Description
The Jump Applied Research for Community Health through Engineering and Simulation (Jump ARCHES) Endowment offers this Request for Proposals to members of faculty of the University of Illinois at Urbana-Champaign, members of faculty of the University of Illinois College of Medicine at Peoria, and/or OSF HealthCare clinicians. The goal of this select competitive grant is to improve health care quality and patient safety through the combined efforts of researchers, engineers and clinicians. The award is for 1 year of startup/seed money support. Requests for continuing funding will be based on reported progress.

Please Contact:
- Preparation of a responsive application: Antonios Michalos, M.D., M.S (Associate Director, HCESC) (217) 244-4563 michalos@illinois.edu
- Submission of the application: Seth Stutzman, SS, BS, BS (ARCHES Program Coordinator) (309) 308-9409 seth.t.stutzman@osfhealthcare.org

Goals
A special and timely focus for this RFP is proposals addressing digital health, data science, health equities, community health, AI, and related areas in the development of technologies that may address COVID-19 (novel coronavirus), pandemic flu, or similar health crises. The goal of this competitive grant is to improve health care quality and patient safety through the combined efforts of researchers, engineers, clinicians, and social and behavioral scientists.

In particular, proposals which identify future or matching funding from federal, state, county, or other governmental or non-governmental relief organizations will be regarded most favorably. The award is for 1 year of startup/seed money support. Requests for continuing funding will be based upon reported progress.

Evaluation Criterion: Proposals will be specifically evaluated for their respective alignment to program goals [Relevance], the potential impact on patient and learner outcomes [Impact] and the proposed plan and quality of the team proposed [Approach].

Who can submit a proposal: The Primary Investigator may be from any discipline. Additionally, proposals are REQUIRED to include one Investigator from the Grainger College of Engineering at the University of Illinois at Urbana-Champaign and one Investigator from either the health care providers of OSF HealthCare or the University of Illinois College Of Medicine at Peoria Faculty.

The steering panel for Jump ARCHES will prioritize applied research programs that evaluate the improvement of patient outcomes; the creation of equipment and facilities to evaluate and improve health care; and contributions to scholarship and support for advanced degrees to prepare new generations of experts in the field.

Continued Funding
For the current ARCHES grantees, we invite you to submit a proposal for funding to continue your project if excellent progress has been made during the initial phase(s). This will require a final report before the continued funding request is reviewed. In addition, evidence of proposal(s) submitted for extra-mural funding and technology disclosure to UIUC OTM or OSF OIM must be presented. The proposal must show potential for translational research or external funding opportunities.
ARCHES Application Guide for Submission (Amplifund)

In order to submit an application for consideration, you will need to first ensure you have a registered account with Amplifund. You can save and continue work in the application as time permits.

1. Read the description of the RFP and then select Login.
2. Register as a new user or log in with your existing credentials.
   Note: OSF employees, you may already have credentials for Amplifund. To verify, use your OSF email and password created on sign up.
   Note: OSF affiliates cannot be logged into the system for grant management and ARCHES at the same time.

If you are a new user registering, you will be taken to the “Create New Account” window and you will be required to fill out the information as required.

Instead of entering your “Organization Name,” enter the first and last name of the Principal (Lead) Investigator.

3. Once you have logged in or registered, please accept the terms and hit “Apply” and begin completing each section of the application.

   Sessions will time out after 20 minutes so make sure you save often.
Project Information

Application Name: It is recommended using the title of your project. Do not use “ARCHES Project” or similar.

Primary Contact Information: Who you want all correspondence to go to (this doesn’t have to be the PI, it can be a manager, administrator or other designated person)

Application Forms

- At any time you are able to save the form.
- When you’re complete and ready to submit the form, ensure you select “Mark as Complete”. If it is not selected then you will not be able to submit your application.
  - If you are unable to select Mark as Complete, then there is a required field not filled out properly.
  - Editing the form after “Mark as Complete” is selected is still possible.
### Score Card:
This is the form allows for reviewers to review the application as a whole instead of section by section.

Please enter the name of the Primary Investigator. The working title of project is how you will refer to the project. This can be the full title of the project if it is short enough.

### Request for Additional Funding:
Please read the information carefully and answer accordingly. This information will be considered with the rest of the application during the review process.

<table>
<thead>
<tr>
<th>Summaries: No pictures can be added to these sections. The software will time out after 20 minutes, so we recommend typing the summaries out separately and copy and pasting.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Summary</td>
</tr>
<tr>
<td>State the application’s broad, long-term objectives and specific aims with relevance to and how project meets ARCHES goals. The project summary is a succinct and accurate description of the proposed work and should be able to stand on its own (separate from the application). This section should be informative to other persons working in the same or related fields and understandable to a scientifically literate reader. Avoid both descriptions of past accomplishments and the use of the first person. Please be concise.</td>
</tr>
<tr>
<td>Project Narrative</td>
</tr>
<tr>
<td>Describe the project’s relevance and its contribution to fundamental health knowledge and innovation. The narrative should be, at most, three sentences. For example, applicants can describe how, in the short or long term, the project would contribute to fundamental knowledge about the nature of simulation/innovation and/or the application of that knowledge to enhance health, lengthen life, and reduce illness and disability.</td>
</tr>
<tr>
<td>Executive Summary</td>
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<tr>
<td>Briefly describe how the design of the project addresses a problem and/or a gap. Explain the methods for verifying that the stated aims are met. A simple “gap statement” or “problem to be solved” may be useful. Be sure that the executive summary reflects the key focus of the proposed project so that the application can be appropriately categorized. Be sure to mention how the proposed solution addresses the problem and/or gap. If there is a particular type of patient or practitioner targeted by the project, mention that here as well.</td>
</tr>
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</table>

### Lead Investigator and Organization Information:
Note that Organization information is the recipient’s main organization and not department. Department can be provided on Address line 1. EIN/TIN can be left blank.

### Mandatory Information:
Enter the appropriate information of the project team members in the table. Carefully read all of the questions and answer accordingly.

**Data Sharing Plan** (if applicable): Is the proposed data sharing plan or the rationale for not sharing research data reasonable?

**Protection of Human Subjects from Research Risk:** The involvement of human subjects and protections from research risk relating to their participation in the proposed research will be assessed by an Institutional Review Board, however; it is important to consider level of risk with application.
Guidance for File upload form.

**Application:**

No more than 6 pages (less references).

**Research Plan: Specific Aims**

*In this section answer the question: What are the specific aims?*

List the specific aims of the proposed projects as actions to be taken. A list of bullet points is acceptable. If they are sequential, place them in temporal order. If non-sequential, place them in priority.

**Research Strategy: (maximum of 3000 words)**

*This section should be more expansive and further describe the problem to be addressed by the proposed solution and how the aims will be measured and met. Please note, the grant application will be assessed by the three criteria. Funding is prioritized based on the following three components.*

<table>
<thead>
<tr>
<th>Relevance/Significance</th>
<th>Does this project address an important problem? If the aims of the application are achieved, how will scientific knowledge or clinical practice be advanced? What will be the effect of these studies on the concepts, methods, technologies, treatments, services, or preventative interventions that drive this field?</th>
</tr>
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<tbody>
<tr>
<td>Impact/Innovation</td>
<td>Is the project original and innovative? For example, does the project challenge existing paradigms or clinical practice; address an innovative hypothesis or critical barrier to progress in the field? Does the project develop or employ novel concepts, approaches or methodologies, tools, or technologies for this area?</td>
</tr>
<tr>
<td>Approach</td>
<td>Are the conceptual or clinical framework, design, methods, and analyses adequately developed, well-integrated, well-reasoned, and appropriate to the aims of the project? Does the applicant acknowledge potential problem areas and consider alternative tactics?</td>
</tr>
</tbody>
</table>

Expand upon your project concept and explain your Approach to the reviewers. The following content is therefore recommended:

*Introduction/Background:* State what is currently known in the specific field. This part should not be very long (3-5 sentences) but it should ground the reader in the subject of your research. Provide the reviewer with only the necessary details to understand why you are proposing the work. Remember to be concise and focused on only the key points.

*The problem:* The gap in knowledge is the piece of information that is not known. Clearly state the gap in knowledge that needs to be addressed. Convey that your project will fill this gap using the funding that you are requesting.

*The critical need:* This need is important to increase medically relevant knowledge or improve health care. The critical need is the reason your proposal should be funded. Emphasize the significance of the problem you are trying to address. Additionally, it should be clear in this paragraph that your research proposes the next logical step to advance the field.

*Introduce solution(s):* In this paragraph, your goal should be to introduce the solution that fills the gap in knowledge. It is critical to convince your reviewers that you (and your colleagues) have the solution to address the current knowledge gap and the expertise to accomplish this solution. Keep your wording simple, relevant, and to the point.

You will want to address specific aims both short and longer term (as applicable).
Hypothesis and Proposal Objectives: Your proposal should contain both of these components, depending on the goal. State your central hypothesis clearly, specifically, and with simple language. You want to demonstrate to the reviewers that you have a hypothesis-driven proposal that is testable. Describe how your project addresses the critical need, and clearly state the proposed solution. In general, avoid vague hypotheses because it will be unclear to the reviewers what you expect to determine with the proposed research.

Rationale: Explain how you arrived at your central hypothesis (for example, using past studies and published literature). Briefly, state what your project’s completion would make possible (e.g., new simulators), and tie it to the funding entity’s mission.

Qualifications: Briefly state why the experimental design and your team are the best to accomplish the project goals. You can mention factors such as your preliminary data, personnel qualifications, laboratory equipment, etc., but it is important to keep it concise.

Innovation: Plainly state what is innovative about your project. What would completion of this proposal bring to the field that is not present currently? Expected Outcomes: Specifically state your expected outcomes for this project. What do you expect to see at the completion of each aim? Include this information only if you have not placed it in the Aims. In addition, you may either embed or attached supplemental imaging or other diagrams to support your statements.

Impact: State how your project would help those who need it. Include a broad impact statement about how your proposal will benefit the people or other subjects that you mentioned in the opening paragraph.

Budget justification:
Here answer the question: Is the proposed budget reasonable and is the requested period of support appropriate in relation to the proposed research?

Facilities:
In these two sections indicate what if any facilities are required from the University and/or Jump respectively (250 words each)

Budget:
The required template is at the bottom of the form and on the ARCHES website.

Biosketch:
There is also an example of a biosketch outline at the bottom of the form.