AGENCY: National Science Foundation

PROGRAM: Software Infrastructure for Sustained Innovation S212 (SI2-S2I2) (NSF 15-553). Complete Guidelines can be found at Software Infrastructure for Sustained Innovation

OBJECTIVES: Scientific Software Innovation Institutes (S²I²) will focus on the establishment of long-term hubs of excellence in software infrastructure and technologies, which will serve a research community of substantial size and disciplinary breadth. It is expected that outcomes of S²I² go beyond the software itself and also include the infrastructure and process by which software is developed and sustained in response to, and to successfully enable, transformative new science. These institutes will provide expertise, processes and architectures, resources, and implementation mechanism to transform computational science and engineering innovations and community software into robust and sustained software infrastructure for enabling science and engineering, which in turn will transform research practices and productivity. S²I² proposals are expected to bring together interdisciplinary teams of scientists, engineers, and educators together with software engineers and technologists.

An S²I² proposal must describe the vision and rationale for the proposed institute as a multi-faceted enterprise with credible connections to the community it serves. The proposal must make a compelling case for the institute's need and scope, and state its anticipated impact on the target communities. Furthermore, in addition to innovating in the domain (or domains) and the computational and computer science aspects of the software, the proposals must also focus on the required processes and services necessary to support the community. Institutes are encouraged to leverage existing infrastructure investments. Where appropriate, involvement with industry and government laboratories, and partnering with international efforts are encouraged.

S²I² awards are subdivided into Conceptualization and Implementation Awards which are described in the solicitation.

Implementation topics in this solicitation are:

i. Chemical and Materials Research Software Institute (CMRSI)

ii. Science Gateways Software Institute (SGSI)

ELIGIBILITY RESTRICTIONS: UB may submit only one proposal of each class (Conceptualization, CMRSI implementation, SGSI Implementation).
**FUNDING INFORMATION:** The estimated number of awards are between 3 to 8. Up to 5 Conceptualization awards, 1 SGSI award, and 2 CMRSI awards are anticipated. The anticipated funding amount is $13,500,000.

**INTERNAL REVIEW PROCESS:** Due to the limited number of applications, if you or your colleagues are interested in applying, please submit a letter of intent to Dr. Kenneth Tramposch at ovpr.limitedsubmission@research.buffalo.edu by **April 6, 2015**. The letter of intent should include a project description (5 page limit) and biosketches of the Co-Investigators. The description should address: The overall rationale for the envisioned institute, its mission, and its goals; A set of software issues and needs and software sustainability challenges faced by a particular, well-defined yet broad community (that is clearly identified in the proposal) that can best be addressed by an institute of the type proposed, a compelling case these are the most important issues faced by the community, and that these issues are truly important; and a clear and compelling plan of activities that shows how the proposed institute will address these issues and needs by involving (and leveraging) the community, including its software developers, in a way that will benefit the entire community.