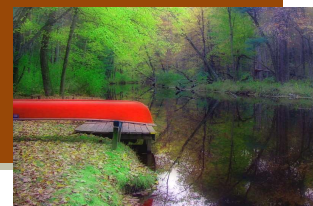


# ASPB MIDWESTERN SECTION NEWSLETTER

States included: IA, IL, IN, KS, KY, MI, MN, MO, ND, NE, OH, OK, SD, WV, WI Canada - MB, ON



## Meet your 2017–2018 MW Section Officers!

**Chair:** David M Rosenthal, Assistant Professor of Environmental and Plant Biology at Ohio University, Athens OH. David is an ecophysiologicalist who is broadly interested in plant functional responses to global change and other stresses. His research focuses on understanding carbon assimilation and water relations tradeoffs in herbaceous crops and trees. David has been a member of ASPB since 2008 and served as Vice Chair for the Midwest section in 2016–2017.

**Vice Chair:** Kathrin Schrick, Associate Professor of Biology at Kansas State University. Kathrin's lab is interested in plant sterols, specifically the roles sterols play in plant growth and development. Another focus of her lab's research is on homeodomain transcription factors that contain putative lipid/sterol-binding domains. Kathrin has been a member of the ASPB since 2004 and served as Secretary/Treasurer of the Midwest Section in 2015 – 2017.

**Secretary/Treasurer:** Senthil (Sen) Subramanian, Associate Professor of Plant Science at South Dakota State University, Brookings, SD. Sen's lab is interested in plant-microbe interactions, in particular the roles of plant hormones and small RNAs in soybean nodule development. Another focus area of his lab is to evaluate and identify plant factors and mechanisms that determine rhizosphere microbiome composition and activity. Sen has been a member of the ASPB since 1999, and organized the 2016 Midwest sectional meeting at Brookings, SD.

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**Executive Committee Representative:** Gustavo MacIntosh, Associate Professor of Biochemistry, Biophysics and Molecular Biology at Iowa State University. Gustavo's research focuses on how plants respond to insect attacks and the mechanisms used by insects to avoid plant defenses, as well as rRNA degradation through vacuolar mechanisms. Gustavo has been an ASPB member since 2000. He is also a member of the ASPB Minority Affairs Committee and previously served as Secretary/Treasurer for the ASPB MW Section in 2014–2015 and Vice Chair for the ASPB MW Section in 2015–2016.

**Annual Meeting Organizer:** Olga Zabolina, Associate Professor of Biochemistry, Biophysics and Molecular Biology at Iowa State University. Olga is biochemist and her research focus is plant cell wall polysaccharide biosynthesis and cell wall-mediated signaling during plant responses to biotic stresses. She has been a member of the ASPB since 2003.

**Publications Manager:** Jennifer Robison, PhD Candidate in Biology at Indiana University–Purdue University Indianapolis. Her research focuses on understanding cold stress in soybean. She regularly engages in science communication and outreach both online and in community. She has been a member of ASPB since 2015.

## Five Questions with Midwest Section member...

**Ivan Baxter:** Ivan is a research computational biologist with the USDA-ARS at the Danforth Plant Science Center in Saint Louis, MO.

**1) What is your favorite thing about living and working in the Midwest?** Midwest cities have great culture and activities without being super expensive.

**2) What has been the benefit to you of belonging to the Midwest section of ASPB?** Being a member of the ASPB Midwest section is a great way to meet graduate students and postdocs doing cool science.

**3) What projects are you excited about working on in the future?** I'm really interested in figuring out the genetic and environmental drivers of the multi-element phenotypes we see in plants.

**4) What's your favorite non-science activity and why?** I like biking – it's the best way to let my mind go wherever it wants to (and a good way to get to work).



*"....figuring out the genetic and environmental drivers of the multi-element phenotypes we see in plants."*

**5) What advice do you have for budding scientists?** These are my top three pieces of advice:

1) Explore many options for each next step in your career.

2) Write your research up before you go to the next step. It doesn't have to be perfect. Preprints are great – use them.

3) Don't write book chapters.

## Science Research meets Science Policy

By Susanne Hoffmann-Benning  
Assistant Professor  
Michigan State University

Three Michigan State University Genetics Program graduate students took science to Washington, D.C. by participating in a month-long science policy internship. Amanda Koenig, Katerina Lay, and Ryan Corbett received USDA National Needs Graduate Fellowships through a grant from the USDA National Institute of Food and Agriculture (NIFA). The goal of the grant is to employ plant and animal genomics to address food security challenges. Katerina and Amanda are pursuing their Ph.D.s in the laboratories of ASPB members Hideki Takahashi and Susanne Hoffmann-Benning, respectively; Ryan works with Cathy Ernst in Animal Science.

The students spent the month rotating with Senator Gary Peters (D-MI), where they worked with legislative staff on agricultural policy, attended a session of Congress in the gallery, and met with additional senators [see photo with Senator Debbie Stabenow (D-MI)] and their staffs. A second week was spent visiting USDA and NSF where they learned more about funding processes and opportunities. During their visits, the fellows spoke with program directors and agency heads, including the Director of NIFA, Dr. Sonny Ramaswamy, to better understand the workings of the funding and regulatory agencies. A third week was spent with an NGO. Katerina Lay worked with the American Seed Trade Association, Amanda Koenig was

placed with the National Association of Wheat Growers, and Ryan Corbett interned with the National Pork Producers Council. In the process they attended forums, panels, and Congressional hearings; assisted with compilation of databases; and used [Twitter](#) and [blogs](#) to communicate their work. The internship gave the students valuable insight into the workings of government, funding agencies, and NGOs, illustrated the importance of science communication, and highlighted the interplay between science research and science policy.



The three USDA-National Needs fellows from left to right: Ryan Corbett, Senator Debbie Stabenow, Amanda Koenig and Katerina Lay.

## Adventures at Plant Biology 2017 in Honolulu, Hawai'i

By Helen Liu

Undergraduate student

University of Illinois at Urbana-Champaign

"Say something intelligent. Better yet, don't say anything ridiculous." I repeated as I gathered every shred of courage I possessed to talk to a professor whose research I had been following for months. Peeking around the corner, I noticed that the professor was finally finished with her previous conversation. It was finally my turn to shine. I walked purposefully toward the professor; nothing could stop me at this point. I made eye contact with the professor, the universal sign of wanting to initiate a conversation, and put out my hand. "Hi, my name is Helen," came fumbling out of my mouth.

In June, hundreds of scientists descended upon Honolulu, Hawaii, to attend the annual meeting of the American Society of Plant Biologists, Plant Biology 2017. I, as an undergraduate at the University of Illinois at Urbana-Champaign, was lucky enough to be among them due to ASPB's generous Summer Undergraduate Research Fellowship. Warmth, humidity, and a Plant Biology 2017 banner casually hanging in the Honolulu International Airport terminal greeted me as I disembarked my flight. While shamelessly taking pictures of the banner and getting suspicious glances from the security guards, I was joined by another conference attendee with their bulky emblem, the poster tube. This was going to be an interesting and exciting six days.

I was a bundle of nerves as I walked into the Hawaii Convention Center. A self-proclaimed introvert, I was going to have to talk to extremely smart people about science. Just the chilly hall

filled with endless rows of posters spoke volumes on the number of people attending the conference. Fear slapped me as I realized this was the number of strangers that I hoped to talk to. It would have been comfortable to talk only my lab mates, but I wanted to meet new people and learn new aspects of plant biology. Plant Biology 2017 was my training ground for this goal.

During the five days of the conference, I realized I had much to learn. I was digging through my brain for biochemistry, plant physiology, and organic chemistry concepts just to understand what everybody was saying when I asked, "What are you researching?" While listening to talks, I learned just how quickly I could write my notes before the speaker changed slides, but I needed to work on legibility. My most important lesson was to not confuse being extroverted with being too loud. I am glad that I learned these lessons now since now I am more prepared for the future.

My experience at the conference was equal parts daunting and thrilling – after all, I was interacting with researchers from undergraduates to professors who were pushing the future of plant biology. The people I connected with and the laughter I shared with them will last me a lifetime. The sun has since set over the palm trees and all the conference attendees have returned to their research all across the globe, I would like to leave them with a Hawaiian saying: *a hui hou*, until we meet again.

## Save the date! Next Midwest Section Meeting is March 3-4, 2018

- The upcoming Midwest ASPB meeting will take place at Iowa State University's campus on March 3-4, 2018.
- Registration and abstract submission will be open on November 1. All speakers will be selected from the abstracts submitted before February 1, 2018.
- Organizing committee hopes to welcome all of you in Ames, Iowa in March 2018 and look forward to exciting scientific contributions from undergraduate and graduate students, postdocs and faculty.
- As details are available they will be added to <https://midwest.aspb.org/meeting/>

# The PALM Network Grant

up to \$2000 per fellow / \$500 mentor stipend  
\$1000 meeting travel each for fellow and mentor



## What Does the PALM Grant Provide?

The Promoting Active Learning & Mentoring (PALM) Network Grant provides faculty and postdoctoral fellows with resources that allow them to gain hands-on experience and long-term mentorship in bringing evidence-based, effective active learning strategies into their own classrooms.

### PALM fellows will:

- Identify and secure partnership with experienced mentors who have already reformed their classrooms
- Submit a complete proposal according to the parameters of the evaluation rubric found at [palmnetwork.org](http://palmnetwork.org)
- Schedule dates to visit their mentor's institution, and complete the identified work within 9 months of receiving the award notification
- Develop an active learning based module for one of their classes with guidance from their mentors, and implement it
- Submit videos (using smartphone or tablet) of teaching before and after mentoring experience for analysis
- Consider best options and timing for disseminating materials to others in their institutions and in the greater scientific community, including publication
- Report on activities to colleagues at a gathering of the PALM Network, as well as at a national, regional, or sectional meeting of their respective scientific societies
- Participate in surveys over several years so the PALM Network can assess the extent and persistence of change in classroom practice

## *2017 Palm Applications Will be Accepted on a Rolling Basis*

More information and eligibility requirements available at:

[palmnetwork.org](http://palmnetwork.org)



PALM is funded by NSF Research Coordination Network in Undergraduate Biology Education grant #1624200.

ASPB is proud to be one of the partner societies in this research coordination network.

## Announcements

### New ASPB Journal: *Plant Direct*

ASPB is delighted to announce that a new journal has joined the ASPB family today! The Society is collaborating with the Society for Experimental Biology and Wiley to publish the open access, sound science journal *Plant Direct*. You can read all about *Plant Direct* in the ASPB Blog

<http://blog.aspb.org/2017/03/14/introducing-plant-direct/>

### Introducing The Taproot, a new Plantae Podcast Series with hosts Liz Haswell and Ivan Baxter

The Taproot is the podcast that digs beneath the surface to understand how scientific publications are created. In each episode, we take a paper from the plant biology literature and talk about the story behind the science with one of the authors.

A scientific publication tells a data-driven story about molecules, cells, organisms, processes or mechanisms. But behind every paper are other narratives that aren't represented in the final manuscript. These are stories of perseverance, serendipity, humor, integrity, and resilience. They are the experiences of individuals and teams, of following your instincts or living your principles, of inspiration and discouragement. At The Taproot, we think these are stories worth telling!

Subscribe to The Taproot podcast on iTunes or Stitcher. Questions, comments, or interested in sharing your story? Email us at [taproot@plantae.org](mailto:taproot@plantae.org). We'd love to hear from you!

### Phenome 2018

The second annual Phenome conference, Phenome 2018: Connecting Biology, Systems, and Tools, will be held February 14-17, 2018, at the Tucson El Conquistador in Tucson, AZ. Register now at <http://phenome2018.org/>

### The Translational Plant Sciences Graduate Program at OSU now Accepting Applications!

The Translational Plant Sciences Graduate Program (TPSGP) at The Ohio State University is accepting applications for the 2017-2018 academic year. This five-year Ph.D. program offers full remission of tuition and fees, as well as a competitive stipend and support for research expenses. TPSGP leverages the strengths of a powerful, interdisciplinary group of participating faculty to create a dynamic program which prepares students to become the next-generation of leaders in global agricultural biotechnology.

TPSGP differs from traditional graduate programs in that there are no prescribed courses required by the program. Instead, a compact and rigorous academic plan is tailored to the needs to each individual.

In addition to an in-depth research experience, TPS fellows gain practical experience outside of academia through internships in settings tailored to their individual career goals. Internship opportunities include biotechnology industry, international research, science policy, science writing, agricultural extension, and teaching enhancement. Another unique aspect of the TPSGP is the opportunity it provides for fellows to gain international experience while pursuing a dual-degree with our partner institution, the University of São Paulo, Brazil.

This program is designed for highly motivated students from a variety of undergraduate and masters level programs including chemistry, engineering, entomology, molecular genetics, microbiology, ecology, evolution, crop sciences and plant pathology. The application deadline for domestic students is December 15, 2017. For additional information please visit website at <https://tpsgp.osu.edu/home>.

**Want to advertise a position, announce some big news, share a lab or teaching technique, or be featured in 5 questions with a Midwest Member in our next newsletter?**

Please send items to Jennifer Robison no later than January 1, 2018: [jenrobis@iupui.edu](mailto:jenrobis@iupui.edu)