



NATIONAL SCIENCE FOUNDATION
2415 EISENHOWER AVENUE
ALEXANDRIA, VIRGINIA 22314

NSF 18-043

Dear Colleague Letter: Stimulating Educational Neuroscientific Research through the Integrative Strategies for Understanding Neural and Cognitive Systems (NCS) program

January 31, 2018

Dear Colleagues:

The [Integrative Strategies for Understanding Neural and Cognitive Systems \(NCS\) program](#) supports projects that provide new empirical insights, expand theoretical understanding, facilitate development of computational and bioengineered systems, promote new educational approaches, and generate new hypotheses that connect physical, biological, and cognitive mechanisms. This solicitation is central to one of NSF's Big Ideas for Future Investment, Growing Convergent Research at NSF, which emphasizes the fostering of deep integration across disciplines inspired by powerful scientific questions and pressing societal needs.

With this Dear Colleague Letter (DCL), the National Science Foundation (NSF) seeks to stimulate work in educational neuroscience in the NCS program, noting that advances in neural systems can have significant implications for research on education. NCS considers education to include learning in any context (e.g., from formal settings such as schools or workforce training programs to informal settings such as in museums, homes, or on-line environments), by people at any age, and concerning any content material appropriate for NSF. As NCS is a basic research program, the output of proposed projects need not have a direct and immediate impact on practice. Rather, the short-term goal of projects should be to advance the research literature. A broader impact of the projects should be to help foster the growth of such a multidisciplinary community of researchers.

NCS projects must endeavor to advance foundational knowledge in one or more of the following focus areas: 1) *Neuroengineering and Brain-Inspired Concepts and Designs*; 2) *Individuality and Variation*; 3) *Cognitive and Neural Processes in Realistic, Complex Environments*; and 4) *Data-Intensive Neuroscience and Cognitive Science*. Please see the solicitation for more details about requirements for proposals submitted to NCS. NSF strongly encourages early career faculty to submit proposals.

NSF is also interested in supporting capacity-building proposals through conference proposals and Early Concept Grants for Exploratory Research (EAGER) proposals.

Conference proposals seek support to conduct highly-focused conferences or workshops on topics in educational neuroscience related to the research goals of the NCS program. Investigators are encouraged to propose conferences or workshops as one way to diffuse the research-based knowledge. The involvement of, and dissemination to, education researchers is an important aspect of this work. Information about preparing Conference Proposals is contained in the [NSF Proposal & Award Policies & Procedures Guide \(PAPPG\) Chapter II.E.7](#).

The **EAGER** proposal type may be used to support exploratory work in its early stages. Interested investigators must contact an NCS program director whose expertise is germane to the proposal topic prior to submission of an EAGER proposal. Information about preparing EAGER proposals is contained in the [PAPPG Chapter II.E.2](#).

CORE+ SUPPLEMENTS [Computer and Information Science and Engineering (CISE), Education and Human Resources (EHR), and Engineering (ENG) Directorates] may be used to provide additional support to existing funded projects in the participating directorates to enable activities that will connect those projects to significant new integrative opportunities in neural and cognitive systems.

The FY 2018 deadline for submission of Letters of Intent to NCS for the FOUNDATIONS proposal class is February 20, 2018. Full FOUNDATIONS proposals are due April 17, 2018. Conference and EAGER proposals may be submitted to NCS at any time throughout the year.

Cognizant NSF Program Directors on the NCS management team are:

- CISE: Ken Whang, kwhang@nsf.gov;
- EHR: Gregg Solomon, gesolomo@nsf.gov;
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Sincerely,

James Kurose, Assistant Director, CISE
William J. (Jim) Lewis, Assistant Director (Acting), EHR
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