



National Science Foundation
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Dear Colleague Letter: Introducing Science Across Virtual Institutes (SAVI)

Promoting international collaborations in STEM (science, technology, engineering, and mathematics) research and education is a fundamental element of NSF's mandate and NSF has been an unfaltering advocate throughout its 61-year history. With this letter, I am pleased to highlight an important NSF-wide opportunity for expanding NSF's slate of international activities: Science Across Virtual Institutes (SAVI).

SAVI is an innovative concept to foster interactions among scientists and educators around the globe based on the principle that excellence in STEM research and education exists in many parts of the world, and that scientific advances can be accelerated by scientists, engineers, and educators working together wherever they are. SAVI focuses on interactions between cohesive teams of researchers across national borders and takes advantage of existing U.S. and foreign investments in frontier research by leveraging complementary intellectual strengths and sharing unique research infrastructures. Virtual institutes will serve as research hubs in which new ideas originate, multidisciplinary research is fostered, diversity is valued, and long-term professional networks are developed between U.S. researchers and students and their international counterparts.

OBJECTIVES

The primary objective of SAVI is to bring together leading STEM researchers/educators from different countries, both physically and virtually, to work collaboratively on problems of mutual interest, building on relationships initiated by NSF-supported teams of researchers. NSF will support U.S. participants, while their international partners will be supported by their own national or regional funding source.

NSF intends to accomplish the following specific objectives through SAVI:

- Support collaborative research initiated by STEM researchers/educators at the frontiers in all fields supported by NSF;
- Stimulate networking among NSF-funded U.S. researchers with complementary strengths and common interests to form coherent research teams, and become virtual institutes;
- Facilitate STEM research and education partnerships among NSF-funded research centers/institutes (both virtual and real) and their international counterparts;
- Provide students, postdocs and junior faculty opportunities for research experiences abroad that lead to long-lasting international collaborations; and
- Strengthen connections between NSF and counterpart STEM research funding organizations around the globe by leveraging each other's investments in fundamental research and human resource development.

SCOPE OF SAVI PROJECT ACTIVITIES

NSF will support activities that are designed to meet the SAVI objectives described above. Examples of

activities, which can be carried out virtually or physically, include:

- Joint research activities that will advance science, engineering, and STEM learning more effectively than individual national teams working independently;
- Joint meetings of SAVI team members that promote synergy;
- Workshops, advanced study institutes, and symposia;
- Joint seminar series, college-level courses;
- Co-mentoring of graduate students and postdoctoral fellows;
- Long-term research exchange visits for junior faculty; and
- Opportunities for focused summer research experiences abroad for U.S. undergraduate students.

The above list is illustrative, and not meant to be exhaustive. Any balanced and mutually beneficial activities that contribute to meeting the SAVI objectives will be considered. The SAVI Website (<http://www.nsf.gov/savi>) describes examples of three virtual institutes that have served as pilot projects, representing three distinct SAVI models.

SAVI is not a stand-alone program. Proposals to support SAVI activities can be submitted as a supplemental funding request to an existing award, or as a full proposal to an existing, active NSF program that best fits the proposed subject matter. Such full proposals should be submitted in accordance with the program's regular target or deadline dates. All NSF research Directorates and Offices, except for the Office of International Science and Engineering (OISE), will accept SAVI proposals. OISE will coordinate and support SAVI activities across NSF; however, it will not accept SAVI proposals directly. Each Directorate and Office will process SAVI proposals in a manner consistent with its established proposal review practices. Potential proposers should contact an appropriate Directorate or Office representative listed on the SAVI website (<http://www.nsf.gov/savi>) prior to proposal submission.

Teams of investigators with active NSF awards are eligible to apply. A team can be: 1) an existing NSF center/institute awardee; or 2) a virtual center/institute consisting of multiple investigators holding individual awards with common research/education interests. A single individual representing the team must be designated as the SAVI coordinator and his/her institution must serve as the U.S. lead institution responsible for management of a SAVI award. At the time of proposal submission, the U.S. team's international partners should be identified and apply for funding to an appropriate funding organization in their country. SAVI partnerships may be bi-lateral or multilateral.

SAVI funds are meant to serve as "glue" to facilitate building of solid foundations for virtual institutes. Depending on the extent of SAVI-like activities already supported by existing awards and the size of proposed virtual institute, the budget of a SAVI award is expected to vary from \$50,000 to \$400,000 per year for up to five 5 years. NSF funds will support only the U.S. participants. SAVI awards are meant to facilitate initial catalytic efforts, and NSF and our international counterpart funding organizations expect a successful SAVI to become a self-sustainable virtual institute after SAVI funding has ended.

NSF and our international funding counterparts envision virtual institutes that connect researchers with common interests and goals across national borders, and that have significant impact to the advancement of global STEM research and education. We look forward to receiving creative and imaginative SAVI proposals that will realize this vision.

Sincerely,

Subra Suresh
Director