

Botany 2021 Virtual! Featured Speakers

(click on their name to read their abstract)



**Beronda
Montgomery**

Plenary Address

Beronda Montgomery is a writer, researcher, and scholar who pursues a common theme of understanding how individuals perceive, respond to, and are impacted by the environments in which they exist. Dr. Montgomery's research seeks to understand how organisms perceive and respond to their environment, especially focused on the complex way in which photosynthetic organisms respond to light. Her work uses cyanobacteria, *Arabidopsis* and other plants, to elucidate the complex molecular mechanisms that underlie plant utilization and responses to light, including the role of signaling mechanisms in stress responses. Her work on plant pigments such as biliprotein phytochrome seeks to uncover the molecular mechanisms that operate in different organs of the plant, revealing the processes by which the light environment where plants grow shapes their growth processes and stress-responses. Dr. Montgomery has an equal depth of research on cultural aspects of science, with a focus on revealing the factors that promote recruitment and retention of a diverse STEM workforce in Higher Education. As part of her commitment to research mentorship, she served as a Research and Scholarship Node Leader in the Michigan State University's Academic Advancement Network for four years, which seeks to support academic advancement for academics at any career stage. She continues contributing to these efforts as the current interim Assistant Vice President for Research and Innovation at MSU.

MSA's Karling Lecture

Dr. Anita Sil received her undergraduate degree in Biochemistry from Harvard College where she studied penicillin-binding proteins in the laboratory of Jack Strominger. She then obtained PhD and MD degrees from the University of California San Francisco (UCSF) where she studied asymmetric cell fate in the budding yeast *Saccharomyces cerevisiae* with Ira Herskowitz, identifying a regulator of gene expression that localizes to the daughter cell at cell division. Dr. Sil then started her own laboratory at UCSF as a Sandler Fellow where she began her studies of thermally dimorphic fungal pathogens. She joined the UCSF faculty in the Department of Microbiology & Immunology in 2003 where she is now a full professor. She has been awarded several prestigious grants including a Burroughs Wellcome New Investigator Award, an Ellison New Scholar Award, and an Early Career Scientist Award from the Howard Hughes Medical Institute. She is the co-director of the UCSF Integrative Microbiology program, the co-director of the Biomedical Sciences graduate program, and the co-chair of the UCSF COVID-19 Research Coordination Task Force.



Anita Sil

Annals of Botany Lecture

Associate Professor in the Department of Biological and Environmental Sciences at the University of Stirling in Scotland, Mario Vallejo-Marin is a dynamic speaker, and a rising star in the field of Plant Reproductive Biology and floral evolution. He is one of the world's authorities on buzz pollination, and his talks on that subject are amazing and visually stunning, which is perfect for the Botany 2021 virtual format.



**Mario
Vallejo-Marin**

Kaplan Memorial Lecture

I grew up in Buenos Aires, Argentina, where I completed my education. I earned my undergraduate degree in Biology and my master's in Ecology and Systematics; my Ph.D. is on the evolution of the iconic Southern Hemisphere genus *Nothofagus*. I moved to the US for a postdoctoral position at Cornell University and never left. At Cornell, I teach several courses, including Plant Anatomy. Currently, I am the Director of Undergraduate Studies for Biodiversity and Systematics and Plant Biology and the curator of the Natalie Uhl Cornell University Plant Anatomy Collection (CUPAC). My research area is on the evolution of Southern Hemisphere modern and extinct floras focusing on Patagonia and the Antarctic Peninsula. In 2018, I became the first female and Latina editor-in-chief of the *Review of Palaeobotany and Palynology*, one of the most important paleobotany journals.



**M. Alejandra
Gandolfo**

BSA's Emerging Leader Lecture

Dr. Christopher Muir is currently an Assistant Professor in the Department of Botany at the University of Hawaii. His lab studies how plants work and why they evolved to work that way using comparative, theoretical, computational, and experimental approaches. Dr. Muir is recognized as an exceptionally talented quantitative evolutionary biologist, a passionate and committed botanist, and a true emerging leader across the fields of plant trait ecophysiology and evolution, including as a developer of community resources and organizations to support the synthesis of these fields.



Christopher Muir

ASPT Incoming President Address

Carolyn Ferguson is Professor and Curator of the Herbarium in the Division of Biology at Kansas State University, where she additionally serves as Associate Director of Biology. She earned her undergraduate degree at Carleton College and her Ph.D. in Botany from the University of Texas at Austin (1998). Her research focuses on systematics of the genus *Phlox* (Polemoniaceae), including taxonomy, phylogeny, and investigation of polyploidy and its effects on aspects of diversity.



Carolyn Ferguson

Belonging In Botany Lecture: Perspectives on DEI

Dr. David Asai came to HHMI after serving many years as Head of Biological Sciences at Purdue University and Chair of Biology at Harvey Mudd College. David's current work as Senior Director for Science Education at HHMI is guided by three beliefs: 1) the dynamic demographics of the U.S. population presents the greatest opportunity and the most compelling challenge for U.S. science, 2) all students—regardless of where they come from and where they're going—deserve a meaningful, effective, and positive experience in science through which they will better understand the process of science, 3) making that experience meaningful, effective, and positive is the responsibility of the faculty and administrators who define the institution's culture.

Photo Credit Paul Fetters



David Asai

Address of the BSA President-Elect

Michael Donoghue earned his undergraduate degree in Botany from Michigan State University (1976) and his Ph.D. in Biology from Harvard University (1982). He served on the faculty of San Diego State University (1982-85), the University of Arizona (1985-92), and Harvard University (1992-00), where he was the Director of the Harvard University Herbaria from 1995-1999. In 2000 he joined Yale University where he is now the Sterling Professor of Ecology and Evolutionary Biology. He served as the Director of the Yale Peabody Museum of Natural History, where he is currently the Curator of Botany. He has also served as the Vice President in charge of Yale's West Campus, the Director of the Marsh Botanical Garden, and the Director of the Yale Institute for Biospheric Studies. He is a Fellow of the American Association for the Advancement of Science (1997), a Member of the National Academy of Sciences (2005), and a Fellow of the American Academy of Arts and Sciences (2008). His research concerns the evolutionary history of plants, and connections between phylogeny, biogeography, and ecology. He has published over 290 papers and has mentored over 50 postdoctoral associates and graduate students.



Michael Donoghue

MSA Presidential Address

Marc Anthony Cubeta is a Professor in the Department of Entomology and Plant Pathology, Director of the Larry F. Grand Mycological Herbarium and Associate Director of the Center for Integrated Fungal Research at North Carolina State University (NCSU). His research focuses primarily on understanding the ecology, genome organization and population biology of beneficial and plant pathogenic fungi in the Rhizoctonia species complex. Additional research interests include examining the population genetics and genomics of *Calonectria pseudonaviculata* and *Monilinia vaccini-corymbosi* and understanding the linkage between fungal diseases of animals and plants. During his career, Marc has served as a major advisor and mentor for 20 graduate students, 39 undergraduate students, 8 post-doctoral scientists, and was a member of 75 graduate student advisory committees. He has enthusiastically mentored more than 100 high and middle school science teachers and students via STEM-based outreach activities with a commitment to increasing diversity and providing educational opportunities for underrepresented and low socioeconomic populations. His service to MSA includes: President (2020-21), President-Elect (2019-20), Vice-President (2018-19), Executive Council (2011-13; 2018-21); Education Committee (2018-20, chair 2019); Treasurer and Endowment/Finance Committees *ex-officio* (2011-13); Program Committee (2005-09, chair 2008); Ecology/Pathology Councilor (2006-08); and MSA Asheville local arrangements committee (2004). He is an MSA Fellow (2014) and a Fulbright Scholar (Swedish University of Agricultural Sciences-Uppsala, 2012).

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Marc Cubeta