

WASHINGTON STATE
Academy of Sciences
Science in the Service of Washington State

NEWSLETTER: SUMMER 2018

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A Note from the Executive Director



Dear WSAS Members,

It has been my pleasure to be the Executive Director of your Academy for the last sixteen months. After spending three decades working with scientific and technical leaders like you (and including some of you) at the interface of science and policy at the national level and in California, I am honored to do so now in WA State. I strongly believe that the state level is where independent, objective, and expert science policy advising must be done today to inform decisions that directly affect where we live, work, and raise our families. *Science policy is local.*

The Academy is a unique resource within WA State. As we move into our second decade, we are a small, strong, and strategic organization. With a committed board of directors, 280+ members who are the state's S&E leaders, and a talented group of staff, consultants and

interns, we are ready to act on our mission: *Science in the service of WA State*. We are tapping into the experiences of many of our members who have served on National Academy of Sciences, Engineering, and Medicine (NASEM) committees, and plan to adapt their best practices and processes to our work. And as you'll read below, we're making judicious use of our limited financial resources to engage you as members and increase our visibility with the Governor, in state agencies, and in the legislature to address important issues here.

Below is a snapshot of our current activities. We're really just getting started; over time, our portfolio will include projects that respond to specific requests from the state for immediate feedback and examine issues where we can be forward looking and become a national leader. The recently formed Topical Working Groups (TWG's) are our primary mechanism to organize those discussions, so I encourage you to contact me with your ideas.

I look forward to working with all of you to build your Academy into a model for bringing best available science to state-level policy decisions.

Sincerely yours,



WSAS Activities and Updates



We have significantly enhanced interactions with our members and external stakeholders. Our “in-reach” efforts have included increased contact with all WSAS members, the creation

of a new guide for members, and more opportunities for members to actively contribute their expertise to WSAS. For example, **all members are encouraged to consider serving on at least one of the three [Topical Working Groups](#)**. We have also expanded “outreach” efforts to strengthen our relationships with WA State elected leaders, agencies, and non-profit organizations. Examples include:

- **Co-sponsoring and participating in a workshop** last fall with state legislators to identify issues our state will face in the coming years. This workshop led to the formation of a bipartisan Science and Technology Caucus with whom we look forward to working in the next biennium.
- **Engaging in discussions** with the Governor's office and state agencies about key issues where the Academy can provide objective science or technical advice. Agencies include Agriculture, Commerce, Ecology, Fish and Wildlife, Natural Resources, and Puget Sound Partnership (PSP). WSAS members served as reviewers of nominations for the 2017 PSP Science Panel, and reviewed chapters of a forthcoming report of the Washington Department of Fish and Wildlife.
- **Organizing and hosting two roundtable discussions** on the implications to WA State of the goals to reduce its carbon footprint and of additive manufacturing of advanced materials. The roundtable discussions included roughly 20 experts from UW, WSU, and PNNL plus representatives from the Governor’s Office and the Department of Commerce. We are planning follow-up activities.

We are excited about a number of current and future WSAS projects including:

- **Advising the WA State Department of Commerce** on its Notice of Funding Opportunities for the Clean Energy Futures 3 competition.
- **Developing a proposal** to review integrated pest management related to burrowing shrimp in Willapa Bay and Grays Harbor.
- **Forming a technical advisory committee** as a companion activity to the Ruckelshaus Center's project with the U.S. Forest Service to conduct a stakeholder assessment of the Spirit Lake/Toutle River System, as a follow up to a recent NASEM report (December 2017).
- **Exploring the feasibility of several projects** related to the Salish Sea.

To find out more about these projects and get involved, contact Donna Gerardi Riordan.



As a member, you can support WSAS by:

- **Joining a TWG** to help identify issues critical to our state that could benefit from an independent WSAS assessment. Contact information for TWG chairs can be found in the Member Guide (see below).
- **Leading a TWG topic exploration.** We recently implemented a phased approach to exploring the feasibility of new projects. Examples of possible activities include researching a topic, writing a white paper, and organizing an in-depth consensus study. The variety of possible activities, which require different levels of effort to lead organize and complete, allows you to contribute in a way that fits with your interests, schedule and other commitments. [Learn more...](#)
- **Learning more about being an active WSAS Member** in our Member Guide ([download here](#)).

WASHINGTON STATE
Academy of Sciences
11TH
ANNUAL MEETING
&
SYMPOSIUM

THE HIGHS AND LOWS OF CONDUCTING RESEARCH
ON CANNABIS IN WASHINGTON STATE

Cannabis and humans have a long, complex and intertwined history. Many claims have been made suggesting that cannabis has significant therapeutic potential for numerous physical and mental ailments. Similarly, cannabis has been vilified because of the putative risk it poses to the health of individuals and the fabric of societies. Recent policy shifts at the level of states have made cannabis much more accessible for both medical and recreational purposes. The federal government, however, continues to regulate cannabis as a dangerous substance. Where is the truth? Is cannabis a panacea? Is it a toxic threat to all we hold dear?

Perhaps, like many drugs and medical interventions, the truth resides in the middle of the extreme endpoints. The obvious way to answer these questions and to identify areas where cannabis may have benefit and where it may pose risk is through the conduct of rigorous scientific exploration. Unfortunately, the tension between state and federal regulations makes conducting this badly needed research challenging—so challenging that many scientists who are capable of conducting studies to provide much needed data on cannabis shy away from conducting the research.

On September 13, 2018, our annual symposium will outline the history of cannabis use and the data supporting its utility for improving the human condition, as well as its linkage to deleterious impacts. The symposium will then explore, in detail, the regulatory and practical challenges of conducting research with/on cannabis. This will include research that ranges from foundational medical experimentation to work in highly applied real-world settings. Presenters will also discuss strategies that allow research to be conducted while remaining compliant with the regulatory environment. [Register here](#)

The Creation of a ‘Working’ Academy

Based on an interview with two of WSAS's founding organizers, Drs. Jim Cook and Gordon Orians



You wouldn't know it from looking at it, but Third Place Books in Lake Forest Park played a critical role in establishing the Washington State Academy of Sciences. Sitting in that coffee shop in 2006, Drs. Jim Cook and Gordon Orians poured over the website of the National Academy of Sciences (NAS). Jim, a plant pathologist and crop and soil scientist from Washington State University, and Gordon, an ornithologist and ecologist from the University of Washington, had both been elected to the National Academy of Sciences for their important contributions to their respective fields. As members, Jim and Gordon were familiar with NAS processes and thought, what better model to emulate when creating a new science academy for the state of Washington? As Gordon put it, "We wanted to do for the state what the National Academy does for the nation - inform, but not set policy." [Read more...](#)

Washington State's Brightest Young Scientists Inducted to the American Junior Academy of Sciences



Every year WSAS selects several outstanding high school students to be inducted to the their travel to the AJAS meeting held in conjunction with the American Association for the Advancement of Science (AAAS) annual meeting. Usually WSAS selects only two students for this prestigious honor, but the 2018 applicants were so impressive that four were selected.

In February, 2018 WSAS awardees Neha Hulkund, Sagarika Samavedi, Eshika Saxena, and Sean Weber, traveled to Austin, Texas with WSAS Program Coordinator Devon Thorsell and Education Committee member Gary Foss to attend the 184th AAAS meeting. The meeting, whose theme was *Advancing Science: Discovery to Application*, provided these young scientists the opportunity to share their application-based research proposals, which ranged from computational techniques for monitoring and predicting human disease to new approaches for fuel production and oil spill clean-up, with the broader scientific community. [Read more...](#)

Member Recognition

We welcomed 29 new members to the Academy this summer. Read about them [here](#).

We are proud to share the many impressive accomplishments of our members. However, we realize this list is far from comprehensive. Please send us news of new awards, successes, or other recognition that you or your WSAS colleagues receive, so that we may highlight your excellent work.

Anjan Bose (WSAS President; WSU), has been named co-director of the Advanced Grid Institute, a joint venture of WSU and PNNL. Its goal is to enhance the resilience of the power grid to withstand all hazards, including natural disasters and malicious threats. [Read more](#)

James Champoux, Stanley Froehner, James Riley, and Usha Varanasi from UW are among 396 new fellows of the American Association for the Advancement of Science. [Read more](#)

Dianne Chong (New WSAS Board Member; Boeing, retired) is on the NAS Reproducibility and Replication Committee. [Read more](#)

Jim De Yoreo (PNNL), has been appointed to co-lead NW IMPACT, a new joint PNNL/UW research endeavor to power discoveries and advancements in materials that transform energy, telecommunications, medicine, information technology and will significantly influence tomorrow's world.

Dan Schwartz (UW) received the Presidential Award for Excellence in Science, Mathematics and Engineering Mentoring (PAESMEM) from the White House Office of Science and Technology Policy (OSTP) and the National Science Foundation (NSF).

Yong Wang (PNNL and WSU) has won the American Chemical Society's 10th annual Industrial & Engineering Chemistry Division Fellow Award, recognized for innovative contributions within applied chemistry or chemical engineering.

Support WSAS!

By [making a gift](#) today, your donation will be doubled. We are 80% of the way to our \$25,000 match goal.