



New Faculty Initiative to Tackle Health Challenges:

Call for Initial Statements of Interest

Background

Novel strategies for detection, prevention, treatment, and cure of disease will be discovered by teams of scientists and engineers working with healthcare professionals across molecular, physiological, behavioral, environmental and societal levels. Penn State has significant opportunity to make those discoveries. Our world-class expertise spans all scales—from the biomolecular to individual behavior to population health, as well as implementation science, policy, law and education. The Penn State [University Health Science Council \(UHSC\)](#) wants to leverage our transdisciplinary culture and cross-scale expertise to tackle major health challenges of the 21st Century. We propose to broadly catalyze interdisciplinary consortia of faculty charged with developing real-world innovations and solutions to major health challenges. This initiative requires that we build capacity and blend basic, preclinical, clinical, implementation, and public health research across the translational spectrum to find scalable and sustainable solutions. We are empowering our faculty to solve focused health challenges by incorporating interdisciplinary and interprofessional expertise across all levels of analysis from molecules to individuals to populations and from basic science to evaluation of the health impacts of science-based programs, policies, practices, and products. We aim to build such a capability, unique in the nation.

The Challenge

The University Health Science Council seeks statements of interest to establish consortia of Penn State faculty members with complementary expertise across multiple research domains to take on significant health challenges. By way of illustration, these challenges might include reducing obesity or antimicrobial resistance;

promoting healthy cognitive aging; or fostering resilience to chronic stress. The research domains involved might include biomolecular, subcellular, physiological, data informatics, sensors and materials, behavioral, and social science analyses.

These consortia will be the foundation of a new Institute for Biomedical and Health Science Research (IBHSR). The long-term vision of the IBHSR is to provide an organizational structure, similar to that of other University Research Institutes, that will catalyze and synergize impactful biomedical and health science research through investment in faculty, creation of shared resources, and provision of space in order to make measurable breakthroughs and making a real-world difference on human health and well-being.

Date and Place of Submission of Statements of Interest

Initial statements of interest (5 single-spaced pages) are welcome from any Penn State faculty member on any campus and should be submitted to

<https://psu.infoready4.com/#competitionDetail/1806445> by **March 15, 2021**.

Faculty associated with promising statements of innovative interests will be invited to provide oral presentations at UHSC meetings in April, where we expect to help strong groups make additional connections and identify capacity to assist in shaping full proposals. Full proposals then will be formally requested with guidelines provided to those invited. Decisions to award will be made during the summer of 2021.

Budget and Award

To realize this vision, **initial steps taken** to empower innovative research advances will be:

- (1) The provision of up to \$200k/yr for three years of seed grant funding
- (2) The provision of three years' summer salary support for the director
- (3) The provision of technical and personnel support from current Institutes and OSVPR to launch communication and development strategies aimed at philanthropic support

In addition, the expectation is that **beginning in the second-year**, support will be provided to fund new open-rank faculty positions to synergize with existing strengths (with the ultimate goal of funding five such positions).

Evaluation Criteria

Statements of interest and, ultimately, full proposals will be evaluated against the following criteria:

1. The health challenge is worth solving and is demanding of scientific innovation.
2. There are world-class, well-funded Penn State faculty, with established research infrastructures in place, already working on aspects of the health challenge who, if partnered correctly and augmented with select newly recruited faculty, can demonstrably span the breadth and depth of expertise needed to address the challenge.
3. There is a strong faculty leader willing to champion and lead the health challenge initiative.
4. There is a solid plan to identify strategic hires of up to five faculty to fill gaps in our current portfolio, where those hires will have step-change impact.
5. The health challenge will strengthen collaborations between UP and Hershey.
6. Faculty from at least four colleges will be involved.
7. The proposal clearly communicates that the national competitive environment is such that PSU can quickly emerge as a differentiated leader in the field and make meaningful breakthroughs.
8. There is a clear path to sustainable external research funding within 3-4 years.

Elements of the Statement of Interest

Expression of interest submissions should include the following seven sections:

1. Background on the nature, magnitude and significance of the health challenge and an outline of the range of research domains that need to be covered in order to comprise a comprehensive cells-to-society approach to the particular health challenge (1/2 page);
2. Penn State's current relevant expertise and distinctive strengths, as well as gap areas that the new hires would fill, with both of these mapped to the research domains that were outlined in the content provided for Section 1 (1 page);
3. Unique ways that the eventual full complement of researchers working on the health challenge could interact and/or be organized, including discussions of how this effort would strengthen connections between researchers at University Park and Hershey campuses, and a description of the novel directions for PSU research that would result (2 pages);

4. Initial overview and perspective on other institutions who are leaders in the same health challenge area as well as thoughts on the feasibility of recruiting faculty in the gap areas highlighted in the response provided in Section 2 – including relevant observations on depth of pool, presence of resources/expertise at PSU that would promote successful recruitments, etc. (3/4 page);
5. Qualifications of the consortium leader to drive the effort (1/2 page);
6. Summary of potential sources of external funding attainable within the next 3-4 years (1/4 page);
7. An appendix including NIH/NSF bio-sketches of key current Penn State faculty whose work would be relevant to the goals of the proposed consortium and as well as list of other possible PSU members.

It is neither necessary nor expected that the proposed consortium will be fully formed when initial statements of interest are submitted.

Further Information

Prior to drafting their 5-page statement of interest, faculty leaders are encouraged to reach out to one of the following to discuss their idea:

- Andrew Read (Director, Huck, a.read@psu.edu)
- Susan McHale (Director, SSRI, mchale@psu.edu)
- Leslie Parent (Vice Dean, College of Medicine, lparent@psu.edu)

In addition, on **February 8, 2021, from 4:00 pm – 5:00 pm**, we will discuss this opportunity on a zoom webinar. Send an e-mail to Brittany Grimes (bng10@psu.edu) to register for this webinar.