

Priority Translational Research Call - Spring 2025 RFP

Description

The Jump Applied Research for Community Health through Engineering and Simulation (Jump ARCHES) endowment offers this priority Request for Proposals to faculty and researchers of the University of Illinois at Urbana-Champaign, health care providers of the University of Illinois College of Medicine at Peoria, and/or OSF HealthCare clinicians.

The Translation Track Program supports projects that address the challenges and opportunities that arise in applying discoveries and findings from health research and innovation to improve clinical processes and procedures, create novel health applications, translate evidence-based approaches into health practice, and improve patient outcomes. The goal of this RFP is to foster interdisciplinary approaches that translate engineering advancements into clinical practice while comprehensively evaluating their effects on patient care, outcomes, and healthcare delivery. Translation projects may begin with an innovative health technology or process whose potential for impact and utility in healthcare has already been established through prior investigation and research. A translation project might address additional technological barriers and challenges in implementation, scalability, or feasibility which must be overcome in order to deliver the innovation into clinical practice or use by the patient community. Integration of quantitative and/or qualitative research methodologies to assess the clinical impact of the engineering innovations should be considered. This may involve surveys, patient interviews, focus groups, observational studies, and other qualitative methods to understand patient and clinician experiences, adoption barriers, and facilitators of the technology. Projects should also culminate with a comprehensive evaluation of the clinical impact, including but not limited to, improvements in patient outcomes, workflow efficiencies, patient and clinician satisfaction, and cost-effectiveness.

The seed funding from the Jump ARCHES program will enable teams to demonstrate the feasibility and effectiveness of translation for a specific health technology innovation and position themselves to create a scalable and sustainable ecosystem or environment for a healthcare technology via productization and/or further external investment such as venture funding or implementation grants from federal agencies. Furthermore, this track will create project teams that can become “change agents,” capable of translating research findings and turning observations in the laboratory, clinic and community into interventions that improve health care—from diagnostics and therapeutics to medical procedures, devices, and behavioral change programs.

Note that the Jump ARCHES program supports a second parallel program, the Innovation Track Program, for projects which are translational in nature and/or focused on implementation science. Please see the RFA for details. The Jump ARCHES Translation Track Program is meant to complement the Innovation Track Program, by providing the necessary resources to facilitate the translation of an innovative idea, once a proof-of-concept is available and has been shown to have significant promise, to enable its implementation and realize its benefits in improving health system processes and/or patient outcomes. Taken collectively, the Innovation Track and

Translation Track Programs provide a means to realize an innovative method for improving healthcare, demonstrate its potential through proof-of-concept technology creation, address any barriers to implementation and translation, and ultimately realize a sustainable mechanism for impacting healthcare delivery and outcomes through productization and other implementation mechanisms.

Goals

This priority RFP aims to address the challenges faced by our community and society as we develop policies and procedures for healthcare delivery through new mediums including tele-health platforms, and to improve health care quality and patient safety through the combined efforts of researchers, engineers, clinicians, and social and behavioral scientists.

The Jump ARCHES program seeks proposals from cross-institution and interdisciplinary teams for projects that will result in clinical impact, scholarly contributions to the translation and implementation science literature, external funding aimed at creating sustainable technologies, intellectual property, and/or startup companies.

To be successful in this track, applicants are expected to present in-depth quantitative and/or qualitative research designs, including participant recruitment, data collection methods, and data analysis plan as well as a plan for assessing clinical impact, including specific metrics and evaluation methods. Additionally, applicants are expected to develop deep professional relationships that will result in highly collaborative and engaged interdisciplinary teams that can identify and tackle significant health care problems and implement innovations in community or clinical health care settings to ensure the systematic uptake of research findings.

To achieve this goal and promote collaboration between institutions, OSF HealthCare and the Health Care Engineering Systems Center at the University of Illinois at Urbana-Champaign encourage applicants to inquire if their ideas require facilities or technologies that they cannot access at their home institution.

Examples of such facilities and technologies may include simulation areas, computational resources 3D printing, or other prototyping and manufacturing needs.

View these facilities on the [HCESC website](#), [Jump Simulation Center Urbana website](#), [Jump Trading Simulation & Education Center Peoria website](#), and [Center for Social & Behavioral Science website](#).

Focus Areas

Project proposals should be focused on innovative approaches to improving health and lowering costs for high risk/high opportunity populations, including under-served and rural populations.

Funding will be awarded for projects that develop technologies, services, and processes via a close collaboration between researchers at UIUC and clinical collaborators at OSF HealthCare. It is expected that the funded project will lead to improved health outcomes, advanced healthcare delivery, improvements to the healthcare workforce, and/or a reduction in health disparities.

Special attention will be given to proposals addressing:

- Chronic conditions such as high blood pressure, diabetes, and heart failure, which require long- term management and care outside the clinic.
- The unique challenges that arise in providing care to remote and rural populations, including projects that address the needs of underserved groups, address maternal and child health, and provide scalable approaches to health screening and surveillance.
- [Topics in the social and behavioral sciences](#), especially related to social determinants of health, health inequity, developmental conditions such as autism spectrum disorders, social and behavioral health, social and behavioral influences on the cancer continuum, and the digital revolution.

Jump ARCHES has 169 projects at a total of \$13 million since 2014. All funded projects can be viewed at: <https://healtheng.illinois.edu/jumparches/fundedgrants>.

Funding Support

There are two levels of support: Phase 1, and Phase 2

Phase 1 awards are up to 24 months of seed money support up to \$100,000. These awards are expected to generate proof-of-concept ideas or generate pilot data. These projects should allow new teams to develop effective working relationships and project concepts that will lead to highly competitive external funding source applications or commercially viable technologies/services.

Phase 2 awards are up to 24 months of continuing funding of Phase 1 awards and the funding support is up to \$200,000. **Discussions with Jump ARCHES program leadership is mandatory to apply for this award to discuss funding amount and performance timeline.** Investigators may request Phase 2 funding if Phase 1 projects have met specified goals. Furthermore, the PI must have demonstrated at least one of the following outcomes from Phase 1: submission of invention disclosure with UIUC OTM - OSF OIM, evidence of application for external funding beyond UIUC, OSF, or UICOMP, or technology license or successful implementation of Phase 1 results at OSF or a related health care organization.

Phase 1 and 2 proposals need to identify future or matching funding from federal, state, county, or other governmental or non-governmental organizations.

Evaluation Criteria

- Proposals will be specifically evaluated for the alignment of the project to program goals (relevance), the potential for innovative outcomes (impact), and the rigor and appropriateness of the quantitative and/or qualitative research methods and team (approach).
- Proposals will be examined for team composition (inclusion of appropriate UIUC and OSF/UICOMP investigators, and equitable distribution of funding between organizations) and. **If the UIUC Co-PI is not from Grainger Engineering, the team should include a Granger Engineering Researcher.**
- Evaluation will take into consideration the next steps and advancement of the work, as well as plans for future funding and/or product development activities (e.g., IP, start-up, who will

advance the work, commercialization plan).

- Project budgets will be scrutinized for equitable distributions of funds to institutions. Budgets which are imbalanced (**approximately ratios of more than 70 percent for any institution**), will not qualify for funding consideration.

Application Preparation

For questions regarding the preparation of a responsive application, please contact:

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