

2009

## National Workshop on the Future of Education in Plant Pathology and Related Disciplines



*Presented by APS in cooperation with NSF, USDA-CSREES and USDA-ARS*

### The APS Education Fellows

In December 2008, an announcement was broadcast to student and early career members of APS, inviting them to apply for an opportunity to participate in the education workshop.

Graduate students were asked to write an essay that addressed the following questions:

- How do you rate your educational experience in plant pathology?
- What have you most appreciated, and what could be improved?
- How well do you feel you are being prepared for your first job?
- How do you feel the next generation of plant pathologists should be prepared?

Early career professionals were asked to write an essay that addressed the following questions:

- How was your plant pathology graduate experience?
- What is your position now, and how long have you held it?
- What do you wish you had been taught before you left school?
- How do you feel the next generation of plant pathologists should be prepared?

Forty applications were received, with roughly half students and half early career professionals. After careful deliberation, a selection committee identified three students and three early career professionals for participation in the meeting. Each of them will give a brief presentation based on their essays. To allow participation by the remaining 34 students, we solicited permission to utilize quotes from their essays, which are presented as our “Voices of the Future.” Biographies for the six fellows selected for participation in the workshop are provided below.

#### APS Student Education Fellows

**Lindsay Triplett** is a Ph.D. candidate in the Department of Plant Pathology at Michigan State University (MSU), where she investigates the genetic basis of fire blight disease under the mentorship of George Sundin. During her time at MSU, Triplett has been the recipient of the MSU Plant Sciences Fellowship and three APS student awards. She is currently completing a certification program in college science education, and has served on several university and APS committees related to diversity and graduate student life. Triplett earned a B.A. degree in biology with college and departmental honors from Earlham College in 2004.

**Michelle Moyer** is a Ph.D. candidate in the Department of Plant Pathology and Plant-Microbe Biology at Cornell University. She was raised in southern Wisconsin where she spent her youth and college years working in her family’s wholesale and retail plant nursery, both on the production and business marketing and management sides. While attending the University of Wisconsin-Madison for her undergraduate degree, she switched from wanting a career in medical genetics to pursuing plant pathology and horticulture, following an eye-opening trip to Costa Rica with a horticulture class. She joined Sigma Alpha Sorority (Sisters in Agriculture) and was involved in the sorority’s national philanthropic mission of “Agriculture in the Classroom.” This involved working with state extension education specialists to design curriculum for elementary afterschool programs in Madison, WI. This experience fostered a desire to teach plant sciences and participate in applied agricultural research, which ultimately led her to Cornell University. Currently, she is doing a dissertation on disease forecasting for powdery mildew of grape, while absorbing all she can about cold-climate viticulture. In her free time, she works at a local winery, participates in the experiment station and plant pathology field graduate student organizations, and serves on the board of directors for her family’s company.

**Olufemi Joseph Alabi** is a Ph.D. candidate in the Department of Plant Pathology at Washington State University (WSU). He is a Nigerian national and obtained his baccalaureate degree in 1997 from Obafemi Awolowo University, Ile-Ife, Nigeria, and his M.S. degree in plant pathology in 2002 from the University of Ibadan, Nigeria. Subsequently, he worked as a research supervisor at the Virology and Molecular Diagnostics Laboratory at the International Institute of Tropical Agriculture (IITA) until 2005, when he enrolled in the Ph.D. program at WSU. His graduate studies are partly funded by a USAID-Linkage Grant through the International Institute of Tropical Agriculture. This is a “sandwich program” designed to provide graduate education in contemporary scientific knowledge and state-of-the-art technologies, while also providing practical training in interdisciplinary and integrative approaches to deal with virus disease problems in agriculture. Alabi is currently working on epidemiology, diagnosis and molecular characterization of whitefly-transmitted begomoviruses infecting cassava and soybean in Nigeria, and genetic diversity of grapevine viruses. He is collaborating with scientists at the IITA and USDA-ARS, Corvallis, OR, in conducting his research.

### APS Early Career Education Fellows

**Kimberly Webb** is a scientist in the USDA-ARS, NPA Sugarbeet Research Unit in Ft. Collins, CO. She has a B.S. degree in agronomy with a minor in agriculture economics from Colorado State University, and a Ph.D. degree in plant pathology from Kansas State University (KSU). While at KSU, Webb had the opportunity to travel annually to the International Rice Research Institute in the Philippines to complete all the field studies necessary for her research. After completing her Ph.D. degree, she joined private industry working at STA Laboratories managing their Seed Health Services Department, where she worked to improve methods for the detection and diagnostics of seedborne/transmitted pathogens using traditional and molecular technologies. While at STA Laboratories, Webb was accountable for all laboratory testing in two locations (Colorado and California), and was responsible for hiring all plant pathology positions within her department. In 2008, Webb joined USDA-ARS working in the Sugarbeet Research Unit, Ft. Collins, CO, where her research focuses on characterizing the interaction of major pathogens (i.e., *Cercospora beticola*, *Rhizoctonia solani*, and *Fusarium oxysporum*) with sugar beet in order to provide new information to facilitate the development of improved sugar beet germplasm with durable disease resistance.

**Tim Durham** is an assistant professor and coordinator of the Agriculture Program at Nicholls State University in Thibodaux, LA. He is a lifelong agriculturalist and his family operates Deer Run Farm—a 30-acre “truck farm” on Long Island, NY. The farm grows an array of spinach, cabbage, and ethnic lettuce for wholesale in New York City. As one of a handful of farms in the area, it faces unique challenges, especially those associated with urban-edge agriculture. Durham has a keen interest in the interplay between science, sustainability, and policymaking. After graduating from Cornell University in 2001 with a B.S. degree in plant science, he worked in various levels of state and federal government, while continuing to work seasonally at the farm. He has served as an adjunct at the Hudson Institute’s Center for Global Food Issues since 2003. In 2004, Durham was awarded a Rotary Foundation Ambassadorial Scholarship for study at Lincoln University, New Zealand. Upon his return, he enrolled in the University of Florida’s Doctor of Plant Medicine Program, a professional doctorate intended to parallel a D.V.M. or an M.D. The Department of Homeland Security awarded Durham a fellowship in 2005, and in the summer of 2006, he was a visiting fellow at Los Alamos National Lab, where he worked with tunable diode laser spectroscopy and crop security.

**Kristina Owens** is a biologist at the USDA APHIS PPQ Center for Plant Health Science and Technology lab in Beltsville, MD (National Plant Germplasm and Biotechnology Laboratory). Currently, she is working on developing molecular methods for the detection of plant viruses in foreign plant germplasm, such as potyviruses infecting sweet potatoes. She also has assisted in the validation of the molecular methods for Potato Cyst Nematode. In addition to developing or validating molecular methods, she assists in the training of both domestic and foreign scientists, including those involved in PPQ and NPDN. She received a B.A. degree in Spanish with a minor in chemistry from the State University of New York at Geneseo in 1998. With a lot of interest in agriculture, the environment, and international development, she completed a unique M.S. degree in forestry program: The Loret Miller Ruppe Master’s International Program in Forestry at Michigan Technological University. This program combined an intensive graduate program in forestry with two years of Peace Corps Service. While serving as a Peace Corps volunteer, she proposed and implemented her M.S. thesis on the genetic diversity of the cherimoya tree with funding from the Charles and Anne Morrow Lindbergh Foundation.