

The Research Repositioning Task Force, comprised of David Barnes, Gwen Holdmann, Katrin Iken, Nettie Labelle-Hamer, Kristin O'Brien, Arleigh Reynolds, and Charlene Stern, met on Thursday, March 28, 2019 and generated the following recommendations to strengthen and grow research at UAF:

I. RESEARCH STRENGTHS

Three key themes were identified as the pillars of research at UAF, representing our strengths and poised for growth. These also represent place-based research areas, taking advantage of UAF's unique northern location and conducting research relevant to the state and its peoples:

- a. **Arctic Research.** Arctic research lies at the core of our identity and emphasizes the strengths and uniqueness of our programs across the university, including Native Alaskan languages, art, culture, engineering, and the sciences. The task force unanimously agreed that the number one priority should be to restore the branding of **America's Arctic University** to UAF. Alaska and the Arctic lie at the forefront of climate change and changes here have worldwide impacts. We are uniquely positioned to capitalize on our geographic location and science expertise and lead studies of climate change. Colleges and universities across the country (and worldwide) are investing millions of dollars in developing Arctic research programs. It is essential to our identity that we reclaim our position and brand name as America's Arctic University and become the number 1 go-to research institution for Arctic research in the US before we lose it to another institution.
- b. **One Health.** The task force supports the thematic and cross-disciplinary approach of the One Health initiatives, which recognizes the interdependence of human, animal and environmental health, and that a holistic approach to the well-being of all will lead to improved health outcomes and enhanced resilience.
- c. **Sustainable Energy.** The task force believes that sustainable energy research is a nascent thematic area that is important for Alaska's future, where UAF has core capabilities and strengths and is poised for growth, and which is fundamentally interdisciplinary in nature. Sustainable energy in this context includes both sustainable energy to support Alaska's communities and industries, as well as low environmental footprint extractive activities.

The task force recognized studies of adaptation, resilience, and mitigation to **climate change** as focal areas of research at UAF that span all three key themes.

The task force also recognized that the **National Security** work done by many researchers is not confined to the Arctic. This represents another important aspect not really encapsulated in the three above.

II. OPPORTUNITIES FOR GROWTH

The task force identified four areas of funding opportunities to fuel the growth of the three core research themes:

- a. **National Institutes of Health.** UAF has been the recipient of several large NIH infrastructure awards over the last 10 years including COBRE, INBRE, CANHR, and BLaST, yet there remains enormous potential for growth in funding from NIH, especially in securing COBREs (3 per campus) and growth in CANHR. The recent development of the One Health and Veterinary Medicine Programs positions UAF for growth in funding from NIH. The National Institute of Environmental Health is one untapped source of funding. **Need:** Behavioral health is one area in particular that warrants investment and where the state's need and funding potential greatly exceeds UAF's current capacity. Hiring faculty in the social sciences, especially in areas of opioid abuse and behavioral health, is imperative, especially to realize growth potential.
- b. **Department of Defense:** The GI was recently named a University Affiliated Research Center (UARC) by DOD, providing a pathway for additional funding. Climate warming creates new challenges and opportunities for growth in national security, infrastructure, and power in the Arctic. ACEP, INE, GI, and CFOS are positioned to capitalize on these opportunities. The need for studies dealing with the increase in suicide rates in the armed forces represents another area of research and funding growth (especially for CANHR) but as noted above, additional faculty are required to capitalize on this opportunity. **Need:** UAF needs a liaison to assist with navigating DOD's complex funding system. Jackie Morton was mentioned as an important ally for the research units. Many researchers and some of our leaders are not experienced with navigating the DOD landscape. We should rely more on people who do to ensure success.
- c. **Department of Energy:** The DOE was a major presence at UAF on Lab Day, indicative of its interest in investing in UAF. There are many follow up activities that are underway and may need support. It is important too to continue to support these newly developed partnerships, and continue to grow relationships with DOE across all of its sub-units. UAF (ACEP) recently submitted an invited DOE EPSCoR proposal that could also continue to help build capacity and increase collaboration. In addition, INE/PDL has recently received a significant tranche of DOE funding. Other research units have also historically been funded through DOE and are well positioned to increase funding in the future, including the GI and IARC.
- d. **National Science Foundation:** While NSF is already a major funder of our research endeavors, there is potential for additional growth. Our unique geographical location in the Arctic provides several large untapped sources of

funding potential at NSF, including Research Coordination Networks (RCN), Science and Technology Centers (STC), Engineering Research Centers (ERC), and Major Research Equipment and Facilities Construction (MREFC) grants. Many of these are underway and leadership may need to support, sometimes by ensuring no interference.

III. **INSTITUTIONAL CHALLENGES TO GROWTH:**

The task force identified several institutional challenges to research growth that warrant attention:

- a. **Indirect costs distributed to Statewide.** The current policy of directing 12% of ICR to Statewide siphons funds from research units that could be invested in fueling research growth. Services that are provided to the UA system should not be disproportionately funded by UAF's large research institutes.
- b. **Conflicts between needs of institutes and colleges.** Research needs of the institutes do not always align with teaching needs of the colleges, and colleges have a disproportionate amount of power in hiring and tenure decisions. As a result, institutes are unable to grow research programs in areas incompatible with teaching needs and research progress is impeded.
- c. **Lack of flexibility in faculty workload distribution.** Faculty research programs are not static; they grow and contract and workloads must be adjusted to accommodate this in order to maximize research growth. Faculty with large and growing research programs should be permitted to adjust their workloads to reduce teaching loads. Equally as important is to direct faculty with contracting research programs to increase their teaching load so that our academic programs remain strong.
- d. **Lack of coordination between capacity building programs across the campus.** Better linkages and communication among large infrastructure programs (e.g. EPSCoR, INBRE, BLAST, CANHR) will facilitate cross-fertilization and enhance funding opportunities.
- e. **Opportunistic funding possibilities are lost because of lack of resources.** Unsolicited proposals represent a potential for research growth. These sources need to be better identified and faculty supported to pursue these opportunities.
- f. **Need champions for research** to serve as liaisons between UAF and key funding agencies (NIH, NSF) to identify major funding opportunities.

- g. **Lack of recognition and retention of successful faculty.** Key faculty, highly successful in research, should be recognized and invested in. Too often our most successful, integral faculty members leave for positions at other institutions. Loss of senior faculty is especially debilitating to research units.
- h. **One Health-like umbrella is desirable for the physical sciences,** but we have not yet formulated something that is inspirational. Other areas such as energy are also well positioned to fit under a thematic approach to research across campus.
- i. **Role of VCR becomes even more important as we move forward.** As there were as many opinions of this as there were people in the room, we decided that what is needed most is a clear definition and understanding of the role of the VCR up and down the chain.