

When Early-Career Professionals Understand What They Need during a Pandemic

Ying-Yu Liao, Raymond García-Rodríguez, and Karen da Silva

It is no secret that the pandemic caused by the novel virus COVID-19 has affected all of us economically, emotionally, and professionally. Groups that have been significantly affected are early-career and postdoctoral researchers. While many of us have found ways to continue our research, networking opportunities have gone extinct. That is why three early-career professionals, **Ying-Yu Liao** (North Carolina State University, postdoc), **Raymond García-Rodríguez** (Pennsylvania State University, postdoc), and **Karen da Silva** (Corteva Agriscience, field scientist), took the initiative of creating Plan[t]ify. Plan[t]ify is a platform intended to overcome the lack of networking opportunities and, most importantly, provide support to our community.

Studies show that career and professional development training change career

outcomes (Fuhrmann 2016; Mathur et al. 2015). When the pandemic-driven shut-down of research and the work-from-home recommendations were put in place, it was left up to the individual to continue their career and professional development programming (Gardner et al. 2020). In addition, working from home situations impact a diverse group. These home situations include limitations and impediments facing international students and disruptions to researchers that differ by gender, caregiver status, and career level. There are substantial unanswered questions about international talent flows, early-career researchers' development, and setbacks in achieving gender equity (Vagal et al. 2020). Therefore, the early-career community urgently needed a structured platform for



Welcome to Plan[t]ify

Jan. 29, 2021

professional development and psychological support.

With the support of **Dr. Bull** (Pennsylvania State University) and **Dr. Huerta** (North Carolina State University), the first meeting of Plan[t]ify was held on January 29, 2021. The invited speaker was **Dr. Lindsey du Toit**, professor and extension

Plantify, continued on page 3

PLANT PATHOLOGY'S PERPLEXING PAST: THE REST OF THE STORY

Haven Metcalf and Coryneform Bacterial Diseases

Robert M. Harveson, University of Nebraska, Panhandle REC, Scottsbluff



Haven Metcalf

In the previous article, I introduced the theory of Nebraska being a breeding ground for the discovery of new plant diseases. Curiously, this has been particularly evident with bacterial diseases, specifically those caused by Gram-positive pathogens. "Gram" refers to the reaction of the bacterium's cell wall structure to a microscopic dye that broadly differentiates bacteria into two primary groups—negative and positive.

Terminology and Taxonomy for Gram-Positive Bacteria

The genus *Corynebacterium* was created in 1896 by **K. B. Lehman** and **R. O. Neuman** to house the diphtheria bacterium, *C. diphtheriae*. Other animal pathogens were placed in this genus, followed by additional superficially similar bacteria, creating a confusing catch-all group of Gram-positive, pleomorphic (exhibiting cells of variable shape and size) bacteria, and were referred to as "coryneform," a term created by the Danish soil microbiologist, **Hans Jensen**.

Coryneform bacteria are a very heterogeneous group of Gram-positive bacteria with similar short, irregular rods that may

Perplexing Past, continued on page 2

In This Issue

OPRO	5
PPB	5
APS Foundation	6
APS Publications	6
Donors of Distinction	8
People	9
Classifieds	11
Graduate Student Spotlight	14
Research Notebook	15

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Perplexing Past, continued from page 1

be slightly curved or club shaped. They are also common soil inhabitants and constitute a large and important component of the soil microflora, consisting of both pathogens and saprophytes. The plant-pathogenic members of this genus were later separated into two primary genera, *Clavibacter* and *Curtobacterium* based on separate cell wall composition and different biochemical and DNA characteristics.

Although the majority of phytopathogenic bacteria are Gram negative, there is a group of Gram-positive bacterial pathogens that are known to cause damaging diseases in various crops. Nebraska appears to be the original home for a number of these pathogens, which have historically been extremely important to major field crops grown in the state.

A New Sugar Beet Root Rot Disease?

Previous “rest of the story” accounts have provided evidence for this odd occurrence, with tales of bacterial wilt of dry beans in 2019 (October and November *Phytopathology News* issues) and Goss’ wilt of corn in 2020 (August/September *Phytopathology News* issue). However, this article will begin a new series of stories involving several additional diseases from Nebraska’s agricultural history caused by Gram-positive pathogens that are expectedly lesser known than Goss’ wilt or bacterial wilt of beans. From what I could discern, the observation of an obscure disease of sugar beets in 1901 by one of **Charles Bessey’s** graduate students, **George G. Hedgcock**, represents the first example, chronologically, of these pathogens apparently originating in Nebraska. The story of this largely, if not completely, forgotten disease is the rest of the story.

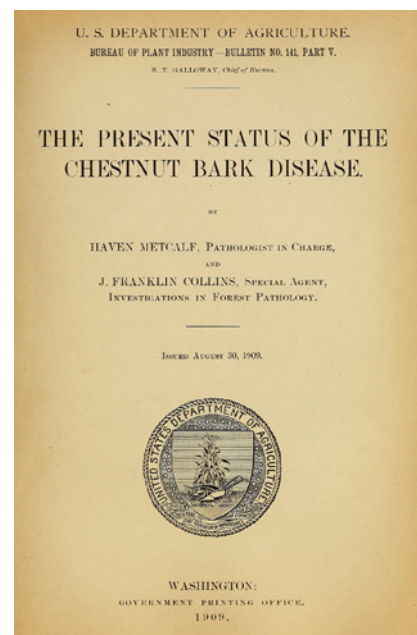
Haven Metcalf

Today **Haven Metcalf** may be best remembered for his pioneering work with forest pathology. As head of the Bureau of Plant Industry’s Forest Pathology Investigations, he became a celebrated figure working with white pine blister rust and chestnut blight. He published the first general *USDA Bulletin* on chestnut blight in the United States in 1909. Interestingly, Bessey later chose his close friend and graduate school colleague George Hedgcock to lead investigations on different rust disease problems of conifers and surveys for diseases in national forests in the western United States.

However, Metcalf arrived in Lincoln, NE, in 1901 as one of the few trained bacteriologists at the time. He became the first instructor of this subject at the University of Nebraska–Lincoln, teaching while also studying with Bessey. Additionally, his presence in the department led to the introduction of new bacterial techniques to the school.

Wet Rot of Sugar Beet

In 1901, a destructive wet rot of sugar beet was brought to Metcalf’s attention by Hedgcock. Studies began in 1902, and the disease was found to be widespread and preva-



USDA Bulletin written by Haven Metcalf.



Symptoms of a disease of sugar beets (originating from the tip and moving upward) characteristic of wet rot disease.

plant pathologist at Washington State University and immediate past president of The American Phytopathological Society. In her talk about “Challenges and Tips for Working Productively during the Pandemic,” Dr. du Toit provided useful tips on how to remain productive without sacrificing physical and emotional health. In the presentation, Dr. du Toit used the phrase “it took a village to raise a scientist” to stress the fact that we all need to bring different perspectives and support our community. Unfortunately, the pandemic has broken many connections, but the village did not disappear. Dr. du Toit encouraged all the attendees to reconnect and build a village using the following disciplines:

- 1) **Identify your trigger points:** Try to take care of yourself and find a routine. Pull yourself away from the trigger and slow down for some volunteer work or art. Also, don't be afraid to say no.
- 2) **Recognize your strengths and weaknesses:** By recognizing your strengths

and weaknesses, you will be able to support others with your strength and seek support for your weaknesses.

- 3) **Be deliberate:** Show gratitude and grace. Show kindness to people inside and outside the village.
- 4) **Set up both professional and personal goals:** Start with a bite-size goal, then increase it to a meal-size goal. To keep this goal, Dr. du Toit encouraged the attendees to find accountable people to stay motivated.

Dr. du Toit also emphasized the importance of networking, and she gave the attendees some pointers for effective ways to network during the pandemic.

- Seek opportunities to gain skills
- Get involved in professional societies like APS
- Join subject-matter or general-policy committees
- Take initiative: Organize workshops or symposia
- Offer to review manuscripts and proposals
- Attend professional meetings: There

are more opportunities during the pandemic with virtual events

The presentation ended with a beautiful quote by H.G. Wells, “In times of change, the learners inherit the earth, and the learned find themselves beautifully equipped to deal with a world that no longer exists.”

A total of 75 people signed up, and 41 early-career professionals joined the meeting. They were from diverse research and cultural backgrounds. Overall, the event received 4.12 out of 5 points in the post-meeting survey (17 of 41 people responded). With the high sign-up number and the highly engaged interactions in this very first event, this early-career professional community definitely needs a networking platform. The Plan[t]ify committee took notes, incorporating the attendees' feedback, and will adjust accordingly for the next event.

Stay tuned for the announcement of the date of the next meeting and the speaker. For any information or questions, do not hesitate to contact Ying-Yu Liao (yliao@ncsu.edu), Raymond García-Rodríguez (rog5265@psu.edu), or Karen da Silva (karen.silva@corteva.com). ■

lent throughout Nebraska and additionally was found to some extent in Arizona and Colorado. With the assistance of Hedgcock, Metcalf determined the disease to be of bacterial origin.

Curiously, symptoms of the disease were observed only on mature roots, starting at the distal tip and moving upward toward the crown, eventually resulting in a soft sticky mass of decayed parenchyma tissues. No foliar symptoms were observed until the entire root was destroyed and leaves suddenly collapsed and turned black. The disease was never able to be created by inoculating seedlings, nor were any infections on young plants observed in fields.

After fulfilling Koch's postulates with the pathogen, it was identified as a Gram-positive, nonmotile bacterium, white in color, but not viscous. Metcalf concluded that the disease was new and caused by a never before described pathogen. He named it *Bacterium teutlium*. The etiology and analysis of this new disease became Metcalf's Ph.D. topic, which he completed in 1904.

Today it is assumed that this pathogen is synonymous with a member of the genus *Lactobacillus* (*L. teutlium*), which is closely related to various lactic acid bacteria utilized for the production of acid from the fermentation of silage. Regardless of what its identity actually was, it began a string of plant disease reports of Gram-positive bacterial pathogens from Nebraska. Now you know the *rest of the story*.

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Technology and Tools Webinar Series—Call for Topics!

In an effort to help professionals remain abreast of ever-evolving technologies available for research, the Mid-Career Task Force will host a series of webinars. We are seeking speaker nominations, either yourself or someone else, whose research techniques are on the forefront of science. We also welcome submissions for technologies that you'd like to learn about but for which you have no presenter in mind.

We are interested in tools or technologies that are pioneering how research is conducted in either applied or molecular plant pathology—or from a related field that can be leveraged into plant pathology.

The webinar format is flexible, allowing for video tours of equipment or live demonstrations of techniques (if desired).

Please submit your nominations by April 5, 2021. Contact apshq@scisoc.org if you have any questions about this initiative or are interested in joining the Mid-Career Task Force. ■

Remembering 3340 Pilot Knob Road, the “Home of APS”



On January 18, 2021, demolition began on the former APS Headquarters building at 3340 Pilot Knob Road. As word spread among the APS past presidents, many expressed regrets for the loss of the building that had been the “Home of APS.” Many also reflected on their memories of visiting HQ and working with colleagues and staff to “meet the challenges of the day” and move the society forward....

It made me think back to all the progressive decisions taken by council and staff to ‘quit doing things the way we always did it’ and to lead the way among scientific societies to invent and adopt new technologies for our science. So once built, 3340 was expanded, remodeled, retrofitted, and finally retired after serving APS well. I’ve lost count of the number of trips I made and the great times we had. I was looking forward to one last meeting at 3340 in 2016, but I never made it because of a snowstorm in Virginia—not in Minnesota! It turned out to be my first virtual meeting (pre-ZOOM). –Sue Tolin

So many wonderful and fond memories in that building, but like all buildings, the magic is the people who gather in them. How lucky we all were to be a part of APS leadership and to gather and work collaboratively for the good of APS and our beloved profession. –Mike Boehm

A lot of good memories... one of my favorite being when I was asked to prepare a history of APS as a publisher, and I got Steve Nelson, Miles, and Kron out to dinner for a conversation about ‘the old days’ of APS PRESS. I recorded the whole conversation, and it was pure gold. They can haul the building off to a landfill, but not all the memories that were developed inside it. –Jim MacDonald

Wow... my entire life as a member of APS flashed before my eyes!! It started in March 1970 when as a newbie graduate student in plant pathology I sent a modest contribution to the APS Headquarters Building Fund—and received a thank you letter personally signed by J. C. Walker. The Headquarters building gave APS a place to get established and grow, which it has done exceptionally well thanks to staff and APS members and leadership. What a privilege it has been to be a part of that! I always will be grateful for having the opportunity to work with such dedicated and creative staff and APS colleagues! A lot of difficult decisions and changes have occurred over the last 50 years, but APS has always made wise choices. –Carol Windels

I felt the staff and building were exceedingly welcoming, and that helped me as a novice APS leader to grow and feel welcome. –Anne Vidaver

Greetings from Massachusetts.... The weather reminds me of all the cold, snowy, windy January and February days when we were attending meetings at 3340 Pilot Knob Road! I recall inching from the car to the building on the icy paths, people anxiously checking flights home, and one Council member from the South who always came without a coat! I also recall the warmth inside the building—the fellowship and the can-do attitude.... Finally, I recall amazing support from our staff who provided information, ideas, and some pretty yummy snacks! –Cleo D’Arcy

Working on projects for APS was a lot like grad school: lots of interesting challenges, lots of socializing and parties, lots of fun. And, the backdrop to all that was good old 3340. So now it falls to a new generation of leadership to carry on and build their own memories somewhere else. –John Andrews

As Bob Dylan sang, ‘The times they are a’changing.’ APS has and will continue to adjust to the times. As past presidents, we had the privilege of guiding the Society through the challenges of our day. I trust the next generation of leaders will do the same. My most cherished memories of Headquarters are the shared meals, laughter, and heady—sometimes silly—discussions with APS staff and members. It was a privilege to be part

of a team dedicated to scientific ideals and professionalism. Arriving at the building, I was always a little nervous and awestruck. The warm greetings of supportive APS staff and colleagues upon entering Headquarters put me at ease immediately and instilled confidence for meeting the challenges of the day. –Carol Ishimaru

The images [of the demolition] sparked many great memories of council meetings, editorial board meetings, the wonderful staff, and more.... I am so curious about the new HQ and look forward to continuing the APS energy from there! Looking forward to an in-person APS meeting where we can all meet again! –Jan Leach



Staff can say it was with mixed emotions that we viewed the demolition of APS Headquarters. It was the taking down of a building that held so many fond memories, but it was also a manifestation of how APS and Scientific Societies have continued to evolve. The dedication and leadership of APS past presidents and many members through the years, paired with staff’s energy and teamwork, have made APS the vibrant and connected community that it is today. In 2020, faced with a pandemic, APS’s leadership continued to show its adaptability and its highly focused commitment to members. APS not only mastered the pivot but turned serving its members into a full-on choreographed dance party. At HQ we swore by the power of teamwork, doubled down on technology, became fearless about innovation, and found that chaos is opportunity if you look for it.

Thank you, APS members and leaders, for your support through the years. You have helped build this resilient culture at headquarters, and the legacy of your leadership continues to build a Scientific Societies partnership that is stronger than brick and mortar.

–Amy Hope, APS Executive Vice President ■

OPRO Meets Maya Hayslett

Maya Hayslett is the Crop Science Youth Education Specialist, Integrated Pest Management team within Iowa State University Extension and Outreach.

Science outreach activity: Iowa Youth Crop Scouting Competition.

Type of event: Competition.

Intended audience: Youth in grades 7–12 who form teams with an adult coach.

Description of the activity: At the Youth Crop Scouting Competition, middle-school and high-school youth can show off their crop scouting knowledge to win prizes. Iowa State University staff and industry professionals evaluate teams as they work to identify corn and soybean pests and other problems in the field. The goal of the competition is to provide youth an opportunity to learn crop scouting and principles of integrated pest management for corn and soybean and to obtain knowledge and skills that will be helpful in future careers related to agricultural sciences.

Materials needed for this activity:

- Field plots that the youth can explore to look for pests and other issues.
- Different stations that youth can visit during the competition. At each station there is a task and/or a series of questions for them to answer.
- A multiple-choice test on general knowledge about integrated pest management.

- Faculty, staff, and industry professionals to staff the stations.
- Study materials that are provided to the teams prior to the competition.
- Prizes, if desired.

Information regarding this event:

- www.ipm.iastate.edu/crop-scouting-competition-iowa-youth-2020
- The packet of materials to start a crop scouting competition in your area are available upon request from Maya Hayslett (hayslett@iastate.edu).

How will you modify or improve future offerings? A main goal of the competition is for youth to interact with professionals and develop professional skills. Based on feedback from staff and volunteers, we have incorporated teamwork skills and professionalism into the scoring system.

How many times has this activity been hosted? The year 2021 will mark the 11th year of the competition.

In total, how many participants have been in attendance? On average, 8–10 teams participate in the competition each



Iowa State University Extension Specialist **Angie Rieck-Hinz** works on staging corn with a youth team at the Iowa Youth Crop Scouting Competition.

year, with a total of approximately 50 youth participants.

How was the impact of this outreach activity evaluated? Youth and adult coaches complete a survey after the competition to assess the quality of the experience and the value of the competition to coaches and participants. We also welcome feedback on ways to improve the competition.

To have your science outreach activity or event featured in the new “OPRO meets...” article series, please complete [this survey](#). ■

Public Policy Board

Early Career Internship Applications Are Now Being Accepted by PPB



The APS Public Policy Board (PPB) is committed to developing future leaders to engage in science policy that relates generally to agricultural science and specifically to matters of interest to APS. Through the PPB Early Career Internship program, interns experience many sides of policy making, including helping to identify advocacy issues and learning how scientific societies, non-governmental organizations, executive branch agencies (e.g., USDA, NSF, EPA), and the legislative branch interact in crafting public policy. Some of the benefits of the internship are the opportunities to hone communication and leadership skills and build connections with scientists and administrators from academia, industry, and government.

This internship is open to APS early career members, which includes current graduate students, postdoctoral associates, and junior

professionals. The PPB early career intern will participate in PPB activities from August 2021 to August 2023. In the first year of the internship, the intern will be expected to participate in monthly PPB calls and in the preparation of newsletter items and policy white papers. At the end of the internship, the intern will prepare a written and/or oral report on the experience for delivery to PPB and the APS membership. Other activities may include, but are not limited to, meetings to establish the PPB policy agenda-setting; development, tracking, and analysis of policy issues; planning Capitol Hill and agency briefings; updating and presenting the PPB booth at the APS Annual Meeting.

Application materials and a detailed description are [available online](#). Completed application materials must be received by **May 15, 2021**, and should be sent to **Rick Bennett**, PPB chair. ■

APS Foundation Funding Opportunities



Applications are being accepted through **March 15** for the following awards:

- **I.E. Melhus Graduate Student Symposium**

The [APS Phyllosphere Microbiology Committee](#), in conjunction with financial support from the APS Foundation, is sponsoring the 20th I.E. Melhus Graduate Student Symposium. This symposium, *Microbial Life on a Leaf: Building Foundation for Sustainable Agriculture*, will feature graduate student presentations, in which these junior scientists will share their work, which is uncovering the microbial diversity and interactions in the phyllosphere environment. All APS graduate student members with thesis research projects related to phyllosphere microbiology are encouraged to submit their applications. [Learn more and apply.](#)

- **Schroth Faces of the Future Awards**

This symposium is designed to acknowledge up-and-coming researchers shaping the future of their respective scientific disciplines. This year's topic is Nematology. We encourage nominations of forward-thinking scientists in the early stages of their careers (within 10 years of graduation) who are perceived to be future leaders in the field. Early career and post-docs are eligible to apply. Nominees must be APS members in good standing. [Learn more and apply.](#)

- **Lafayette Frederick Diversity in Mentoring Award**

The award is designed to enable mentors and enhance the academic and professional experiences of mentees. The goal is to increase the number of practicing plant pathologists from underrepresented groups, particularly those from historically black colleges and universities, 1890 land-grant institutions, tribal colleges and universities (1994 land-grant institutions), and minority-serving institutions. [Learn more and apply.](#)



Give to the
APS Foundation
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Give to the Lafayette Frederick Diversity in Mentoring Fund

A fundraising goal of \$100,000 has been set to endow this award. The APS Foundation and APS Council have pledged \$20,000 each in matching funds, so the first \$40,000 in donations will be doubled.

Student Travel Awards

Abstract submission to [Plant Health 2021](#) is now open. APS student members planning to give an oral or poster presentation at the upcoming [Plant Health 2021](#) who did not receive an award the previous year are eligible to apply.

Applications must be submitted by April 15, 2021, in conjunction with the Plant Health 2021 abstract submission process. [Learn more.](#) ■

New and Upcoming Focus Issues

New *Phytopathology* Focus Issue on Population Genomics

The 2021 *Phytopathology* focus issue, which represents the many facets of populations genomics in the phytopathology field, is now available. Focus Issue Editors **Marin Brewer**, **Pierre Gladieux**, **Erica Goss**, **Neha Potnis**, **Remco Stam**, and **Boris Vinatzer** present a robust issue of research articles covering the major types of plant-pathogenic organisms and reviews and perspectives covering the basic steps of population genomics analysis and the most technical approaches. This focus issue also includes topical reviews on the current status of phytopathology in plant-pathogenic viruses, bacteria, and nematodes and the impact of human activities on plant health.

Review the full Focus Issue on Population Genomic- and Phylogenomic-Enabled Advances to Increase Insight into Pathogen Biology and Epidemiology [here](#).

Phytobiomes Journal will also publish its first focus issue, covering the phytobiomes of

bioenergy crops and agroecosystems, later this year. This issue was compiled by Focus Issue Editors **Kate Zhelnina**, **Ashley Shade**,



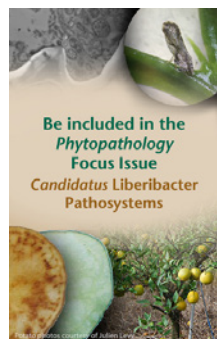
Be included in the
MPMI
Focus Issue
The Role of the
Abiotic Environment on
Interactions between
Plants and Microbes

Jennifer Pett-Ridge, **Christine Hawkes**, and **Mary Firestone**. Take an early look at the articles [here](#).

Be Included in 2022 Focus Issues!

Both *Phytopathology* and *MPMI* are now accepting submissions to their next focus issues. *Phytopathology* will focus on *Candidatus Liberibacter* pathosystems given their growing economic importance, broad impact on plant pathology, and potential importance to better management based on new knowledge of *Ca. Liberibacter*–plant–insect interactions. Focus Issue Editors **Elizabeth (Betsy) Pierson**, **Jaime Cubero**, **Judith K. Brown**, **Caroline Roper**, and **Nian Wang** will oversee the issue. [Learn more here.](#)

The *MPMI* 2022 focus issue draws from the [Top 10 Unanswered Questions in MPMI](#) and will focus on question number 2: How does abiotic stress, such as climate change, influence plant–microbe interactions? The Focus Issue Editors **Jacquie Bede**, **Kenichi Tsuda**, and **Jeanne Harris** will oversee the issue. [Learn more about this topic.](#) ■



Be included in the
Phytopathology
Focus Issue
Candidatus Liberibacter
Pathosystems



Seismic Shifts in Disease Risk

August 2–6, 2021

Submit Your Abstract to Plant Health 2021 Online

Share your research with plant pathologists from all over the world at this year's annual meeting!

Your abstract should clearly describe the importance of your work to plant pathology, your objectives, methods, and results. Find more details regarding virtual presentation formats at planthealth2021.org.

Abstract submission closes April 15.



Applications for Storkan-Hanes-McCaslin Foundation Awards Due May 1



The deadline is approaching for graduate students to submit applications for the Storkan-Hanes-McCaslin Foundation Awards, named in honor of **Richard C. Storkan, Gerald L. Hanes, and Robert L. McCaslin**. To date, \$568,500

has been awarded to 88 promising scientists. In addition to unrestricted cash awards (which range from \$5,000 to \$10,000 and can be used for any purpose that will benefit the education of the student, including personal expenses), new awardees will also receive funding for the 2021 APS Annual Meeting and will be presented their awards at a luncheon attended by their research advisors, previous awardees, and members of the Foundation Committee. A major aim of the foundation is to encourage research by offering financial assistance to graduate students working on soilborne diseases of plants.

To be considered for funding, the applicant's proposal should be carefully prepared in accordance with the instructions published in the December 2020 issue of *Phytopathology News* and submitted electronically no later than **May 1, 2021**, via email to **Michael E. Stanghellini** (chair of the Selection Committee). Please submit a single file that contains the following: 1) a two- or three-page research proposal, including a concise statement of the objectives, methods, and materials and the projected impact of the proposed research (a budget is not required); 2) a one-page resume (including a brief education and research background, plus a telephone number and email address); and 3) a letter of recommendation from the applicant's major professor or research director. ■

Graduate Students: Apply to be Featured in *Phytopathology News*!

For each issue of *Phytopathology News*, the APS Graduate Student Committee chooses a graduate student to be featured in a [spotlight article](#). Applicants are chosen based on their involvement in APS as student members and their expected graduation dates. The committee strives to integrate students into society affairs and activities and recommends ways to address student concerns. Submit your application for consideration on the [submission webpage](#). ■

APS Foundation

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Meet some of the amazing people who support APS Foundation. Learn more about who they are and why they give their time and resources to support others.



Mariama Carter

Just as his mentor did for him, one of my undergraduate research mentors tirelessly emphasized the value of APS. While I believed him at the time, I did not truly appreciate this sentiment until I attended my first APS Annual Meeting as a graduate student. I was in awe of the quantity and diversity of research generated by our members. It was clear to me that APS provides extensive resources and support for both personal and professional development. It is these very opportunities that allowed me to return to the annual meeting with an Arthur Kelman Student Travel Award, participate in science outreach with Family Friendly APS, and serve as the vice chair of the Committee for Diversity and Equality. Additionally, APS embraces the fact that our professional careers intersect with our social identities, like ethnicity, sexual orientation, and gender. Therefore, I support APS because they vow to not only create a community based on scientific excellence, but also on core values of diversity, equity, and inclusion. Like my mentors and those before them, I too will continue to preach the value of APS.

Mariama Carter is a Ph.D. student in plant pathology at the University of Wisconsin, Madison.



Nian Wang

I have attended APS Annual Meetings since I was in graduate school at Texas A&M University. I have met so many friends and learned so much from all kinds of programs and activities hosted by APS. I am excited that APS is taking the lead to do so much more to protect agriculture and food production around the world and to provide opportunities to the next generation of plant pathologists, especially those from underrepresented groups. It seems to me all the programs deserve support. I am especially inspired by what **Dr. Lafayette Frederick** has done in mentoring students, and I am thrilled to contribute a drop to the big bucket that supports the Lafayette Frederick Diversity in Mentoring Award.

Nian Wang is a professor of microbiology and cell science at the University of Florida's Citrus Research and Education Center and is editor-in-chief of Phytopathology. ■

Awards



Dr. Zhi-Yuan Chen, professor in the Department of Plant Pathology and Crop Physiology, received the LSU AgCenter's Doyle Chambers Research Award for meritorious contributions to agriculture during his career with the Louisiana Agricultural Experiment Station. He received this award for his innovative mission-oriented research that has led to the development of novel and durable strategies to reduce aflatoxin infection in corn, as well as new molecular approaches that can reduce the impacts of *Cercospora* leaf blight and rust on soybean.



Uta McKelvy, Montana State University, will receive the Outstanding Ph.D. Student Award for her work on agronomic management techniques for management of arthropods and viral diseases in wheat. What makes McKelvy's research project stand out is that it investigates the interconnectedness of two major disease and insect problems in the northern Great Plains and considers the complex dynamics between the two. A major

outcome of her research efforts is the online learning tool called AWaRe—Assessment of Wheat streak mosaic Risk. This tool is designed to assist growers in understanding factors contributing to disease risk and empower them to make informed management decisions. McKelvy has already authored several publications, showcased her research at regional and international professional meetings, and is the recipient of numerous student awards and honors. She is active in extracurricular activities and has a passion for science communication and fostering a community of scientific exchange. Award applications were evaluated based on the USDA NIFA IPM Roadmap. This document, developed in 2002 and revised in 2018 by the U.S. Department of Agriculture National Institute of Food and Agriculture (USDA NIFA) and its stakeholders, provides direction for people who specialize in integrated pest management (IPM) through research, use of new technology, and measurement of success in management of all types of pests, including, but not limited to, agricultural, structural, veterinary, ornamental, forest, and public health pests.



Dr. Raj Singh, associate professor and director of the Plant Diagnostic Center, won the Friends of IPM Educator Award from the Southern IPM Center and the LSU AgCenter's Denver T. and Ferne Loupe Extension Team Award. The Southern IPM Center recognized his IPM outreach and educational contributions based on his diagnoses of numerous plant health problems and statewide horticulture pathology extension programs that

facilitated the implementation of integrated pest management (IPM). The Loupe Extension Team Award was given in recognition of excellence in planning, implementing, and evaluating extension educational programs for delivering sound IPM practices to address abiotic and biotic stresses impacting tabasco pepper production.

The APS Foundation is pleased to announce **Li Wang** as the 2021 recipient of the Raymond J. Tarleton Student Fellowship. Li



comes from China and is a doctoral student under the supervision of **Pingsheng Ji** in the Department of Plant Pathology at the University of Georgia. Her doctoral study focuses on characterization of *Phytophthora capsici* isolates resistant to fluopicolide and elucidation of molecular mechanisms conferring fungicide resistance. The objectives of her study include assessing fitness and competitive ability of fluopicolide-resistant isolates of *P. capsici*, identifying genetic factors associated with fluopicolide resistance using genome-wide association studies (GWAS), confirming candidate genes or SNPs associated with fluopicolide resistance using CRISPR-Cas9, and developing a molecular technique for detecting fluopicolide-resistant isolates. Li collected large numbers of isolates of the pathogen from commercial vegetable fields in Georgia and found a great proportion of the isolates were resistant to fluopicolide. This is the first report of the occurrence of field isolates of *P. capsici* resistant to fluopicolide in the world. A series of research has been conducted by Li to characterize fluopicolide-resistant *P. capsici* isolates, which indicated that the isolates were resistant to the compound at different life stages, including mycelial growth, zoospore germination, and sporangium production. In addition, her studies indicated that fluopicolide-resistant isolates had equal ability as fluopicolide-sensitive isolates in growth, sporulation, competition, and inducing disease on vegetable plants. She is currently conducting experiments to identify genes or SNPs associated with fluopicolide resistance using GWAS.

Li will present her research findings at the 2021 APS Annual Meeting. The fund from the award will cover partial expenses for identifying genetic factors associated with fluopicolide resistance using GWAS. The funding will also be used to develop molecular technique for detecting fluopicolide-resistant isolates. Findings from these studies will provide insights into the mechanisms of *P. capsici* resistance to fluopicolide and develop new technique for detecting fluopicolide-resistant isolates. These studies will provide valuable experience for achieving her academic and career goals to become a skilled plant pathologist to deal with disease issues faced by growers and facilitate development of more effective disease management programs to ensure profitable and sustainable production of vegetable crops.

New Position



Michael Fulcher has joined the USDA-ARS as a research plant pathologist in the Foreign Disease–Weed Science Research Unit (FDWSRU) at Fort Detrick, MD. Mike received his B.S. degree from Virginia Tech, where he worked with **Mary Ann Hansen** and **Elizabeth Bush** at the Virginia Tech Plant Disease Clinic. He then received a Ph.D. degree in plant pathology from Cornell University, where he studied under the mentorship of **Gary Bergstrom**. Most recently, Mike held a post-doctoral position at the University of Minnesota, working with **Linda Kinkel**. His research with the FDWSRU will focus on identifying and developing novel microbial-based approaches to invasive weed management.

People, continued on page 10

Obituaries



It is with profound sadness that we inform you of the passing of our dear colleague, **Dr. Theresa "Terry" Ann Shiela Aveling**, chair of the ISPP Seed Pathology Committee, due to complications linked to Coronavirus disease on December 18, 2020. Prof. Aveling was born in Newcastle, KwaZulu-Natal, South Africa, in 1962. She earned B.S. degrees in botany (1984) and plant pathology (1985) (Hons.) and an M.S. degree in plant pathology (1988)

from the University of Natal. Subsequently, Dr. Aveling earned a Ph.D. degree in plant pathology (1994) under the guidance of **Prof. Fritz H. J. Rijkenberg** at the University of KwaZulu-Natal and **Prof. Fritz C. Wehner** at the University of Pretoria, South Africa. Her commitment to the study of seedborne pathogens was fostered through a six-month British Commonwealth Fellowship at the University of Aberdeen, Scotland, in 1999–2000, where she worked alongside **Dr. Alison A. Powell**. They published one of the few papers combining seed pathology and vigor, which was then a niche field. Dr. Aveling became an associate professor at the University of Pretoria in 2000, where she trained 27 M.S. and 13 Ph.D. students. Prof. Aveling and her students published 56 scientific papers (549 citations), with an H index of 14, and she held an NRF C3 Rating. She had more than 100 national and 98 international conference presentations with co-authors from Africa, Europe, and the United States. She has given numerous keynote presentations internationally and has been the organizer, convener, or chair of numerous national and international conferences, workshops, and symposia for the seed industry.



Dr. Brion Duffy passed away unexpectedly at age 53 from COVID-19 complications on January 15, 2021, in Zürich, Switzerland. Brion was born in Cincinnati, OH, in 1967. He received a B.S. degree in tropical plant diseases at the University of Hawaii in 1988 and an M.S. degree in plant pathology from Washington State University under the supervision of **Dr. David Weller** in 1992. His work there focused on biological control of root diseases of wheat. From 1993 to 2000, he worked as a bacteriologist and researcher at the Swiss Federal Institute of Technology (ETH) in Zürich, where he received his Ph.D. degree, with honors, in 1999 under the guidance of **Prof. Geneviève Défago**. During his Ph.D. program, Brion studied interactions between plant pathogenic fungi and plant beneficial bacteria in the rhizosphere. A highlight of his dissertation was his discovery that fungal plant pathogens have the capacity to defend themselves by producing compounds that interfere with the production of antifungal metabolites by bacterial biological control agents. His dissertation was titled "Environmental Factors Influencing Ecological Interactions Between Biocontrol *Pseudomonas* and Fungal Pathogens." He then joined the USDA, Agricultural Research Service, Food Contaminants Research Unit, Albany, CA, as a research microbiologist. In 2002, Dr. Duffy returned to Switzerland, where he served as a senior researcher in plant bacteriology at Agroscope, the Swiss Center of Excellence for Agricultural Research, in Wädenswil. In 2013, he established and led the Department of Environmental Genomics and Systems Biology in the Institute of Environment and Natural Resources at the Zürich University of Applied Sciences (ZHAW) in Wädenswil.

Throughout his career, Dr. Duffy was a creative and innovative researcher in the field of phyto bacteriology, specializing in fire blight of pome fruits, biological control of plant diseases, and genomics. He published the first complete genome of the fire blight pathogen *Erwinia amylovora* and made major contributions to understanding the molecular mechanisms influencing pathogenesis by *E. amylovora* and pathogen evolution and diversity. He developed a rapid and accurate, in-field assay for pathogen detection and diagnosis of fire blight. Dr. Duffy also led research on biosafety of antibiotics and biological control agents of the diverse genus *Pantoea* that are used for management of fire blight.

Dr. Duffy was extraordinarily successful in grantsmanship and led diverse EU research projects. He also cohosted international scientific meetings, such as the IOBC meeting on Biological Control of Fungal and Bacterial Plant Pathogens: Molecular Tools for Understanding and Improving Biocontrol in Interlaken in 2008 and the 13th ISHS International Workshop on Fire Blight in Zürich in 2013. Dr. Duffy published more than 110 papers with more than 11,000 citations and had an H index of 51. He was named a Fellow by the Organisation for Economic Co-operation and Development in Paris in 2001 and is listed by Marquis Who's Who as a noteworthy microbiologist and researcher. In 2011, Dr. Duffy and his team, **Drs. Theo Smits, Fabio Rezzonico, and Tim Kamber**, received the Rudolf Hermanns' Foundation Science Award for deciphering the fire blight pathosystem. As a mentor, Brion encouraged others to think outside the box and to envision the broader connections and applications of their research. Brion also was an excellent networker and had collaborative research projects on nearly every continent. Most importantly, Brion will be remembered by his coworkers and numerous friends and colleagues around the world as a brilliant, fun, generous, and wonderful person that we lost too soon. We will miss Brion tremendously.

Condolences may be shared with The Duffy Family (one sister, six brothers, and nieces and nephews) c/o, 911 North Bend Road, Cincinnati, OH 45224, USA; duffyprinting@cinci.rr.com.



Nick Lauter, 48, of Ames, IA, died of a pulmonary embolism on January 7, 2021. Nicholas Christopher Lauter was born on December 13, 1972, in Appleton, WI. Nick was a member of the Appleton Boychoir and spent two years in Germany—one in Kassel with his family and one as a Rotary Scholar in Siegen—before graduating from East High School in 1991, where he played soccer and sang in the school choir. At Grinnell College, he majored in biology, toured with the Grinnell Singers, and served as the student manager of German House, earning a B.S. degree in 1995. Under the supervision of **John Doebley**, he earned his Ph.D. degree in plant biology at the University of Minnesota (UMN) in 2001 and completed postdoctoral work at the University of Illinois-Champaign-Urbana in 2005, having served as a USDA-NIFA Fellow for 2004–2005. Nick met **Adrienne Moran** when they were graduate students at UMN, and they were married at the Cincinnati Zoo and Botanical Gardens on September 13, 2003.

Nick returned to Ames, IA, in 2005 as a USDA-ARS research geneticist. He was a member of the USDA-ARS Corn Insects and Crop Genetics Research Unit in Ames and also a faculty affiliate in the Department of Plant Pathology and Microbiology at Iowa State University. Nick's research focused on maize genetics, genomics, and phenomics for maize improvement, quantitative genetics of disease and pest resistance, and plant growth and development, including

leaf epidermal development and the metabolomics of cuticular lipids. Nick was an active member of the maize genetics community for over 20 years, collaborating with researchers in the United States and abroad, publishing papers in journals such as *The Plant Genome*, *Nature Communications*, *Nature Genetics*, and the *Proceedings of the National Academy of Sciences*, and *Genetics*.

Nick grew up exploring in the woods of Door County, WI, developing a life-long love of trees, plants, and the outdoors. He sailed and wind-surfed on the waters of Green Bay and Lake Michigan. As a graduate student, he was a principal trip leader for the UMN Outdoors Club. In Ames, he planted many trees around his housing development as a member of the homeowner's association. He spent much time outdoors paddling on local lakes and rivers, skiing and snowboarding, biking and one-wheeling. Nick was a member of the Unitarian Universalist Fellowship of Ames. He was active in Scouting with his sons. Nick is survived by his wife Adrienne; three children, **Colfax**, **Quinton**, and **Ashton**; sister, **Kristin** (husband **Thomas**) of Redmond, WA; and parents, **Charles** and **Estella Lauter** of Fish Creek, WI. Nick was a well-loved member of the community and his profession and will be sorely missed.

Seminars



Rubén Félix Gastélum, professor at the Departamento de Ciencias Naturales y Exactas, Unidad Regional Los Mochis-UAdEO, Los Mochis, Sinaloa, México, was invited to present a seminar to the Department of Plant Pathology, Washington State University (WSU), on February 1, 2021. Gastélum earned his bachelor's degree in agricultural engineering at the Autonomous University of Sinaloa, México; master's degree in plant pathology at the Colegio de Postgraduados in Chapingo, México; and Ph.D. degree in plant pathology from the University of California, Davis. Among his academic activities, he founded the master's program on plant pathology at the Universidad Autonoma de Occidente in Los Mochis, México. He has the distinction of

being a research leader from the National Council for Research and Technology (CONACyT). He is a full-time professor at the Universidad Autonoma de Occidente, where he teaches principles of plant pathology and plant bacteriology. He has received multiple acknowledgments by the grower association in northern Sinaloa for his contribution to the management of diseases caused by viruses, fungi, and bacteria. Delivered online, his seminar, titled Potato Diseases in Sinaloa, México, was well attended by graduate students, postdoctoral associates, and faculty of the plant pathology and other departments. **Hanu Pappu**, professor in the WSU Department of Plant Pathology, coordinated the seminar.



Thien Ho, senior scientist in plant pathology at Driscoll's Inc., Watsonville, CA, was invited to present a seminar to the Department of Plant Pathology, Washington State University (WSU) on February 8, 2021. Ho was born and raised in the Mekong Delta of Southeast Asia. He completed his B.S. degree in agriculture at Can Tho University, Vietnam, with a dissertation on rice mycoherbicides. He then went to the Indian Agricultural Research Institute, New Delhi, for an M.S. degree in plant pathology and worked on characterization of a Tospovirus in mungbean. In 2003, he joined the University of Oxford, England, for a Ph.D. program in biochemistry and studied plant antiviral gene-silencing mechanisms. He did his postdoc at Oxford and Dundee (Scotland) before coming to the United States to work on berry viruses at the University of Arkansas and the National Clean Plant Network. Since 2015, he has been a plant pathologist at Driscoll's in Watsonville, CA, leading the company's nursery and molecular pathology research and service for strawberry, raspberry, blackberry, and blueberry production. Delivered online, his seminar, titled Diagnostic Re-thinking: Development and Deployment of New Molecular Testing for Berry Pathogens, was well attended by graduate students, postdoctoral associates, and faculty of the plant pathology and other departments. **Hanu Pappu**, professor in the WSU Department of Plant Pathology, coordinated the seminar. ■

Classifieds

Associate Director, Feed the Future Innovation Lab for Current and Emerging Threats to Crops

Virginia Tech (Blacksburg, Virginia)

We are currently seeking qualified candidates for the position of Associate Director, Feed the Future Innovation Lab for Current and Emerging Threats to Crops, to be based in Blacksburg, Virginia (preferred, remote candidates may be considered).

Description

Virginia Tech's Center for International Research, Education, and Development (CIRED) is currently recruiting for the position of Associate Director of the Feed the Future Innovation Lab for Current and Emerging Threats to Crops (CETC IL), an anticipated USAID-funded project that will aim to design, lead, and implement a

research program focused on the control of current and emerging biotic threats to food security crops that the poor depend on. The Innovation Lab will build on a series of successes in agricultural research that have generated innovative solutions for management of insects and other pests, diseases, and weeds.

The project will explore the following areas:

- Inclusive and sustainable agriculture-led economic growth.
- Strengthening resilience among people and systems.
- A well-nourished population, especially among women and children.

The project will aim to:

- Support smallholder farmers to improve production through research and innovations that provide greater resil-

ience against pests, diseases and weeds.

- Help farmers increase household income by reducing the economic burden of pest and disease control and losses to pests, diseases, and weeds through earlier identification and control.
- Mitigate potential negative environmental consequences through development and promotion of innovative, safe, and effective control models and methods.
- Improve household-level food security by reducing losses, allowing more production for consumption or income generation.
- Reduce risk to incentivize investment, fostering increased opportunity and

resilience, helping drive investment on and off farm

Essential Duties and Responsibilities

The position reports to the CETC IL Director within CIRED at Virginia Tech (VT). Responsibilities include:

- 1) Assisting the CETC IL Director in management and execution of all projects in host countries.
- 2) Developing project proposals and concept notes for associate awards.
- 3) Coordinating with U.S. and host country participating scientists.
- 4) Coordinating the preparation of budgets.
- 5) Preparing annual reports, work plans, and travel matrixes.
- 6) Reviewing projects.
- 7) Participating in regional planning meetings.
- 8) Providing research guidance to project partners.
- 9) Organizing regional and international workshops, symposia, etc. for the program.
- 10) Contributing to VT's scholarly mission through publication of project research.
- 11) Representing the Director in project meetings.
- 12) Participating in preparation of success stories and other promotional materials.

Required Qualifications

- 1) Ph.D. in a relevant crop protection discipline.
- 2) Significant experience implementing and/or managing international collaborative research projects.
- 3) Minimum of 5 years of relevant technical expertise.
- 4) Demonstrated inclusive program management and leadership.
- 5) Demonstrated knowledge and experience with sustainable, climate-smart agricultural technologies, integrated pest management, or related disciplines.
- 6) Demonstrated experience organizing workshops/symposia/meetings/conferences/webinars.
- 7) Demonstrated experience developing international research proposals.
- 8) Demonstrated publication in field of expertise.
- 9) Must have strong written and verbal skills.
- 10) Must be willing and able to travel internationally.

Preferred Qualifications

- 1) Proficiency in a foreign language.
- 2) Demonstrated experience with a range of international agricultural stakeholders, including policy makers.
- 3) Passion for improving global food security.

How to Apply

To apply, please send a cover letter and resume by email to CIRED.Jobs@gmail.com, with "Associate Director, Innovation Lab for Current and Emerging Threats to Crops" in the subject line. The position will remain open until filled. Only short-listed candidates will be contacted. Recruitment is contingent upon successful award of the project; this document should not be construed in any way to represent a contract of employment.

Virginia Tech is an equal opportunity and affirmative action employer. Women, minorities, individuals with disabilities, and protected veterans are strongly encouraged to apply. Anyone having questions concerning discrimination or accessibility should contact the Virginia Tech Office for Equity and Accessibility.

About the Organization

Virginia Tech's Center for International Research, Education, and Development (CIRED) manages and implements externally funded projects in developing countries.

Postdoctoral Research Associate (Plant Pathology/Plant-Microbe Interactions)
Texas A&M AgriLife Research & Extension Center, Texas A&M University System (Weslaco, Texas)

Job Summary

We are seeking a highly motivated postdoctoral research associate to conduct translational research related to fastidious/obligate plant pathogens and diseases (Nature Commun. [2020] 11, 5802).

Duties and Responsibilities

- Responsible for conducting translational studies of fastidious/obligate plant pathogens and diseases.
- Supports research projects through design, completion, and analysis of experiments.
- Responsible for preparing manuscripts for publication and conferences, writing grant proposals and project reports.
- Train and mentor junior lab personnel.
- Perform other related duties as assigned.

Education

- Ph.D. degree in plant pathology, microbiology, virology, or related field.

Experience

- Required: Experience with plant-microbe interactions and immune-signaling concepts.
- Required: Record of high-impact publications in plant-microbe interactions.
- Preferred: Familiarity with plant fastidious obligate pathogens and diseases (e.g., *Ca. Liberibacter* spp., *Xylella* spp., phytoplasmas, viruses).
- Preferred: Working knowledge of NGS and genomics data interpretation.

Required Special Knowledge, Skills, and Abilities

- Experience with latest molecular genetics, genome editing, and biotechnology tools.
- Experience with crop transformation and tissue culture.
- Familiarity with appropriate laboratory and/or technical equipment, including appropriate lab safety and protocols.
- Strong writing, verbal, and interpersonal/communication skills.
- Ability to establish effective working relations and effectively communicate with faculty, students, and staff.
- Ability to multitask and work cooperatively with others.

Other Requirements

- Willingness to work on flexible work schedules to accommodate timely completion of scientific experiments and other project needs.

Documents Required

- Cover Letter
- CV or Resume
- List of References

Submit application materials [online](#).

Research Associate—Plant Pathology *Sidney, MT*

Montana State University (Sidney, Montana)

The Montana State University Eastern Agricultural Research Center in Sidney, MT, is seeking a Research Associate to assist in the design, establishment, and maintenance of applied and basic research studies under the supervision of the Professor of Plant Pathology. Program objectives are to provide eastern Montana producers with management strategies for fungal diseases of sugar beets, pulse crops (peas, lentils, chickpeas), and small grains. The incumbent is expected to 1) assist in the design, establishment, and maintenance of field studies, including the

application of pesticide treatments, data collection, and the analysis of research results; 2) assist with lab experiments when needed, including routine nucleic acid manipulations, greenhouse experiments, and inoculum preparation; 3) organize/analyze data and generate yearly reports; 4) supervise summer student workers, student interns, and graduate students; 5) operate field machinery, including farm vehicles, tractors, and sprayers. This position will occasionally require after hours or overnight travel to research locations and scientific meetings. In-expensive single family housing is available on-site.

Screening of applications will begin on 2/16/2021; however, applications will continue to be accepted until an adequate applicant pool has been established.

For further information and complete application instructions [apply online](#).

Diversity Statement

Montana State University values diverse perspectives and is committed to continually supporting, promoting, and building an inclusive and culturally diverse campus environment. MSU recognizes the importance of work-life integration and strives to be responsive to the needs of dual career couples.

Montana State University is committed to providing a working and learning environment free from discrimination. As such, the University does not discriminate in the admission, access to, or conduct of its educational programs and activities nor in its employment policies and practices on the basis of an individual's race, color, religion, national origin, creed, service in the uniformed services (as defined in state and federal law), veteran's status, sex, age, political ideas, marital or family status, pregnancy, physical or

mental disability, genetic information, gender identity, gender expression, or sexual orientation. In support of the University's mission to be inclusive and diverse, applications from qualified minorities, women, veterans and persons with disabilities are highly encouraged.

Montana State University makes accommodation for any known disability that may interfere with an applicant's ability to compete in the hiring process or an employee's ability to perform the duties of the job. To request an accommodation, contact the Human Resources Office, PO Box 172520, Montana State University, Bozeman, MT 59717-2520; +1.406.994.3651; recruitment@montana.edu.

In compliance with the Montana Veteran's Employment Preference Act, MSU provides preference in employment to veterans, disabled veterans, and certain eligible relatives of veterans. To claim veteran's preference please complete the veteran's preference information located in the Demographics section of your profile.

MSU's Non-Discrimination Policy and Discrimination Grievance Procedures can be located on the [MSU website](#).

Supervisory Research Microbiologist/ Entomologist/Chemist GS-14/15 U.S. Department of Agriculture (Peoria, Illinois)

Supervisory Research Microbiologist/ Entomologist/Chemist GS-14/15 Salary Range of \$108,885 to \$166,502

The USDA, ARS, Midwest Area is seeking a Supervisory Research Microbiologist/Entomologist/Chemist to serve as Research Leader of the Crop Bioprotection Research Unit (CBP) located in Peoria, IL, at the National Center for Agricultural Utilization Research. The goals of the Unit are to conduct and lead research to identify, develop,

and enable commercial production of bioactive metabolites and microbial-based biological controls to support integrated pest management systems. The incumbent leads a broad research program that addresses national research needs for new biological control agents, processes, and methods. Supervisory duties include providing leadership and line authority over CBP resources and working with internal and external cooperators and stakeholders.

U.S. citizenship is required. This announcement will open **01/29/2021** and will close on **03/01/2021**.

Contacts

Application procedure: **Christina Olshawsky**: Christina.Olshawsky@usda.gov; +1.309.681.6482.

Scientific information: **Dr. Todd Ward**: Todd.Ward@usda.gov; +1.309.681.6394.

To view additional details about this position and complete application instructions, go to the [USAJobs website](#) and refer to announcement number ARS-D21M-WA-11010155-CLO. Please note that the announcement number will not be accessible until 01/29/2021.

USDA/ARS is an equal opportunity employer and provider. ■

Calendar

APS-SPONSORED EVENTS

MARCH 2021

[APS Potomac and Northeastern Joint Division Meeting](#)

JUNE 2021

[APS Pacific Division Meeting](#)
[APS North Central Division Meeting](#)

AUGUST 2021

[Plant Health 2021 Online](#)

SEPTEMBER 2021

[APS Caribbean Division Meeting](#)



FIND THE LATEST JOBS IN PLANT PATHOLOGY

Search online for new job opportunities in the field of plant pathology using the APS Job Center. Visit the [APS Job Center](#).

Graduate Student Spotlight: Bryce Alex



What type of degree program are you enrolled in?

Ph.D., University of Wisconsin–Madison.

What year are you in graduate school?

First year.

What is your academic department/section called at your institution?

Department of Plant Pathology.

Who is your major professor?

Dr. Aurelie Rakotondrafara.

Are you an APS member?

Yes.

How have you been involved in the APS organization?

I am a new APS member, and I just joined subject committees on evolutionary genetics and genomics, molecular and cellular phytopathology, and virology.

Please provide a brief description of your research.

I'm trying to explain why particular strains of *Potato virus Y* (PVY) elicit a callose deposition response from their hosts, and why other strains do not. I'm currently testing whether the phosphorylation of a particular PVY protein may be responsible for host recognition and subsequent callose deposition.

What's something interesting most people don't know about you?

I once ate a block of spoiled brie, thinking that it just had a really unique flavor.

What are some of your interests outside of science?

Hiking, reading, and painting.

What is your hometown?

Salt Lake City, UT, USA.

What is your favorite pathogen/plant disease?

Potato virus Y.

How did you become interested in the field of plant pathology?

I ended up in plant pathology more or less by chance. I was drawn to my current program for its mycologists, but I eventually found myself working in plant virology, and I couldn't be happier about it.

Do you have any social media handles that you want to share?

E-mail: balex@wisc.edu

Twitter: [@BryceAlex7](https://twitter.com/BryceAlex7) ■



Learn more about the [APS Graduate Student Committee](#) initiatives and student opportunities. Connect with the committee on Twitter [@plantpathgrads](#) and Facebook.

Get a **FREE** wheat, soybean, or corn *Farmer's Guide* when you buy the *Compendium* for the same crop.

Through March 31.



Podcast
Plantopia



Be A Guest 



SPOTLIGHT

Be Included in the *Phytopathology* 2022 Focus Issue!

Phytopathology will focus on *Candidatus* Liberibacter pathosystems, given their growing economic importance, broad impact on plant pathology, and potential importance to better management based on new knowledge of *Ca. Liberibacter*–plant–insect interactions. The focus issue editors are **Elizabeth (Betsy) Pierson, Jaime Cubero, Judith K. Brown, Caroline Roper, and Nian Wang**. [Learn more here.](#)

Call for Papers! How Does Abiotic Stress Influence Plant–Microbe Interactions?

The *MPMI* 2022 focus issue draws from the [Top 10 Unanswered Questions in MPMI](#) and will focus on question number 2: How does abiotic stress, such as climate change, influence plant–microbe interactions? The focus issue editors are **Jacquie Bede, Kenichi Tsuda, and Jeanne Harris**. [Learn more about this topic.](#)

Ultimately Beneficial Fungi Could Be More Effective Than Pesticides Against Nematodes

Over the past 30 years, the use of soil fumigants and nematicides to protect cole crops, such as broccoli and Brussel sprouts, against cyst nematode pathogens in coastal California fields has decreased dramatically. A survey of field samples in 2016 indicated nematode populations have also decreased, suggesting the existence of a natural cyst nematode controlling process in these fields. [Learn more.](#) ■



TRENDING

Phytopathology

🍄🔍 Identification of Novel Sources of Resistance to Ascochyta Blight in a Collection of Wild *Cicer* Accessions

T. E. Newman, S. Jacques, C. Grime, F. L. Kamphuis, R. C. Lee, J. Berger, and L. G. Kamphuis

🔍 In Silico Identification of the Full Complement of Subtilase-Encoding Genes and Characterization of the Role of *TaSBT1.7* in Resistance Against Stripe Rust in Wheat

Y. Yang, F. Zhang, T. Zhou, A. Fang, Y. Yu, C. Bi, and S. Xiao

Adult Plant Leaf Rust Resistance in AC Taber Wheat Maps to Chromosomes 2BS and 3BS

J. A. Kolmer, M. K. Turner, M. N. Rouse, and J. A. Anderson

Plant Disease

🔍 Pulsed Water Mists for Suppression of Strawberry Powdery Mildew

B. Asalf, R. B. Onofre, D. M. Gadoury, N. A. Peres, and A. Stensvand

🔍 Spray Volume and Rate Based on the Tree Row Volume for a Sustainable Use of Copper in the Control of Citrus Canker

F. Behlau, F. E. Lanza, M. da Silva Scapin, L. H. M. Scandelai, and G. J. Silva Junior

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