

2018
One Hundred and Tenth Annual Report of
The American Phytopathological Society

ANNUAL MEETING

Overview

In 2018, APS organized (and the International Society for Plant Pathology (ISPP) sponsored) the 11th International Congress of Plant Pathology (ICPP), in lieu of an annual APS meeting. ICPP took place in Boston, Massachusetts July 29-August 3 and the theme of this meeting was Plant Health in a Global Economy.

The meeting featured:

- 5 field trips
- 12 workshops
- 5 satellite meetings
- plenary presentations by Carolee T. Bull (The Pennsylvania State University), Helene R. Dillard (University of California, Davis), David I. Guest (University of Sydney), Sophien Kamoun (The Sainsbury Laboratory), and Francisco J. Reischneider (EMBRAPA)
- Numerous events and networking opportunities
- 13 Idea Cafes
- 1 Hot Topic
- 15 keynote presentations
- One-to-One Conversations with an Expert
- POD (Pathologists of Distinction) Talks
- Panel discussions
- Phytoview sessions
- 70 concurrent sessions, each comprising nearly 500 contributed talks
- 2 poster sessions comprising nearly 1,200 posters

The meeting was attended by nearly 2,400 participants from 88 countries. The meeting offered numerous activities for families with children and featured the first ICPP LGBTQA Social and Networking Happy Hour. A comprehensive review of ICPP2018 was published in *Phytopathology News* (Volume 52, number 9).

Awards and Honors Ceremony (part of ICPP)

- APS Fellows:
 - Scott T. Adkins, USDA ARS USHRL
 - Richard R. Bélanger, Université Laval
 - Timothy B. Brenneman, University of Georgia
 - Thomas A. Evans, University of Delaware
 - Howard S. Judelson, University of California
 - Richard Latin, Purdue University

- Frank N. Martin, USDA ARS
- You-Liang Peng, China Agricultural University
- David Shew, North Carolina State University
- Brett A. Summerell, Royal Botanic Gardens
- Xueping Zhou, Zhejiang University
- Excellence in Extension Award:
 - Amanda J. Gevens, University of Wisconsin-Madison
- Excellence in Industry Award:
 - Eric C. Tedford, Syngenta Crop Protection
- Excellence in Regulatory Affairs and Crop Security:
 - Georgios Vidalakis, University of California-Riverside
- Excellence in Teaching Award:
 - Katherine L. Stevenson, University of Georgia
- Ruth Allen Award:
 - Krishna V. Subbarao, University of California-Davis
- William Boright Hewitt and Maybelle Ellen Ball Hewitt Award:
 - Suthaparan Aruppillai, Norwegian University of Life Sciences
- Lee M. Hutchins Award:
 - Patricia S. McManus, University of Wisconsin-Madison
- Noel T. Keen Award:
 - Barbara S. Valent, Kansas State University
- Syngenta Award:
 - Melania Figueroa, University of Minnesota

Future Annual Meeting Sites

- Plant Health 2019 (Cleveland, Ohio; August 3-7); note that beginning in 2019, the APS annual meeting will be rebranded as Plant Health to more comprehensively express the scope of the meeting, provide clearer connotation to the broader public, and to attract scientists from disciplines related but distinct from plant pathology.

SOCIETY AFFAIRS

Year in Review

APS ICO (Internal Communications Officer) Jim Bradeen prepared an article focusing on 2018 priorities and activities of APS Council, boards and committees. This summary appears in the January 2019 *Phytopathology News*, Volume 53, Issue 1.

Key areas highlighted include:

- Emphasis on response to emerging, re-emerging or threatening plant pathogens. APS Council has appointed a task force chaired by Nik Grunwald to develop a vision for future research infrastructure with an emphasis on open sharing of information and knowledge to position the plant pathology community for timely identification of and response to plant disease threats. This work continues a history of activity by the Plant Pathology Advisory Team and the Public Policy Board.
- Repositioning the Plant Management Network (PMN) for maximal impact. An ad hoc committee led by Tim Murray has made a series of recommendations to APS Council including establishment of a model of open access for PMN commodity content; expanded “Focus On” content within PMN; development of thematic “hubs”; integration of PMN content into a newly upgraded web platform; establishment of new funding streams for PMN; and improved branding and promotion.
- Public Policy Board (PPB) advocacy at the national level, including an emphasis on the National Plant Diagnostic Network, microbial research collections, and emerging plant diseases.
- Continued collaborations with ISPP, potentially including co-sponsored educational webinars and collaborations around a grand challenge theme.
- Expansion and continued fostering of relationships with international professional plant pathology societies including establishment of new Memoranda of Understanding and collaborative efforts of working groups managed by the Office of International Programs.
- Strategic planning to create valuable, lasting partnerships with industry plant pathologists.
- Enhanced membership experiences, fostered by the 2026 Professional Development Forum chaired by Renee Rioux, for early career and mid-career members; establishment of the Community Connector program for first time, re-engaging and plant pathology-curious members; and enhanced social media presence.
- New and renewed emphases at the APS Foundation focused on fundraising.
- Rebranding the APS Annual Meeting as Plant Health to appeal to a broader array of scientists and to provide clarity of meaning.
- Launch of a thoroughly updated and re-designed APS website in early 2019.

Membership

- Figure 1 summarizes APS membership demographics. As of June 30, 2018, APS comprised 4,206 members and 57 undergraduate members. APS members are located in 93 different countries, with 65% of members from the U.S. Undergraduate memberships are predominantly complementary, provided through the Borlaug's Army program. Membership has declined by more than 500 since 2014. Current numbers may have been impacted by replacement of the Annual Meeting with ICPP in 2018 as registration for the Annual Meeting generally accounts for 300 new members.

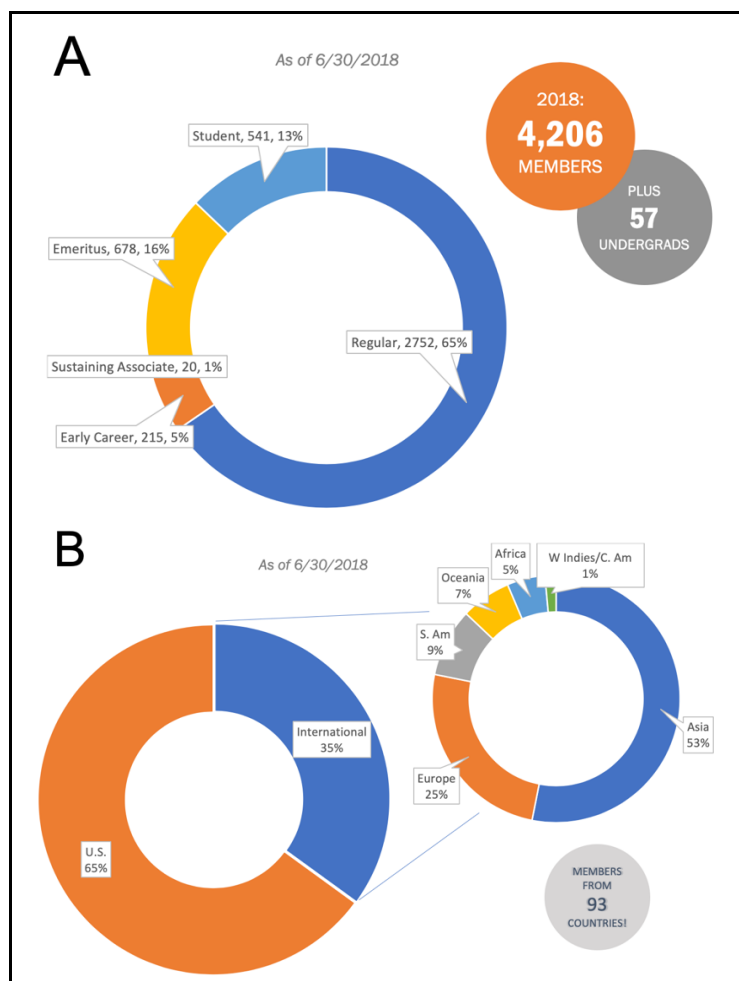


Figure 1. APS Membership
 (A) As of June 30, 2018, APS comprised 4,206 members and 57 undergraduate members. 65% of members are of the Regular membership category, with the Emeritus membership category comprising an additional 16%. Only 1% of APS membership is in the Sustaining Associate category. Undergraduate memberships are predominantly complementary, provided through the Borlaug's Army program.
 (B) APS membership hails from 93 countries! 65% of APS members are located in the U.S., with Asia (53%) and Europe (25%) contributing the largest proportion of members outside of the U.S.

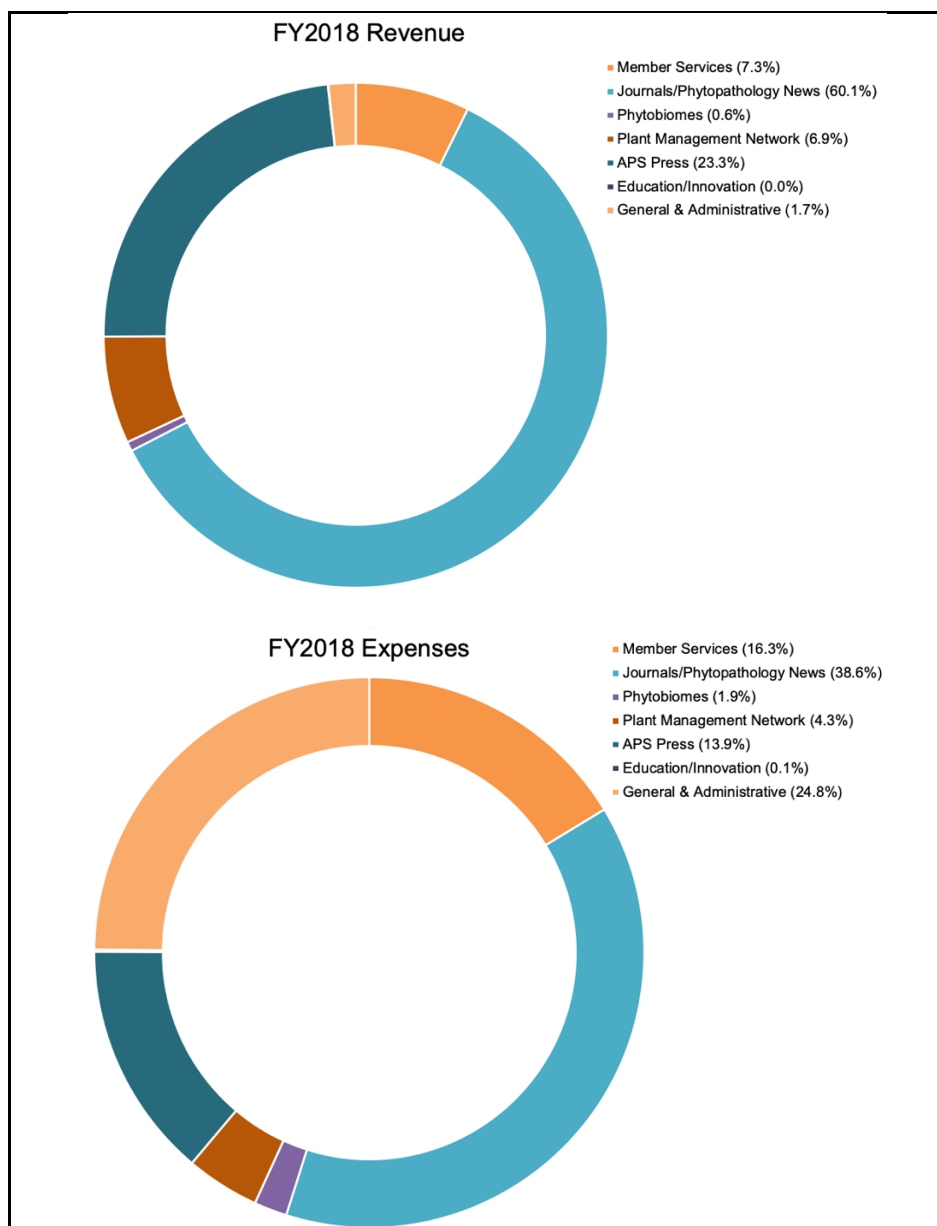
- Deceased Members (July 2017 – July 2018):** It is with sadness that we reflect on the many contributions of those who have passed:
 - Samuel W. Braverman (Geneva, NY)
 - Walter D. Gubler (University of California Davis)
 - William R. Jarvis (Agriculture Canada)
 - Laurene Levy (USDA APHIS PPQ CPHST)
 - Yeshwant L. Nene (Asian Agri-History Foundation)
 - W. Wyatt Osborne (IAI Inc)

- Albert O. Paulus (Trabuco Canyon, CA)
- Patrick M. Phipps (Virginia Tech)
- Bobby L. Renfro (Bartlesville, OK)
- Curtis W. Roane (Blacksburg, VA)
- Robert D. Sanders (Agricultural Crop Consultant)
- August F. Schmitthenner (Wooster, OH)
- Raymond J. Tarleton (Brookdale)
- Alistair P. Waters (KatiKati, NEW ZEALAND)

Financial

**Figure 2.
Overview of APS
Finances
(FY2018)**

Revenue (top) vs. Expenses (bottom) for FY2018. APS Journals and APS Press continue to contribute significantly to revenue, comprising 83.4% of the \$1,432,342 in revenue. APS Journals is the single largest contributor (38.6%) to APS expenses, which totaled \$1,281,952 in FY2018. Note that the APS annual meeting was not held in 2018 to accommodate the ICPP meeting.



The comprehensive APS Report of the Treasurer for 2018 will be published in *Phytopathology News*.

Annual Reports of the Committees, Boards, and Offices of APS

2026 Professional Development Forum 2018 (PDF): In the past year, the 2026 PDF has focused on providing feedback to APS on membership initiatives and family-friendly APS initiatives. In collaboration with a strong group of APS volunteers from outside APS 2026, we prepared for 'Family Friendly ICPP' throughout the year and delivered an effective and well-received program at the meeting in Boston. We also provided a series of articles on family-friendly topics throughout the year and are gaining traction as we continue our activities into 2019 and future meetings. Conference calls throughout the year focused on ways that the member groups can help each other. Specific initiatives discussed included Careers 101 integration with the Divisional Forum and Professional Development Center, creation of a diversity and inclusion web directory, and ways to pool resources for efforts related to mentoring and mid-career retention. Early in the year, meetings were held to start developing strategy in the areas of mid-career retention and mentoring, however, we found it difficult to gain traction in these areas. This was likely because we were thinking too broadly--next year we plan to focus on smaller, actionable items to build momentum. We continued to struggle somewhat this year with a misconception of what the 2026 PDF is. There is a feeling that 2026 PDF gets a final word on what member groups can and can't do. Strong efforts were made this year to reassure member groups that our purpose is to promote collaboration and communication, as opposed to directing or interfering with intended group activities. Hopefully, this message will become clearer as time passes and the group becomes more established.

Academic Unit Leader Forum (AULF) 2018: AULF met during ICPP2018. Assembled members heard funding updates from USDA-NIFA staff and discussed an informal proposal from PPB to focus future advocacy, in part, on the theme of forest health with an emphasis on research funding and student training. Department heads and chairs will meet in Kansas City, MO in February, 2019 as part of the multistate project NCAC14.

Annual Meetings Board 2018: In 2018, the Annual Meeting Board assisted with some aspects of organizing the 2018 ICPP meeting. For example, we organized contributed talk sessions and the poster session and assisted with developing the overall schedule of events. Since the ICPP meeting, we've been focused on planning the scientific portion of the 2019 annual meeting.

APS Foundation Board 2018: APS Foundation continues to be generously supported by APS Council and the membership of the Society. The collective funds of Foundation now exceed \$2.4 million, and made possible the support of 59 individuals who attended and presented their work at the 2018 ICPP meeting in Boston, as well as the continued support of Foundation activities encompassing outreach to both US-based and international members. Members donated nearly \$35,000 to Foundation at the ICPP meeting alone. David M. Gadoury has been appointed the chair of the Foundation Board of Directors. William E. Dolezal completed two terms of exemplary service in August 2018

and retired from the Board. Increased rates of contribution were noted across several targeted demographic groups; including members of more than 10 years, emeritus members, past society award recipients, past Foundation award recipients, new APS members, and international members. Foundation still faces significant challenges. For example, although we continuously accumulate funds through donations, the magnitude of total donations has not kept pace with inflation. We have gone through a long period of recovery in stock investments. However, while we have increased the number of awards given each year, the size of the awards has only slightly changed in the last 10 years, while travel costs have risen sharply. To return to parity with the 1999 awards adjusted for inflation, given the increased number of awards, will require an approximate doubling of the present \$2.4 million endowment. We suggest that this should be a Foundation as well as a Societal goal for the immediate future.

APS Historian 2018: One of my primary activities as APS Historian is the promotion of an awareness of the history of APS and plant pathology through publications. Last year was the 100th anniversary of the journal, *Plant Disease*. As part of this milestone, I co-authored a *Plant Disease* special Feature with Steve Nelson and Karen Scholthof that investigates the origins of the journal (101:1836-18420). The paper focuses on the key events and individuals responsible for the successful publication of *Plant Disease* and places these events in the historical context of the period. More recently, I published a paper in *Annual Review of Phytopathology* (56:203-223) on the history of the Barberry Eradication Program to control stem rust epidemics. This paper focuses on different ways the Program and plant pathology were successful in reducing stem rust of wheat to a minor problem by the second half of the twentieth century. Another key role as APS Historian involves my answering queries and facilitating document requests on a routine basis from national and divisional APS officers, headquarters' staff, and Society members on matters related to the history of plant pathology and of the APS. Frequent questions also concern the appropriate storage and preservation of historical materials. Often, individuals are searching for biographical information, a historical document, or a unique historical photograph. Whenever possible, applicable materials are photocopied/scanned or photographic prints/negatives are either made or electronic images sent on to the APS member and staff

Awards and Honors Committee 2018: The Awards and Honors Committee reviewed nominations for named awards, Excellence awards and Fellow of APS during December 2017 and January 2018. The committee members met at APS Headquarters on January 26-27, 2018 to select award winners. There were a total of 66 nominations, up slightly from 2017 (64 nominations), although the number of nominations for Excellence in Industry and Excellence in Regulatory Affairs remained low. Immediately after the meeting, names of awardees were forwarded to APS President Mary Palm to notify the recipients. Letters were sent to all nominators by the committee chair advising them of the results of their nominations. Members of the committee worked with award recipients to develop the biographies posted on APSnet as well as the abstracts printed in *Phytopathology News* and used at the awards presentation ceremony. A presentation on the committee activities was given to APS council in February 2018 by the committee chair and a discussion was held regarding increasing the number of nominations in

general and increasing the proportion of women nominees. To encourage nominations, letters were sent to the members of the Industry Committee and Regulatory Affairs Committee. An article to be published in the October 2018 issue of *Phytopathology News* was written that encourages APS members to consider nominating colleagues for awards. The awards committee chair of the Entomological Society of America asked for information on the process APS uses for selection of Fellows, which was summarized by the committee chair. There was a proposal to establish a named Emeritus Award to recognize individuals who continue to be actively involved in furthering plant pathology after they have retired from full-time employment. Although some discussions were held, little progress was made in finalizing the criteria for the award

Bacteriology Committee 2018: The Bacteriology Committee has been working towards the goals of providing a platform for bacteriologists to discuss the current issues in the field, promoting interests in students, and encouraging their participation in committee's activities. The committee has continued efforts to promote the field of bacteriology through numerous activities. Throughout the year, committee members worked to plan and execute an effector-detector workshop at ICPP 2018 (Jonathan Jacob and Quan Zeng, in particular, played leadership roles); plan a similar session for Plant Health 2019; organize and execute a field trip to Arnold Arboretum as part of ICPP 2018 (Quan Zeng in partnership with Andrew Gapinski, Harvard University); Committee member, Evan Johnson, worked extensively to compile data on crop losses caused by bacterial plant diseases and has been writing a review article on his data. We also discussed arranging surveys to increase participation of growers, extension agents, and researchers for each major crop from each state. The need to have conversations with agricultural economists was also expressed.

Biological Control 2018 (BCC): In ICPP2018, BCC supported three concurrent sessions: 1) "Interactions between Endophytes and Pathogens" organized by Dr. Matthew Bakker, 2) "Unlocking the Secrets of Suppressive Soils: Insights From the Microbiome" organized by Dr. Tim Paulitz, and 3) "Development of Innovative Disease Management Strategies for Economically Important Bacterial Diseases" organized by Dr. Jong Hyun Ham. For Plant Health 2019, the BCC supported the proposals for two concurrent sessions and one workshop: 1) "Beneficial Microbes, from Isolation to Product Registration and the Regulatory Process" proposed by Dr. Mathias Twizeyimana (CC), 2) "Interaction between Biocontrol Agents and Phytobiome" proposed by Dr. Molly Cadle-Davidson (CC), and 3) "The Plant Root System: Gateway to Plant-Beneficial Rhizosphere Microbiome Interactions" proposed by Elizabeth Pierson (WS). The BCC meeting was held with 25 attendees on August 1, 2018 at the Sheraton Boston Hotel (Clarendon Room). At the meeting, members discussed how the BCC "can make impact" and what activities we can be involved in during 2018-2019. Members suggested that one or two members of this committee could join the APS Regulatory Plant Pathology Committee to participate in the forums for discussions regarding the detection, diagnosis and disease management of pathogens of regulatory interest and biocontrol products registration. Members also recommended organization of a special session for new biological products.

Biotechnology 2018: The Biotechnology Committee collaborated with the Public Policy Board to draft a formal comment from APS on the USDA's "Proposed Rule for National Bioengineered Food Disclosure Standard", along with APS member Paul Vincelli. Throughout the year, the committee also populated an online document with past proposals for Special Sessions, Workshops, and Idea Cafe's, along with ideas for future proposals for Special Sessions, Workshops, and Idea Cafe's at future APS annual meetings.

Chemical Control 2018: For the last 12 months or so preparations for a 'Special session/workshop' at Plant Health 2019 were made. Schnabel polled the committee and FRAC International for suggestions and communicated with four persons who have agreed to participate. Gerd Stammler, BASF, will discuss 'Rise of SDHIs and current status of resistance development'. Members requested that the focus should be on all SDHIs. Neil Gudmestad, NDSU, will discuss 'Impact of SDHI Resistance Mutations in *Alternaria solani* on Fungicide Efficacy and Parasitic Fitness of Isolates'. Neil Paveley, Rothamsted, UK, will present 'Fungicide resistance risk assessment: what can we learn from SDHI resistance?' Anne-Sophie Walker, INRA, FRANCE, will present 'Assessing the risk of resistance towards SDHIs in *Zymoseptoria tritici* in France'. Members also discussed possible topics for the Idea Café for the 2019 meeting. Possible topics include 'Integration of biopesticides and fungicides' (need to hear both success stories and non-success stories, are there systems that are better suited for this strategy?); 'Fungicide application technologies' (smartsprayer, isprayer) and 'Role of drones in fungicide application/disease management'; 'Use of adjuvants in improving efficacy/effectiveness of fungicides'; 'Fungicide rotation or fungicide mixtures?' (should we rotate premixtures?); 'Role of agriculture in human pathogen drug resistance'.

Collections and Germplasm 2018 (C&G): C&G organized and sent comments and responses on the APS PPB White Paper on Emerging Diseases to the PPB. C&G also organized and executed the ICPP session on Regulatory Issues Surrounding the Global Movement of Cultures and Collections. Finally, C&G invited the leaders and directors of culture collections to participate in the C&G committee with the goal to develop a collections network to preserve culture collection for the future.

Committee for Diversity and Equality 2018 (CDE): The 2018 APS CDE Meeting was held on Tuesday, July 31st 2018 from 7:00-8:00 am at Sheraton Hotel (room Clarendon) Boston, MA. It was attended by a diverse group of 35 participants, which included graduate students, early career professionals, professors and scientists from academia and government. The program started with the introduction of immediate-Past Chairs (2017- M. Bateman), and present Chair JP Dundore-Arias and Vice-Chair Sally Mallowa and introductions of the rest of attendees. The meeting continued with the selection of the new Vice Chair, Jose Hernandez who was elected for 2018/2019. The CDE's incoming chair is Dr. Mallowa. The Chair, Dr. Dundore-Arias reminded the group that CDE has won for 2 consecutive years the APS Councilors Challenge (2016 and 2017). On August 1, the CDE held the first-ever ICPP LGBTQA Social and Networking Happy Hour (5:30-7:00pm at Back Bay Social Club). This event was very successful and attended by more

than 90 participants. The LGBTQA Social and Networking Happy Hour was organized by CDE and sponsored by Monsanto.

Crop Loss Assessment and Risk Evaluation (CLARE) 2018: The CLARE committee continues to engage with its members and overall interested community through its Twitter account. Since the last report, our number of Twitter followers has increased by 54% compared to the last year number (280 new followers), at the time that this report is been writing. Throughout the year, our committee membership was notified by email about opportunities and events. Email was also used to solicit new ideas for committee engagement. 2018 was an unusual year for our committee since decisions about ICPP sessions and official activities were decided more than a year ago. CLARE did sponsor and co-sponsor several activities on ICPP, that included: (1) the panel discussion “Assessing the real impact of plant pathology: the many hidden losses due to plant diseases”; (2) the special session “Advances in Modeling the Fluid Dynamics of Pathogen Transmission and Dispersal”; (3) the session “Multi-Scale influence of Weather on Pathogens and Disease Development”; (4) the keynote address presented as part of “Plant Diseases, Climate Change, and Food Security”; and (5) “Global Impacts of Plant Disease Epidemics”. For Plant Health 2019, CLARE proposed a panel session called “Replicability in Plant Pathology: Do we have a problem?”; an Idea Café called “Management Thresholds: Challenges, Opportunities, and Risks”; two workshops: (1) “Mixed models”, and (2) “General statistical modeling using R” and co-sponsorship of the proposed special session “Light, leaves, and pathogens- spectroscopy for plant disease detection”.

Diagnostics 2018: The Diagnostics Committee participated in the 2017 APS Councilor’s diversity challenge and donated its second place monetary award to the ICPP 2018 bursary fund. Contributions to the fund provided travel support for early career scientists from developing countries to attend the 2018 ICPP meeting. The Diagnostics Committee reviewed the proposed Concurrent Session for 2018 ICPP meeting “Global Challenges in Plant Diagnostics”. The special session proposal was submitted by the committee and accepted for the 2018 ICPP meeting. For the 2018 ICPP meeting, the committee agreed to co-sponsor the 6th international Oomycetes workshop: Oomycetes in the era of Plant Health in a Global Economy, in celebration of the 50th anniversary of the International Society of Plant Pathology (ISPP).

Diseases of Ornamental Plants 2018: The committee organized an ornamental tour to three landmarks in Boston including Mount Auburn Cemetery, Harvard Museum of Natural History: The Ware Collection of Blaschka Glass Models of Plants exhibition and The Arnold Arboretum of Harvard University. The tour offered the participants an opportunity to experience different sides of the horticultural and landscaping industry as well an insight into the historical artifacts such as the beautiful glass models created by Blaschka family during the 19th century. Visit to the Arnold Arboretum included over 280 acres of park area, a nursery and propagation facility, and bonsai collection. The tour was fully sold out and attended by 50 participants from diverse backgrounds. The committee organized a technical session “Global Challenges in Plant Diagnostics” to bring to the forefront the challenges faced by plant disease diagnosticians on global scene.

Divisional Forum 2018: The Division Forum met at the APS annual meeting in San Antonio Texas in August 2017, held conference calls in November 2017 and March 2018, met with the Pacific Division in Portland Oregon in June 2018 and met in Boston Massachusetts in conjunction with the ICPP. Division Forum Representatives learn new ideas and activities at different Division meetings to take back to their Divisions. Ongoing action items include updating the Division Forum engagement plan to include financial guidelines and collecting information on how each Division is involving undergraduate and high school students to document what is currently being done and how we may share approaches. A new component of the plan involves defining and evaluating Division Health. Jay Pscheidt presented a summary to Council. An article on Division health has been published by J. Pscheidt in *Phytopathology News*. Feedback from Divisions indicated concern with increasing attendance at meetings, especially among students and early career professionals. A strength of Division meetings is the ability of students and early career professionals to give oral presentations. This fits in very well with the Plant Pathologists of the Future Symposium special technical session at the APS annual meeting for Graduate Students who have won their Division's oral paper contest. Students are fully supported by Divisions. This has been well received by students and faculty. A survey of past students found many benefits of these sessions. We will see if this helps increase participation in Division meetings. Division Forum worked with participating societies to submit a proposal for such a session at the ICPP, it was not accepted, so 2018 winners instead presented at the Pacific Division meeting in Oregon in June 2018. Chair LaMondia participated in Professional Development Forum conference calls. Division Forum continues to work for formal peer-review of abstracts at Division meetings.

Early Career Professionals 2018 (ECP): The majority of activities that are led by the ECP have focused on activities that take place at the Annual APS Meeting. Because this year we hosted the ICPP meeting, we only hosted the ECP social, held on Tuesday, July 31, 2018, in Boston. The social provided an opportunity for current and new members to network and learn from each other. This year's social hosted 134 individuals including government, industry and academia early career professionals. Due to the success of the social and positive feedback from attendees we will continue to organize targeted networking activities. We look forward to organizing The Schroth Faces of the Future Symposium and the Employer Networking Event in 2019. In the hope of improving communication with member year-round, we have begun to inform members of APS and professional development opportunities in quarterly emails.

Emerging Diseases and Pathogens 2018: Our committee meeting focus on informal presentations and discussions on emerging and reemerging diseases. After brief introductions and election of the new vice chair, Dr. Christian Cruz (Purdue University), we had presentations and discussions on the following subjects: Boxwood blight and peanut smut, JoAnne Crouch, USDA-ARS Lemoine's disease of peony, Ioannis Tzanetakis, University of Arkansas Pistachio bunchy top, Nik Grunwald, USDA-ARS; Jeff Chang, Oregon State U. Cotton leaf curl virus, Tim Widmer, USDA-ARS Fusarium/shothole borer and beech leaf disease, Bruce Moltzan, USDA-FS Soybean red

leaf blotch, Glen Hartman, USDA-ARS Rapid apple decline, Katya Nikolaeva, Pennsylvania Dept. Ag. Citrus leprosis, Xiaolan Sun, Florida Dept. Ag. National Plant Disease Recovery System, Julius Fajardo, USDA-ARS ITAP Plant Pathogens Subcommittee, Rose Hammond, USDA-ARS.

Epidemiology 2018: The APS Epidemiology Committee had a productive year in 2017-18, highlighted over the first weekend of the ICPP meeting in Boston. During the 2018 meeting, four workshops were submitted, accepted, and successfully executed by the committee: Multivariate Statistics in R (Neil McRoberts & Paul Esker), Applications of Information Theory in Plant Disease Management (Neil McRoberts), Intro to R (Sydney E. Everhart & Nikita Gambhir), and Networks in Plant Pathology (Karen Garrett & Kelsey Andersen). All of these workshops were well attended (even sold-out) by a broad cross-section of APS membership and positive feedback was received for all. Popularity of such workshops at annual meetings has led to the discussion of efforts to create webinar content for APS members to familiarize themselves with basic R and/or SAS, prior to attending the workshop. This is part of the Epidemiology Committee's continued commitment to providing educational content to membership (including modules in the APS Education Center). The committee also strongly supports Open Plant Pathology (openplantpathology.org), a new initiative that was started in January, 2018 to promote open data in plant pathology. During the 2018 meeting the committee also sponsored and coordinated the special sessions 'remote sensing with decision support' (organized by Ian Small & Sarah Pethybridge) and 'multi-scale influence of weather on pathogen and disease development' (organized by Odile Carisse & Ian Small). The Epidemiology Committee will propose four special sessions for Plant Health 2019 meeting in Cleveland, Ohio: 'Seeds of deception: modeling, management, and mitigation of epidemics in global seed systems' (proposed by Kelsey Andersen & Robin Choudhury); 'Replicability in Plant Pathology: Do we have a problem?' (Larry V. Madden & Felipe Dalla Lana); 'Light leaves and pathogens: spectroscopy for plant disease detection' (Kaitlin M. Gold & Amanda J. Gevens); 'Data science for plant pathologists' (Niklaus Grunwald & Emerson Del Ponte). In addition, three workshops will be proposed for 2019: 'using R to ensure that projects are organized, shareable and reproducible' (Emerson M. Del Ponte & Sydney Everhart); 'mixed models with a focus on proportional odds' (Larry Madden), and 'general modeling using R' (Paul Esker). Sydney Everhart was nominated as co-chair of the committee.

Evolutionary Genetics and Genomics Committee 2018: During the past year the Evolutionary Genetics and Genomics Committee sponsored several workshops on using R for data analysis and a symposium on Accessory Genomes, Genome Islands, and Dispensable Chromosomes Fuel Rapid Adaptations in Plant Pathogens at the ICPP meetings in Boston. Our annual meeting was attended by 8 current members and ten who are not current members but want to join. We elected an incoming Vice Chair and discussed several options for workshops and symposia at next year's meetings in Cleveland. There were also questions about updating the APS web page on population genetics.

Extension 2018: The Extension Committee submitted an idea for a Cranberry diseases tour, which was selected for the 2018 ICPP meeting. The committee chair worked with a

local collaborator, Erika Saalu-Rojas, to organize the tour. There was strong interest in the tour, and it was well attended. The tour was guided by local Ocean Spray pathologist, Erika Rojas, and Hannah Rivedall, the incoming vice-chair and was an all-around success. In 2017, the committee also submitted a session idea, Working Up the Fluff: How to draft impact statements, which was not selected for the 2018 ICPP meeting. In the time between meetings, the Extension Committee contributed donations to the Councilor's challenge of 2017, to help gather funds so that more scientists from underdeveloped areas could attend ICPP. Lastly, meeting minutes, update emails and a call for nominations for the Volunteer of the Year award were distributed to the committee at various times throughout the year.

Financial Advisory Committee 2018 (FAC): FAC works closely with APS staff and Council throughout the year to monitor the financial position of APS and to provide counsel on initiatives requiring financial input. FAC updates Council monthly via a Dashboard/Key Performance Indicator statement. FAC held its annual meeting March 26-27, 2018 with a recommended 2019 APS budget and 7 financial recommendations the primary outcomes. Additionally, progress continued on the termination of the current pension plan (effectively complete), an updated discussion on the financial reserves and investments was held (Brett Sturtzbach, TIAA), and the status of the proposed sale of the APS HQ property discussed. FAC continues to provide strategic oversight rather than monitor specific income/expenditure actions of business centers. Publications, including journals and APS Press, comprise 73% of our Society income and all are in the midst of transitions in delivery and format to meet member needs in the future. Likewise, the Annual Meeting and our membership models are undergoing some re-envisioning as we look forward and the financial implications deserve continued attention. The FY 2018 fiscal year ended June 30, 2018, with an unaudited operating income of \$5,008,392 and operating expenses of \$4,798,602 for an operating net profit of \$209,790 and a total net profit of \$397,227 after gains on investments and adjustment to the funded status of the pension plan.

Forest Pathology 2018: Since August 2017, the Forest Pathology Committee met face-to-face only on July 30th, 2018, during tICPP, but exchanged communication via email throughout the year. In February 2018, the APS Public Policy Board solicited input from the Forest Pathology Committee about the main issues that should be brought to the attention of USFS headquarters in Washington DC. Discussion points raised by the Members were summarized by the Committee Chair, Caterina Villari, and a report was sent to the APS Public Policy Board in March. Discussion points included the scarcity of funding and the lack of forest pathologists across several institutions. Caterina Villari, Anna Conrad and Mee-Sook Kim wrote a new Committee Mission Statement, which on July 7th, 2018 was sent to Members for comments and approval. The Forest Pathology Committee was one of the sponsors of the 6th International Tree Resistance Workshop: Putting Promise into Practice, which was held from August 5 – 10, 2018 in Mt. Sterling, OH. During the annual meeting, members further discussed ideas for the upcoming Plant Health 2019, and agreed on the submission of proposals for two special sessions and a field trip. Isabel Munck reported that she had been approached by several universities regarding retirements and the need to rehire and retain forest pathologist positions, and

presented a statement regarding the current lack of forest pathologists across U.S. institutions. The Committee voted to endorse the statement and Members discussed how forest pathology in universities is often taught together with other disciplines and/or by non-pathologists. Caterina Villari presented on the Tree Resistance Advocacy Group document, and the Committee Members voted in favor of endorsing the document. Lastly, the Committee selected Rachael Sitz (USDA Forest Service, Rocky Mountain Research Station) as vice-chair and Megan Buland (University of Georgia) as secretary for 2019. The Forest Pathology Committee sponsored an APS Student Travel Award, which was presented to Bradley Lalande, a Ph.D. student at Colorado State University. The student attended the International Congress of Plant Pathology and presented an oral contribution in the special session The Most Wanted Global Tree Pathogens: Emerging Threats and New Big Data Approaches, which was also sponsored by the Forest Pathology Committee, and which was very well attended and received positive feedback from several individuals.

Graduate Student 2018: The APS Graduate Student Committee supports the engagement of APS student members (both undergraduate and graduate members) within the wider society and field of plant pathology. The APS Graduate Student committee during the period of August 2017 to August 2018 worked to strengthen the communication among students and APS, primarily by sending emails with important information to the student members. We also conducted a survey of graduate student feedback on the 2017 APS annual meeting and APS graduate student and the APS Public Policy Board on the efforts to promote student engagement in shaping science policy. The committee attended monthly meetings with APS Foundation Board, 2026 Professional Development Forum and the Undergrad Task force to help strengthen the diverse programs within those committees. The committee also worked to communicate student specific issues to APS membership and leadership (and vice versa), providing networking and career development opportunities by maintaining social media accounts, and helping to coordinate APS Board positions for APS student members. The APS Graduate Student Committee started a new initiative designed to help promote our awesome graduate students to the rest of the APS membership throughout the year: APS Graduate Student Spotlights. Approximately every two weeks (twice per month), we post a graduate student spotlight on social media pages and each month on APS Phytopathology news. However, most of the Committee efforts was to coordinate the APS travel award where this year APS Foundation awarded more student travel awards than any other previous year.

Industry 2018: As always, the industry committee prepared to host the 2018 Graduate student/Industry lunch, there were about 200 students registered for this event. However, industry/extension social event was dropped only for this year, due to the ICPP format. In addition, the New product and Service event was also not hosted this year. We are looking forward to host all three events in 2019. Discussion also included how industry could be more involved in APS through sponsored events such as special sessions, as mentioned in the next section of this report. Additional topics of discussion during the committee meeting included submitting nominations for the "Excellence in Industry" Award. The committee also discussed the financial status of the committee, which showed positive

balance and puts the committee in good shape for the activities planned at Plant Health 2019.

Integrated Plant Disease Management 2018: This year the committee revisited a discussion on the "shifting IPM Paradigm" and ideas for developing this into a special session at the 2019 meeting. Last year, Joe LaForest indicated that the National Roadmap for IPM will be revised at the 2018 National IPM Coordinating committee meeting. This has implications for anyone applying for USDA funding as the IPM roadmap guides all IPM programs administered by the Federal Government. Anissa reached out to Joe LaForest regarding his attendance at the National IPM Coordinating Committee Meeting and any updates on revisions to the National Roadmap for IPM. To date there have not been any official announced changes to the IPM roadmap (the current roadmap is from 2013). The committee decided it would be best to put this initiative on hold until we know more about what the changes to the IPM road map will be and the implications for grant proposal

Leadership Institute Committee 2018: The Leadership Institute met monthly to develop the training proposal "Leveraging Cultural Diversity" for the 2018 ICPP-APS meeting. Unfortunately, this training was cancelled due low registration numbers.

Molecular and Cellular Phytopathology 2018 (MCP): MCP promotes the translation of basic knowledge of host-pathogen interaction into practical application of crop protection. The committee co-sponsored a special session titled "CRISPR/Cas9 Genome Editing for Plant Pathology and Disease Management" with the Host Resistance Committee at ICPP. The committee met on July 30, 2018. Members actively discussed their research and ideas for Plant Health 2019. This included issues such as the role of effectors in association with plant defense responses, effects of host microenvironment for plant disease development, and how phytohormones play an important role in plant defense response. An idea for a workshop, co-sponsored by the Bactiology Committee, on teaching and researching tools for monitoring plant pathogen virulence was proposed for Plant Health 2019.

Mycology 2018: The committee was engaged in two activities during the prior year. The first and most significant was the preparation for our annual Fungal Foray, held during the Annual APS Meetings most years. This required considerable coordination with University of New Hampshire, the hosting institution, and collaboration among the 2018 Fungal Foray Committee, comprised of both members of the Mycology Committee and non-members. We are very grateful to the Widely Prevalent Plant Pathogenic Fungi List working group for generously supporting this activity with outside funds. Our second activity for the year was co-sponsorship of the 6th International Oomycetes Workshop, held during the 2018 ICPP meeting. Our efforts in this co-sponsorship were mainly as support and to ensure information and content specific to this workshop were distributed among the mycology communities our committee interacts with. During ICPP 2018, we held our annual meeting. Attendance was 17, with 3 new members. In addition to planning for submissions of proposals for Plant Health 2019, we discussed the state of fungal collections across the US and how to best maintain or archive them. We also discussed

how to best promote mycology education for APS members and for the public, particularly K-12 classrooms. Minutes are posted on the Mycology Committee Collaborative Site.

Mycotoxigenology 2018: With much of our attention focused on 2018 ICPP session organization, other activities were unusually slow. ICPP session organizers for “Frontline of mycotoxin and fungal research to thwart global food safety threats” focused on invited and contributed speaker participation confirmation as well as moderator setup.

Nematology 2018: The Nematology Committee hosted a one day ICPP workshop for hands on nematode diagnostic. Outcome of the workshop: 35 participants from all over the world (Indonesia, France, Australia...); 35% industry, 20% student, 5% extension, 25% academic, 15% government. Feedback from committee members are: (1) Learned about nematode identification and techniques to count them to be able to design trials for products that decrease nematode populations. (2) Gained experience in what procedures follow up to ID nematodes. (3) Gained better ID knowledge of common plant parasitic nematodes. (4) Good way to connect with nematologists, industry, and academia at one workshop. A SharePoint Nematode collaboration site was created for committee members to share ideas, collaborate and update meeting notes.

Nominations Committee 2018: Working with Headquarters staff, we coordinated the nomination, application, and election process for the officers of APS. Forty-five nominations were received (25 for VP and 20 for CAL). This is a 19% decrease in nominations from the previous year. However, several of the nominees were excellent. The committee requested applications from many of these individuals and chose the slate of candidates for each office based on the applications from this and the previous two years. As always, the committee considered the goals and needs of the society as well as the background and qualifications of the applicants in making the choices. With a strong slate of candidates, the election was held in May 2018. Mark Gleason was elected Vice President and Katherine Stevenson was elected Councilor at Large. The percent of members voting was only 18%, lower than for the past few years.

Office of Education 2018 (OE): 1. Elite Webinar Series – Doug Jardine was brought on board to the OE as the Acquisitions Editor for the webinar series. Doug has done a tremendous job getting this series started and moving with momentum. However, he will be stepping down in August 2019 and we are actively searching for a new editor. Additionally, an article on the webinar series is being assembled for *Phytopathology News*. 2. The Undergraduate Taskforce has taken shape under the guidance of Lydia Tymon. The primary focus for 2019 is to have a rich experience for undergraduate students and strong recruiting to the Annual Meeting. The website for undergraduate highlights and opportunities is receiving a makeover and new modes of communication with these members is being established. 3. Change of CADRE – The OE disbanded CADRE and created the “Professional Development Center” (PDC). The PDC has an Editor in Kim Gwinn and she has assembled her members and initiated meetings to develop a direction. The first point of order is a review of existing materials from CADRE and developing a scope for acquisition of new materials as well as developing a stronger electronic footprint. Kim has developed operating documents and guidelines for how she

envisioned her advisory group/members. She has designed it so that some members of CADRE will continue as well as new members to broaden the perspectives represented.

4. Certificate Program – A series of short courses / workshops was being worked on where members can earn certificates at the end. The first certificate issued was How to Review a Manuscript following a special session at the 2016 Annual Meeting and was presented by the EIC's. While no new certificate opportunities were offered in 2017 or 2018, a number of members with existing workshops / forums have been approached and are generally interested in turning their work into a certificate for the society, however few members have stepped up to do so.

5. International Members – We have added Ana Cristina Fulladolsa Palma to OE with the intent that she bring in more voice to the OE from international members. At ICPP, she and Tom Mitchell attended the OIP lunch and made valuable connections and plans for moving together in a much more coordinated manner.

Office of International Programs 2018 (OIP): (1) Books for the World Program: 2018 Awards were made to Bello Isah Abdulazeez, Ahmadu Bello University, Nigeria, Paul Kachapulula, University of Zambia and Imana Power, Center for Agricultural Research, Suriname. (2) OIP Library Donation/Assistance Program: 31 books and compendia donated and shipped to Dr. Yasser Shabana, Faculty of Agriculture, Mansoura University, El-Mansoura, Egypt. 20 publications were donated to scientists in Pakistan. (3) Travel and Awards Program: Funding from the Foundation provided international travel and JANE awards and funding from the OIP silent auction provided funding for the Global Experience Award. The Global Experience Award (\$1500.00) was given to Shyam L. Kandel for the "Detection and identification of different vegetable crop and cinnamon plant diseases in Sri Lanka". The APS Foundation International Travel Awardee is Dr. Sagheer Atta, Ghazi University, Pakistan. The JANE award was not given out this year. (4) Silent Auction Proceeds: >200 items donated by APS members were auctioned; > \$2,600 raised. Funds will be used to support the OIP Global Experience Program. (5) Symposium Program: OIP sponsored IIPC Symposium "Challenges and successes of agricultural technology transfer globally". (6) International Plant Pathology Societies Working Groups: APS – IPS Working Group met on July 31 to discuss BARD-like funding to promote collaboration between the US and India; travel funding for 1+ IPS students to travel to APS meetings; possibility of establishing joint APS/IPS webinars; APS-China SPP Working Group met on July 30th to plan for joint symposia alternating between the US and China; updated MOU; prepare joint session proposal for 2019 APS meeting "Understanding emerging and reemerging plant diseases in China and US"; APS-SBF (Brazilian Phytopathological Society) Working Group met on August 1, 2018, at the ICPP meeting, new co-chairs (Eduardo Chagas da Silva and Washington da Silva; organized a 2017 symposium on citrus greening at 2017 SBF conference; plan for APS-SBF booth at 2019 APS; discussion of joint conferences, webinars, etc.

Office of Public Relations and Outreach 2018 (OPRO): 1. Reaching out to target audiences: We represented APS at FFA in Indianapolis, NABT in St. Louis, AFA in Kansas City, which Doug Jardine (former OPRO Director) attends on our behalf, and the International Science & Engineering Festival in Washington DC. Two members of the board, Lou Hirsch (early career professional) and Dennis Halterman, along with a high

school teacher, designed and tested a potato soft rot experiment for high school students. They turned this experiment and its results into a manuscript for *American Biology Teacher*, a widely-read journal for teachers. Their manuscript was accepted. It is important to note that this is a major accomplishment for OPRO, and opens many possibilities for us to reach a much larger audience. 2. Board-to-board interactions: We worked with PPB on a Phytobiomes video for the general public, which both defined the term and the importance of plant pathology. Our staff at University Delaware worked closely with Nicole Donofrio, Chaks Mattupalli and Linda Kinkel from PPB, and Rubella Goswami formerly on OPRO. During the process, OPRO and PPB members gave feedback, culminating in the excellent production we now have. This was funded by OPRO. 3. Understanding outreach gaps (Council initiative): After discussion with Council members, we launched a survey to APS board Directors to learn more about outreach gaps. We received five responses, learning that most boards participate or undertake outreach activities that go beyond their missions. We also surveyed teachers at the NABT conference and learned that > 84% of the respondents (a) know about plant pathology; (b) teach plant biology topics and (c) are interested in our materials and will visit our website. 4. Interactions with other societies: We are working with plantingscience.org on developing modules for their program. Monica Lewandowski has been key in these efforts. 5. Activities for ICPP: We worked with Jean Ristaino to help fund her reception for the Harvard Public Event at ICPP this past summer. Monica L. developed an international version of the "What Pathogen" game for ICPP, and the rest of the board members came up with taking "mug shots" with their pathogen, which was the most popular it's ever been.

Pathogen Resistance 2018: Since August 2017, members of this committee collaborated on a symposium at ICPP titled "Population dynamics of fungicide resistance." The session was very well attended and a lively discussion period continued for approximately 20 minutes beyond the allotted time after final talk. The committee decided on a special session idea to be submitted for Plant Health 2019. If accepted, the committee will need to contact potential sponsors and procure additional travel funds. Scott Cosseboom (University of Maryland) was nominated and unanimously voted to be the incoming Pathogen Resistance Committee vice chair.

Phyllosphere Microbiology 2018: Since the ICPP schedule was already pre-planned, we did not host any symposium/ chair a session. We are working on a few things for the coming year. The committee was in favor of co-sponsoring a Plant Health 2019 session proposal with the bacteriology committee regarding the effect of environmental factors on pathogen behavior. It was suggested that for sessions we seek out more early career speakers, rather than well-established speakers who regularly give oral presentations at national meetings. The committee was also in favor of co-sponsoring two Plant Health 2019 special sessions with the APS Biological Control Committee on Beneficial microbes: "from isolation to product registration and the regulatory process" and "Interactions between biocontrol agents and the Phytobiome".

Plant Pathogen and Disease Detection 2018 (PPDD): The PPDD Committee has been active over last year. Committee members continually discuss challenges in the detection of emerging plant pathogens and diseases. The PPDD committee is a platform where

members from academia and industry discuss: 1) current issues in disease and pathogen detection subject matter and collaborate to find sustainable solutions; 2) special session topics for upcoming APS meetings; 3) new opportunities in plant pathology, graduate programs, post-doctoral and positions in academia and industry. Members communicate via email on a regular basis about meeting activities, planning of special sessions, councilor's challenge etc. The 2018 committee meeting was held on Monday, July 30th 2018 and Committee chair Dr. Qi Huang called for meeting and announced meeting agenda items. 48 committee members attended the meeting and introduced themselves. Dr. Vessela Mavrodieva from USDA/APHIS in Beltsville, MD was nominated and elected as vice chair. Presentation was given by John Hartung, USDA/ARS, Beltsville, MD. on the topic of Applications of antibodies for detection of 'Ca. Liberibacter asiaticus'. Committee members Kaitlin M. Gold and Amanda J. Gevens from University of Wisconsin-Madison proposed a special session for Plant Health 2019. The proposed special session is entitled "Light, leaves, and pathogens- spectroscopy for plant disease detection". Various job openings were announced including a USDA-Headquarter funded two-year postdoc position in Dr. Qi Huang's lab at USDA/ARS in Beltsville, MD and six permanent positions at USDA-APHIS-PPQ-CPHST, Beltsville, MD

Postharvest Pathology 2018: The committee met on July 31st, 2018 during ICPP. The meeting was attended by 16 members and an invited guest from APHIS-PPQ-PHP, Grace O'Keefe. The committee discussed a vacancy of the chair position after the incumbent left for another position; members unanimously elected Achour Amiri to become the immediate Chair. The members also unanimously voted for Achala KC from Oregon State University to become the vice-Chair. The committee discussed the objectives set in the previous year and those accomplished since. Members were pleased by the active participation of the Postharvest committee in ICPP. The committee sponsored and organized a special session on Food Safety and Mycotoxicology in postharvest commodities, with several renowned speakers presenting up-to date knowledge. Committee members also organized an Idea Café discussion at ICPP focused on food safety and postharvest pathology, using current and future trends and possibilities to foster collaborations and new research to address challenges. Food waste and contamination due plant and human pathogens continue to be a challenge in many commodities postharvest. New technologies and approaches to address these issues are being investigated. We discussed the importance of the role that our committee has and should continue to play in order to strengthen APS as the premiere professional organization of plant health science. The large attendance of the postharvest sessions at the ICPP reinforces the need for more research and outreach efforts in the area of postharvest pathology.

Public Policy Board 2018 (PPB): (1) Advocacy: Due to a direct threat to the funding of the National Plant Diagnostic Network (NPDN), preserving funding for the NPDN became a high priority. We solicited input from NPDN leaders and diagnostic clinics and generated a whitepaper highlighting the importance of the NPDN. We invited Neil McRoberts, a regional NPDN director, to provide additional expertise in meetings with congressional representatives during our PPB visits to Capitol Hill. We worked towards increasing support for microbial collections by engaging ARS scientists involved in microbial

collections to develop a new strategy for expanded support. Our other advocacy targets were reflected in a whitepaper on “Emerging Plant Diseases: Improving our current system of plant health monitoring and quarantine at national and state borders”, and in our efforts to enhance diverse training opportunities by encouraging the creation of internships by target federal agencies and having our early career interns compile existing internships on the APS website. (2) Promoting engagement of APS members in public policy. In an effort to engage more APS members in public affairs, we had two call-to-actions in which we sent out messages encouraging members to write to their congressional representatives: one was directed at US graduate students to maintain the non-taxable treatment of student tuition waivers, and one was directed to US APS members to highlight the importance of the NPDN. We also worked with the APS Graduate Student Committee on a follow-up survey, finding that >20 students had written to their representatives and most of these used the language provided by the PPB. (3) Science policy and regulation: We submitted recommendations/comments on several issues, including to the EPA and DOD on the Definition of the Waters of the US, to NASS on the Regulatory Burdens associated with NASS surveys, to NIFA on funding priorities, to the USDA Agricultural Marketing Service on the Proposed Rule for the National Bioengineered Food Disclosure Standard, and to the American Society for Plant Biology on the National Plant Systems Initiative. We also joined with other science organizations in various letters, including to congressional leaders to keep agriculture as a priority for funding. (4) Promoting the discipline: We recruited an APS member to highlight plant pathology research at the Agricultural Research Congressional Exhibition for members of Congress.

Publications Board 2018: The Publications Board rethinks publications strategies and implements new improvements. Journals are healthy with all of our core journals having a 2017 impact factor > 2.94: *Phytopathology* = 3.04; *Plant Disease* = 2.94; *MPMI* = 3.6. *Phytobiomes* and *PHP* do not have an impact factor yet. Editors in Chief (EIC) for all five journals have made major strides in reducing time from submission to decision below 35 days and we continue this healthy trend. Our board feels that our journals are highly competitive. *Plant Disease* is newly indexed in PubMed Central (PMC) which will contribute positively to discoverability, author recruitment, and impact factor. The *Plant Disease* board handled a record number of manuscripts (2,030 in 2017 vs. 1,843 in 2016). Both submission of research papers and PD notes were up. *MPMI* submissions are stable and our journal metrics are strong and healthy (336 submissions in 2017 vs. 251 in 2016). Similarly, *Plant Health Progress (PHP)*, *APS PRESS*, *Plant Health Instructor*, and *Phytopathology News* are doing well. *PHP* has now been moved to the Atypon platform, following the upgrade to iMIS 20, the headquarter’s database. *PHP* is available both on the Plant Management Network site and the APS Journals site during this transition. A range of suggested approaches are/will be implemented. *Phytobiomes* was successfully launched and is growing stably (21 submissions in 2016 and 52 in 2017). Lateral transfer of manuscripts among APS journals within Manuscript Central upon recommendation from one journal for consideration in another journal has been implemented successfully and is well received by authors. Our journals now provide a very positive author experience. *Phytopathology* and *MPMI* published Focus issues in January 2018 and are working on special Focus Issues for early 2019. APS Journals published a virtual issue

on *Candidatus Liberibacter* in February 2018. APS PRESS now has 68 books online with more scheduled for 2019. The APS Image Database received a major coding upgrade so that end users can better utilize the useful metadata affiliated with ~7,000 disease images. We implemented a new article type called Resource Announcement (RA) to allow for rapid publication of resources such as genome, microbiome or computer code data typically consisting of large datasets that would be subject to immediate reuse. This strategy is now common in several other societies including the American Society for Microbiology. We accepted the first two RAs in *Phytobiomes* and *MPMI*.

Soil Microbiology and Root Diseases 2018: This committee met during ICPP. The committee agreed to submit a variety of proposals for Plant Health 2019 including the workshop “The Plant Root System: Gateway to Plant-beneficial Microbiome Interactions” (proposed by Elizabeth Pierson, TAMU and Linda Kinkel, UMN) and the special session “Spectroscopy for detection and characterization of plant diseases” (proposed by Katie Gold and Amanda Gevens, UW-Madison). The committee organized the ICPP concurrent session “Unlocking the secrets of suppressive soils: Insights from the Microbiome” (Tim Paulitz and Ghazal Ebadzadsahrai). Relevant publication, online protocols, and upcoming relevant conferences were discussed by committee members. The committee also discussed the Councilor’s Challenge, the 2019 Melhus Symposium, and potential APS Volunteer Award nominees. The committee elected Anthony Adesemoye (University of Nebraska) as committee vice chair.

Teaching 2018: The committee organized an ICPP panel discussion session entitled, “A global classroom: Technology and teaching come together for better education on plant health.” Three panelists who have taught courses using distance education formats and technologies discussed advantages and challenges of teaching these courses as well as the impacts of distance education. Giovanna Danies Turano also spent a lot of time over the year designing a Plant Pathology course (phytopathedu.weebly.com) that seeks to fulfill five different needs: i) strengthen the connection between the theoretical session of the course and the laboratory session; ii) increase student’s research and scientific communication process through robust learning accompaniment; iii) bring plant pathology students closer to the needs of the agricultural sector in the region; iv) help students understand the decision-making process growers experience through simulations; and v) offer students an opportunity to communicate scientific discoveries to non-scientists. To bring students closer to the needs of the region’s agricultural sector, we have allied with a seed company that helps us arrange visits to different crops where our students get to interact with growers and agronomists. Students are assigned a crop to work with during the semester and are encouraged to propose a research project that will help the grower by addressing a current need. Finally, to allow students to experience the grower’s decision-making process, we are working on a virtual platform with a diverse set of real-life situations in agriculture that simulate the progression of plant diseases. Students will have to make management decisions to save the crop or obtain the greatest yield.

Turfgrass Pathology 2018: In 2018, the Turfgrass Pathology Committee has made valuable progress towards increasing member involvement and visibility within APS. The ICPP Special Session co-organized with the Ornamentals Committee was a great

success, highlighting diverse speakers from around the world and drawing an audience of 100. In addition, the committee successfully recognized colleagues, as Dr. Rick Latin was awarded APS Fellow and Peiqi Zhang was given the Turfgrass Pathology Travel Award. The Turfgrass Pathology Working Group, an open forum for the discussion of new or emerging issues in turfgrass, was also reinstated after a four-year hiatus.

Vector-Pathogen Complexes 2018: At ICPP, we held our Subject Matter Committee to promote our scientific interest/expertise, announce talks/posters related to vector-pathogen complexes, brainstorm ideas for special sessions and workshops, and elect our new Vice-Chair and Secretary.