



## Department News

### The Second SCN Coalition has been launched!



Images taken from SCN Coalition website



Dr. Greg Tylka

The SCN coalition is composed of a diverse group of more than 40 University researchers, extension specialists, and agronomy company representatives who are concerned about the evolving threat from soybean cyst nematode (SCN). The first SCN Coalition was formed in 1997, after a survey of 1,325 soybean farmers showed that 65% had never tested their fields for SCN. The second SCN coalition was formed in late February of 2018, after it was observed that the soybean resistant variety PI 88788 was starting to fail in some soybean-growing states. Two decades ago, the PI 88788 SCN resistance source worked very well. However, two decades later, nature has found ways around it and SCN populations are adapting to and reproducing on PI 88788. Thus, as SCN populations increase, yields decrease.

Data from 25 years of Iowa State University variety trial experiments show that as SCN reproduction increases on PI 88788, yields of resistant soybeans varieties decrease by as much as 14 bushels per acre. Dr. Greg Tylka, a nematologist and member of the first and second SCN coalitions comments: "One of the problems is that SCN can cause yield loss without the plants and the crops looking sick." To learn more about the importance of SCN management and awareness, watch Dr. Tylka's video about SCN [here](#).

### PLPM Students win Outstanding Poster Presentation Award at the 2018 Midwestern ASPB meeting



Antony Chapman and Liz Carino

The 2018 annual American Society of Plant Biologists (ASPB) Midwestern (MW) section meeting was held at Iowa State University on March 3-4, 2018. The midwestern ASPB meeting is an excellent environment for plant biologist to meet, mingle, and network in a relaxed and inviting setting. The ASPB meeting provides ample opportunities for researchers to effectively and efficiently describe, explain, and promote their research efforts. To encourage attendees to participate in oral and poster presentations, APSB MW awards are given to undergraduate and graduate students for superior speech and poster presentations.

PLPM graduate students, Antony Chapman from Dr. Roger Wise lab and Elizabeth Carino from Dr. Allen Miller's lab, received third and second place, respectively, for outstanding poster presentation. We would like to congratulate both of our students for their great performance at the ASPB midwestern meeting.

## Upcoming Events



- April 9, 2018 3:10p.m. Lagomarcino Hall, Rm. E164 **PLPM Seminar**: "Mosquito Surveillance in Iowa: A new nemesis and old foes"
- April 10, 2018 **CALS Women Leadership Workshop**: "Where We've Been: Reflections on Gender Inequality in the Agricultural Sciences" RSVP [here](#)
- April 9, 2018 3:10p.m. Science I, Rm. 152 **PLPM Seminar**: "Comparative genomics insights into the wonderful world of plant-feeding invertebrate microbiomes".-Dr. Amanda Brown, Texas Tech University
- April 18, 2018 11:30a.m. **APS webinar**: "Approachable Science on Genetically Engineered Crops (GMOs)". Register [here](#). [Free for APS members or \$49 for non-members]
- May 8-10, 2018 **Loomis/CBC Joint Symposium & Workshop**: "Genome editing- putting together the pieces". Molecular Biology Building, Iowa State University. Register [here](#).
- July 28, 2018 8:00a.m.-6:00p.m. **6th International Oomycetes Workshop**: "Phytophthora, Pythium, Downy Mildews, and related genera". More Info [here](#).
- July 29-August 3. **ICPP2018 program**. This year the ICPP will be held in Boston, MA. Register [here](#).
- August 31, 2018 5:00-8:00 p.m. **PLPM Fall Retreat**. Story County Conservation Center. More details coming soon.

## Congratulations to Valeria Velasquez for her Schlumberger Fellowship Award



Valeria Velasquez

Valeria Velasquez Zapata, PhD student in Bioinformatics and Computational Biology, who is currently doing her thesis in Roger Wise's lab has been awarded a Faculty For the Future Fellowship from the Schlumberger Foundation for the 2018-2019 year. The Faculty for the Future program, launched in 2004, awards fellowships to women from developing and emerging economies to pursue PhD or Post-doctorate studies in science, technology, engineering and mathematics (STEM) disciplines at leading universities worldwide. The program's long-term goal is to reduce STEM's gender gap by supporting more women pursuing scientific careers and by lowering the barriers women face when entering STEM disciplines. Let's congratulate Valeria on her achievement.

## Alumni Updates

### Dr. Jimena Carrillo-Trip obtains a tenure track faculty position at Ensanada, Baja California, Mexico



Ensanada, Baja California, Mexico



Dr. Carrillo-Trip

Dr. Jimena Carrillo-Trip was a postdoc in Allen Miller's lab from 2009-2014, collaborating with the labs of Bryony Bonning (Entomology), Amy Toth (Ecology, Evolution & Organismal Biology) and Brad Blitvich (Veterinary Microbiology and Preventive Medicine). After a stint as a postdoc at Dupont/Pioneer in Johnston (2014-2017), Dr. Carrillo-Tripp has obtained a tenure track faculty position in her home town of Ensenada, Baja California, Mexico as an "Investigadora Titular" studying agricultural virology. Jimena is starting with research on grapevine viruses and also expects to work on insect viruses. She is enjoying lovely weather year-round and a beautiful view of the Pacific Ocean from her lab. Congratulations to Miller Lab alumna Jimena Carrillo-Tripp!

### Dr. Jairo A. Osorio works at CORPOICA, Colombia



Dr. Osorio

Dr. Jairo Osorio was a graduate student at ISU from 1985 to 1987 under the supervision of Dr. Dennis C. McGee. His master's research focused on the interactions between Soybean Seed Pathogens and Freezing Damage. Dr. Osorio graduated from Iowa State University in December of 1987, and returned to Colombia to his previous job in Plant Pathology research at the Colombian Institute for Agriculture. A few years later, he returned to the United States to start his Ph.D. studies at Texas A&M University in 1993, where he worked under Dr. R. A. Frederiksen on Sorghum Head Smut (researching markers for resistance), and graduated in December of 1996.

After he completed his Ph.D., he return to Colombia where he has been involved in agricultural research at the Colombian Corporation for Agricultural Research, [CORPOICA](#), leading national programs on IPM Research and Development. He served as National Director for Research for 4 years, and more recently, leader of Tropical Fruits Research. His current line of research is focused on epidemiological research on anthracnose and root rots of tropical fruits.

When asked what his advice to current ISU-PLPM students would be, he commented: "two years in Ames and ISU campus changed my life. Congratulations for being part of a great school and the PLPM community. What you do will ultimately help improve the lives of many people" -Dr. Jairo Osorio.

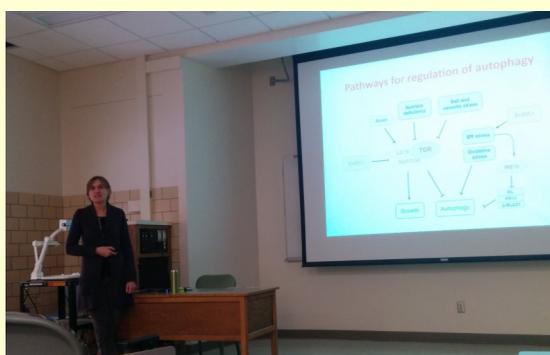
## Dr. Steve Whitham (PLPM), Dr. Lie Tang (ABE), and Dr. Carolyn Lawrence-Dill (GDCB)



On Tuesday, February 6, 2018, Dr. Steven Whitham, Dr. Lie Tang, and Dr. Carolyn Lawrence-Dill presented their collaborative work in their seminar entitled: *“Developing the Enviratron, and automated plant phenotyping facility.”* The Enviratron is a collaborative work between different faculty professors in ISU. Enviratron is a phenomics platform that enables researchers to monitor the performance of plants throughout their lifespan when subject to a variety of environmental conditions, including anticipated future environments. To learn more about the Enviratron check their website at <https://enviratron.iastate.edu/>.

To watch the seminar video, click [here](#).

## Dr. Diane Bassham, ISU Dept. of Genetics, Development and Cell Biology



On Tuesday, February 13, 2018 Dr. Diane Bassham presented her work in a seminar entitled: *“Regulation of autophagy by stress and hormone signaling pathways”*. Dr. Bassham presented her research on the vacuolar autophagy, a pathway for uptake of proteins into the vacuole for degradation during environmental stress and senescence.

To watch the seminar video, click [here](#).

## Dr. Larry Halverson, PLPM, Iowa State University



On Tuesday, February 27, 2018, Dr. Larry Halverson presented his work in a seminar entitled: *“Shifting soil and rhizosphere microbes to more robust, interconnected communities: is everything “N”-sink”*. We learned about the importance of microbes in the environment and how they affect crops.

To watch the seminar video, click [here](#).

## Dr. Gustavo Macintosh, BBMB, Iowa State University



On Tuesday, March 6, 2018 Dr. Gustavo Macintosh presented his work in a seminar entitled: *“Exploring soybean-soybean aphid interactions and the molecular effects of gene pyramiding”*. Dr. Macintosh lab’s research focused in the multi-layered plant defense response to aphid herbivory responses. To learn more about the characterization of the transcriptional and metabolic changes induced in soybean by the soybean aphid, *Aphis glycines* and other projects, check Dr. Macintosh lab page [here](#).

To watch the seminar video, click [here](#).

## Dr. Danny Coyne, International Institute of Tropical Agriculture, Kenya



On Friday, March 16, 2018 Dr. Danny Coyne presented his work in a seminar entitled: *"The war on worms in Africa: plant parasitic nematode threats to food security."* Dr. Coyne is a Senior Scientist with the International Institute of Tropical Agriculture (IITA) currently operating out of Nairobi, Kenya. He is primarily involved in soil health issues and more specifically in plant nematology with over twenty five years' experience in research and extension in tropical cropping systems across Africa. He brings in-depth knowledge of tropical cropping systems through involvement in, and management of, crop protection extension and pest management projects within African National programs and at International Agricultural Research Centers.

To watch the seminar video, click [here](#).

## Chase Mayers, PLPM, Iowa State University



On Tuesday, March 20, 2018 graduate student Chase Mayers presented his Ph.D. work in a seminar entitled: *"Food of the gods: co-adaptations between the fungal symbionts and mycangia of ambrosia beetles."* His seminar presentation summarized his research on the evolutionary history and systematics of the obligate fungal symbionts of ambrosia beetles.

To watch the seminar video, click [here](#).

## Recent Publications

**Harrington, T. C.**, and D. M. McNew. 2017. A reevaluation of *Tubakia*, with three new species and six new combinations. *Antonie van Leeuwenhoek*. Read Publication [here](#).

Aune, J.E., Evans, L.L., **Boury, N\***. Using Nonfiction Narratives in an English Course to Teach the Nature of Science and Its Importance to Communicating About Science. *J. Microbiol. Biol. Educ.* March 2018 vol. 19 no. 1. doi:10.1128/jmbe.v19i1.1435. Read Publication [here](#).

## Announcements

### PLPM graduate student organization Fundraiser shirt sale



Plant Pathology Grad. Student Organization is selling Departmental Shirts as fundraiser activity. Orders will be accepted until April 20, 2018. Shirts will be delivered on or before April 30, 2018. Payments will be received in the main office (351 Bessey Hall) with Brenda Downs (cash or checks payable to "ISU Plant Pathology GSO").

Fill the form below to order your PLPM shirt and support your student organization!

Click the link below to access the order form.

[Order your shirts here!](#)