



April 2025

## The Spore Print (4/28/25): Department of Plant Pathology April 2025 Newsletter



**This is the last newsletter for this semester. Please enjoy these updates from our department for April 2025.**

***Anita and Mary, representing the editorial team: Ko, Megan, Sasha, Koy, Mason, Sheersa, Arild, Bipin, Monique, Jana, Cynthia, and Xianming.***

If you have news you would like included in the *next newsletter*, please email [anita.paneru@wsu.edu](mailto:anita.paneru@wsu.edu) and [mary.steele@wsu.edu](mailto:mary.steele@wsu.edu).

[Click here to access past newsletters!](#) You will also be able to download the PDF version there.

If you have any feedback, please fill out the [questionnaire](#) for the Spore Print.

Thank you to Ninh Khuu for providing many of the photos seen in the newsletter headings.

## Updates



### Update from the Student and Postdoc Travel and Scholarship Awards Committee

Congratulations to the following individuals who will be receiving the Spring 2025 Departmental Travel Grant to attend scientific society conferences.

**Mason Hoskins** (PI: Scott Harper)

**Jessica Schallon** (PI: Deven See)

**Harpreet Kaur** (PI: Frank Zhao)

**Anita Paneru** (PI: Maren Friesen)

**Sudeep Poudel** (PI: Frank Zhao)

**Marcella Texeira** (PI: Cynthia Gleason)

**Ray Vancourt** (PI: Jana U'Ren)

The Student and Postdoc Travel and Scholarship Awards Committee Members (Kiwamu Tanaka, Achour Amiri, Hanu Pappu, Frank Zhao, Chakradhar Mattupalli) thank all applicants and their advisors for submitting quality applications!

## Plant pathology graduate students speak at WSU Pesticide Resources and Education Program (PREP) recertification courses

For the second year, plant pathology graduate students collaborated with Dr. Henry Wetzel (Pesticide Recertification Safety Educator) to create and give 50-minute presentations at select PREP recertification courses across Washington state.

In 2025, **Itsuhiro Ko** and **Lora Keyte** collaborated on a presentation titled "Using IPM to recognize and mitigate diseases of economic importance in eastern Washington." The presentation went through fundamental plant pathology and IPM concepts, then detailed the most economically important plant diseases in eastern Washington and how they are managed. Ko and Lora presented individually at courses in Spokane and Pullman.

**Anita Paneru**, **Harpreet Kaur**, and **Mary Steele** collaborated to put together a presentation titled "Using IPM to recognize and mitigate diseases of economic importance in the Yakima Valley." The presentation went through fundamental plant pathology and IPM concepts, and detailed the most economically important plant diseases in the Yakima Valley and how they are managed. Anita, Harpreet, and Mary presented individually at courses in the Yakima Valley.

In 2024, **Elliott Marston**, **Jon Puglisi**, **Sam Jayasinghe**, **Sasha Zvenigorodsky**, **Mary Steele**, and **Nickisha Pierre-Pierre** collaborated on and individually presented a 50-minute presentation titled "Management Strategies for Common Pathogens of Urban Landscapes in the Inland PNW".

**Dr. Wetzel expressed gratitude for our continuing contributions to this program and interest in continuing the tradition for the fall 2025-spring 2026 courses. Please consider taking advantage of this unique opportunity this fall!**

## Defense and preliminary exam updates

**Jessica Schallon** successfully defended her **Master of Science** thesis on April 7th. Her research is titled "**Stripe Rust Resistance Genes and QTL from Two Pakistani Wheat Lines.**" Her advisory committee included Dr. Deven See (Chair), Dr. Timothy Murray, Dr. Jana U'Ren, and Dr. Xianming Chen. She will be pursuing a PhD under the guidance of Dr. Weidong Chen. We congratulate Jessica and wish her success as she begins her PhD.

**Nosheen Fatima** successfully passed her **PhD preliminary examination** on April 8th. Her committee comprises Dr. Xianming Chen (Chair), Dr. Hanu Pappu, Dr. Deven See, and Dr. Kiwamu Tanaka. We congratulate Nosheen and wish her continued success as she progresses in her doctoral studies.

**Marilen Nampijja** successfully defended her **PhD dissertation** on April 10th. Her research is titled "**Epidemiology and Management of Bacterial Leaf Spot, Caused by *Pseudomonas syringae* pv. *aptata*, in Table Beet and Swiss Chard Seed Production in Western Washington.**"

Her doctoral committee included Dr. Lindsey du Toit (Chair), Dr. Achour Amiri, Dr. Gary Chastagner, and Dr. David Weller. Congratulations to Dr. Nampijja on this significant academic achievement and best wishes for her career.

**Koy Chandler** successfully defended his **Master of Science** thesis on April 11th. His research is titled "**The Effects of *Solanum sisymbriifolium* on the Columbia Root-Knot Nematode *Meloidogyne chitwoodi*.**" His thesis committee included Dr. Cynthia Gleason (Chair), Dr. Kiwamu Tanaka, Dr. Hanu Pappu, and Dr. Louise-Marie Dandurand (University of Idaho). Mr. Chandler will begin his PhD studies in the WSU Department of Horticulture in the fall semester, with Dr. Mark Pavek serving as his advisor. We congratulate Koy and wish him success as he begins his PhD.

**Lora Keyte** successfully defended her **Master of Science thesis** on April 16th. Her thesis is titled "**Assessing and Implementing Sustainable Alternatives for Potato Plant Protection.**" Her advisory committee included Dr. Kiwamu Tanaka (Chair), Dr. Chakradhar Mattupalli, and Dr. Karen Sanguinet. We congratulate Lora on this academic milestone and wish her success in publishing her research and in the next stage of her professional journey.

**Zephyr Papin-Tillery** successfully defended her **Master of Science** on April 16th. Her project, titled "**A History and Overview of Agricultural Pesticide Regulation in the US.**" Zephyr's committee included Dr. Lindsey du Toit (chair), Dr. Ian Burke from Crop & Soil Sciences, and Dr. Tim Waters from WSU Extension. Congratulations to Zephyr on this significant achievement.

### **PPGSO bioinformatic consultations available by appointment**

To better organize the PLP Bioinformatic Consultation Table, we decided to cancel our meeting hours on Thursday. Instead, we are open by appointment (15min - 30min, via Zoom or in person). Please provide the time you want to meet and your bioinformatic questions to the consultants below.

Ko <[itsuhiro.ko@wsu.edu](mailto:itsuhiro.ko@wsu.edu)> : Kamiak HPC, Transcriptome and Genome analysis, Sequencing, Python/Linux coding

Megan <[megan.nickerson@wsu.edu](mailto:megan.nickerson@wsu.edu)> : R coding: Statistics and data visualization

Mason <[mason.hoskins@wsu.edu](mailto:mason.hoskins@wsu.edu)> : Kamiak HPC, Gene co-expression network, Transcriptome (Mason is willing to provide help in person at the Prosser IAREC)

## Student Spotlight: Nosheen Fatima



1 - Nosheen Fatima, Ph.D. candidate advised by Dr. Xianming Chen.

**Degree:** Ph.D. Plant Pathology

**Advisor:** Dr. Xianming Chen

**Academic background:** Master's in Agronomy from Kansas State University (Fulbright Scholar)

**Hometown:** Islamabad, Pakistan

### **What made you interested in plant pathology?**

I studied Plant Breeding and Genetics during my undergrad, and what really drew me in was the strategy behind resistance breeding. I found it fascinating how breeders think ahead. As I learned more, the advancements in molecular tools and how they've transformed breeding amazed me. That's what sparked my curiosity about plant pathogens—how they work, how they cause disease, and how it all plays out at the molecular level. I wanted to understand the bigger picture of the battle between the host and the pathogen.

### **What is your favorite plant pathogen?**

Stripe Rust (*Puccinia striiformis* Westend. f. sp. *tritici* Erikss). Interestingly, no two years are the same. This fungus is sneaky and fast evolving, those yellow-orange stripes like brush strokes are beautiful. As it kept me on my toes, now it feels like an old rival I have come to respect, rather, like.

**Hobbies:** I enjoy outdoor activities like hiking. I used to do rock climbing and archery, and I'd love to get back to them once the kids are older. These days, I unwind by spending time with my boys—reading books, doing puzzles, or building LEGO rockets and dinosaurs together.

### **What would you like to do after graduation?**

After graduation, I would like to stay in academia; it's the best platform to do research and teach as well. But I am open to more options as well, like joining the industry. Wherever I go, I want to leave a meaningful impact; that's what matters to me.



*2 - Nosheen and her family.*

## Community Corner



### Happy Earth Day – April 22nd

Earth Day has long been known as a day of action toward protecting our planet and spreading an understanding that there is no "Planet B". Our work as plant pathologists is heavily impacted by climate change, which allows for greater spread of disease and emerging challenges such as drought becoming more frequent in many agricultural regions.

As a department, we encourage you to connect with those we work with - growers, community members, political representatives, family, and friends - on our shared understanding of the importance of healthy plant life in our daily lives and how we can work together to further protect agriculture.

We also encourage each of you to treat yourself to a new indoor or outdoor plant 🌱

Happy Earth Day everyone 🌍



3 - Obtained from Canva.

## Statewide Updates



## Pullman Updates

We would like to congratulate **Dr. Kiwamu Tanaka** again for becoming **President-Elect of the Pacific Division!** We are proud to share that Dr. Tanaka was featured in CAHNRS News in recognition of this well-deserved honor. The article can be found [here](#).



*4 - Dr. Kiwamu Tanaka*

Congratulations to **Samodya Jayasinghe**, advised by Dr. Kiwamu Tanaka, for being selected to present her research at the I. E. Melhus Symposium at Plant Health 2025! All the best for her presentation at Plant Health 2025, and keep up the excellent work!

### **Mount Vernon Updates**

On Wednesday, April 23, the Mount Vernon NWREC Sustainability Committee hosted an **Earth Day Potluck** inviting staff, faculty, and graduate students to bring a vegetarian dish to share. A wide variety of dishes were brought to share, ranging from vegetarian palau, broccoli fritters, tofu pie, vegan pasta, carrot cake, homemade sourdough bread, and more.

Reminders about best habits for food, composting, and other environmentally impactful activities were circulated to attendees as well as they shared vegetarian dishes.



5 - Earth Day Potluck held at WSU NWREC on Wednesday, April 23, 2025. Photo: Mary Steele.

### Prosser Updates

**Dr. Scott Harper** was highlighted in the WSU Insider for his work with a program to evaluate the ability of dogs to detect cherry trees with little cherry disease. The article can be found [here](#).



6 - WSU Insider article highlighted a program to evaluate the ability of dogs to detect cherry trees with little cherry disease. Photo: Corina Serban.

Congratulations to **Sheersa Manna** for receiving the **WSU Chancellor's Award for Leadership** and the **Worthy, DePauw & Wang Service Leadership Award** for outstanding contributions to the Prosser and WSU communities, as highlighted in the Dean's weekly blog. The blog can be found [here](#). We are so proud of you!



*7 - Sheersa Manna honored with the Chancellor's Award for Leadership.*

### **PGSA Coffee Hour**

PGSA in *Prosser* is now hosting a coffee hour that is open to all on the IAREC Campus! The coffee hour is hosted every first and third Tuesday of the month. If you find yourself in Prosser, we would love to see you there!

# *PGSA Coffee Hour*



OPEN TO ALL – COFFEE AND REFRESHMENTS PROVIDED

10–11am  
1st & 3rd Tuesday  
of each month

Hamilton Hall  
Large Confer. Room

*8 - Flyer for Prosser Graduate Student Association (PGSA) coffee hour, every first and third Tuesday of the month. Photo: Mason Hoskins.*

## **GPSA Updates**

Congratulations, **Bipin Neupane** and **Sheersa Manna**, for being appointed Senators at Large for Cultural Studies & Social Thought and Education leader and Sport Management program, respectively.

## Herbarium Happenings: Shaw Mycological Herbarium



### MOREL QUIZ 2.0...

No one has yet submitted a winning guess to the March quiz, so you get another chance at it! Here's a hint: The 2 False Morels are together in the picture... And this time faculty may guess also, but need to provide the correct genus to win mushroom swag!

QUIZ QUESTION: Which two mushrooms in this photo of mostly *Morchella* specimens from the Shaw Herbarium are FALSE Morels (nonedible)? First person to email the correct answer to [shaw.herbarium@wsu.edu](mailto:shaw.herbarium@wsu.edu) will win some cute mushroom items! Bonus points: Provide the genus of the imposter morels for extra swag.



9 - Several species of Morels (and one False Morel species!) from the Herbarium teaching collections

## Publications



**Baral, R.,** DeLong, J. A., McGhee, G. C., Stockwell, V., and **Mattupalli, C.** 2025. Molecular characterization of *Botrytis* isolates from blueberry and red raspberry in the Pacific Northwest with resistance to SDHI fungicides. *Plant Dis.* *first look.*

**Chen, X., and Wang, M.** 2025. Race characterization of *Puccinia striiformis* f. sp. *tritici* and *P. striiformis* f. sp. *hordei* in the United States. Pages 23-39 in: Wheat Rusts and Resistance Breeding. G. S. Brar and S. Holden, eds. Humana, New York, NY.

Cho, P., Thapa, R., **Zhao, Y.**, and Khan, A. 2025. Investigating the relationship between large chromosomal rearrangements and disease aggressiveness in North American *Erwinia amylovora* strains. Plant Pathol. *early view*.

Duygu, A., **Parks, J. M.**, Tirkes, S., Collins, C. E., Akin, I. D., **Friesen, M. L.**, Call, D. R., and Beyenal, H. 2025. Microbial diversity in active and abandoned desert kangaroo rat burrows and from proximal surface sand. Microbiol. Spectr. 0:e01388-24.

**Hagerty, C. H.**, Mahato, G., and Namdar, G. 2025. Effect of different fungicide treatments on yield and stripe rust severity in winter wheat in Pendleton, OR, 2024. Plant Health Prog. *first look*.

Ilyas, U., **du Toit, L. J.**, and McDonald, M. R. 2025. Optical density assay to determine the sensitivity of *Globisporangium* and *Pythium* isolates to mefenoxam. PhytoFrontiers *just published*.

Liu, Y., Naruoka, Y., Sthapit, S. R., Ruff, T., Marlowe, K., and **See, D. R.** 2025. Genome wide association mapping for stripe rust resistance in domesticated emmer wheat (*Triticum turgidum* spp. *dicoccum*). Plant Dis. *first look*.

Mitra, A., Jarugula, S., Akinbade, S. A., Handoo, Z., Kantor, M., Mowery, J., and **Rayapati, N.** 2025. Characterization of Tobacco ringspot virus and its nematode vector, *Xiphinema rivesi*, infecting Highbush Blueberry in Washington State. Plant Dis. *first look*.

**Puri, P.**, Elcan, A., DeVetter, L. W., and **Mattupalli, C.** 2025. Screening blueberry genotypes for susceptibility to mummy berry in Mount Vernon, WA, 2024. Plant Health Prog. *just published*.

**Puri, P., Tanaka, K.**, Sathuvalli, V., and **Mattupalli, C.** 2025. Screening advanced russet potato breeding clones for resistance to silver scurf. Plant Health Prog. *first look*.

**Texeira, M., Ko, I., Bali, S.**, Vieira, P., Maier, T. R., Baum, T. J., and **Gleason, C.** 2025. Genome reannotation and effector candidate identification in *Meloidogyne chitwoodi* through gland-specific transcriptome analysis. bioRxiv *preprint*.

Wang, J., Zhao, Y., Wu, S., Gu, X., Liu, X., Tian, Y., Hu, B., and **Zhao, Y.** 2025. Genome analysis reveals *Erwinia amylovora* in China is closely related to those of Kyrgyzstan and Kazakhstan. Phytopathol. Res. 7:31.

*Please let us know if we missed your publication so we can include it next month.*

# Funding and Opportunities



Michelle Moyer highlighted various APS Foundation awards for which applications are being accepted through May 15:

- [OIP Global Experience](#): \$4,000 is available to support travel and training material costs to plant pathologists working with scientists and extension personnel in [developing countries](#) in training and outreach efforts.
- [Plant Pathology Experiential](#): \$1,000 is available to support a short-term learning experience with a non-academic institution to enhance the educational and professional development of APS members who are M.S. and Ph.D. students and postdoctoral scholars in plant pathology.
- [Steve C. Nelson Early Career Development](#): \$1,500 is available to support an APS undergraduate student member's research project in plant pathology.

## Seminars



Seminars have concluded for Spring 2025. **A big thank-you to Dr. Kiwamu Tanaka** for his efforts this past semester and for a well-rounded and robust lineup of seminars.

**Dr. Chakradhar Mattupalli will be leading seminar in Fall 2025.** If you are planning to take seminar this fall, please enroll as soon as possible!

One of the guest seminars this semester was presented by Dr. David Crowder (Department of Entomology), titled “Linking Regional Monitoring with Molecular Ecology Assess Dynamics of Vector-Borne Plant Pathogens”. It was valuable to hear perspectives on plant pathogens from an expert in another department!



10 - Dr. David Crowder gave a seminar titled “Linking Regional Monitoring with Molecular Ecology Assess Dynamics of Vector-Borne Plant Pathogens” on April 7, 2025. Photo: Hanu Pappu.

## Jobs



### Graduate Research Positions

- There is a MS position open at **Brandon University** in Brandon, Manitoba, Canada under Dr. Cassone. The program will center around making commercially ready a molecular diagnostic method for soybean. More information can be found [here](#).

### Postdoctoral Positions

- The Vegetable and Ornamental Pathology Program at **Michigan State University** is hiring a postdoc to investigate various aspects of fungal and oomycete pathogens of vegetables and greenhouse ornamentals. More information can be found [here](#).

### Technician, Industry, and Other Non-Academic Positions

- WSU is hiring a non-faculty (administrative professional) director of the **Clean Plant Center Northwest** based at the Prosser IAREC. Bachelor's degree and six years of experience are required; Ph.D. preferred. Applications are due May 20, 2025. More information can be found [here](#).

- WSU TFREC in Wenatchee, WA is hiring a **tree fruit extension educator**. MS required. More information can be found [here](#).
- WSU TFREC is also hiring a **research scientific assistant** to work in the tree fruit pathology program under Dr. Amiri. A BS is required and MS preferred. More information can be found [here](#).
- **Brotherton Seed Co.** in Warden, WA, is hiring a Research Associate in agronomy. BA or MS required. More information can be found as shared by Dr. Lindsey du Toit on April 20, 2025.

### **Faculty Positions**

- **Michigan State University** is hiring a tenure-track assistant professor position in forest pathology with a 50% extension, 35% research, 10% teaching, and 5% service appointment. More information can be found [here](#).