

State Committee for Research Notes

Agenda

Wednesday, December 9, 2020

3:00 p.m. to 5:00 p.m.

Agenda:

1. [Review and approve June meeting notes](#) – Paul Layer, 5 min.
 - a. September meeting was missed, December meeting forward we would like to keep on track. Next meeting will be scheduled in January and set up quarterly.
 - b. Questions or comments for previous meeting notes - please let VP Layer or Ayden know if there are modifications or changes.

2. [Review SCoR Membership](#) – Paul Layer, 5 min.
 - a. Jon Bittner (Director, Alaska Small Business Development Center, UAA) and Aaron Dotson (Interim Vice Provost for Research Director, Applied Environmental Research Center, Research and Graduate Studies, UAA) have joined.
 - b. Review of membership list. Please let VP Layer know if someone should be removed from this list.

3. National update – Paul Layer, 5 min.
 - a. Update: with the appropriations, we have gotten very generous support from the house. We have a continuing resolution at this time.
 - b. There were some questions about what the role of these organizations should be. During review, they were looking to re-establish charters. What is the primary focus, and what should these groups be trying to accomplish?
 - c. NIH
 - d. Epscor states train a lot of researchers and hired by both epscor and non-epscor states
 - e. National trend shows that there is an optimistic feeling about health of programs
 - f. DEFSCoR (sp?) funding 6 proposals, relatively minor (under 200k). Do we want to look at this? There is a small pot of money, and we have not applied for this source of funding before. In the past, there have been requests for about 40 proposals, with 100 submissions.
 - g. Paul to Bob - has anyone submitted a white paper for DEFSCoR? Please let VP Layer know of additional proposals.
 - i. Bob - Believe so
 - ii. Aaron - yes, we have a few faculty that have put in white papers as well
 - h. Clinical trials - these are focused in coastal states, but EPSCoR states should look at how to support these trials.

- i. Examination of the relationship between state and University, as well as external stakeholders.
4. Discuss Alaska Research Priorities – Lt. Gov 10 min.
- a. Lt. Gov. Meyer:
 - i. Serves as Secretary of State - election challenges.
 - ii. New administration will change the approach of the state and will affect new state policies. Resource development is critical in Alaska, new administration may see a shift in some priorities.
 - iii. Multiple sectors have been affected - tourism, mining, oil, etc.
 - iv. What we need to do with the new administration is to show that Alaska has the minerals for green energy, as well as that AK oil and gas is cleaner than other options. It would be good for Alaska to be considered in these processes.
 - v. Commissioners have submitted 5 year research plans.
 - vi. Arctic research committee (check name against transcript)
 - vii. Research focus - Alaska's changing climate is a focus. Climate change and the effect it has on Alaska in various ways: longer growing seasons, north water passages have increased.
 - viii. DNR would like to see more work done on coastal erosion, flooding/fire forecasting, arctic hydrology, sea ice changes
 - ix. We need to make sure that if we already have these kinds of research underway, we need to communicate them to the state. If not, these are directions for consideration.
 - x. [ADFG Arctic Research Plan](#)
 - xi. [ADFG Artic Plan Cover](#)
 - xii. [ADEC Letter](#)
 - xiii. [IARPC Plan DNR](#)
 - b. Questions?
 - i. Tom: CFOS had a presentation on Blue Economy. After meeting, it was said that the AMERICAN Culture Task Force might be disappearing. Can you comment on that and the state's investment in blue economy?
 - 1. We have been working with various businesses, oyster farms, kelp farms, and I know that colleagues in Norway are doing a lot of work on this. At current, the state process on blue economy are still being defined.
 - ii. Provost Prakash - In terms of blue economy, we are ramping up our efforts. There is a lot of planning right now, we are looking at facilities and infrastructure and working with NSF for funding submissions for new dock at Seward. Also focusing on workforce training needs.
 - iii. Another existing relationship is the Alaska Cooperative Fish and Wildlife Research Unit. 5 full time paid by USGS scientists

5. Proposal: SCoR Working Group on Alaska's Place in GHG Net-Zero Policy Future - Lt. Governor Meyer, Mead Treadwell, 10 min.
 - a. [Power Point](#)
 - b. PPT created based on conversations with Lt. Gov and others.
 - c. In federal administration we are seeing a push towards Net Zero greenhouse gas emissions policies.
 - i. Paris Climate Accord
 - ii. Japan announced Net Zero greenhouse gas goals
 - iii. Companies like Shell are also adopting
 - iv. Major issue for Alaska has been declines in oil and gas production in Alaska/Arctic
 - v. Alaskan oil can offset coal production and other forms of pollution heavy energy production
 1. A lot of new tech available to decarbonize things like natural gas.
 - d. Four categories
 - i. Alaska Domestic - domestic greenhouse gas emissions
 - ii. Renewable energy - Tidal wave biomass, geothermal, etc
 - iii. ENergy production and foriegn markets - looking at ways to try to reduce reductions
 - iv. Common technologies that could impact research opportunities
 - e. Alaska has a large per capita emissions number because of harsh climate
 - i. Alaska Science technology plan released in 2016
 - f. Alaska has most of the minerals used in renewable energy - need to promote Alaska's resources to assist with these goals.
 - g. Next steps are in the works: identifying funding, members to work on project
 - h. Biggest customers of Alaskan energy are in Asia, and they have net zero goals. USA likely to rejoin Paris agreement
 - i. Need to examine consumption, production, and sales of oil & gas
 - i. Working group to flesh out the kinds of technologies that we can be working on that would help the US and Alaska have a net zero plan.
 - i. Z Cap, Zero Carbon Plan
 1. Let by sustainable development solutions network out of columbia university (link)
 - j. Need to keep Alaska competitive - energy/resources are our largest export
6. Innovators Hall of Fame Nominee Discussion – Brian Holst, Mead Treadwell, Jon Bittner, 10 min.
 - a. Jack Dangermon, Erickson, Mike and COx are the four nominees we have
 - i. Additional nominees submitted, Provost Prakash has expressed concern that not all nominees are being evaluated. Ayden to search for additional nomination materials.
 1. OIT has transferred ownership of email account to Ayden. I am working to find these documents to ensure that everyone has them.

2. What can we do to make oil production more efficient carbon wise - oil will still be pumped for a while.

7. NSF EPSCoR update – Pips Veazey, 10 min.

- a. Research Leads - A thank you for their help and assistance in making research successful.
- b. Nearly 200 people - students, researchers, staff and community members that work together. This cooperation has been really important. We have entered year 3 of project.
- c. Focusing on subsistence activities, blue ocean economy and related activities forecasting seasonal/subseasonal climate to assist in fire prediction. Sustainability is also a focus.
- d. Holding a workshop with the UN Foundation to try and diversify our research portfolio. We are thinking about philanthropic funding and other means of bringing in funding to help the research.
 - i. Advisory board includes Mark Myers and Brian Holst
 - ii. Tony Marsh, with Alaska Seafood Marketing Institute, and Matthew Baywatch, who is associated with geo north.
 - iii. Hope is to improve and create connections between Alaska's industries.
- e. COVID mitigation - this has been successful and allowed us to carry on our work for the year with nearly no interruptions.
 - i. Research also required a major shift due to COVID, and research groups have done this well.
- f.

8. INBRE Update – Brian Barnes, 10 min.

- a. Programs sponsored by National Institutes of Health and they have several mechanisms, including injury, which is the program I lead. Statewide includes 3 universities, as well as medical researched at ALaska Native Tribal Health Consortium and South Central Foundation and their participation has increased over the years.
- b. 5 year award of about \$20 million. Our goals are to increase capacity for doing medical and health research, and increase and diversify the pathways for students entering medical. Pilot grants of \$150,000 each that also support graduate students and research experience for undergraduate. Our overall theme is health (people, animals, environment)
 - i. Example - funding research on migration and diseases in sockeye salmon
 - ii. POisons used to treat Anchorage Lakes
 - iii. Breast cancer, epilepsy and physiology of how animals detect levels of oxygen
 - iv. Human nutrition
- c. We are trying to move more into clinical trial research. Currently very few avenues of health research in state.

- i. Initial research sequencing COVID virus isolated from the first Alaskans who contracted illness.
 - d. National meeting in August
 - e. New faculty will be needed for new programs. This is a challenge with the current budget climate.
 - f. Need to increase the number of researchers who stay in state.
- 9. [NASA EPSCoR update](#) – Denise Thorsen, 10 min.
 - a. Unlike other documents, did not write as a science topic. Denise will act as program manager and distribute the money. The largest part of this task is connecting researchers across the state, and institutions.
 - b. Programmatic grant is research infrastructure development grant.
 - i. 21% of total budget, largest portion, is for research grants (research cans). Research cans are proposals that individual researchers in the state are working on. We work with them to get a good proposal written and then NASA is the one who chooses whether to fund or not.
 - c. A few new opportunities - Rapid research response and the ISS flight opportunity.
 - d. Working with NASA to offset the the loss of summer field season with supplemental funding. We are looking to identify funding to pay graduate student.
 - e. Proposal on corrosion study - collaboration with the faculty at USF and mechanical engineering. Just wrapped up pre-proposal selections. Only one proposal from state can go out.
 - f. Data simulation and modeling to improve snow water equivalent assessment. Connects directly to NASA Snow X project, which will take place in Fairbanks.
 - g. NASA EPSCoR exec committee works with NASA Headquarters on how to arrange funding so that it benefits growth as much as possible. We have been asking for an increase in red funds.
 - i. Currently, can fund 3-4 faculty per year with projects. With new grant and additional funding, increase to 5-6 faculty.
 - h. Suborbital flight opportunity - connected with international space station, expanded to include suborbital flight.
 - i. 3 rapid research responses - these are solicitations that are one year and defined by NASA. Our faculty reach out to work on these projects. Potential to expand this program as NASA has been happy with work.
 - j. Collaboration with NASA and NSF - NASA NSF, Fellows Advancing Science and technology. Solicitation not out yet.
 - k. Interagency collaboration has been in the works for years. Pips is excited to see this moving forward.
 - l. Arctic report card (link)

10. Future topics/Roundtable – All, time remaining

- a. Workshop details - boundaries, focus, members.
 - i. Paul has asked Mead to look at this. Schedule meeting
- b. Provost Prakash - Congratulations to the AK Satellite facility. NSF and University are working on a project