PLPM Students help out during the Master Gardener training

The Master Gardener program is offered every year by the Iowa State University Extension and Outreach with the support from the Department of Horticulture. It provides current, research-based, home horticulture information and education to the citizens of Iowa through programs and projects. During the Master Gardener training, individuals go through 40 hours of horticulture education to acquire diverse knowledge on gardening from landscape design to plant propagation, plant pathology, and entomology. Every year the Plant and Insect Diagnostic Clinic asks for student volunteers to help facilitate the hands-on class on campus. This year, PLPM students Chelsea Harbach, Hayley Nelson, Hafizi Rosli, and Valeria Velasquez volunteered to help out in the plant pathology class section. During the plant pathology classes, the PLPM students answered questions and helped guide their groups on sample observations of common diseases in the Midwest landscape. We would like to recognize all the work done by the faculty and staff of the ISU Extension and Outreach and our active PLPM student volunteers.

Dr. Gleason Gives a 2-week-long workshop on professional speaking skills in China

Mark Gleason gave a 2-week-long workshop on professional speaking skills to 20 graduate students in the laboratory of Drs. Guangyu Sun and Rong Zhang in the College of Plant Protection at Northwest A&F University, Yangling, Shaanxi Province, China, from September 17-29, 2017. Drs. Gleason, Sun, and Zhang have collaborated since 2002 on research on fungi in the sooty blotch and flyspeck (SBFS) complex on apples, with 35 jointly authored publications in refereed journals to date.

Dr. Roger Wise presents his research at the 6th International Powdery Mildew Genomics Workshop, in Eger, Hungary

The 6th International Powdery Mildew Genomics Workshop was hosted in Eger, Hungary on September 14-15, 2017. This workshop was dedicated to the genomics, proteomics, genetics, cell biology and other aspects of powdery mildew research. Dr. Roger Wise attended this workshop where he met his lab alumnus Matt Moscou. In addition, Dr. Wise presented his latest Powdery Mildew research in the seminar: “Inter-chromosomal transfer of immune regulation during infection of barley with the powdery mildew pathogen”.

Roger Wise, Priyanka Surana, Ruo Xu, Gregory Fuerst, Antony V. E. Chapman, Dan Nettleton
Attendees at the PLPM annual apple/pumpkin bake-off

The Plant Pathology and Microbiology Annual Apple/Pumpkin Bake-Off was held on Monday, October 30, 2017 in 240 Bessey Hall where members of the department were able to showcase their culinary skills. This yearly departmental tradition was brought to the department by Dr. Richard DeScenzo (Thomas Harrington’s postdoctoral fellow) in 1991. Dr. DeScenzo brought the tradition with him from the University of New Hampshire, where he had done his graduate work. The original bake-off was focused only on apple dishes for at least its first decade in our Department; later on, the bake-off was broadened to include pumpkin. To help the continuation of this bake-off tradition, Dr. Gleason brings apples from the Hort Farm to the department every year. At this event, members of the department cast their votes for their favorite dishes. This year’s winners are:

**Pumpkin:**
1st Place: Greg Fuerst – dish #2(click here for recipes)
2nd Place: Vijitha Silva – dish #5(click here for recipes)
3rd Place: Clarice Schmidt – dish #7(click here for recipes)

**Apple:**
1st and 2nd Place: Mohsin Raza – dish #9 and #10(click here for recipes)
3rd Place: Pulkit Kanodia – dish #6(click here for recipes)

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**Pakistani Scholar comes to ISU for a 6-month research visit to Dr. Gleason’s lab**

Ateeq Tahir, a PhD candidate at University of the Punjab, Lahore, Pakistan, arrived in October for a 6-month research visit to Mark Gleason's laboratory. As part of his PhD research, Ateeq will use DNA-based methods to help identify putative *Fusarium* species associated with stalk rot of maize in Pakistan.

We would like to give a warm welcome to Ateeq to the PLPM family.

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**PLPM Seminar Series**

**Jared Jensen, (Ph.D. Exit seminar)**

On Tuesday, October 3rd, 2017, Jared Jensen gave his Ph.D. exit seminar entitled: "Effects of nematicidal seed treatments on the biology of soybean cyst nematode". We learned from his presentation that soybean cyst nematode is one of the most damaging pathogens of soybean in Iowa. In his studies, Jared compared the effectiveness of two soybean seedtreatments (Avicta and Clariva). Overall, Jared observed that many factors affect efficacy of seed treatments [Seminar video here].

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**Dr. Nathan Schroeder, University of Illinois**

On Tuesday, October 10th, 2017, guest speaker from the University of Illinois, Dr. Nathan Schroeder, presented a seminar entitled: "Why is SCN fat and lazy? And other nematode-related questions you never thought to ask". During Dr. Schroeder’s visit, we learned that nematodes are animals and they have features similar to most animals. Dr. Schroeder talked about how nematodes survive in difficult environmental conditions as well as the effects of serotonin on *C. elegans* and plant parasitic nematodes [Seminar video here]. For more information on Dr. Schroeder, click here.

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**Dr. Silvina Arias**

On Tuesday, October 17th, 2017 Dr. Silvina Arias (Postdoc in Dr. Munlvold’s lab) presented a seminar entitled: "Participation of fumonisin B1 as pathogenicity factor in the interaction of maize and *Fusarium verticillioides". During Dr. Arias’ presentation, we learned of her Ph.D. thesis research that involved the determination of the phenotypical and function changes of corn seedlings against infection of *Fusarium verticillioides*. To read more about Dr. Arias’s work on the effects of *F. verticillioides* toxin distribution in maize seedlings click here.
PLPM Seminar Series

Daniel Sjarpe, (M.S. Exit seminar)
On Tuesday, October 24th, 2017, Daniel Sjarpe presented his Master’s exit seminar entitled: “Effect of seed treatments and soybean varieties on root rot caused by Fusarium virguliforme”. Daniel’s presentation was about the cycles of sudden death syndrome (SDS) and their potential economic impact. Daniel walked us through the SDS management options, which included seed treatments, and farming practices [Seminar video here].

Check out the ISU extension video on the difference between disease severity and disease incidence of SDS of soybeans [here].

Hafizi Rosli (Ph.D. Exit seminar)
On Tuesday, October 31st, 2017, Hafizi Rosli gave his Ph.D. exit seminar entitled: “Sooty blotch and flyspeck: taxonomy, ecology, and management”. During his presentation, Hafizi introduced a new species of Sooty blotch and flyspeck (SBFS), which is an apple summer disease. In addition to learning about pesticide mechanisms used in the field, Hafizi talked about a case study that he co-authored with Dr. Gleason on SBFS [Seminar video here].

To read more about Hafizi’s case study, click here.

Recent Publications


The two photos on the left accompany a recently published article in the journal HortTechnology, describing the learning impacts of an 18-year-long series of annual student-group exchanges between ISU and University of Costa Rica. In alternate years since 1999, ISU groups of 15-20 students have toured UCR and Costa Rican agriculture during Spring Break as part of PLP 511, Integrated Management of Tropical Crops; and in alternate years since 2000, UCR student groups of 12-16 have toured ISU and Iowa agriculture. This exchange has resulted in 9 former UCR students earning graduate degrees at ISU, mostly from the PLPM Department. The program was originated by plant pathologists Mark Gleason (PLPM) and Felipe Arauz (UCR), and has involved multiple faculty from several ISU and UCR departments.

Upcoming Events

November 7, 2017 3:10-4:10 p.m. Science 1 Room 152. PLPM Seminar: Dr. Lina Rodriguez-Salamanca and Hafizi Rosli, Iowa State University.

“The deceptive nature of symptoms: diagnostic lessons of 2017”

November 14, 2017 3:10-4:10 p.m. Science 1 Room 152. PLPM Seminar: Dr. Melania Figueroa, University of Minnesota, MN.

“A Cinderella story: crown rust in the genomics era”

November 28, 2017 3:10-4:10 p.m. Science 1 Room 152. PLPM Seminar: Dr. Rebecca Bart, Danfort Center, St. Louis, Missouri

“Dissecting the disease triangle”

December 5, 2017 3:10-4:10 p.m. Science 1 Room 152. PLPM Seminar: Antony Chapman, Iowa State University.

“Rar3, a new player in barley Bgh resistance or revisiting an old friend?”

December 5, 2017 5:30-7:30 p.m. Elings Hall Room 1306. Women Leadership Workshop: Panel- “Habits of influential women in work and life”