly/2rpbRij.</a>

#### **New Faces**



Xing Liu joined the Department as Assistant Professor on January 1, 2018. She comes to us from California Institute of Technology where she was a postdoctoral researcher and a fellow of the Jane Coffin Childs Memorial Fund for Medical Research. Originally from Chengdu (Sichuan, China), which is famous for its cuisine and being the home for pandas, Dr. Liu earned her B.S. in Bioscience and Biotechnology from Beijing Normal University (Beijing, China) and her Ph.D. in Plant Biological Sciences from University of Minnesota (Saint Paul, MN). Her research involves studying mechanisms in regulating protein ubiquitination and degradation. In her spare time, she enjoys touring different towns and hiking in national parks.



Yanquan Zhang joined the Department as a postdoctoral researcher in the Xiaoqi Liu lab on January 1, 2018. He obtained a Ph.D. degree in molecular and cellular biology from Tsinghua University, Beijing, China in 2015. Yanquan's doctoral dissertation focused on WNT signaling pathway regulation in cancer. After graduation, he moved to The Chinese University of Hong Kong as a postdoctoral fellow for 3 years. During his postdoc, Yanquan focused on studying the function and mechanism of oncogenetic /repressive gene in digestive diseases, especially cancer.

#### **December Graduates**

Congratulations to our recent December graduates. For more information, please click on the following link: http://bit.ly/2mZLKZv

## **Graduate Student Organization**

The newly-created Biochemistry Graduate Student Organization (BCHM-GSO) received \$750 from the Graduate Student Organization Grant Allocation Award and distributed by the Purdue Graduate Student Government. The award provides funding to graduate student organizations to support their activities, events, and programs. The award will be used to host several speakers during the semester and help organize graduate student events in the department.

# **Graduate Spotlight**

**Funmilayo Adebesin**, recent graduate from Dr. Natalia Dudareva's lab, was featured in the December 2017 Graduate Ag Research Spotlight. To read the entire article click on the link, <a href="http://bit.ly/2mTlcZB">http://bit.ly/2mTlcZB</a>

## **Undergraduate Spotlight**

A team of Purdue University students and alumni began 2018 in an out-of-this world environment as part of a two-week mission to the Mars Desert Research Station in Utah. The seven-member team which included Biochemistry undergraduate student **Mark Gee**, was selected by the Purdue chapter of The Mars Society to take part in a simulation mission. The team, called Boilers2Mars, took over command of the research station on December 30 and passed it on to the next team on January 14. To read more about the mission click on the link. bit.ly/2DfK4pJ

#### **Recent Publications**

Dolan, W.L., **B.P. Dilkes**, J.M. Stout, N.D. Bonawitz and **C. Chapple**. 2017. Mediator complex subunits MED2, MED5, MED16, and MED23 genetically interact in the regulation of phenylpropanoid biosynthesis. *Plant Cell*. **29**(12): 3269-3285.

Wang, P., Y. Zhao, Z. Li, C-.C. Hsu, X. Liu, L. Fu, Y.-J. Hou, Y. Du, S. Xie, C. Zhang, J. Gao, M. Cao, X. Huang, Y. Zhu, K. Tang, X. Wang, **W.A. Tao**, Y. Xiong and J.-K. Zhu. 2017. Reciprocal regulation of the TOR kinase and ABA receptor balances plant growth and stress response. *Mol. Cell.* **69**(1): 100 - 112. Epub.

Zhu, Y., W. Bangshing, K. Tang, C.-C. Hsu, S. Xie, H. Du, Y. Yang, **W.A. Tao**, J.-K. Zhu. 2017. An *Arabidopsi*s Nucleoporin *NUP85* modulates plant responses to ABA and salt stress. *PLoS Genet.* **13**(12): e1008124. eCollection.

Zhao, C., P. Wang, T. Si, C.-C. Hsu, L. Wang, O. Zayed, Z. Yu, Y. Zhu, J. Wong, **W.A. Tao** and J.-K. Zhu. 2017. MAP kinase cascades regulate the cold response by modulation ICE1 protein stability. *Dev. Cell.* 43(5): 618-629. Epub.

Adelaiye-Ogala, R., J. Budka, N.P. Damayanti, J. Arrington, M. Ferris, C.-C. Hsu, S. Chintala, A. Orillion, K.M. Miles, L. Shen, M. Elbanna, E. Ciamporcero, S. Arisa, P. Pettazzoni, G.F. Draetta, M. Seshadri, B. Hancock, M. Radovich, J. Kota, M. Buck, H. Keilhack, B.P. McCarthy, S.A. Persohn, P.R. Territo, Y. Zang, J. Irudayaraj, W.A. Tao, P. Hollenhorst and R. Pili. 2017. EZH2 modifies sunitinib resistance in renal cell carcinoma by kinome reprogramming. *Cancer Res.* 77(23): 6651 - 6666. Epub.

Arrington, J.V., C.-C. Hsu, S.G. Elder and **W.A. Tao**. 2017. Recent advances in phosphoproteomics and application to neurological diseases. 2017. *Analyst.* **142**(23): 4373 - 4387.

Chen, X., H. Hall, J.P. Simpson, W.D. Leon-Salas, D.F. Ready and **V.M. Weake**. 2017. Cytochrome b5 protects photoreceptors from light stress-induced lipid peroxidation and retinal degeneration. *NPJ Aging Mech. Dis.* **3**:18. eCollection.

Lind, A.L., **J.H. Wisecaver**, C. Lameiras, P. Wiemann, J.M. Palmer, N.P. Keller, F. Rodrigues, G.H. Goldman and A. Rokas. 2017. Drivers of genetic diversity in secondary metabolic gene clusters within a fungal species. *PLos. Biol.* **15**:e2003583.

## Going the Extra Mile

Assistant Professor **Majid Kazemian** traveled to Brighton, England on December 4 – 7 to participate in the British Society for Immunology Congress 2017. While there, Dr. Kazemian presented a poster from his lab and two collaborative posters. He also presented two collaborative talks. To read the information about his participation click on the link. Going the Extra Mile\British Society for Immunology Congress 2017.pdf

**Dr. Xiaoqi Liu** traveled to Washington, D.C. on December 17 – 19 to attend the Department of Defense prostate cancer program grant review.

# **Upcoming Events**

#### **Biochemistry Speaker Seminars**

(Every Tuesday from 3:30 – 4:30 p.m., in Whistler Hall, Rm. 116 unless stated)

January 23 - Dr. Jeremy Wilusz, Department of Biochemistry & Biophysics, University of Pennsylvania

January 30 - Dr. Neil Bhowmick, Cedars-Sinai Cancer Institute, Cancer Biology Program

#### **Biochemistry Graduate/Postdoc Seminars**

(Fridays at 12:30 - 1:30 p.m. in Whistler Hall, Rm. 116 unless stated)

January 19 – Kortany Baker (Briggs lab) & Kristina Kesely (Mesecar lab)

January 26 – Samantha Lee (Golden lab) & Sebastian Paez Paez (Tao lab)







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