

## 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 details of the RFP and then proceed to the “Apply” button when ready:

**Fall 2018 ARCHES RFP** Print Help

**Opportunity Information**

**Title:** Fall 2018 ARCHES RFP

**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 College of Engineering at Urbana-Champaign, members of faculty of the University of Illinois College of Medicine at Peoria, and/or OSF Healthcare System clinicians. The goal of this select competitive grant is to improve healthcare quality and patient safety through the combined efforts of engineers and clinicians. UIUC investigators please contact Antonio Michalos, M.D., M.S., Associate Director, University of Illinois at Urbana-Champaign - (217) 244-4563 e-mail: michalos@illinois.edu for questions regarding preparation of a responsive application. OSF investigators please contact Jessica Svendsen, BA, CCRC, Manager ARCHES Program, OSF Healthcare- (309) 308-9536 email: jessica.d.svendsen@osfhealthcare.org

**Fund Activity Category:** Science and Technology and Other Research and Development

**Category Explanation:** The goal of this program is to use our combined expertise in the broad areas of Sensing Devices, Materials and Mechanics, Health Information Technologies, Simulation, Human Factors/Industrial Ergonomics and Design for executing collaborative projects which could be used for and directed to simulation in training of the healthcare practitioners of tomorrow. During the current cycle we encourage proposals in the following areas: The training and evaluation of undergraduate medical students The training and evaluation of graduate medical education learners ("interns" and "residents") Inter-professional education incorporating the above Distance learning solutions The proposed research should address the needs of clinical simulations and training, and be amenable to transitional activities, which lend themselves to full deployment and commercialization of the outcomes for use in medical training. 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). Proposals must identify two Co-Investigators: one from the University of Illinois College of Engineering at Urbana-Champaign and one from among the clinicians providing care within OSF Healthcare System.

- 2) Register as a new user OR login with your existing credentials (i.e., username/password).
  - \*Note: OSF employees, you may already have credentials for Amplifund. To verify, use your OSF email and password created on sign up. \*\*\*Note for OSF affiliates: You cannot be logged into the system for grant management and ARCHES at the same time.

**Amplifund Login**

Email:

Password:

Remember my email [Forgot your password?](#)

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.

**Create New Account**

[If you have already registered, please click here to login](#)

**User Information**

Email Address\*

Role: Administrator

Password\*

Confirm Password\*

**Contact Information**

First Name\*

Middle Name

Last Name\*

- 3) Once you have logged in or registered, please accept the terms and hit “apply”
  - ✓ Begin completing each section of the application. If you have already completed items required in “Project Information”, PDF the file and attach to “Supplemental Documents”

- ✓ Application Name = recommend using title of your project
- ✓ 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)

4) Form Completion, the following items are required for a complete application:

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.

Project Information

Supporting Documentation (Budget, Biosketches, References, etc)

All persons listed in Team Members must have a biosketch included in the format provided. Please be sure to combine biosketches prior to upload. If for any reason you have difficulty, you can email the files to administration staff and they will upload to your application.

Appendices can be referred to throughout sections of the application to avoid embedded image, document or other issues. *Example: "Some experts have created a working table of events that help to define this condition in greater detail (Appendix A)".* You can then attach the file with the same name for easier review.

Once your application is complete, you can have team members review the draft and then "mark as complete" prior to submission.

### Guidance on Completion of Project Information:

#### Project Summary:

**In this section answer the question: How does this project meet the current Jump ARCHES goals? (250 words maximum) [please review [Appendix A](#)]**

The project summary is a succinct and accurate description of the proposed work (perhaps it is a simulator/simulation and or a new device) 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.

State the application's broad, long-term objectives and brief specific aims, making reference to the health relatedness of the project (i.e., relevance to **and how the project meets ARCHES goals**).

#### Project Narrative:

**(250 words maximum)**

**In this section answer the question: Why is this project important?**

Describe the relevance of this project to healthcare and wellness in, 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.

**Executive Summary:**  
**(250 words maximum)**

**In this section answer the question: How is the proposed solution addressing a solvable problem?**

Briefly describe how the design of the project addresses a gap and the methods proposed for verifying that the stated aims are met. A simple “gap statement” or “problem to be solved” may be useful.

Be sure that the project 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 stated gap. If there is a particular type of trainee/learner, mention that here as well.

**Research Plan: Specific Aims**  
**(maximum of 400 words)**

**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.**

1. Approach = 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?
2. Impact/Innovation = 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?
3. Relevance/Significance = 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?

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 your 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 UI or Jump respectively (250 words each)**

**Special Form: Budget template:**

This is the detail indicating what funds are requested by type and why. It is a table of costs.

**Other sections of the application are fairly self-explanatory. Additional information may be needed to support your application. Among these may be:**

**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.

**Appendix A: 2018 Jump ARCHES goals:**

Fall 2018 ARCHES RFP

Description

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The goal of this select competitive grant is to improve healthcare quality and patient safety through the combined efforts of engineers and clinicians.

In order to meet the goal of this program, investigators will use the combined expertise residing within the disciplines of engineering and medicine in the broad areas of Sensing Devices, Materials and Mechanics, Health Information Technologies, Simulation, Human Factors/Industrial Ergonomics and Design for executing collaborative projects which could be used for- and directed to- simulation in training of the healthcare practitioners of tomorrow.

During the current cycle we encourage proposals in the following areas:

- The training and evaluation of undergraduate medical students
- The training and evaluation of graduate medical education learners ("interns" and "residents")
- Inter-professional education incorporating the above
- Distance learning solutions

The proposed research should address the needs of clinical simulations and training, and be amenable to translational activities, which lend themselves to full deployment and commercialization of the outcomes for use in medical training.

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].

Proposals must identify two Co-Investigators: one from the University of Illinois College of Engineering at Urbana-Champaign and one from among the clinicians providing care within OSF Healthcare System.