

February 2021 Department News



CONGRATULATIONS TO...

Brian Dilkes for being recognized as a University Faculty Scholar. The program recognizes outstanding faculty members across the university who are on an accelerated path for academic distinction. The five-year award includes an allocation of \$10,000 per year for discretionary use.

We would like to congratulate the following undergraduate students (listed below) and faculty research mentors for receiving CATE \$500 Faculty Research Grants for the Spring 2021 semester! The students submitted formal research project proposals and their faculty research mentors supported them with positive letters of recommendation. Faculty receive \$500 per student to offset the cost of supplies and expenses incurred during the student's research.

Jack Schwartz (Mark Hall) "*The Role of Dimerization in the Catalytic Mechanism of Cdc14 Phosphatases*"

Noelle Naughton (Mark Hall) "*Characterizing the role of fungal Cdc14 phosphatases in the response to cell wall stresses*"

Olivia Riedling (Jen Wisecaver) "*Analyzing genomic diversity in multiple strains of the toxic, invasive alga *Prymnesium parvum**"

BIOCHEMISTRY IN THE NEWS...

Jeff Simpson, a postdoc in the Chapple Lab, and a former student were featured in a College of Ag article about their work to develop methods to improve molecular identification in plants. Read the full article [here](#).

Vikki Weake has guest edited a Special Issue that was just published: <https://www.sciencedirect.com/journal/biochimica-et-biophysica-acta-bba-gene-regulatory-mechanisms/vol/1864/issue/2> This was dedicated to the memory of one of her postdoctoral mentors, Dr. Susan Abmayr, who passed away in 2019. Eliana in the Weake lab contributed a review on Gcn5 in this issue, and **Scott Briggs** also wrote one of the articles (as did his postdoc mentor David Allis!).

GRADUATE STUDENT SPOTLIGHT...

Eliana Torres-Zelada



Eliana Torres-Zelada grew up in the port of the Peruvian Coast, Chimbote. Her early interest in science is due to her parents. Both are Fisheries Biologists, and they are professors in the National University of her hometown. She grew up among her parents' students and "listening" at their classes. It was obvious for her to study Life Sciences. Eliana earned a bachelor's degree in biology at Universidad Peruana Cayetano Heredia. As soon as she started doing research, she realized that was her passion. Due to the lack of opportunities for science in her country, she realized that the best option for her was to travel abroad. In her last undergraduate year, she applied to the Research Experience for Peruvian Undergraduates (REPU) program, where she worked in the Martín García-Castro laboratory studying the molecular mechanisms responsible for the differentiation of the Neural Crest (NC), a migratory stem cell population critical for vertebrate's development. After this experience, she was sure that she wanted to pursue a PhD in the US, but she knew that, as a person of a minority background, she needed more research experience in order to be accepted at a good university. She then was part of the Vienna Biocenter Summer School, in Austria, and finally she worked in the Pablo Strobl-Mazulla lab, where she found her passion for epigenetics.

When she was applying for PhD programs, she struggled with the idea of either returning to her home country or remaining in the US. In 2015 she picked the PULSe program at Purdue, because the program would allow her to rotate in

different departments where she could do the type of research that, if necessary, she could apply in her country. In 2016, she joined the Vikki Weake Lab, and her work focuses on studying the role of the novel Gcn5-containing complex, CHAT in *Drosophila*. Her studies characterized this complex and found that it is required for fly development. She is currently studying the function of this complex in the regulation of gene expression.

One of the highlights of grad school was her teaching experience. She was the teaching assistant for the BCHM101 "Introduction to Biochemistry laboratory" course Spring 2018 and 2019, a course that was developed by her graduate advisor Dr. Weake. One of the key aspects of the BCHM101 laboratory is that it involves performing experiments to answer active research questions from the Weake group. Thus, this teaching experience has helped her to revise basic concepts of biochemistry, as well as develop important data for her thesis project.

Eliana plans to defend her thesis this Spring or Summer. Her professional goal is to continue conducting research in epigenetics and gene expression and their applications in cancer research.

GOING THE EXTRA MILE...

Robert Auber made a virtual visit to the Moore lab at UC San Diego to present his work on sequencing and assembling the genome of the toxic alga *Prymnesium parvum*.

GRANTS...

Mark Hall (PI) and **Scott Briggs** (Co-PI) received a \$50,000 AgSEED grant for their proposal "Novel Cell regulations in fungal pathogenesis and antifungal drug resistance".

Mark Hall and **Orla Hart** received an Instructional Equipment grant with potential funding of \$92,056 for their proposal "Preparing Students for molecular life science careers through innovative research-based laboratory learning".

Brock Harpur (PI) and **Vikki Weake** (co-PI) received a \$50,000 AgSEED grant for their proposal "How do bees switch tasks: Developing ectopic expression systems to understand the functional roles of novel genes in non-model species".

IMPORTANT DATES...

Please join us for the Department of Biochemistry Virtual Seminar Series.
All seminars will begin at 3:30 pm, unless otherwise noted.

(<https://purdue-edu.zoom.us/j/93897924772?pwd=MmJBtMxpZkIKMUwybE9USIUVSs4UT09>)
Meeting ID: 938 9792 4772 Passcode: Biochem20

February 23 Dr. Judith Zaugg, Group leader at European Molecular Biology Laboratory
March 2 Dr. Clint Chapple, Department of Biochemistry, Purdue University
March 9 Dr. Greg Wang, Dept. of Biochemistry/Biophysics, University of North Carolina-Chapel Hill
March 16 Dr. Jen Wisecaver, Dept. of Biochemistry, Purdue University
March 23 Dr. Susan Golden, Dept. of Biological Sciences, University of California San Diego
March 30 Dr. Judit Villen, Dept. of Genome Sciences, University of Washington

ATTENTION BCHM ALUMS...

We would love to hear from you! If you have had changes in your personal and/or professional life, had a change of address, etc. let us know! Please send your updates to bchm-alumni-friends@purdue.edu.
