

# American Society of Plant Biologists

## 2023 ELECTION

### This Brochure Includes:

Biographies of candidates for

- > President-elect
- > Elected Member
- > Corresponding Member

**Election Procedures:** On the electronic ballot card, make your choice of candidates for elected office.

## ASPB President-elect

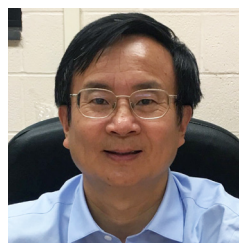
(to serve as president 2024–2025)



### Z. JEFFREY CHEN

I was born and raised in the countryside where my parents grew crops and vegetables and rotated them every year to make ends meet. This motivated me to study agriculture; however, I was not so interested in plant science until I

took a genetics class in college. I was fascinated by the elegant plant genetics experiments that lead to the discoveries of hereditary laws and transposable elements. As a humble winner of the K. C. Wong scholarship in Hong Kong, I came to the US to pursue an American dream. After receiving a PhD in Genetics at Texas A&M University in 1993, I worked as a postdoctoral fellow at the University of Minnesota and an NIH postdoctoral fellow at Washington University in St. Louis. Six years later, in 1999, I joined Texas A&M University as an Assistant Professor of Plant Genetics, and I was promoted to the rank of Associate Professor with tenure in 2005. I was then recruited as holder of the D. J. Sibley Centennial Professorship of Plant Molecular Genetics at The University of Texas at Austin and became a full Professor in 2008. These experiences at both land-grant and non-land-grant institutions have helped me work with interdisciplinary research groups, including in Agriculture, Plant Breeding, Plant Physiology, Genomics, Epigenetics, Cell and Molecular Biology, Evolution, Ecology, and Data Science. Our research program has made distinguished contributions to our understanding of complex plant genomes, particularly through a series of original studies using versatile omics approaches. We established genomic and epigenetic frameworks to elucidate the evolution and function of polyploid and hybrid genomes, from genome-wide nonadditive gene expression in plant polyploids, molecular mechanism of altered circadian rhythms in heterosis, and the epigenetic basis of inbreeding depression in maize. We have also generated epigenomic insights into cotton fiber cell development and in decoding the genomes of all five cotton tetraploid species, including economically important Upland and Pima cotton, the largest renewable sources of textile fiber. These findings and resources provide new breeding and genome-editing tools that can explore genetic and epigenetic variation to improve crop yield, nutritional values, and plant resilience.



### HONG MA

As we approach ASPB's Centennial celebration, we are mindful of the ASPB missions to promote plant biology research, to train future generations of plant biologists, to support the community of plant biologists, and to

disseminate scientific discoveries and insights through publications and conferences. Without a doubt, ASPB has made numerous great accomplishments; at the same time there have been many challenges, just as our broader society makes great advances while suffering clear stalls and even setbacks. ASPB and our plant biology colleagues, as part of human society, once again face global challenges of food shortages, climate change, ecosystem destruction, economic upheavals, world-wide health crises, and even wars and other armed conflicts. Furthermore, even though decades of great effort to achieve diversity, equity, and inclusion in the plant sciences and other communities have made significant progress, recent tragic events have sharply focused our minds more than ever on the need to fight even harder against biases and bigotry. Nevertheless, there is a ray of hope that continued sustained effort can lead to greater changes for the benefit of all.

I am a first-generation immigrant and naturalized US citizen. During my career, I have been very fortunate to have the support of many mentors, colleagues, friends, and family, while also having experienced and witnessed biases and bigotry and shared the pain and anger. These experiences have helped me to recognize and appreciate differences among us. Throughout my career, I have worked hard to promote diversity, equity, and inclusion, through mutual respect and understanding, and I have supported the training of women and minority students and postdoctoral scientists. In particular, I value opportunities to work with and help promote career development of young plant biologists, including women and underrepresented minorities. I have served as an advisor to many PhD and MS students, as well as postdoctoral scientists. They have advanced in their career paths in a variety of areas, including high school education, various industries, and research and higher education. I am an active member

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## *Z. Jeffrey Chen continued*

As a plant biologist, I envision two missions: to feed the world and to make groundbreaking discoveries. Living in a developed country, we are blessed by the abundant amount and variety of foods. However, we cannot underestimate that every day in the world, nearly one out of nine people are hungry, and approximately 25,000 people, including ~10,000 children, die from hunger and related causes. Estimates indicate that over 50% more crop production is needed to feed everyone in 2050 because of population growth, steady reduction and deterioration of agricultural lands, and climate change. This will require all of us to work towards increasing the production of major crops, as well as orphan and new crops. As a leader of ASPB, I will be open-minded and forward-looking and will work with all members and leadership committees to promote basic and translational research, push for increased federal and industrial funding opportunities, and enhance education and participation of new generations of plant biologists.

As a faculty member, I have dedicated myself to achieving excellence in undergraduate and graduate education and community services. I served as chair of graduate programs of Molecular and Environmental Plant Sciences at Texas A&M and of Plant Biology at UT Austin to promote interdisciplinary collaboration. Currently I teach a contemporary Genomics course for undergraduate seniors and juniors. I serve as associate editor of *Genome Biology*, *The Plant Genome*, *Genes*, and as editorial advisor to *BMC Plant Biology*. I am also an active reviewer for *The Plant Cell*, *Plant Physiology*, and ~60 other peer-reviewed journals including *Cell*, *Nature*, and *Science*. I have served as a study section or panel member for NIH and NSF, panel manager for USDA, panel member and reviewer for more than 20 other national and international funding agencies, and external reviewer of promotion and tenure for dozens of universities and institutions. I have chaired and co-chaired national and international conferences, and I have presented over 190 lectures and seminars. From 2017 to 2021, I was an active member of ASPB and served on the Science Policy Committee, which has brought the plant biology community's support to congressional representatives and their staff for increasing federal funding in plant science. I received a US-UK Fulbright Senior Scholar Award (2011) and Cotton Biotechnology Award (2016); I am an elected fellow (2011) of AAAS and a member of Faculty Opinions (formerly F1000Prime).

As a naturalized U.S. citizen, I embrace diversity, equity, and inclusion (DEI) in science and society. I will work with all ASPB committee groups to apply the DEI guidelines across all processes, from board of directors and trustees, program development, to science policy, and

## *Hong Ma continued*

of the Plant Biology Graduate Program at Penn State and contribute to teaching regularly; I have served on the thesis committees of many students in this program. Previously, I was the Director of the Cell and Developmental Biology Graduate Program at Penn State, in which capacity I worked to increase the number of both students and professors, including plant biologists. I have attended the ABRCMS and SACNAS conferences to broaden my interactions with young scientists of diverse backgrounds. If I am elected as president-elect, a top priority will be to support and train young plant biologists for a community with greater diversity, to further increase the voice of diverse members of our community, and to promote diversity in society leadership and society activities.

Currently I am the holder of the Huck Chair in Plant Reproductive Development and Evolution and a Professor of Biology at the Pennsylvania State University. My lab has studied the molecular genetic basis of plant reproductive development, particularly anther/pollen development and meiosis. We are also interested in understanding phylogenetic relationships among and the evolution of angiosperms, particularly for members of families with species that are important for agriculture and horticulture. These include rice, corn, wheat and others of the grass family; soybean and other legumes; tomato, potato, and others of the nightshade family; cucumber, squash and other cucurbits; as well as apple, pear, peach, strawberry and others in the rose family. These research programs have provided training opportunities for dozens of young plant biologists over the last 30 years. Together, we not only improve our ability to conduct research and communicate the findings with colleagues and the general public, but we also enhance our efforts to work with each other as a team and respect and value each other's differences in experiences and perspectives.

My interests in plants started during the time when I lived in the countryside with exposure to major crops such as rice and soybean and many vegetables and fruits, as well as numerous wild plants. After starting my undergraduate studies at the University of Science and Technology of China, I transferred to Temple University in Philadelphia and completed my BA in Biology and Biochemistry, with valuable research experiences in biochemistry and organic chemistry under the guidance of my professors. My training in molecular genetic analyses was obtained through PhD studies of gene regulation in yeast at MIT. During my PhD, the advances in plant molecular biology, especially the emergence of *Arabidopsis* as a model system for plant biology, attracted me to seek post-doctoral training under the guidance of Prof. Elliot Meyerowitz, through pioneering research on floral homeotic and heterotrimeric G protein genes.

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## *Z. Jeffrey Chen continued*

national and international impact. I have a great passion to promote graduate and undergraduate education and will continue to make all efforts to attract undergraduate and graduate students from national, international, and diverse socioeconomic backgrounds to pursue careers in plant biology. I am enthusiastic about helping build ASPB as a forum for all plant scientists to make unique contributions to promoting science, improving agriculture, protecting the environment, and enhancing human health. 🌱

## *Hong Ma continued*

In 1990, I started my first position as an independent scientist at Cold Spring Harbor Laboratory, continuing molecular genetic studies of floral and G protein genes. Eight years later, I moved to Penn State and became an associate professor, joining a much larger group of plant biologists at that institution. This environment has provided many opportunities for collaboration and fostered my research in a new area, molecular evolution. Furthermore, greater opportunities to work with and train students and postdocs, including women and minority students, made the professional experience at Penn State highly satisfying. From 2008 to 2016, I was Professor and Dean of the School of Life Sciences at Fudan University, Shanghai, focusing on increasing research quality, strengthening graduate student careers, and facilitating international exchange. In early 2017, I returned to Penn State as full-time Professor of Biology and the Huck Distinguished Research Professor of Plant Molecular Biology. In 2018, I was appointed as Associate Dean for Research and Innovation of the Eberly College of Science at Penn State for a term that concluded at the end of 2021.

I have been a member of ASPB since 2000 and have been a member of the ASPB Publications Committee since 2017. I have also served previously as an Associate Editor for *Plant Physiology*. In addition, I have been a frequent contributor to the ASPB journals *Plant Physiology* and *The Plant Cell*, both as an author and a reviewer for manuscripts submitted to these two journals. I consider these as valuable experiences that inform the responsibility of the president-elect to support the society journals, as they navigate through the current time of great changes in scientific publishing.

During my career, I have been honored with the John Simon Guggenheim Memorial Foundation Fellowship (2004-2005), the Faculty Scholar Medal in Life and Health Sciences at Penn State (2005), Distinguished Professor in Biology at Penn State (2008) and was elected as a AAAS Fellow in 2010. These recognitions serve as reminders that I should do more to give back to the profession that has supported my career.

All my life I have believed strongly in hard work and dedication to the common good. If I am elected, I will work hard for ASPB, for its members, and for the greater plant biology community, with a great emphasis on the needs of younger plant biologists, and to promote diversity, equity, and inclusion. Let's work together to achieve a more perfect society for all! 🌱

# American Society of Plant Biologists

## Elected Member, Board of Directors

(to serve 2023–2026)

### JUDY BRUSSLAN

Judy Brusslan is a plant biologist at California State University, Long Beach (CSULB). She earned her PhD at the University of Chicago with Robert Haselkorn studying DCMU resistance in the *psbA* gene family in cyanobacteria and then began working with Arabidopsis as an American Cancer Society-funded postdoc in Elaine Tobin's phytochrome/circadian rhythm laboratory at UCLA.

Judy's research aims to understand the molecular connection between leaf senescence and the transition from the vegetative to reproductive state. How does a leaf at the base of the rosette know it is time to senesce? Her lab has identified candidate regulatory genes and is producing mutants and overexpression lines to test function. Judy serves as an *ad hoc* reviewer for multiple journals and an Associate Editor for *Frontiers in Plant Science*.

CSULB is a minority-serving, primarily undergraduate institution with a focus on teaching and advancing diversity in research careers. Currently, 12 of Judy's research students are in PhD programs, and Southern California two-year colleges have many teachers trained in Judy's lab. Judy is the Principal Investigator of the NIH-funded Bridges to the Doctorate Research Training Program at CSULB. This program provides financial and career skills support to underserved/underrepresented master's degree students who aim to earn a PhD. Judy has worked extensively with underserved/underrepresented populations at CSULB, and she is keenly aware that nascent researchers come from different backgrounds with their own perspectives. Speaking with her students and hearing their personal stories has taught her that diverse students have diverse needs, and that kindness and accountability work together to foster a supportive and challenging classroom and research environment.

Judy's Molecular Plant Physiology course is primary literature-based and brings new plant biology research to undergraduate students each spring semester. Students become genuinely engaged when they can understand current exciting research.

ASPB has been a part of Judy's career since she was a postdoc and attended an ASPB meeting in Savannah, GA. She has served as Chair of the Women in Plant Biology Committee and is now the Western Section representative to the Membership Committee and Council. Judy believes the regional Section meetings are vital to ASPB because they provide affordable means to increase inclusivity in plant biology. 🌱

### SARAH E. WYATT

Sarah Wyatt is Professor of Environmental and Plant Biology and Director of the Molecular and Cellular Biology interdisciplinary graduate program at Ohio University in Athens, Ohio. She earned a BSc in Biology and MS in Plant Pathology from the University of Kentucky, and a PhD in Physiology and Molecular Biology from Purdue University. As a postdoctoral fellow with the NASA Center of Research and Training at North Carolina State University, she conducted research on gravitropic signal transduction.

Sarah's research focuses on plant signal transduction, specifically to understand the molecular/biochemical mechanisms that transmit a gravity stimulus into a response in the model plant Arabidopsis, using both reorientation experiments on Earth and seedlings flown to the International Space Station. The Wyatt Lab also leverages NASA's GeneLab open-science data repository for omics level data from spaceflight experiments to explore novel approaches to transcriptomic and proteomic analyses.

Sarah is dedicated to the mission of ASPB and works steadfastly to advance plant research opportunities for students and emerging scholars in plant biology. She joined ASPB as a graduate student and has served in leadership roles with the ASPB Midwest Section, on the ASPB Executive Committee, and as a member and chair of the ASPB Education Committee. More recently, Sarah served on the steering committee for the 2023 NASA Decadal Survey and continues to serve on NSF and NASA grant panels. She is dedicated to increasing visibility and awareness of the accomplishments of women and underrepresented groups in STEM, ranging from outreach programming that includes STEM conferences for middle school girls, to intentionally including her students (undergraduate and graduate level) in professional conference presentations. Sarah advances equity and inclusion in the lab and in the plant biology profession. She believes that early and consistent inclusion in the ASPB community provides professional opportunities for her students that also enrich the plant biology community through an influx of novel scholarship and fresh, diverse perspectives. Her support extends to the development of early career scientists and includes advocacy for a range of opportunities that spans academia and industry while fostering interdisciplinary collaboration. 🌱

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## Enid MacRobbie Corresponding Membership Award

### AVRAHAM (AVI) LEVY

*Weizmann Institute of Science, Israel*

Dr. Levy is a Professor of Plant and Environmental Sciences at the Weizmann Institute of Science, Israel. He has led a highly influential scientific career studying genome structure, stability, and change in plants and yeast. The main goal of his research is to understand the mechanisms involved in the evolution and plasticity of the plant genome. He is interested in exploring connections between epigenetic modifications and genome integrity. Currently his group is working on the contributions of DNA recombination, transposons, hybridization, and polyploidy to rapid genome evolution. Dr. Levy has also carried out impactful research on wheat genetics and transposons, which led to the publication of highly cited research papers. He is also a great mentor and role model for others in the community, having supervised large numbers of PhD and MSc trainees who are working in the biotechnology industry in Israel and worldwide. Dr. Levy has also provided remarkable leadership service to the Weizmann Institute; and he has served the scientific community in many capacities, including as a member of the editorial board of *The Plant Cell* and as also president of the Israeli Society of Genetics. 🌱

### WATARU SAKAMOTO

*Okayama University, Japan*

For 20 years, Dr. Sakamoto has been a professor at the Institute of Plant Science and Resources at Okayama University, Japan. He has made commensurate contributions to plant biology research and integrated many techniques into his work, including plant physiology, anatomy, genetics, and molecular biology. Dr. Sakamoto has a long record of contributions to the literature on chloroplast biology, particularly protein quality control. He has pioneered the characterization of variegation in leaves, work that led to the concept of chloroplast proteostasis. Additionally, Dr. Sakamoto's studies on suppressors of leaf variegation demonstrated the importance of protein homeostasis in chloroplasts. His work is being extended to various aspects of chloroplast homeostasis through DNA maintenance and thylakoid remodeling. Dr. Sakamoto has published his research in high-impact journals, and, notably, 20% of his papers have been published in ASPB journals. Dr. Sakamoto has contributed to the international plant science community, particularly to ASPB and the Japanese Society of Plant Physiologists (JSPP). He served as the JSPP Secretary from 2002 to 2004 and Secretary General from 2014 to 2016. He also served as a Monitoring Editor for *Plant Physiology* for 10 years and is now the Editor-in-Chief of *Plant and Cell Physiology*. 🌱

**VOTE!** Help select the leaders of ASPB!

**DEADLINE FOR VOTING IS JUNE 14, 2023.**