The INSPIRE network is excited to announce two funding opportunities for investigators in pediatric simulation-based research.

The International Network for Simulation-based Pediatric Innovation, Research and Education was established in 2011 from a group of simulation-based pediatric researchers from a variety of disciplines looking to improve collaboration, mentorship, and productivity. Our mission is to improve the delivery of medical care to acutely ill children and ultimately improve survival from acute illness in the pediatric population.

INSPIRE is united in its desire to improve performance and reduce errors in patient care via rigorous pediatric simulation-based research using all types of simulation tools (computer screen-based simulators, task trainers, human patient simulators, virtual reality, hybrid devices, and standardized patients). To further these goals, INSPIRE is proud to announce our first research funding program with two awards.

1. **The INSPIRE novice researcher award**- 1 to 2 one-year awards with a total budget of $10,000 per year. These projects must be simulation-based and should fall within one of INSPIRE's core themes (technology, human factors, acute care/resuscitation, patient safety, debriefing, IPE/teamwork/communication, procedural and psychomotor skills). Award proposals will be due June 30, 2018.

2. **The INSPIRE Clinical Outcomes Strategically Focused Award** - One project of 2-3 years duration with a maximum

budget of $180,000. These projects must be simulation-based and include clinical outcome measures. Letter of Intent will be due March 30, 2018

The INSPIRE Clinical Outcomes Strategically Focused Award – Letter of Intent and Full Proposal Instructions

Overview and Eligibility:

The INSPIRE Scientific Review Committee is providing funding for one project of 2-3 years duration with a total budget of $180,000. These projects must be simulation-based **and** include clinical outcome measures. For the purposes of this award, clinical outcome measures are defined as measurements of real patient outcomes in the clinical environment. These include both process of care measures (adherence to clinical guidelines, time to administration of drug, time to critical intervention, etc.) and patient outcomes (ROSC after cardiac arrest, mortality, etc). An example of an eligible project would be a prospective study examining the effect of just-in time ECMO simulations on time to cannulation and neurologic outcomes in single-ventricle congenital heart patients' status post initial palliative surgery. Quantitative, qualitative or mixed methods research approaches are equally welcome.

This award is open to all investigators in INSPIRE, but priority will be to research teams with prior experience in simulation-based research that are able to demonstrate adequate pre-existing infrastructure to complete the project. We are seeking studies that are both novel and have strong potential for a positive impact on healthcare delivery processes and outcomes. Preference will be given to those proposals addressing INSPIRE's areas of primary focus (technology, human factors, acute care/resuscitation, patient safety, debriefing, IPE/teamwork/communication, procedural and psychomotor skills).

Only one project submission will be accepted from each Principal Investigator.

Please note as well that all INSPIRE members involved with the selection process for this award 1) cannot apply as a principle

investigator and 2) must recuse themselves from any discussions involving proposals on which they are named as co-investigators.

Timeline:

Call for proposals was announced at the January 2018 INSPIRE meeting at IMSH.

Letters of Intent (LOI) will be due March 30, 2018 at midnight EST. These will be reviewed by the award committee and those applicants with highly ranked LOI's will be invited to submit a full proposal. Instructions for preparing this proposal will be provided at that time.

Investigators will be notified about request for full proposals on or before May 15, 2018, and completed applications will be due on September 1, 2018.

Award Notification and Funding:

Awardees will be notified by October 1, 2018 and formally announced with a brief update from the recipient at the January 2019 INSPIRE at IMSH meeting. Funds will be disbursed within one month of awardee notification.

LOI Submission Instructions:

Please submit all required documents in one PDF format and in ONE email to inspiresimulationnetwork@gmail.com, with "INSPIRE Clinical Outcomes Award" in the subject line and the principal investigator name in the body of the email. You will receive a confirmation email when your documents have been received.

Project Duration:

The project's stated aims must be completed within three years. Extensions will be considered on a case by case basis, and must be requested in writing no later than two months prior to the expiration of the award.

LOI Requirements and Format:

The LOI must be no more than 3 pages. Please use single-spaced, 12 point Arial font and 1 inch margins on all sides in a regular 8.5" by 11" or A4 paper. An additional 2-page budget/budget justification is also required. This does not count against the 3-page limit.

The letter should address the following questions:

1. **What do you want to do** (central hypothesis/specific objectives)?
2. **Why this is a reasonable thing to do** (review of previous work done on the subject matter, rationale)?
3. **Why this is important** (new knowledge to be obtained, improvements to health which will result)?
4. **How you are going to do it** (work plan, timelines, brief descriptions of methods, analysis, and a clear description of clinical outcomes)?
5. **Why you/your group should do it** (relevant prior experience and skills, collaborators for technical gaps, preliminary data showing feasibility)?

Budget:

2 pages   Please use the 1-page NIH PHS398 Budget form downloadable at

http://grants.nih.gov/grants/funding/phs398/fp4.doc

A 1-page budget justification should also be included to explain how the award will be spent to ensure that adequate support and time is dedicated towards the completion of the stated goals. Also indicate any funds or in-kind resources that will be provided by the institution or other entities.

The investigator may apply the award funds toward any research-based salary and stipends for faculty/staff, postdoctoral

trainees/fellows, technical support staff (including statistician, data analyst) required. Travel, membership fees, and conference registration fees can be included. Please note, however, that this award cannot be used to cover any indirect costs. A sample budget can be downloaded at the following link.

INSPIRE Budget Example Download

Full Application Submission Instructions:

Please submit all required documents in one PDF format and in ONE email to inspiresimulationnetwork@gmail.com, with "INSPIRE Clinical Outcomes Strategically Focused Award Application" in the subject line and the principal investigator name in the body of the email. You will receive a confirmation email when your documents have been received.

Project Duration:

The project's stated aims must be completed within three years. Extensions will be considered on a case by case basis, and must be requested in writing no later than two months prior to the expiration of the award.

Proposal IRB Requirement and Human Subject Protection:

All proposals submitted must include evidence of submission to the Institutional Review Board (IRB) or Ethics Board from all institutions where the proposed work will take place, regardless of whether human subjects are used. Approval from IRB or Ethics Board is not required at the time of application, but will be required before funds are given. For human subjects usage definitions guidelines, please refer to the following NIH regulatory documents:

https://www.hhs.gov/ohrp/regulations-and-policy/regulations/45-cfr-46/index.html#46.102

The following online questionnaire may also be of assistance in determining whether a given proposal qualifies as human subjects' research.

https://humansubjects.nih.gov/questionnaire

Proposal Content Instructions:

Note: Please submit only requested documents within page limits and follow instruction carefully.

Nonconforming applications will not be forwarded to reviewers.

Proposal Format:

The primary award proposal itself (including the Cover Letter, Executive Summary, Research Plan, and Budget) must be no more than 9 pages (though fewer are acceptable). In addition to this, further supplemental information is required. This information includes a Biosketch of the Primary Investigator, a brief description of Resources available at the site, and any additional Supporting Documents.

Proposal format in general follows United States National Institute of Health format using PHS398 forms. Please use single-spaced, 12 point Arial font and 1 inch margins on all sides in a regular 8.5" by 11" or A4 paper. Each line should have no more than 15 words. All pages must be numbered and include a footer with the Principal Investigator's name.

Description of Primary Award Application Components:

Cover Letter:

1 page: Please use NIH PHS398 Cover Letter form downloadable at http://grants1.nih.gov/grants/funding/phs398/fp1.doc to format.

Project Executive Summary:

1 page. Max: 450 words

This important section serves as a succinct and accurate project description with clear statement of the project's long-term objectives and specific aims. It should explain how this proposal reflects the mission of INSPIRE. Describe concisely the research design and methods for achieving the stated goals.

Research Plan:

Max: 5 pages

Specific Aims and Hypotheses:

List the goals and objectives of your study, (i.e., to test the hypothesis of your research questions). The hypothesis must be clearly stated for quantitative research. For qualitative research, a hypothesis is not necessary, but guiding research questions should be stated instead. Please note that this component of the research plan should not exceed 1 page.

Background and Significance:

Include a succinct overview of the field to be studied, including what is known about the topic and what remains to be explored. In particular, describe how and why the proposed research will advance understanding in the field, bridge gaps in knowledge, and have a positive impact on healthcare delivery, processes and outcomes. Of note, the background literature should include any supporting theoretical or conceptual framework if dictated by the specific research areas.

Methods:

In general, describe the methods that will be used to achieve the specific aims listed above. It is often useful to organize an award proposal by listing each aim in the methods section and then delineating the methods to be used to accomplish that specific aim. It is important to list and discuss proposed inclusion and exclusion criteria of subjects, outcome measures that are well defined, statistical methods, anticipated sample size, data collection and management. Be as specific as possible without unnecessary detail.

Project timeline:

List important sequential steps in the timeline that will allow successful completion of the entire proposed project of 3-year duration. This should include a yearly progress report.

Discussion:

This should include anticipated benefits to pediatric simulation science and how the knowledge acquired during the study could be transferred to improvements in healthcare delivery, processes and/or patient outcomes. Project limitations and contingency planning should be included as well.

Budget:

2 pages: Please use the 1-page NIH PHS398 Budget form downloadable at

http://grants.nih.gov/grants/funding/phs398/fp4.doc

Important: Please note that this award does not cover indirect costs, and they thus should not be requested in the budget.

A 1-page budget justification should be included to explain how the award will be spent to ensure that adequate support and time is dedicated towards the completion of the stated goals. Please indicate any funds or in-kind resources that will be provided by the institution or other entities.

The investigator may apply the award funds toward any research-based salary and stipends for faculty/staff, postdoctoral trainees/fellows, technical support staff (including statistician, data analyst) required. Other expenses such as travel, membership fees, and conference registration fees are allowed, but justification will be required. A sample budget can be downloaded at the following link.

INSPIRE Budget Example Download

Description of Further Supporting Documents:

Biosketch:

Max 3 pages: Please use NIH Biosketch form as a template. The form is downloadable at

https://grants.nih.gov/grants/forms/biosketch.htm

Biosketches should be no longer than 3 pages, and should only contain information relevant to the application. A sample can be downloaded at the following link.

INSPIRE Biosketch Example Download

Resources:

Max: 1 page

This page allows the assessment of the capability of the organizational resources available to perform the project proposed. Please include a brief description of the relevant facilities and resources that are directly applicable to the PI (i.e., space, computers, simulators, administrative support, etc). Specific focus should be given to any previous collaborations by the investigators and infrastructure already in place to complete this research. Do not include a detailed description of the institution's intellectual

environment.

Supporting Documents:

Only 3 items are to be included in supporting documents:

1. Bibliography: Include the references of publications relevant to proposed study Using PubMed format:

   http://www.nlm.nih.gov/bsd/policy/cit_format.html

2. Institutional Review Board approval or copy of submission letter. In situations where IRB submission is preferred after the notification of award, the approval letter must be submitted before the actual funding takes place.

3. Letter of Support: Letters of support are required from all members of the study team. Applicants are encouraged to include letters from their department chair or program director, or simulation institutions (if present) addressing their level of support and available resources to help with the research. One page each.

Scoring of Applications:

Applications will be scored based on the following criteria: Significance, Investigators, Innovation, Approach and Environment.

Progress Reports and Dissemination:

PIs are required to submit yearly progress report and a final report once the study is complete.   Awardees are also expected to present their yearly results at an INSPIRE meeting. INSPIRE must be explicitly acknowledged on all forms of dissemination (abstracts, manuscripts, posters, etc.) The use of official INSPIRE templates is strongly encouraged. Finally, awardees are encouraged to leverage INSPIRE resources and presentations in future budget or

program proposals resulting from the completed work.