

Panel on Public Affairs Meeting
February 8, 2019
APS Washington Office of Government Affairs
529 14th Street, NW, Suite 1050, Washington, DC

Members present (19):

J. Wells (Chair), D. Dahlberg (Chair Elect), W. Collins (Vice Chair), M. Marder (Past Chair), J. Adams, S. Blessing, B. Clark, B. Cruz, B. DeMarco (*virtual - joined 8:27am*), D. Ernst (arrived 8:44 AM), R. Falcone, J. Gates, L. Grego, C. Gutierrez, M. Hockaday, J. Jasinski, T. Mason, C. Nitta, R. Orbach

Advisors/Staff present:

P. Bucksbaum (*virtual*), M. Elsesser, D. Gross (*virtual*), A. Hu, K. Kirby, J. Oliver, J. Russo, F. Slakey

Call to Order

M. Marder called the meeting to order at 8:15 AM.

Welcome, Approval of Minutes

A call for edits to the October 2018 minutes was made. Hearing none, a motion was introduced.

MOTION: *To accept the October 2018 minutes, as presented.*
(Collins/Dahlberg)

ACTION: *The motion passed, with 3 abstentions.*

General Business

Subcommittee membership was updated with new member volunteers. APS CEO, Kate Kirby, called for consideration of potential POPA member candidates for the Nominating Committee to review.

Advocacy Update

APS Office of Government Affairs (OGA) staff provided an overview of advocacy activities, including: federal science agency budgets, climate change, F-1 visas, infrastructure, sexual harassment in STEM, helium conservation, and open access. The current focus of R&D funding advocacy is raising the caps on discretionary spending. The advocacy around F-1 visas is an effort to create a more welcoming environment for international students and it is a result of an OGA survey of physics departments that uncovered an alarming 12% decline in international applications to physics PhD programs in 2018. The OGA is also closely monitoring growing federal concerns about Chinese espionage, IP Theft, and talent recruitment.

Energy & Environment Subcommittee

Update on Investment Committee Meeting

OGA staff provided an update on the internal APS discussion of divestment from fossil fuel companies. Towneley Capital was tasked by the APS Investment Committee (IC) to explore the possibility and they

presented two findings to the IC. First, Townley demonstrated how difficult it is to eliminate various social concerns from an investment portfolio. Second, while divestment has had an impact in the past, for example in the case of apartheid and South Africa, a divestment from fossil fuel companies was highly unlikely to create any meaningful change in the behavior of fossil fuel companies. Townley suggested that APS consider other ways of demonstrating a commitment to addressing climate change. The Investment Committee unanimously voted against divestment.

National Security Subcommittee

Tytti Erasto joined via Zoom video conference. J. Wells introduced Erasto, indicating her depth of experience on missile defense. She began by saying her expertise was more on the political issues rather than technical issues. In particular, regardless of how well missile defense works, she said that it can be problematic from the point of view of disarmament. She then provided a historical perspective on the issue, identifying four sequential points of view on missile defense: (1) **Hope** – perhaps the technology could free us from the possibility of nuclear war; (2) **skepticism** - after the US and Russia started developing these systems weapons experts soon realized that there are substantial technical challenges, that the technology is extraordinarily expensive, and that an effective system may never be developed; (3) **Anxiety** – worry that the pursuit of missile defense would aggravate the arms race; (4) **Pragmatism** – recognizing that diplomacy was necessary. The US and Soviets then established limits to missile defense with the ABM treaty. The US eventually withdrew from the treaty and currently claims it will not accept any legal limits to its missile defense system. Russia has responded by developing a new class of hypersonic missiles. In the Trump Administration’s recent proposal on missile defense they indicated that the system is intended to provide defense against Russia and China, a departure from former statements that it was intended to defend against Iran and North Korea. Erasto suggested that US development of and statements about missile defense have actually contributed to the threat and motivated China and Russia to expand their arsenal. She believes there is an urgent need for diplomacy.

After Erasto exited the videoconference, POPA then considered the possibility of undertaking a technical assessment of the Trump Administration’s missile defense plan. There was an identification of two possible approaches: a small-scale one-year POPA study, or an extensive multi-year APS study. POPA then considered what could be addressed by either approach. There were several proposals including one for a study that would identify physical constraints on any missile defense system or a study that illuminates the limitations of missile defense and the need for diplomacy. It was then pointed out by a few POPA members that an unclassified study may never be able to explore the technical issues in a credible way. On the other hand, getting appropriate classified briefings extended the timeline of a previous APS missile defense study by 4-5 years. While the previous APS studies have had impact, it required substantial commitment of time and resources. A final point was that the Trump Administration’s proposal lacked detail, and provided no clear entry point for APS analysis.

ACTION: POPA agreed that a large-scale study was not appropriate at this time. However, the National Security Subcommittee should continue to consider this issue, and if they can identify some narrow topical “bite” at the issue, they should bring it back to POPA for discussion and vote.

Update on Neutrons for the Nation Report; VCAT Meeting

ACTION: *Discussion tabled until June 7th meeting to accommodate an extended discussion of the Ethics Guidelines.*

New Business

J. Wells provided an overview of the POPA Boot Camp where new members of POPA were introduced to the workings of the committee and asked to provide ideas on new studies, new statements and new activities. The following ideas were discussed:

- space-based missile defense – a small scale study could consider the state of the technology: is it more economically feasible, more scientifically feasible, etc. than before?
- the biological impact of nanoparticles.
- pathways to “leap-frog” existing means of generating sustainable energy.
- an assessment of how we are interacting and monitoring our environment with an emphasis on big data and intersection of physics.
- an assessment of whether there could be interoperability of nuclear forces -- the navy and air force sharing the same platform.
- an examination of the claim that an overreliance on green technology will jeopardize aspects of our infrastructure (e.g. “lead to blackouts”)
- a roadmap of how natural gas can be a bridge to green technology
- collection of data that indicates the impact that proposed restrictions on international science may have on the US scientific enterprise.

ACTION: *Committee chairs were encouraged to take these discussions under advisement*

APS Strategic Plan 2019

K. Kirby spoke about the Strategic Plan. This is the first APS Strategic Plan that encompasses the whole organization. The timeline was aggressive, with member input beginning in early 2018 at the Leadership Convocation and release of the report a year later. The result is a dynamic and nimble plan that reflects who APS is and what APS aspires to be. It's high-level, 10-page plan. It was overseen by a steering committee, with extensive involvement of the Board, Council and APS Senior Management Team. The broader membership was engaged in development of the plan through town halls at the March and April 2018 meetings, and through articles in APS News. A completed plan was presented to Board & Council in November 2018. That can be downloaded [here](#)

Ethics Subcommittee

M. Marder provided an overview of the history of the work done on this statement and why it was taken up. F. Houle moved to unify the APS ethics statements and create a document we are calling "Ethics Guidance." The Ethics Guidance has gone through Board/Council review and membership comment. Subcommittee has reviewed comments and integrated changes. A standing committee of the APS was created (APS Ethics Committee) to keep on top of the changing environment of ethics. They are encouraged to be proactive.

With that context, POPA then turned to making final edits to the Ethics Guidelines.

MOTION: *To delete the word “Guidance” in the title and throughout and replace with Guidelines*
(Roger, Wells)

ACTION: *The motion passed, unanimously.*

MOTION: *To delete “The American Physical Society has adopted new Guidelines for Professional Conduct that incorporate these values”*
(Roger, James)

ACTION: *The motion passed, with a majority vote and 2 abstentions*

MOTION: *To add “As stated in the 2019 Strategic Plan of the American Physical Society “In order for physics and the physics community to benefit from the greatest talent, and to strengthen APS as an organization, we will provide a welcoming and inclusive environment for all those engaged in physics.”*
(Susan, Laura)

ACTION: *The motion passed, unanimously.*

MOTION: *To change the order of “Research results (e.g. data, findings, software) should be recorded and maintained in a form that allows subsequent use, analysis, review and reproduction of the findings to the maximum extent possible.” And “Research results (e.g. data, findings, software) should be openly and promptly available, as soon as there has been an opportunity to establish intellectual property rights. Following publication, requirements for open access to the published data set by legislation or funding agencies must be followed. All research products should be retained for a reasonable period and be available promptly and completely to responsible scientists. Exceptions may be appropriate in certain circumstances in order to preserve privacy, trade secrets or national security.*
(Susan, Jim)

I. THE RESEARCH RECORD AND PUBLICATIONS

RESEARCH RESULTS

Recommended Implementation

1. Research results (e.g., data, findings, software) should be openly and promptly available, as soon as there has been an opportunity to establish intellectual property rights. Following publication, requirements for open access to the published data set by legislation or funding agencies must be followed. All research products should be retained for a reasonable period and be available promptly and completely to responsible scientists. Exceptions may be appropriate in certain circumstances in order to preserve privacy, trade secrets, or national security.
2. Research results should be recorded and maintained in a form that allows subsequent use, analysis, review, and reproduction of the findings to the maximum extent possible.

ACTION: *The motion passed, with a majority vote and three abstentions*

MOTION: *To delete “First author is often regarded as the individual who carried out the most significant portion of the research.”*
(Carlos)

ACTION: *The motion passed, with a majority vote and 2 abstentions*

MOTION: *To delete “The materials in a PhD thesis should be a description of a body of work, and not a collection of the candidate’s journal articles already published separately either as lead or co-author”*
(Michael)

ACTION: *The motion passed*

MOTION: *To add “be aware and fully”*
(Laura, Thom)

APS members are expected to be aware of and fully adhere to and support these policies and procedures to uphold the integrity of their institution and the broader scientific enterprise.

ACTION: *The motion passed, unanimously.*

MOTION: *To replace “must” with “should” and “federal” with “governmental”*
(Carlos)

Researchers should adhere to the governmental policy on research misconduct with associated Institutional requirements (for example, US researchers click insert link to Federal policy from 2000).

ACTION: *The motion passed, unanimously.*

MOTION: *To remove “because of the low expectations their professors and colleagues have for them, and because of how they are treated by the people who should be their peers and*

colleagues.” and replace with “because of low expectations and poor treatment by some mentors, colleagues, and peers.”

(Susan, Roger)

ACTION: *The motion passed, unanimously.*

MOTION: *To replace “All” with “More members of” and delete “new perspectives” and add “contributions”.*

(Susan, Laura)

More members of groups that have historically been excluded or discouraged from physics would bring valuable contributions to the field if barriers to their participation were removed.

ACTION: *The motion passed with 4 abstentions.*

MOTION: *To add “persistent”*

(Susan)

Behaviors include, but are not limited to, requests for sexual favors, unwanted touching, persistent unwanted attention, and unwanted sexual advances. It is difficult for victims to feel safe in reporting harassment.

ACTION: *The motion passed*

MOTION: *To add “educational” and “receiving federal funds”*

(Susan)

Recommended Implementation

In the US, Title IX requires educational institutions receiving federal funds to provide a safe means for harassment allegations to be reported, assessed, investigated, and resolved. In cases where this does not exist, the APS encourages members to work within their institutions to provide it.

ACTION: *The motion passed with 4 abstentions*

MOTION: *To delete “and colleagues”*

(Susan)

V. IMPROVING EDUCATION FOR PROFESSIONAL ETHICS, STANDARDS AND PRACTICES

Education in professional ethics is an essential part of science education. Scientists must ensure the integrity of data, analysis, and presentation of results. Scientists must treat students and colleagues in an ethical fashion. It is part of the responsibility of all scientists to ensure that all their students receive training that specifically addresses this area. The American Physical Society will develop, maintain and disseminate materials to support this training.

ACTION: *The motion passed with 2 abstentions*

Physics & the Public Subcommittee

Proposed PGRE Statement (Ted Hodapp joined to discuss)

ACTION: *Tabled until June*

Proposed Statement in Support of Public Outreach (Becky Thompson joined to discuss)

ACTION: *Tabled until June*

Intersessional Minutes

- Subcommittees continued work on projects via teleconferences.
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Next Meeting

The date for the next POPA meeting will be June 7, 2019

Adjournment

ACTION: *J. Wells adjourned the meeting 3:00 PM.*