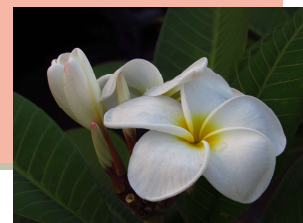


ASPB MIDWESTERN SECTION NEWSLETTER

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



Report from Section Meeting at West Virginia University

By Kathrin Schrick

Kansas State University

Photo credit Suejin Park, West Virginia University

This year, our annual meeting attracted 110 attendees including 67 student trainees, many from West Virginia, Ohio, Kentucky, Michigan and Indiana, among other states across the section. I arrived at the West Virginia University (WVU) campus one day in advance to survey the facilities alongside our local meeting organizer Michael Gutensohn and his team. Later that afternoon a group of us toured the greenhouses and the world's largest collection of vesicular-arbuscular mycorrhizal fungi. Inside the facility we admired blackberry bushes awaiting a high-tech pollinator robot affectionately called *Bramblebee*. Just a short walk across the street, we returned to the conference site located on the Evansdale campus near Morgantown.

On Saturday morning, I was met with both familiar and eager new faces as we entered the auditorium for the opening remarks. What followed was an information-packed day taking us from small molecules, biochemistry and cell biology to plant-pathogen interactions, plant stress responses, ecology and agronomy. The featured speakers, Gregg Howe (Michigan State U.), Steve DiFazio (WVU) and Jean Michel Ané (U. of Wisconsin), unveiled fascinating new information on plant defense, the genomics of sex determination, and symbiosis for nitrogen utilization. Close to 30 junior scientists, graduate and undergraduate students presented their research in talks and another ~50 in lively poster sessions. For some of the participants, it was

INSIDE THIS ISSUE

Midwest Section Meeting Recap	1
Five questions with...	2
GRC New Ways of Mentoring	3-4
Seeding Discovery	4
Announcements	5

the first time to attend a scientific conference and to present a talk or a poster outside of their home institution. Talks were followed by interactive Q&As, and the poster sessions were abuzz with momentum and mingling.

In what is becoming a tradition, students and postdocs gathered after lunch on Saturday for this year's career panel. Rick Turcotte (USDA Forest Service), Dave Robinson (Bellarmine U.), Sanju Sanjaya (West Virginia State U.), Christoph Benning (Michigan State U.), Kayla Flyckt (Corteva Agriscience), and Clayton Larue (Bayer Crop Science) engaged students, sharing experiences throughout their career paths that led to their present positions. Among the diverse group of plant scientists, a consensus arose that leadership, communication, and networking are critical for any career path. Several of the panelists cautioned students to be aware and sensible concerning their social media presence. On the other hand, the judicious use of social media is beneficial in delivering powerful messages to promote and educate the public about plant science and plant science research. The keynote speaker, Elizabeth Haswell (Washington U., St. Louis), expanded on the theme of outreach and social media after reporting on her lab's...

Congratulations to all our award recipients!

Undergraduate Poster Presentation

1. Calvin Coffin, Ohio University
2. Brianna Murray, Michigan State University
3. Abigail Moore, Ohio University

Undergraduate Oral Presentation

1. Caroline Leadmon, West Virginia University
2. Chase Lindeboom, Michigan State University
3. Alexander Bochenek, Ohio University

Graduate Poster Presentation

1. Sandra Simon, West Virginia University
2. Chanaka Rashan Abeyratne, West Virginia Uni
3. Fumin Wang, West Virginia University

Graduate Oral Presentation

1. Katherine D'Amico-Willman, Ohio State Uni
2. Anne Sternberger, Ohio University
3. Amanda Koenig, Michigan State University
Kelsey Bryant, Ohio University



...continued on page 2...

Five Questions with Midwest Section member...

Michael Gutensohn: Michael is an Assistant Professor of Horticulture at West Virginia University and the 2019 Section meeting coordinator.

1) What is your favorite thing about living and working in the Midwest? Living and working in the Midwest gives you the chance to see almost daily why your work as plant scientist is important to agriculture. You might work on some fundamental research in the lab, but if you drive a few miles out of town you can see the potential application.

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 good way of keeping in touch with friends, colleagues, and collaborators. In particular attending the annual meeting of the ASPB Midwest Section, like 2019 ASPB Midwest meeting on March 16 & 17 at West Virginia University, was a great opportunity to catch up with other plant scientists from the Midwest and hear about their ongoing research projects.

3) What projects are you excited about working on in the future? I am really interested in identifying volatile traits involved in plant defense in wild accessions and then introduce these into crop plants to ultimately develop more sustainable approaches for pest control.



"Be open minded and do not just focus on your own project."

4) What advice do you have for budding scientists? Be open minded and do not just focus on your own project. Read as many papers as you can from many different research topics. Go to conferences to get feedback on your work, see what other scientists do, and build your own network.

5) What is your favorite/most unique part about your job? My research on plant volatile organic compounds and their roles in biotic interactions is very interdisciplinary. It regularly gives me the opportunity to learn new things from collaborators for example in entomology and microbiology.

Section Meeting continued...

... innovative research in the area of plant mechanobiology. Haswell described her involvement with the Plantae podcast *Taproot* that she initiated a few years ago with Ivan Baxter. Dave Robinson, who regularly hosts a radio show, chimed in, informing the audience that radio stations are eager to broadcast science news. Start with a vision, come up with a structure, do a practice episode, and you are on your way! What an inspiring and timely way to embrace science outreach.

I am a huge fan of interactive meetings like this one, as they present an engaging and supportive environment for all. Thanks to sponsorship from a United States Department of Agriculture-NIFA Grant, 21 students and postdocs were awarded travel grants enabling them to attend the meeting. ASPB Ambassadors Katie D'Amico-Willman (Ohio State U.) and Narendra Kumar (Purdue U.) also attended the event to spread the news about the ambassador program and other worthwhile opportunities for trainees. Science was in the forefront as participants learned about ongoing

research across the broad areas of plant biology, and novel findings soon to be published in venues the likes of *Nature Genetics* and *Plant Journal*. Overall, the meeting was an enlightening, productive, and collaborative event enjoyed by plant scientists at all levels.

At the close of the meeting, awards were presented to graduate and undergraduate students (see photos). It was announced that Early Career Representatives are being sought to participate in the ASPB MW Section Executive Committee. This is a wonderful leadership opportunity to represent and identify the needs of junior ASPB members, and to be involved in society governance as well as annual meeting duties. We are also seeking candidates to run for the office of Secretary/Treasurer of the ASPB MW Section. Please contact Sen Subramanian (Senthil.Subramanian@sdstate.edu) with your nominations. Stay tuned for forthcoming information about our next annual meeting in Spring 2020.

Gordon Research Conference on Plant Lipids – New and old ways of mentoring

By Amanda Koenig, Ingo Heilmann, and Susanne Hoffmann-Benning

One of the most important things we can do to improve the odds for junior scientists is to mentor them. Actively mentor them. Give advice, help find solutions, and, preempt pitfalls. After all, why should others have to reinvent the wheel that we have already run into the ground? Many academic societies have realized this for a long time. ASPB for example hosts “Women in Science”, “Minority”, and PUI events in attempts to mentor scientists but also to help them network with colleagues with shared experiences. More overarching panels address all members of the scientific community with regard to career, ethics, and publication. Acts of mentorship should permeate every aspect of scientific training, including professional meetings and conferences.

At our Gordon Research Conference on Plant Lipids we have been adding a new twist for the last few meetings. We call them “Mentoring lunch tables”. Rather than a formal presentation that would demand more public interactions and engagement, we arranged informal conversations over lunch with one to two representatives at each mentoring table, to better support both introverted and extroverted students, postdocs, and junior faculty. Topics include work-life balance, career options, how to publish, succeeding in academia, writing successful proposals, etc. This year’s topic was “Industry connections”. Male and female attendees from BASF (Carl Andre), Corteva (Anthony Kinney, Kayla Flyckt, Laura Wayne), Avanti Lipids (Lisa Connell) and Sciex (Mackenzie Pearson) volunteered (!!!) to occupy three mentoring tables in teams of two; the tables were quickly packed with eager students and postdocs! Because of the more informal setting, junior scientists felt at ease asking questions and, as a result, not only learned what it is like to work in industry but also made professional connections right there. And, while the intent for the lunch tables was to last only as long as lunch, one table lingered for over two hours. According to student feedback, it was a big success.

The affiliated Gordon Research Seminars (GRS) are another exceptional mentoring and teaching approach employed by the GRC. These satellite meetings are tailored by students/postdocs for students/postdocs! And while the GRS organizers are in affiliation and communication with the GRC chairs, GRSs are entirely planned by two students/postdocs that have been elected by their peers at the previous meeting. These two GRS chairs invite the senior

speaker and mentoring panelists, select student and postdoc presenters from submitted abstracts, and plan the program. The program typically includes one invited speaker aligned with the GRC. As an additional mentoring component within the GRS, the chairs organize a panel on various topics. This year’s topic was “Science Communication: Engaging the Public” where a panel of scientists Rebecca Roston (University of Nebraska, Lincoln), Aruna Kilaru (East Tennessee State University), and Christoph Benning (Michigan State University) discussed strategies for effectively communicating science, best practices in social media as a scientist, and how researchers can face obstacles like declining science literacy and escalating misinformation. Attendance at the GRS by senior faculty (except for GRC chairs/vice chairs and presenters) is discouraged to foster an atmosphere where students and postdocs can freely ask questions and to reduce the stress of what, for many, is their first oral presentation at a scientific conference. Lastly, it allows students and postdocs to form connections and friendships that often last for years.

GRCs have recently introduced a new mentoring component, a “power hour”, which is aimed toward addressing women’s issues. Sadly, young male scientist often choose not to attend such events because they are afraid to be chastised or they think these events don’t apply to them. What appears to be often overlooked during similar mentoring sessions, though, is that subgroups within the scientific community do not exist in a vacuum: for example “women’s issues” are really “men’s issues” as well. This is particularly true for dual career science couples, which are becoming more and more frequent. Both partners face the issues that apply to either one of them and often situations are solved merely by trial and error. Given that both chairs for the 2019 GRC on Plant Lipids (Ingo Heilmann – University Halle, Susanne Hoffmann-Benning – Michigan State University) are halves of such dual-career couples, we decided to make this the topic of our power hour “Dual Career Science Couples: Strategies for the ‘Lagging’ Spouse”. An international panel of scientists that are part of a dual career couple (Yonghua Li-Beisson/France, Yuki Nakamura/Taiwan, Ingo and Mareike Heilmann/Germany, Kirstin Feussner/Germany, Imara Perera/USA, Susanne Hoffmann-Benning/USA) shared their experiences and answered questions by junior scientists. This attracted a good number of junior scientists, both men and women, and may help them to avoid mistakes and develop strategies. What may also be

needed in the future is for more senior, established faculty to attend such power hours since they are the ones with the influence to change the old ways and forge a path for junior scientists.

Above all else, the biggest mentoring impact was the ability for students and postdocs to actually attend the GRC and preceding GRS. In times of tight budgets, this is the group of scientists that often loses out. Yet small, tight-knit meetings such as GRCs provide more targeted opportunities to network with colleagues in the field and meet senior, famous colleagues and role models that otherwise get lost in the crowd. GRC provides a generous budget to support the registration for invited speaker as well as limited support through Carl Storm International Diversity Fellowships and support for representatives from

PUIs. Several senior speakers and discussion leaders generously forfeited their registration support to be reallocated to students. In addition, funding through NSF (NSF-IOS #1836680) and DOE-BES/BER (DE-SC0019645) as well as donations from Avanti Polar Lipids, BASF, Corteva, Cargill, Pioneer, and Sciex allowed us to provide at least partial registration support to every single graduate student and most postdocs, junior and minority faculty!!!

Information about the program of GRC and GRS can be found at:

<https://www.grc.org/plant-lipids-structure-metabolism-and-function-conference/2019/>

Seeding Discovery: Convion and Plantae are hosting a Win a Growth Chamber competition!

Applications are due by
midnight JUNE 7, 2019.

The competition is open to any student enrolled in a post-secondary program at an institution with a physical address in either the USA or Canada

The successful applicant will have a GEN1000 plant growth chamber provided by Convion to their sponsoring institution.

For full contest information visit:

Plantae.org/SeedingDiscovery



Have a great idea but need somewhere to grow it?

The Seeding Discovery Competition will award one university or college student with a state-of-the-art GEN1000 plant growth chamber that will enable them to fulfill a meaningful research program in the field of plant sciences, biology and biotechnology. The competition offers entrants valuable experience for all early career scientists:

- crafting a research proposal that aligns with personal and departmental objectives
- working with faculty and administration on the planning, logistics and reporting that research projects often entail
- meaningful contribution to their institution's research equipment infrastructure

The Seeding Discovery competition supports the overall goals of both Plantae and Convion, building upon the collaborative spirit that underpins Plantae, the global community and knowledge hub for more than 9,000 plant science professionals, and underscoring Convion's commitment to supporting early career scientists and nurturing their research.



Learn more about the GEN1000
at convion.com/gen1000

For full contest information, eligibility criteria and application materials, visit Plantae.org/SeedingDiscovery

 **SEEDING DISCOVERY** 
COMPETITION

Announcements

Midwest Early Career Representative and Secretary/Treasurer Nominations Requested

The Midwest Committee is looking for an Early Career Representative. This is a wonderful leadership opportunity to represent and identify the needs of junior ASPB members, and to be involved in society governance as well as annual meeting duties.

We are also seeking candidates to run for the office of Secretary/Treasurer of the ASPB MW Section. Please contact Sen Subramanian with your nominations. Senthil.Subramanian@sdstate.edu

Promoting Active Learning and Mentoring

Could you use help in incorporating active learning into your plant biology or other biology lecture course? Rather than winging it alone, because it can be hard to do well, work with a mentor to increase success! Apply for funding through the NSF-funded PALM (Promoting Active Learning and Mentoring) Network supported by multiple professional societies and organizations, including ASPB.

How does it work?

You can choose a mentor, or organizers can help you find one. You'll visit that mentor and work with them on a specific module or project to implement in your own class. You'll also become part of a virtual journal club and a network of other PALM pairs to share resources and learn from each other.

Fellows receive up to \$2,000 for expenses associated with mentoring. Mentors receive a \$500 stipend, and the Fellow and mentor each receives up to \$1,000 in travel costs to present the results of their research.

Currently, "PALMers" are working on a wide range of projects, from incorporating more evidence-based active learning strategies into an intro biology or plant biology course, having students design animation models in a cell biology course, and mentoring lecture hall learning assistants, to redesigning a genetics and molecular biology course.

More information is available on the website (palmnetwork.org), including helpful hints on the application process, a sample application and feedback, and testimonials from participants who have found the process invaluable. Read about the experience of one PALM Fellow and mentor pair at <https://www.ascb.org/careers/putting-active->

[learning-practice-interview-palm-fellow-christopher-baker-palm-mentor-michelle-smith/](#)

Remaining 2019 deadlines are July 30, and October 30.

Bench Talk Seeking Volunteers

Were you inspired by the talk (in March) by Dr. Elizabeth Haswell about her science podcast 'The Taproot'? Are you interested in communicating to the public about science? If so, you should help on our podcast called 'Bench Talk: The Week in Science'! We are producing a radio show (WFMP-LP; 106.5 FM; www.forwardradio.org) that is bringing science to the people. The radio show is broadcast from a volunteer-run, community radio station in Louisville, KY to a potential audience of 300,000, but is also live-streamed on the internet and podcast on SoundCloud. We are looking for STEM experts who are willing to record short vignettes for broadcast on the show. You could describe your own research, interpret a recent scientific article, or discuss a timely STEM or science-policy issue. Stories about the history of science would also be great! Our shows are taped ahead of time, so you would record your own story, at your own pace. There are inexpensive recorders available (even smartphones work) and I can do the editing for you (removing 'umms', long pauses, etc.). Stories can range from 3-25 minutes. Graduate students are more than welcome to participate! For more information contact Dr. Dave Robinson, drobinson2@bellarmine.edu. Check out our previous episodes at: <https://www.forwardradio.org/bench-talk>.

Midwest Member Wins Early Career Award

At the 3rd Annual Phenome conference in Tucson, Arizona James Schnable a member of the ASPB Midwest section from the University of Nebraska-Lincoln received the inaugural North American Plant Phenotyping Network early career award. The NAPPN early career award recognizes a scientist who is making important contributions to plant phenotyping in areas of data analytics, engineering, modeling, physiology, plant breeding, plant sciences, remote sensing, or allied disciplines. <https://agronomy.unl.edu/news/schnable-receives-nappn-early-career-scientist-award>

Want to advertise a position or grant, share some exciting news, be featured in our next newsletter, or have an article that would be helpful to other Midwest plant scientists?

Please send items to Jennifer Robison no later than August 30, 2019: JDRobison@manchester.edu