CALL FOR PROPOSALS

**PRESIDENT’S CONVERGENCE SCIENCES INITIATIVE**

I. INTRODUCTION

Our society is being reshaped by factors including an aging population, growth of our urban regions, globalization, increased utilization of big data, and environmental and political stressors. At the same time, technology is rapidly advancing in exciting ways we can incorporate in our research and teaching. This includes the emergence of artificial intelligence, the digital transformation, novel health care delivery and development of new modes of mobility, to name a few. As Kansas’s only urban public research university, WSU is uniquely positioned to address many of these issues because of our location and partnerships with industry.

We want WSU to move to the forefront in developing a new generation of researchers and scholars to address the complex challenges and opportunities changing Kansas and the world. Gaining mastery of this knowledge will help make Kansas a leader in this new economy. This will entail integrating knowledge, methods and expertise from different disciplines and forming novel frameworks to catalyze scientific discovery and innovation and, in the end, will provide unique opportunities for the economic prosperity of our state and career pathways for our students.

Through this initiative, we aim to empower our faculty to explore opportunities to bring together colleagues who span the disciplines *--* transdisciplinarity, interdisciplinarity and multidisciplinarity *--*and form convergence sciences research clusters to address some of our most pressing and opportunistic challenges.

In order to focus the scope of this initiative, four initial projects to be funded will fit within (a) one of three broadly-defined themes of **health disparities & health delivery, digital transformation, and sustainability**; or (b) not be associated with a theme. Successful proposals to this initiative will identify a societal problem or challenge within one of these themes that can be most effectively addressed by combining and integrating efforts of researchers from different disciplines. Ideally, these proposals will not simply envision individual researchers attacking isolated aspects of the problem, but rather groups of researchers bringing their individual expertise to a concerted effort. A valuable outcome of the group approach envisioned is the teaming up of experienced researchers with emerging researchers, and researchers from disciplines traditionally focused on external funding with those less so. Such group profiles are particularly encouraged.

II. DESCRIPTION

Initially, the initiative will accept proposals into each of the three themes, identified as **(i) health disparities and health delivery, (ii) digital transformation,** and **(iii) sustainability**. One proposal will be funded in each of the three themes. In addition one ‘wildcard’ proposal will be funded that has no connection to a theme. Successful proposals will be funded for three years, with a budget not to exceed $100,000 per year. In order to receive full consideration, proposals should address the following points:

* **Need** **for convergence research cluster**. The proposal should provide a compelling argument as to why the problem being addressed requires or will greatly benefit from an integrated collaborative effort from investigators in different disciplines and how the features of the proposal will facilitate that effort in a way that more traditional approaches would not.
* **Existence of core**. While a proposal will likely identify expertise and infrastructure that need to be added to the university in order to move the project forward, there must be a core set of researchers from different disciplines already present at WSU who will be ready and able to engage with the problem.
* **External funding availability**. The proposal should identify funding agencies, especially federal government agencies, and industrial entities that would be expected to provide continued and sustainable funding to the cluster. Attention should be given to highlighting demonstrated or published interest on behalf of the agency to fund research in the area of the proposal.
* **Curricular implications**. The proposal should indicate opportunities for students to engage in applied learning within the convergence research cluster. Additionally, the proposal should identify new academic programs, or the reimagining of existing programs, that will derive from the project, including certificates, minors, majors, and graduate programs.

III. PROPOSAL PREPARATION

Include ONLY the following titled sections in the proposal:

a. **Participating Investigators**. A list of the faculty and other senior personnel who will comprise the initial research cluster. Each member of the cluster should be identified by their appointment (title), home department and college, and their primary role in the research cluster. At least two of the investigators must be identified as co-directors of the cluster. Proposals that do not include principal investigators from at least three academic departments will be returned without review. *Attach a two-page cv for each participant*.

b. **Theme**. Identify which of the overall themes (health disparities and health delivery, digital transformation, and sustainability) the cluster will contribute to; or state that the proposal falls outside of these areas.

c. **Introduction, relevance, and need**. This section should describe (i) the problem to be addressed, (ii) the significance of the problem, (iii) how the problem relates to the identified theme, and (iv) why the convergence research cluster is necessary to effectively address the problem. *Two pages.*

d. **Research cluster**. Describe the general approach of the proposed research cluster to addressing the problem, how each member will contribute to the approach, and how the contributions of each investigator are to be integrated. This section should include a profile of the team of investigators to engage in the convergence research. This will include (a) history of previous collaboration including scholarship, (b) opportunity for new partnerships, (c) evidence of externally funded research, (d) opportunity for mentorship in the grant writing process, (e) specialized knowledge residing in the research team that is pertinent to the problem, and/or (f) co-development of research infrastructure. It should also include an organizational and management plan for the cluster and a description of any currently existing infrastructure (e.g., equipment, software, laboratory space) that will be utilized by the cluster. *Three pages maximum.*

e. **Budget and return on investment**. Provide a detailed description and justification for the funds to be allocated to the project, including how any identified support personnel (e.g., graduate students, postdocs, technicians) and new infrastructure purchases will contribute to the overall success of the project. Outline the return on investment with reference to greater access to external funding, the potential for new or stronger partnerships with industry, opportunities for training and mentoring faculty, enriching the student experience, etc.

f. **Identifying gaps in expertise**

Given the problem to be solved, identify any gaps in expertise among the participating investigators and propose how those gaps could be filled by addition of new faculty. Describe the type of faculty, and at least *two* colleges where that type of researcher could be hired as a tenured/tenure-track faculty member. How would the addition of the faculty member increase the impact of the cluster and competitiveness for external funding, and provide a long-term value? *One page maximum.*

g. **Curricular implications**. Identify either new academic programs that can be developed or existing programs that can be expanded or redeveloped as a result of the proposed cluster, including certificates, minors, and degrees at the undergraduate or graduate level. Estimate student demand for these programs and likelihood of new student enrollment, including (if applicable) populations enrolling via distance learning. Describe opportunities for applied learning experiences within and related to the project. For opportunities with entities outside of the university (e.g., industry, government, non-governmental organizations) that derive from the project, letters of support from those entities should be included as appendices to the proposal. *One page maximum.*

h. **Sustainability and impact**. Identify sources of external funds (grants or contracts) that will be available to the research cluster. Indicate specific programs that have published calls for proposals or otherwise demonstrated interest in funding research in the area of the cluster. Establish a timeline for applying for funding. Describe the expected outputs and impacts of the cluster after years 1, 2, and 3 and beyond, including possible expansion of the research team, publications, funding, student enrollment, benefit to the economy of Wichita and Kansas, and promotion of WSU to the community, the discipline, prospective students, funding agencies, and industrial partners. *Two pages maximum.*

i. **Intra-KBOR collaboration**. Additional consideration will be given to clusters that demonstrate strong research partnerships with faculty and existing research facilities at other regent universities. The proposal should include not to exceed 2-page CVs for partner researchers, their roles, listing of facilities and a narrative that describes the gap that these partners bring to strengthen the proposed WSU cluster. *Two pages maximum.*

j. **Innovation** **campus involvement**. Collaboration with companies located on our campus, where feasible, is also encouraged. *Two pages maximum.*

IV. HOW TO SUBMIT

Format:

* 1. Please use either Arial, Calibri, or Times New Roman font with a font size no smaller than 11 and margins on all sides of 1 inch.
  2. Please name all files with your last name in lower case followed by file identifier, e.g. “smith\_PCSI\_RFP.docx”.
  3. The proposal should be submitted as either Microsoft Word or PDF.

Transmitting files:

* 1. Email file named as shown above, plus a completed research proposal routing form, to:

andrew.hippisley@wichita.edu

* 1. All files must be received by 5 PM on Friday, 1st May, 2020. Applications received after the deadline will not be accepted or reviewed.

V. REVIEW PROCESS

A double-blind review process will be used, with both applicants and reviewers anonymous to each other. All documents will be de-identified before review. The applications will be reviewed by an ad hoc committee with recommendations to the President and Provost, who will select the awardees.

VII. REVIEW CRITERIA

The review committee will consider the following criteria during the selection process:

1. The proposal is clear and understandable to readers outside the investigator’s specific field.
2. The proposal is strong and a clear need is demonstrated:
   1. Problem(s) to be solved.
   2. Curricular implications.
   3. Sustainability and impact.
   4. Personnel capacity.
   5. Available external funding.
   6. Intra-KBOR collaboration.
   7. Innovation campus involvement.
3. The timeline is appropriate and feasible for the work proposed.
4. Undergraduate and/or graduate student participation is documented and important.
   1. Student involvement in substantial ways in the project is clear.
5. The budget is appropriate and clear.
   1. The budget is appropriate, feasible, with a return on investment for the work proposed.

VIII. FURTHER QUESTIONS?

Direct questions to: andrew.hippisley@wichita.edu