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ASPB *News*



THE NEWSLETTER OF THE AMERICAN SOCIETY OF PLANT BIOLOGISTS

President's Letter

The Value of Our ASPB Community

BY JUDY CALLIS

ASPB President, University of California, Davis

This is an unprecedented and extraordinary time. The fabric of our personal and professional lives is changing daily, and it will be different as you read this message than it was when I wrote it a few weeks ago. Now more than ever, we should value our ASPB community. Indeed, none of us is alone.

The goals of this letter are to point you toward resources that might be particularly helpful to the ASPB community and to encourage all of us to reach out (virtually, of course) to our colleagues to offer support and to provide (or seek) assistance when needed. To academics in particular, if you are knowledgeable about distance or online instruction and assessment or have teaching modules that are sharable, consider making them available via Plantae. The



resources on Plantae support professionals and students worldwide without charge and provide communities with a forum for discussion and resource sharing. Join Twitter if you haven't already and follow ASBP (@ASPB); post ideas, ask for suggestions, and list resource URLs. Better yet, encourage your colleagues (and help them) to join Twitter and

follow ASBP to keep us connected.

Fortunately for educators, ASPB already has developed some potent online resources. Teaching Tools in Plant Biology, first developed by Mary Williams, a features editor for

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PLANT BIOLOGY

UPDATE

As the impacts of the coronavirus pandemic become ever more serious, ASPB's Plant Biology 2020 contingency planning efforts have gathered pace. Among other possibilities, as of early April we are exploring the feasibility of options for online access to meeting content—including the networking and other peer-to-peer connections that are such a vital component of Plant Biology conferences. Decisions are still pending; we will share more detailed information as soon as we are able to do so. In the meantime, we thank you for your patience and commitment to the Plant Biology conference. Follow all updates at: plantbiology.aspb.org.

Please let us know how ASPB can help. Send us your ideas and questions via COVID19@aspb.org or info@aspb.org. And please stay healthy.

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The *ASPB News* is distributed to all ASPB members and is also available online. It is published six times annually in odd-numbered months. Its purposes are to keep membership informed of ASPB activities and to reinforce the value of membership. The *ASPB News* is edited and produced by ASPB staff from material provided by members and other interested parties. Copy deadline is the 5th day of the preceding even-numbered month (for example, April 5 for May/June publication).

Contact: Nancy A. Winchester, Editor, *ASPB News*, 15501 Monona Drive, Rockville, MD 20855-2768 USA; nancyw@aspb.org; 301-296-0904.

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PRESIDENT'S LETTER *continued from page 1*

The Plant Cell, is a free resource with more than 40 tools available (<https://community.plantae.org/organization/teaching-tools-in-plant-biology/dashboard>). If you haven't perused the topics recently, I urge you do so; the recent addition "Computational Image Processing in Microscopy" includes a hands-on workshop. Another free resource is the online image library from the first edition of *Biochemistry & Molecular Biology of Plants* (<https://aspb.org/publications/other-aspb-publications/online-image-library/>). And Focus Collections in *Plant Physiology* (35 of them; see <http://www.plantphysiol.org/collection>) are excellent resources for a themed course.

Mentoring is valued at ASPB and is particularly important in these stressful times. Again, ASPB can help as you remind mentees of the value of your professional community. A student space on Plantae features resources and discussions for undergraduate and graduate students (<https://community.plantae.org/organization/student-space/dashboard>). And in lieu of in-person meetings, webinars are already available, spanning topics from professional development (e.g., Preparing Your Manuscript for Submission) to sharing experiences (Social Media for Scientists: What, Why, and How; We Are Here and We Are Scientists! LGBTQ+ Perspectives and Topics in Plant Science) to expanding technical expertise (Transdisciplinary Plant Phenomics and Phenotyping for Maize Crop Improvement). These and many other webinars are

available for viewing on Plantae (<https://plantae.org/education/plantae-webinars/>), and ASPB is adding more every month. Keep checking the site (as well as Twitter and your email!) for announcements of future webinars in which you may participate live and ask questions of the panelists.

Finally, as part of our ongoing Transparency Project, standing committees are highlighted through these letters. The Membership Committee (for current members, see <https://aspb.org/about/committees/#toggle-id-7>) is guided by its new chair, José Dinneny, and supported by Shoshana Kronfeld, ASPB's

senior membership manager. To get to know José, I asked him a few questions. When you see him, Shoshana, or Membership Committee members, please thank them for their efforts.

For updates on ASPB and COVID-19, please visit <https://plantbiology.aspb.org/covid-19-updates/>. Stay safe and healthy.

Meet José Dinneny, Membership Committee Chair

To help members get to know you, how did you get into plant science?

It really began as I was trying to choose my major at the University of California, Berkeley. I had become a bit disillusioned by the large number of premed students in the molecular and cellular biology major and did not feel they shared my passion for discovery. I was excited about how basic discovery could ultimately be applied to increase the sustainability of our society and started to think more about majoring in plant biology. When I looked at the courses required, I was excited by the holistic education in plants I would get. Donald Kaplan's Plant Morphology course got me hooked on development, and Sarah Hake and Robert Fischer's Plant Development course ultimately led me to join Detlef Weigel's lab at the Salk Institute for Biological Studies.

What do you value about your ASPB membership?

I love the big-tent feeling of ASPB. You have members from all walks of careers and disciplines. The young plant scientists also have an important role to play in the governance of the Society and in bringing innovative new ideas. With the recent initiation of the Early Career Plant Scientists Section, I hope we will see even more participation by students and postdocs in ASPB.

Thank you for your service as chair of the Membership Committee. As you begin your leadership, is there anything in particular you would like your committee to focus on?

We need to help our young plant scientists see the value of joining and maintaining their membership in ASPB. This Society really works for them by supporting plant science funding, outreach, and training. The best way for young scientists to make sure ASPB is



doing these things well is to actively participate in the Society and act as on-the-ground ambassadors communicating the importance of plant science.

What is your favorite activity at the annual Plant Biology meeting?

If I'm to be 100% honest, it's presenting my lab's research. It's ultimately important for us to understand that at our core, we are a scientific society here to support the success of plant scientists. ASPB meetings are great because of the many opportunities students and postdocs have to present their research, discuss their ideas, make professional connections, and raise the game of their research. This is true for trainees but also for more established scientists. ■

ASPB's 2020 Sharon Gray Women's Young Investigator Travel Award Winners Announced

Each year, ASPB, through its Women in Plant Biology Committee, makes travel awards to early career women investigators to attend the Plant Biology conference. Through a donation from the Sharon Gray Foundation (<https://sharongrayfoundation.org/>), the 2018–2020 Women's Young Investigator Travel Awards (WYITAs) are named for Sharon, who had a passion for and commitment to mentoring women in science. By naming the WYITAs for Sharon, we honor her contributions and seek to continue her legacy.

The goal of the competitive process that underpins the WYITA program is to increase attendance of early career women investigators at the annual Plant Biology meeting by providing travel funds. Applications are open to scientists who are within the first five years of their appointment in academic faculty-level positions, government research positions, or industry research scientist positions, as well as experienced postdocs. Selection is based on the science and quality of the abstract submitted, relative to the applicant's amount of time as an early career investigator; a statement describing why their travel should be supported; and financial need.

Eight women were selected this year, and each will receive a \$1,000 award to support their attendance at Plant Biology 2020 in Washington, DC. ■

Congratulations to all of the 2020 WYITA winners!



Nanna Bjarnholt
University of Copenhagen, Denmark

MALDI-MS imaging guides tissue resolved transcriptomics for elucidation of specialized metabolites biosynthesis and physiological functions



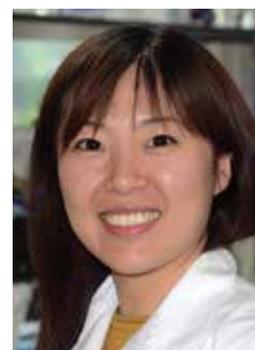
Katarzyna Glowacka
University of Nebraska-Lincoln

How soil fertility, developmental stage, and genotype affect the kinetics of photoprotection in maize



Wenrong He
Salk Institute for Biological Studies, La Jolla, California

Identification of novel regulators for root system architecture using high-throughput chemical genetics and genome-wide association study



Jingjing Huang
Ghent University, Belgium

Mining for protein S-sulfenylation in Arabidopsis uncovers redox-sensitive sites



Anna Locke
USDA-ARS, Raleigh, North Carolina

Stomatal behavior in the field does not support growth chamber-based hypotheses for soybean drought tolerance



Joëlle Mühlemann
Wake Forest University, Winston-Salem, North Carolina

Flavonols take the heat out of heat stress to protect pollen from elevated reactive oxygen species



Lena Maria Müller
Boyce Thompson Institute, Ithaca, New York

A CLE-SUNN module regulates strigolactone content and fungal colonization in arbuscular mycorrhiza



Amanda Storm
Western Carolina University, Cullowhee, North Carolina

Characterizing the BAM9-AMY3 protein-protein interaction

Society Civic Science Initiative: Advancing Collective Support for Civic Science Activities

BY ROSE HENDRICKS
Kavli Civic Science Fellow

Addressing many of the most complex and important problems we face—from climate change to global health threats—requires conversations and collaborations among scientists, decision makers, and the public more broadly. For many scientists, these interactions are embedded in their identities and daily realities; they may regularly speak to the media, meet with their elected representatives to discuss science policy issues, or collaborate with communities to undertake projects that address local issues. These activities contribute to a culture of “civic science,” in which scientists are active citizens and create opportunities for all members of the public to engage with science.

Scientific societies have an important role to play in cultivating a culture of civic science and in supporting scientists who engage in various capacities with diverse audiences. For example, ASPB’s Plant BLOOME (Plant Biology Learning Objectives, Outreach Materials, & Education; <https://aspb-bloome.secure-platform.com/a/>) grant provides funds for projects to advance knowledge and appreciation of plant biology among youths, students, and the general public, and the Society offers guidance to members who want to participate in outreach events (<https://aspb.org/education-outreach/public-engagement-outreach/aspb-events/>) and advocate for science ([The diagram, titled "Civic Science", is set against a dark grey background. At the top, the words "Science" and "Society" are written in white. Two blue curved arrows connect them. The top arrow points from Science to Society and is labeled "advocacy" in green. The bottom arrow points from Society to Science and is labeled "public participation" in green. On the left side, "science communication" is written in green. On the right side, "outreach" is written in green. At the bottom left, "public participation" is written in green. At the bottom right, "public engagement" is written in green.](https://</p></div><div data-bbox=)

Science supports society through science communication, advocacy, and outreach; society informs science through public engagement and public participation.

aspb.org/advocacy/become-an-advocate/).

Scientific societies have traditionally supported their own members in this work, but with support from the Kavli Foundation, which is dedicated to advancing science (<https://www.kavlifoundation.org/>), these organizations have the opportunity to collaborate to advance their collective support of scientists’ civic science efforts. The Society Civic Science Initiative, which began in fall 2019, is led by the American Society for Cell Biology, in partnership with AAAS, the American Geophysical Union, and Research!America. ASPB is actively participating in this collaboration.

Through the Society Civic Science Initiative, collaborating scientific societies are laying the groundwork for a more cohesive whole among societies to work toward influencing long-term culture change within the scientific enterprise to promote and support meaningful civic science engagement. To this end, societies’ current civic science efforts were examined and documented to identify common ways they aim to equip, empower, and reward scientists who engage with broad audiences; the report is available at <https://www.informalscience.org/scientific-society-civic-science-landscape>. This landscape assessment provided insights into key

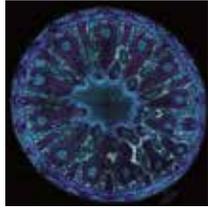
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Kavli Civic Science Fellow

Connecting scientific societies and advancing their collective support for scientists’ civic science activities



The Society Civic Science Initiative is led by the American Society for Cell Biology, in partnership with American Association for the Advancement of Science, the American Geophysical Union, and Research!America.



Call for Papers

Focus Issue on Transport and Signaling

Edited by Yi-Fang Tsay, Michael R. Blatt, Matthew Gilliham, Christophe Maurel, and Nicolaus von Wirén

Submission deadline: November 2, 2020

Publication: May 2021

To submit an article, go to <http://pphys.msubmit.net/>.

Membrane transport is essential for nutrition and cellular homeostasis, it plays key roles in signaling and development, and it is a vital component of responses to biotic and abiotic stress. This Focus Issue will highlight the recent advances in our understanding of the molecular mechanisms behind membrane transport, its integration with signaling, and its roles in homeostasis. A selection of Update Reviews, included within the Issue, will address new and transformative insights that are driving research beyond the traditional boundaries of transport physiology. We welcome submissions of primary Research Articles, Research Reports, and Letters from the community on all aspects of membrane transport, and we encourage submissions that address quantitative frameworks in understanding membrane transport, transport proteins, and the integration of transport and signaling across scales.

Authors submitting to this Focus Issue should indicate their interest in the cover letter when submitting papers online at <http://pphys.msubmit.net/>. Please select **"Transport and Signaling"** from the Focus Issue list in the online submission system. Articles published in *Plant Physiology* on this topic within 2 years before and after the Focus Issue publication date will be collected as part of the online Focus Collection on this topic.

For inquiries, please contact the Editors of the Focus Issue:

Yi-Fang Tsay (yftsay@gate.sinica.edu.tw)

Michael R. Blatt (eic-plantphys@glasgow.ac.uk)

Matthew Gilliham (matthew.gilliham@adelaide.edu.au)

Christophe Maurel (christophe.maurel@supagro.fr)

Nicolaus von Wirén (vonwiren@ipk-gatersleben.de)

Journal Flexibility in the Troubling Times of COVID-19

Dear authors, reviewers, and editors,

Given the current COVID-19 pandemic, we, the Editors-in-Chief and publishers of multiple plant-focused journals, have had questions from members of our community about our flexibility in these troubled times. Like many of you, we and our colleagues on our editorial boards are also facing serious issues in life and work due to COVID-19. Work-related issues include the time we are spending on things like contingency planning for lab shutdowns, or dealing with those shutdowns after they were imposed while shifting roles among lab members to keep important plants or cultures alive. Many of us are also having to convert classes to online instruction, dealing with major changes in work-life balance (kids out of school), and even illness.

Please note that we are flexible about deadlines and we can provide “no-excuse” extensions—that is, if you ask for an extension on a journal-related task, we will do our best to accommodate this request.

For revisions to your manuscripts that were already reviewed, we assume that you are likely to want to have your paper resubmitted as soon as you can manage it. Therefore, the resubmission can wait until your lab is capable of working again. We pledge to handle your resubmission as quickly as possible, even though our colleagues on our editorial boards are facing the same challenges as our entire community.

We understand, too, that reviewers may need extra time to complete their assessments of manuscripts and we will do our best to accommodate such needs. We cannot grant open-ended review extensions, but we can be understanding and flexible about

the added time you may need to complete your review. In addition, we recognize that due to circumstances beyond your control, you may be unable to respond to our reminders or requests, and ultimately perhaps cannot deliver a review, despite your best intentions. In these cases, we may have to ask our authors to be patient if it takes longer than anticipated to return decisions and reviews. We do ask that if at all possible, you keep in communication with us about what you can and cannot accomplish in a given period of time, so that we may adjust accordingly. We are confident that the community as a whole will recognize the extreme nature of the situation and the need to come together to help our colleagues and peers to the best of our collective ability.

Thank you for your understanding and we wish safety and health to everyone.

Signed by:

Blake Meyers, Editor-in-Chief, *The Plant Cell*, ORCID ID: 0000-0001-6680-1722

Ivan Baxter, Editor-in-Chief, *Plant Direct*, ORCID ID: 0000-0001-6680-1722

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Crispin Taylor, CEO, ASPB, ORCID ID: 0000-0002-4669-3215

Nancy Winchester, Director of Publications, ASPB, ORCID ID: 0000-0002-9630-4054 ■

SOCIETY CIVIC SCIENCE INITIATIVE *continued from page 5*

opportunities for scientific societies to make a greater collective impact in this area. From there, the collaborating organizations developed a collective vision and goals, which include the following:

- Creating opportunities for collaboration among societies to scale up effective civic science programs
- Expanding the number and influence of incentives to increase scientists' prioritization

of civic science and encourage more scientists to engage

- Encouraging more universities to offer greater support and rewards for scientists engaging in civic science
- Supporting more scientists in engaging more often and more effectively with policy makers and members of the public.

At the end of January 2020, staff from a wide range of societies, including ASPB, convened to kick off specific projects toward these shared goals. As the projects expand and gain momentum, the

Society Civic Science Initiative will continue to monitor and measure civic science progress and to seek ways to connect efforts with relevant social science research, diverse practitioner expertise, and other emerging efforts.

There is optimism among the participants that this new collaboration will create valuable opportunities for scientific societies to advance a culture of civic science. When science–society relationships are strong, scientific research reflects public priorities and values, public interest in

and support for science grows, the uptake of scientifically sound practices and policies increases, and the promise of a diverse and competent scientific workforce is realized for years to come.

Please contact Natalie Henkhaus (nhenkhaus@aspb.org) for more information about ASPB's involvement with the Society Civic Science Initiative. More on civic science can be found at the Rita Allen Foundation's website (<http://ritaallen.org/civic-science/>). ■

Zachary Lippman Wins 2020 National Academy of Sciences Prize

In January, the National Academy of Sciences (NAS) announced that ASPB member Zachary B. Lippman, Jacob Goldfield Professor of Genetics at Cold Spring Harbor Laboratory and Howard Hughes Medical Institute Investigator, was awarded the 2020 NAS Prize in Food and Agriculture Sciences. Zachary studies the genetics of when and where plants produce flowers, fruits, and seeds and uses this knowledge to accelerate crop breeding. His work, which aims to improve crop production and hardiness, helps address the challenges of global population growth, environmental sustainability, and climate change.

Through his focus on the tomato, one of many crop species with limited natural genetic diversity, Zachary has made key discoveries that can be applied to a wide range of plants. He discovered that genes controlling

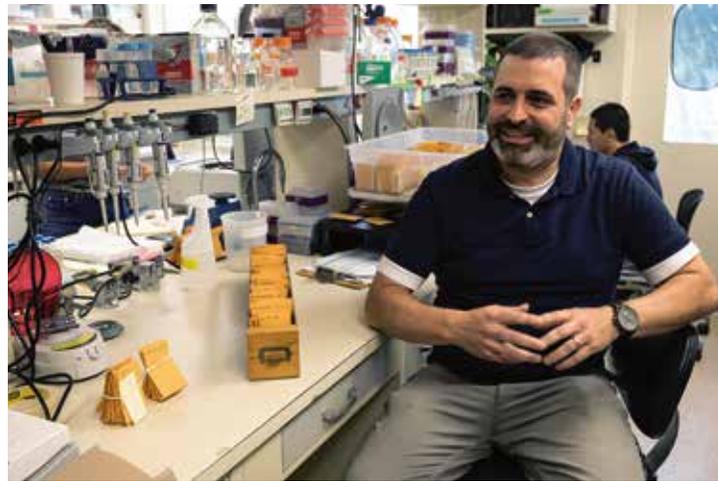


PHOTO BY JOHN D. & CATHERINE T. MACARTHUR FOUNDATION

plant growth and development could be “tuned” to manipulate stem cell maturation, the number and architectures of flowering shoots (inflorescences), and ultimately yield. In recent years he has developed new applications for CRISPR/Cas9 genome editing to engineer quantitative trait

variation, which is the driver of crop improvement. Zachary’s work puts him at the forefront of plant genetics and sets the stage for new tools and crop breeds to protect people from food insecurity caused by reduced farmland, climate change, water shortages, and migration.

The NAS Prize in Food and Agriculture Sciences recognizes research by a midcareer scientist (within 20 years of PhD completion) at a U.S. institution who has made an extraordinary contribution to agriculture or to the understanding of the biology of a species fundamentally important to agriculture or food production. For the purpose of the prize, areas of science with applications to agriculture include plant and animal sciences, microbiology, nutrition and food science, soil science, entomology, veterinary medicine, and agricultural economics. The recipient is awarded a medal and a \$100,000 prize endowed through generous gifts from the Foundation for Food and Agriculture Research and the Bill & Melinda Gates Foundation. ■

Call for Papers

Plant Physiology

2021 Focus Issue on Redox Biology

Editors: Peter Geigenberger, Nicholas Smirnoff, Frank Van Breusegem, Karl-Josef Dietz, and Graham Noctor

Deadline for Submission: September 4, 2020 Publication: April 2021

For more information go to <https://aspb.org/publications/ppfocus/>

As the years churn on, many esteemed members of ASPB have passed the torch to their younger colleagues and stepped out of the limelight to allow others to bask in its glory. Yet, many continue their good works to the benefit of plant biology and the world. Edited by Rebecca Dickstein, University of North Texas, "Where Are They Now?" is part of the *ASPB News* suite of columns focused on the personal and scientific life and insights of ASPB members at all stages of their career. This column offers a look into the current activities of influential members of ASPB who continue to make a positive mark on our Society. We hope you all enjoy this addition to your newsletter.

Please feel free to submit your own article to "Luminaries," "Membership Corner," or "Where Are They Now?" For details, contact José Dinneny at dinneny@stanford.edu. As always, we are open to suggestions for articles or features of interest to readers of the *ASPB News*.

Ken Keegstra

University Distinguished Professor Emeritus, Michigan State University

The path to where I am now was a circuitous one, as is often the case. I will first briefly explain where I am now, then describe the path that led me here, and finally explain a bit about what I am doing now and some lessons learned from my journey.

My wife Sue and I now live on Lake Redstone, a small but scenic lake in southern Wisconsin about an hour northwest of Madison. We chose this location for retirement because of its centrality to our sons and their families, who live in Minnesota, Wisconsin, and Illinois. Another consideration was that Sue always wanted a home in the woods and on a lake. After 50 years of moving for my career, it was her turn to select where we live.

My scientific story begins in high school, where I became fascinated with chemistry, in large part because of an outstanding teacher. During my studies at Hope College, I performed undergraduate research with an excellent mentor, Jerry Mohrig, who later moved to Carleton College. A senior biochemistry class convinced me to consider biochemistry in graduate school.

The chemistry department at the University of Colorado had a biochemistry section, and there I investigated the complex carbohydrates of plant cell walls with Peter Albersheim, a creative scientist who strongly influenced my career.

When it was time to pursue postdoctoral work, the war on cancer had begun, so I decided to explore the differences in surface carbohydrates between normal and cancer cells with Phil Robbins at the Massachusetts Institute of Technology. Because funding was readily available, the path of least resistance was to continue these studies when I took a faculty position in the Microbiology Department at the new medical school at the State University of New York at Stony Brook. It was not long, however, before I realized that working in animal systems was not my real passion. In 1977, when the Botany Department at the University of Wisconsin–Madison offered me



Ken and Sue Keegstra at an outdoor restaurant in Oslo, Norway, August 2019.

nant DNA methods and protein expression systems allowed novel proteins to be produced and tested for transport into isolated chloroplasts.

Another significant change in my career came early in 1993, when we moved back to Michigan so that I could assume the directorship of the Michigan State University–DOE Plant Research Laboratory. With

a faculty position, it did not take long to make a decision.

The transition back into research on plant systems took several interesting scientific twists and turns that would take too long to describe here. After a short foray into investigating the function of lectins in plants, our research group was soon studying protein targeting into chloroplasts, a topic we pursued for more than 25 years. It was an exciting time to be engaged in the emerging field of organelle biogenesis. The new technologies associated with recombina-

the move to a new location came a gradual transition to a new area of research. Although our chloroplast studies continued for another 10 years or so, our research group began a new project focused on the biosynthesis of plant cell wall polysaccharides, especially xyloglucan. As the chloroplast projects ramped down, the cell wall program ramped up. By the mid-2000s, our research program was completely focused on plant cell wall polysaccharide biosynthesis.

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Plant Physiology[®]

Call for Papers

2021 Focus Issue on Dynamic Membranes

Edited by Teun Munnik, Sébastien Mongrand, Viktor Zársky, and Mike Blatt

Deadline for Submission: June 5, 2020

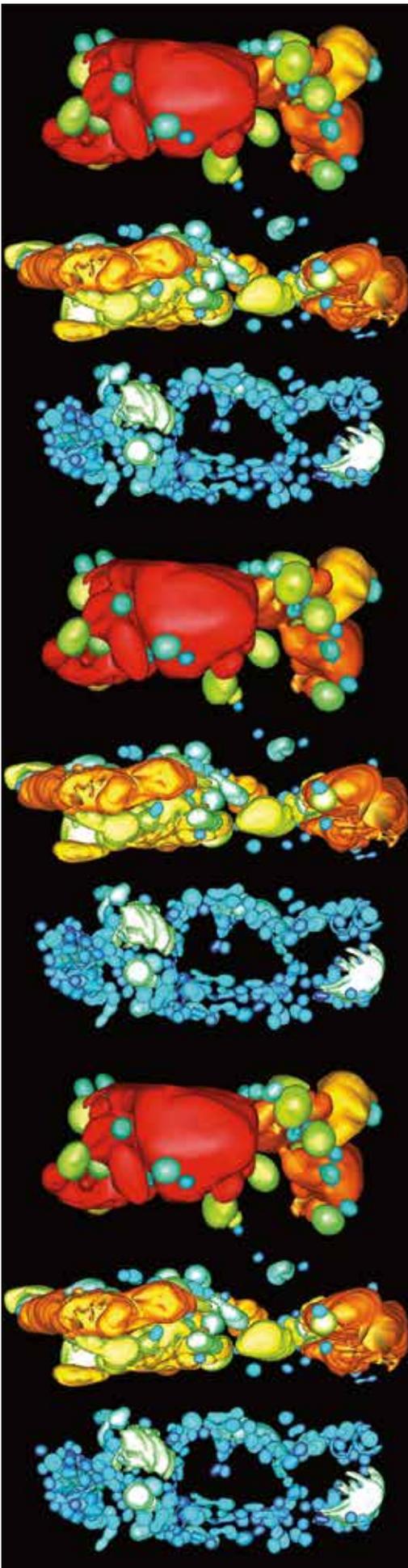
Publication: February 2021

Membranes are highly dynamic structures, with the timescales for turnover of lipid and protein spanning orders of magnitude from seconds to many hours. These hydrophobic fluid barriers incorporate phospholipids, sphingolipids, glycolipids, and sterols, and contain a wide range of proteins crucial for transporting ions and biomolecules (e.g., sugars, miRNAs) across the lipid bilayer. They are crucial as platforms supporting integral and peripheral proteins, hosting sensors, and receptors for signal detection and transduction, and they are essential for plant growth and development. The Focus Issue on Dynamic Membranes will capture up-to-date views and perspectives on developments at the forefront of membrane research, and it will highlight the most important gaps in understanding that will be the focus for future studies. Invited Updates will provide reviews on areas that continue to add transformative insights pertinent to existing knowledge and on nascent but important areas of future development. We seek submissions of research articles on all aspects that make plant membranes dynamic, including signaling, endocytosis, exocytosis, vesicular transport, membrane barriers, protein and lipid binding, and the mechanics of these processes.

Authors interested in contributing should indicate this in the cover letter when submitting papers online at <http://pphys.msubmit.net>. Please select "Dynamic Membranes" from the Focus Issue list in the online submission system. Articles published in *Plant Physiology* on this topic within 2 years before and after the Focus Issue publication date will be collected in an online Focus Collection.

To submit an article, go to <http://pphys.msubmit.net/>.

Please contact Teun Munnik (T.Munnik@uva.nl), Sébastien Mongrand (sebastien.mongrand@u-bordeaux.fr), Viktor Zársky (zarsky@ueb.cas.cz), or Mike Blatt (eic-plantphys@glasgow.ac.uk) for more information.



WHERE ARE THEY NOW? *continued from page 9*

About this time, I made plans to step down as director of the Plant Research Lab and focus on research and teaching for the last few years of my career. I even had a fantasy that I would again do experimental work with my own hands. But my well-intentioned plans did not materialize. In 2007, DOE funded three bioenergy research centers, including the Great Lakes Bioenergy Research Center, a joint venture between the University of Wisconsin–Madison and Michigan State University. Thus, instead of slowing down, I stepped into the most demanding position of my career, serving as scientific director for a multidisciplinary research center with about 400 students, faculty, and staff spread over multiple institutions. As the center was preparing to apply for an 11th year of funding, I decided it was time to let someone else have the fun.

The decision to retire is a consequential career choice, but one that is not discussed much among scientists. My decision to retire was influenced by a 2004 essay written by Jeff Schatz, an excellent scientist who studied mitochondrial biogenesis; we had met at scientific meetings. During retirement, Jeff pursued a number of activities, including writing several essays providing insightful commentary on the practice of science. His essay on retirement, entitled “Letting Go” (Schatz, 2004), is as long as this article; the short summary is that scientists have an obligation to get out of the way to make way for a new generation. He also provided some ideas on ways to remain active for those who wish to do so.

At the beginning of 2017, I retired at the age of 71. During retirement, I have continued to engage in science activities while not operating a lab. In collaboration with colleagues who have labs, we are finalizing a paper on

the glucan synthases involved in xyloglucan biosynthesis and preparing it for publication. I continue to serve on the scientific advisory board for three research centers and to participate in review and editorial activities. (*Editor’s note:* Ken also currently chairs ASPB’s Robert Rabson Award and Constitution and Bylaws committees.)

Retirement has also allowed time for pursuing other interests. For example, I have taken up photography, but I still have much to learn about creating high-quality photographs. In addition, I am a member of an elected board charged with improving water quality in Lake Redstone. This has given me a chance to pretend I am a field biologist by learning about aquatic plants, freshwater algae, and nutrient flow in watersheds. Finally, Sue and I enjoy traveling. The photo shows us in an outdoor restaurant in Oslo, Norway, this past August.

In looking back on a career of more than 50 years, from publishing undergraduate chemistry research to publishing collaborative research during retirement, it is amazing to see the progress that has been made in the biological and biochemical sciences. I have been enriched by pursuing research on diverse topics. But ultimately, science is a human endeavor. I have been greatly influenced by outstanding teachers and mentors. In addition, I have been privileged to work with superb colleagues at every stop along the way and with excellent students and associates, in both my own laboratory and the laboratories of collaborators. I find great satisfaction in reading their publications and following their careers. ■

Reference

Schatz, G. (2004). Letting go. *FEBS Letters* 576: 285–286. <https://doi.org/10.1016/j.febslet.2004.09.043>



ASPB Legacy Society Founding Members

In the January/February 2020 issue of the *ASPB News*, we announced that Legacy Society Founding Members would be introduced to readers through brief biographies prepared by the Founding Members themselves. Read the biographies at <https://aspb.org/founding-legacy-society-members/>, and check this space in each issue of the *ASPB News* for a list of newly posted bios.

Charles Arntzen
John Boyer
Ray Bressan
Nicholas Carpita
Kent Chapman
Ray Chollet
Maarten Chrispeels
Jerry Cohen
Gloria Coruzzi
Deborah Delmer

Machi Dilworth
Rick Dixon
Elisabeth Gantt
Sarah Hake
Thomas Hodges
Mark Jacobs
Alan Jones
Harry Klee
Brian Larkins
Rob Last

Peggy Lemaux
Sally Mackenzie
Martin Massengale
Blake Meyers
Ralph Quatrano
Natasha Raikhel
Doug Randall
Stan Roux
Daniel Schachtman
Tom Sharkey

James Siedow
Bijay Singh
Chris Somerville
Heven Sze
Lincoln Taiz
Indra K. Vasil
Alessandro Vitale

Welcome to the *ASPB News* “Unsung Heroes of Plant Biology” column! These stories, brought to you by the ASPB Ambassador Program, showcase the vital contributions of non-tenure-track scientists in plant biology. Please contact Shawna Rowe, ASPB ambassador and column editor, at roweshaw@gmail.com with questions or comments.

Welcome, dear readers of *ASPB News*! In this issue, we introduce a new column that will showcase some of the most important members of our scientific community, a diverse, oft-ignored, and marvelous group of folks: the non-tenure-track scientists.

We dedicate this column to the scientists who always receive acknowledgments in seminars but tend not to give their own. To those who answer the phone when the -80°C freezer melts

at 1 a.m. To those who keep the plants alive in the winter and the pests away in the summer. To those who maintain core facilities and are experts in the techniques we all need to use but can't yet perform. To those who form the backbone of our community but who too often go unrecognized. To the greenhouse managers, the lab managers, the field technicians, the sequencing and microscopy experts, the mechanics, the senior scientists, the nighttime volunteer enthu-

siasts, and everyone else who does invaluable and sometimes thankless work. These people are unsung heroes of plant biology, and they play critical roles in scientific breakthroughs and discoveries every single day, around the globe.

Appearing every other issue, the “Unsung Heroes of Plant Biology” column will feature non-tenure-track scientists of all backgrounds, identities, and career stages and describe their work and their story. The

column will be written by early career scientists and industry employees who are members of the ASPB Ambassador Program. Ambassadors are emerging leaders in plant biology recruited to communicate the mission and vision of the Society to plant biologists and the general public alike, and this column provides them with a platform to further develop their communication skills. We hope you enjoy the column!

Samantha Link

Beadle Center Greenhouses, University of Nebraska–Lincoln

BY SUNIL K. KENCHANMANE RAJU

ASPB Postdoctoral Ambassador, Michigan State University



PHOTOT BY CHRISTIAN ELOWSKY

Samantha Link is the greenhouse manager at the Beadle Center Greenhouses, University of Nebraska–Lincoln (UNL). The Beadle Center is an interdisciplinary hub housing multiple core facilities and faculty from various departments. A highlight of the Beadle Center is its state-of-the-art greenhouse complex, one of many plant growth facilities at UNL, which also include the Nebraska Innovation Campus greenhouse and multiple greenhouse clusters at the East Campus (<https://ard.unl.edu/greenhouses>). Samantha manages the Beadle Center Greenhouses with the help of a full-time assistant, a part-

time technician, and three student workers.

Samantha grew up in Ravenna, Nebraska, and obtained a BS in horticulture–landscape design from UNL in 1996. During her undergraduate years, she was a student worker for the horticulture greenhouses at the East Campus. Samantha started working at the Beadle Center Greenhouses in 1998 and became the greenhouse manager in 2015. The Beadle Center Greenhouses have 14,500 square feet of floor space and provide and care for plants for nearly 25 labs from multiple departments. They also maintain plants for many of the teaching labs for introductory biology, botany,

and life science classes that emphasize plants in their coursework. The Beadle Center Greenhouses also have an extensive collection of preserved plant material used for taxonomy, systematics, and plant diversity classes.

Samantha is passionate about plants and enjoys seeing plants begin from a seed and grow to maturity. She is a planner and strives to predict issues related to plant growth and to plan ahead to avoid plant loss. As she noted, “Plants are not always predictable. In many ways, you can count on them to *not* be predictable; they don’t always do what you want them to.” Being consistent with protocols for soil type, planting procedures, and sanitization helps Samantha stay ahead of the game.

One of the many challenges Samantha faces is that researchers tend to use greenhouse staff

as a last resort. She feels staff should be a regular and integral part of projects conducted in the greenhouses because they are most likely to care for the plants daily. Ineffective communication regarding growth needs or issues usually results in loss of valuable time and even the failure of part of or a whole project. Samantha and her team are on call around the clock, every day of the year. “We are actively involved, daily, with the facility and the environment in the facility. Technological advances allow us to get a notification if there is an environmental issue. Still, technology, as of now, can’t open a door, move plants, or turn on a fan to help cool a room, so it has to be one of us who comes and addresses the issue.”

Samantha’s efforts are always acknowledged in students’ graduate seminars, and her greatest

satisfaction is when graduating students stop by her office or leave heartfelt notes conveying their gratitude. “It’s an awesome feeling. I have kept many of those notes as they remind me that I am appreciated for my work!”

Samantha’s colleagues respect her work and love her caring nature. Rebecca Roston, associate professor of biochemistry at the Beadle Center, acknowledged Samantha’s assistance with her lab’s plant growth needs. “Every time we have a lab planting crisis (e.g., everyone decides Friday is a good day to plant, we suddenly need a chamber that can have an eight-hour day, we need a reverse-cycling chamber to avoid being in the lab at 2 a.m.), Sam is there. She is calm and practical and often helps us with temporary growth space. Even when that is impossible, she helps talk people through

their options and makes sure they know their academic life isn’t over. She brings that same calm, practical demeanor to whole-greenhouse crises, such as infections by viral or fungal pathogens. She’s on all the researchers’ sides, and it is very appreciated. Finally, on a personal note, I enjoy having conversations with her and nerd-ing out about plants!”

Outside work, Samantha does her best to stay active by going to the gym or for a run or walk, and she is a big fan of Netflix and Amazon Prime. Her family lives close by, and she spends time with them often. Amazingly, she has houseplants, and quite a bit of her yard is dedicated to gardening. “I do enjoy growing plants—even off the clock!” ■

NEW! Do you manage a meeting or event that is open to the plant science community?

Add it to the Global Plant Science Events Calendar!

<https://plantae.org/events-calendar/>

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Policy Update

BY MICHAEL BUSE
Lewis-Burke Associates, LLC

The information in this article was accurate at the time of writing.

Administration Nominates NSF Director

The Trump administration has announced its nomination of Sethuraman “Panch” Panchanathan, executive vice president at

Arizona State University, to be the next director of NSF when France Córdoba’s term ends this spring. By training, Panchanathan is an electrical and computer engineer. Among several possible changes, his nomination brings with it the question of whether and how NSF will continue to focus on the Ten Big Ideas that Córdoba championed. Panchanathan’s previous work indicates that he is likely to continue emphasizing the importance of broadening participation at NSF.

Panchanathan’s nomination has been met with a warm reception by the broader research community. Córdoba and National Science Board Chair Diane L. Souvaine both expressed their support for the nominee, highlighting his leadership at Arizona State and his service on the National Science Board.

Several nominees for agency leadership positions have been held up in the Senate over various political disputes. Although the nomination was intended to be taken up shortly after the conclusion of the impeachment trial, the process could prove to be longer than anticipated.

Sources and Additional Information

- NSF’s announcement of Panchanathan’s nomination

can be found at <https://tinyurl.com/yx4nzjz3>.

- The White House announcement of intent to nominate Panchanathan can be found at <https://tinyurl.com/vules2g>.

ASPB Nominee Named to BIO Advisory Committee

Rob McClung, who served as ASPB president in 2007–2008, has been named as the newest member of the NSF Directorate for Biological Sciences (BIO) Advisory Committee. Currently professor of biological sciences at Dartmouth College, Rob was nominated by ASPB on the basis of his expertise and leadership in the biological sciences.

Rob leads a research program that studies the mechanisms and roles of circadian rhythms in plants. Circadian rhythms are critical for plants to coordinate a complex set of biochemical and physiological activities tied to day and night activities, and they can also influence responses to environmental stresses and transitions to reproduction. Rob has authored more than 90 publications, and his work has been funded by NSF, NIH, and USDA. He has served as a member of the advisory committee for the North American Arabidopsis Steering Committee and the Arabidopsis Biological Resources Center. Rob is a fellow of AAAS and of ASPB.

Rob’s first meeting as a member of the BIO Advisory Committee will be April 29–30, 2020. The committee meets twice

a year to advise BIO on topics including

- “How BIO’s mission, programs, and goals can best serve the scientific community;
- Institutional administration and policy;
- How BIO can promote quality graduate and undergraduate education in the biological sciences;
- Priority investment areas in biological research; and
- Government Performance and Results Act, including Committees of Visitors.”

Source and Additional Information

- More information on the BIO Advisory Committee can be found at <https://tinyurl.com/y8886jqk>.

Agencies Release Website for Biotechnology Regulation

Following the streamlining of biotechnology regulations in fall 2019, the Food and Drug Administration, the Environmental Protection Agency, and USDA have launched the Unified Website for Biotechnology Regulation. This website is part of the Trump administration’s broader effort to streamline the regulation of biotechnology that was kicked off by the Executive Order (EO) on Modernizing the Regulatory Framework for Agricultural Biotechnology Products released in June 2019.

The website serves as a tool for the public to better understand how biotechnology is regulated and provides researchers and innovators with a central location for resources to answer specific questions. Under the About portion of the website, the public can find clear explanations of each agency’s role in regulating biotechnology in the Coordinated Framework for the Regulation of Biotechnology. Users can also submit specific questions to the agencies on the Contact Us page of the site.

The website precedes other elements of the EO, which include an international outreach plan and a domestic education campaign. These are intended to increase acceptance of these technologies by consumers and potential and current trading partners in an effort to ensure American leadership in the biotechnology industry.

Sources and Additional Information

- The Unified Website for Biotechnology Regulation can be found at <https://tinyurl.com/wcpu7me>.
- The Executive Order on Modernizing the Regulatory Framework for Agricultural Biotechnology Products can be found at <https://tinyurl.com/y3xaaa7y>. ■



American Society of Plant Biologists

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Plant Physiology

2021 Focus Issue on Parasitic Plants

Edited by Harro Bouwmeester, Claude dePamphilis, Neelima Sinha,
and Julie D. Scholes

Submission Deadline: May 4, 2020, Publication Date: January, 2021

This Focus Issue will showcase Updates and Research Articles in the field of parasitic plants on topics such as the parasitic plant life cycle and lifestyle (and how this compares to other pathogens), germination stimulants/strigolactones and the strigolactone receptor in parasitic plants, haustorium formation, the transfer of information between parasitic plants and their hosts, host manipulation by parasites, and the evolution of plant parasitism.

For more information go to <https://aspb.org/ppfocus/>.



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