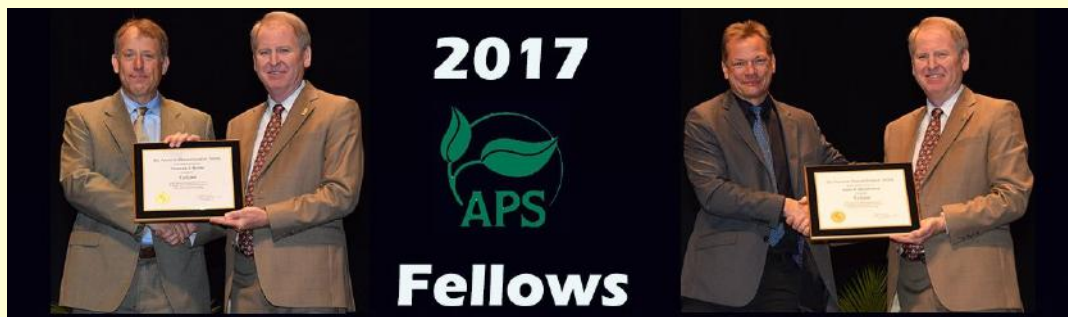


## Department News

### Congratulations to the PLPM 2017 APS Fellows: Gary Munkvold and Thomas Baum



Dr. Thomas Baum and Dr. Gary Munkvold were named Fellows at the 2017 American Phytopathological Society Annual Meeting, held August 5-9 in San Antonio, CA.

Dr. Gary Munkvold was recognized for his robust research programs, his leadership in guiding hybrid development priorities in a major corn seed company, for chairing a one-of-a-kind online graduate program in seed technology and business, and for his national leadership in phytosanitary issues through the U.S. National Seed Health System.

[More](#)

Dr. Thomas Baum, Distinguished Professor and Department Chair, was recognized for his scholarly contributions to molecular nematology, as well as his commitment to undergraduate and graduate education through his teaching activities and the development of award-winning teaching tools and mentoring the next generation of scientists.

[More](#)

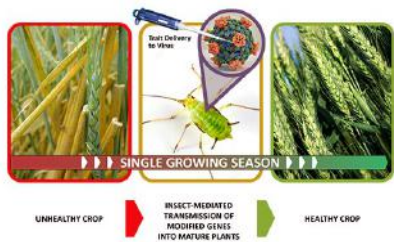
### Congratulations to W. Allen Miller and Steve Whitham for obtaining DARPA grant!



Steve Whitham

W. Allen Miller

Dr. Allen Miller and Dr. Steve Whitham received a four-year multi-institutional grant (\$10.3 million) funded by the Defense Advanced Research Projects Agency (DARPA). The grant funding the project totals \$10.3 million over four years and includes personnel at the Boyce Thompson Institute, the University of Minnesota and the University of California, Davis, in addition to Iowa State. George Jander at Boyce Thompson Institute is the principal investigator on the project.



The research seeks to engineer insect-transmitted viruses that activate desirable traits in mature corn plants in hope of rapidly responding to crop threats such as drought and disease within a single growing season. The focus of the research directed by Whitham and Miller will be engineering the viruses and how they will interact with corn plants.

[More](#)

### Congratulations to Greg Fuerst, for his USDA-ARS Midwest Area Scientific Support of the year award!

Gregory Fuerst, a member of the Roger Wise's Lab, was selected as the 2017 Midwest Area Award Recipient in the Scientific Support category "for exceptional scientific support and contributions to the ARS research programs". The Midwest area includes research units in 13 locations across 9 states with a mission to "enable the development of environmentally and economically sustainable production systems that provide high quality, nutritious and safe food, and other agricultural products that can be converted to "green" fuel and industrial products that reduce our reliance on imported petroleum." Nominations in the various categories are solicited for consideration at the Area level for recognition.



Gregory Fuerst

We would like to congratulate Greg for being awarded the USDA-ARS Midwest Area Scientific Support of the year, "For outstanding and Innovative Contributions Critical for Resistance to Disease in Cereal Crops".

## Congratulations! Mercy Kabahuma got an internship position at Monsanto



Mercy Kabahuma

Mercy Kabahuma, Ph.D. graduate student at Lauter's lab, started a six-month (June-December) position as a Plant Pathology and Discovery Breeding Co-op with Monsanto. Mercy's research will be focused on several major maize diseases. This six-month internship opportunity will provide Mercy with extra skills and the chance to work and contribute towards Monsanto's plant pathology and discovery breeding platforms at several levels.

## Iowa State competition helps educate Iowa youth about Integrated Pest Management



Daren Mueller with students teams at the corn & soybean disease field station

Six Iowa teams participated in the Iowa State University Extension and Outreach and Integrated Pest Management (IPM) program's seventh annual Crop Scouting Competition on July 31 at the Field Extension Education Laboratory in Boone, Iowa. The Iowa student teams, ranging from grades 9-12, were tested on their knowledge of crop insects and diseases, crop growth and development, weed identification, crop disorders, herbicide injury and spraying pesticides. Teams took a written test and then rotated through eight field stations run by ISU Extension and Outreach specialists (Daren Mueller and Adam Sisson) at the Field Extension Education Lab. The two top teams had the opportunity to compete at the Regional Crop Scouting Competition.

[More](#)

On August 28, Daren Mueller, Adam Sisson, and Maya Hayslett traveled to Purdue's Diagnostics Training Center in Lafayette, Indiana to served as judges at the Regional Crop Scouting Competitions at the field station for plant pathology. Where Iowa student teams took home 1<sup>st</sup> and 2<sup>nd</sup> place.

## 2017 PLPM Department Annual Retreat



2017 Winning Team from left to right: Joey, Mauricio, Chase, Kat, Josh, Chelsea, EB, Kirk



Dinner pictures

PLPM GSO officers (Mohsin Raza, Bridget Janssen, and Hayley Nelson) worked diligently to make this year's PLPM annual retreat a success. The annual retreat was held at Story County Conservation Center at McFarland Park on Friday, August 25 from 4:30p.m. to 8:30p.m. The retreat kicked off with [Dr. Ronald Walcott's](#) illuminating presentation on additional skills needed in a professional life such as management, budgeting and communication skills among others. After Dr. Walcott's presentation, faculty, students and their families had the opportunity to network and socialize with each other over dinner. To promote collaboration, communication, and entertainment, the GSO officers separated the attendees into three large teams in order to compete in several team-building activities. This year, the winning team (green) was composed of graduate students: Joshua Budi (Joey), Mauricio Serrano, Chase Mayers, Katherine Nolan (Kat), Joshua Viggers (Josh), Chelsea Harbach, Elizabeth Wlezien (EB), and Kirk Hatfield. The green team finish all teamwork activities with a record time of 27:04.56 minutes, followed up closely by the red team with a time of 27:14.72 min. We congratulate all the members of the green team on their competitive performance and we will look forward to seeing who will be the winner next year.

## One on One conversation with Dr. Ronald Walcott

*By Olakunle Olawole*

PLPM graduate students had the opportunity to converse with Dr. Walcott. Students asked for advice on how to prepare for a successful career. Here is some of the advice given by Dr. Walcott: "The pathway to a successful career is not straightforward. However, I would say that time management is a key skill that can never be over-developed. Learn to be organized; if possible, take short classes on project management; develop a shock absorber for distractions; take advantage of all the available resources that you have access to during your graduate program. Set daily goals, weekly goals, monthly goals, yearly goals. Don't start out the day without a definite plan of what you plan to do. Since you cannot have your hands on everything no matter how great your aspirations are, learn how to respectfully and diplomatically say NO, especially to requests that do not feasibly fit into your set goals. Know the best time to that you are at your peak to learn, assimilate, write, work in the lab, etc. be honest with yourself. Also, find places where you know you can get jobs done with few distractions."



Dr. Walcott

## Representing PLPM at the 2017 APS Annual Meeting, San Antonio, TX



Several faculty, postdocs, and students attended the annual American Phytopathological Society (APS) meeting held at San Antonio, TX from August 5-9. The theme for this year's APS meeting was focus on "Changing Landscapes of Plant Pathology" which focused on the profound impact on the science and practice of plant pathology, new technologies, and the next generation of plant pathologists who will employ them in their pursuit of solutions to plant health problems. During this international meeting, PLPM attendees had the opportunity to network and interact with a diverse group of scientists through poster presentations and social events. PLPM had over 10 poster presenters during this meeting.

For more information on the past APS program abstracts, click [here](#)

To watch a short video on the APS meeting from attendees, click [here](#)

## Fall 2017 PLPM Seminar Series: Dr. Baskar Ganapathysubramanian



Dr. Tylka introducing guess speaker (Dr. Baskar)

The PLPM fall seminar series kick off on Tuesday, August 29 with a presentation by Dr. Baskar Ganapathysubramanian, entitled "Phenotyping: Image processing, crowd sourcing, and high throughput computing." During his presentation we learned about the mechanical engineering department, and collaborations with the ISU Agronomy and Plant Pathology and Microbiology Departments to develop imaging tools useful for automatic classification of seeds and nematode eggs. Dr. Baskar is aiming to develop mathematical and computational tools to speed up the phenotypic analysis of organisms' traits. He believes that these tools will allow for science data to be processed and analyzed at a faster rate.

For more information on the Ganapathysubramania lab, click [here](#)

## PLPM is expanding! Welcoming our new family members



### Julie Aiza Mandap

**Major:** MS. Plant Pathology & Microbiology

**Advisor:** Dr. Gary P. Munkvold

**Education:** BS Agriculture Major in Plant Pathology, University of the Philippines Los Baños

**Areas of Expertise:** Fungal plant pathogens, mycotoxins, maize disease



### Gabriela Morel Gadea

**Major:** Ph.D. Plant Pathology & Microbiology    **Minor:** Plant Breeding

**Advisor (s):** Dr. Gary P. Munkvold, Silvia Cianzio

**Education:** BS in Agriculture with emphasis in Plant Protection, Universidad Nacional de Asunción, San Lorenzo, Paraguay

**Areas of Expertise:** Soybean disease assessments and disease identification in laboratory



### Surapathrudu Kanakala, Ph.D.

**Post-doctoral Fellow**

**Professor:** Dr. W. Allen Miller

**Areas of Expertise:** Geminiviruses, Plant-insect-virus interactions

# Alumni Updates

## PLPM Alumnus visits Department after 47 years of bagging his PhD

By Olakunle Olawole



Danfe Ayanru

It was a moment of excitement and fulfillment on the 25th of August when an Alumnus (Danfe Ayanru) of our Department stopped by to say hi to Dr. Thomas Baum, the Department's Chair. Danfe, who hails from Nigeria, earned his PhD from our Department in 1970, when it was named Botany and Plant Pathology. During his PhD program, he got married and had a baby boy; he then returned with his family to Nigeria after he graduated. He later joined the University of Benin City in Nigeria as a faculty member, where he rose through the ranks to become a Professor and retired in 2003. Danfe was so excited to return to ISU – a place he called home- and also to show his son, who has lived in Virginia since 1995, his city of birth. Danfe came visiting with his wife and son, Ovario. His Ph.D. dissertation was titled: *"The effects of heterogeneous oat populations on the epiphytotic development of Victoria blight"*.



From left to right: Liz, Danfe, Kunle



Danfe's wife and son

## PLPM Alumnus gets a new position at the Plant Breeding Institute in Sydney, Australia



Priyanka Surana

Priyanka Surana graduated with her Ph.D. in Bioinformatics and Computational Biology under the direction of Dr. Roger Wise. Her research focused on membrane trafficking in resistance gene-mediated defense against the barley powdery mildew fungus. Upon graduation, Priyanka took a position at the Plant Breeding Institute in Sydney, Australia to work on bioinformatics of rust pathogens under the guidance of [Dr. Robert Park](#).

We wish Priyanka the best of luck in her new position and look forward on hearing more about her future research.

## In Memoriam

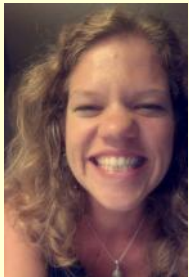
### Abraham Epstein

B.S. 1952 Cornell; M.S. 1954 Rhode Island; Ph.D. 1969 Iowa State

Dr. Abraham H. Epstein, former Chair of the ISU Department of Plant Pathology, Seed and Weed Science, passed away on Friday, June 2, 2017 at the age of 91. Dr. Epstein grew up on a farm in Connecticut and spent his early career as plant pathologist in California and Wisconsin. He came to Iowa State in 1965 to continue graduate studies and to work in extension. He was Professor-in-Charge under Dr. Fred Smith during 1976-1979, serving an apprenticeship for more leadership responsibility later. He was president of the North Central Division of APS in 1983 and was made a Fellow in AAAS of 1987.

Dr. Epstein became Chair of Department of Plant Pathology, Seed and Weed Science in 1979 after Dr. Smith, previous head of Botany and Plant Biology, stepped down. During Epstein's tenure, the department launched into an era of a paradigm shift, to include more modern aspects with genetic engineering and molecular biology. Such a shift was necessary to be competitive with other plant pathology Departments across the globe. After 10 years of service, Epstein decided to step down continued until a successor, Dr. Tom Harrington arrived.

# Announcements



Hayley Nelson

Hi, everyone. One goal of mine as a member of our department is to foster a culture of inclusivity so that all members (students, visiting scholars, professors, staff, etc.) feel welcome and considered. I want to use this newsletter to shine a bright light on upcoming events in the Cultural Competency Lunch and Learn Series and encourage you all to attend. I have attended a session in the past and found it very useful and informative. Theresa Cooper, CALS Assistant Dean for Diversity, organizes these events. I've heard stories about discrimination experienced by students firsthand from undergraduate and graduate students, from Dean Wintersteen, and from Theresa Cooper. You really wouldn't believe some of these stories, so I highly encourage attending the second event. Also, Theresa Cooper is an outstanding resource to talk to if you want to learn more or have concerns about inclusivity at Iowa State University.

## Breaking Bias (Free lunch provided)

The focus of this interactive workshop is to provide a safe space for students, faculty and staff to explore the concept of Unconscious Bias. There will be a focus on what bias is and how to nudge your unconscious to counter bias in your daily activities.

**Date:** October 18; **Time:** 11:30-1:00; **Location:** Room 1951 Food Sciences (CCUR Theater); **RSVP by October 16** to Theresa Cooper ([tncooper@iastate.edu](mailto:tncooper@iastate.edu)).

## If These Walls Could Talk (Free lunch provided)

CALS multicultural students discuss their perspective of life on campus. Their stories are emotional and raw, filled with incredible tenderness, courage, and pain. The diversity issues they challenge us to look at are equally provocative, begging to be heard and confronted.

**Date:** November 3; **Time:** 11:30-1; **Location:** Heady Hall, Room 368A; **RSVP by October 16** to Theresa Cooper ([tncooper@iastate.edu](mailto:tncooper@iastate.edu)).

If you attend any of these events or others, please consider sharing what you learned and thought about it in a future newsletter! Thanks.

-Hayley Nelson

## Upcoming Events



- September 5, 2017 3:10-4:00p.m. PLPM seminar:** Dr. Huixia Shou, Zhejiang University, China. **Science1, room 152**  
*"Regulation of phosphate hemostasis via the ubiquitin-conjugating E2 enzyme, PHO2 and a RING-type E3 ubiquitin-ligase, OsNLA1 in rice"*
- September 12, 2017 3:10-4:00p.m. PLPM seminar:** Dr. Sydney Everhart, University of Nebraska-Lincoln. **Science1, room 152**  
*"Phenotypic and genotypic variability in Sclerotinia sclerotiorum: what does it tell us and how does it get there?"*
- September 13, 2017 7:00p.m.** Tim Wise University Lecture. Stephens Auditorium at Iowa State University  
*"Understanding and Defeating Racism and Discrimination in America"*
- September 19, 2017 3:10-4:00p.m. PLPM seminar:** Salman Ghuffar, Arid Agriculture University, Rawalpindi, Pakistan  
**Science I, room 152:** *"Agriculture in Pakistan, and characterization of post-harvest decay pathogens of grapes and their management with plant essential oils"*
- September 26, 2017 3:10-4:00p.m. PLPM seminar:** Dr. Leticia Pereira, Universidad Federal do Rio Grande do Sul, Brazil  
**Science I, room 152:** *"The differential expression of WRKY genes in response to water deficit"*
- October 3, 2017 3:10-4:00p.m. PLPM seminar:** Jared Jensen (Ph.D. Exit Seminar). **Science1, room 152**  
*"Effects of nematicidal seed treatments on the biology of soybean cyst nematode"*

## Recent Publications

- Kandel, Y. R., Wise, K. A., Bradley, C. A., Chilvers, M. I., Byrne, A. M., Tenuta, A. U., Faghihi, J., Wiggs, S. N., and **Mueller, D. S.** 2017. Effect of soybean cyst nematode resistance source and seed treatment on population densities of *Heterodera glycines*, sudden death syndrome, and yield of soybean. *Plant Dis.* ([Available for first look](#))
- Yang Q, He Y, Kabahuma M, Chaya T, Kelly A, Borrego E, Bian Y, El Kasmi F, Yang L, Teixeira P, Kolkman J, Nelson R, Kolomiets M, L Dangel J, Wisser R, Caplan J, Li X, **Lauter N**, Balint-Kurti P. 2017. A gene encoding maize caffeoyl-CoA O-methyltransferase confers quantitative resistance to multiple pathogens. *Nature Genetics.* ([Available for first look](#))