



To: Distribution List

From: Faculty Research Development Office (FRDO)
Office of the Vice President for Research

Subject: Limited Competitions: NSF Scalable Nanomanufacturing for Integrated Systems (SNM-IS), NSF 16-604

Date: November 4, 2016

UNM Researchers,

This is a call for preproposals for the NSF Scalable Nanomanufacturing for Integrated Systems (SNM-IS) program announcement.

The National Science Foundation (NSF) announces a 7th year of a solicitation on collaborative research and education in the area of Scalable Nanomanufacturing for Integrated Systems (SNM-IS). This solicitation is in response to and is a component of the NNI Signature Initiative: Sustainable Nanomanufacturing - Creating the Industries of the Future (<http://www.nano.gov/NSINanomanufacturing>). Many nanofabrication techniques have demonstrated the ability to synthesize small quantities of nanomaterials and nanostructures for characterization and evaluation and simple nanodevices for analysis and testing purposes. The emphasis of the Scalable Nanomanufacturing for Integrated Systems (SNM-IS) solicitation is on research in new nano-scale manufacturing concepts and integration methods to realize complex integrated systems based on nanotechnology. The research will focus on overcoming the key scientific and engineering barriers that prevent the translation of laboratory-scale discoveries in nano-enabled integrated systems to an industrially relevant scale, reliably, affordably and within sustainability and environmental, health and safety (EHS) guidelines. The goal of the SNM-IS solicitation is to study and formulate the fundamental principles of scalable nanomanufacturing and integration for nanotechnology-based integrated systems towards the eventual manufacture of useful nano-enabled products.

The SNM-IS solicitation seeks proposals that investigate novel scalable nanomanufacturing and integration methods for nano-enabled integrated systems with a clear commercial relevance. Proposals should consider addressing key aspects of the nanomanufacturing value chain comprised of nano-scale buildingblocks → complex nanomaterials and nanostructures → functional components and devices → integrated sub-systems and systems.

NSF expects to make 5 to 8 awards, in the range of \$250,000-\$375,000 per year for four years, depending on the scope of the work proposed with an anticipated start date of July 2017. See the following link for further details: https://nsf.gov/publications/pub_summ.jsp?WT.z_pims_id=505265&ods_key=nsf16604. The deadline for full proposals to the agency is January 13, 2017.

This is a limited competition; each institution may submit no more than one (1) proposal on which it is the lead organization in response to this solicitation. (The same organization may be a collaborative partner in any number of other multi-organization group proposals in which it is not the lead.) **Please submit your 3-page**

preproposal (plus budget and CV; all documents in a SINGLE PDF file, 11 point font) by NOON on Monday, November 21, 2016 to limited@unm.edu with the subject line indicating: NSF SNM IS - your name. No late submissions will be considered. The pre-proposal should address the major points that will be included in the proposal narrative, including: 1. A description of the project's potential for significant contributions to the advancement of nanomanufacturing. 2. Address specific barriers to manufacturability at large-scale or low-volume mass customization for a nano-based integrated system and the proposed process and integration methods to overcome these barriers. 3. A discussion of environmental, societal and education implications of the project and a management plan for coordinating project activities and attaining key project milestones. 4. Describe the roles to be played by the participating organizations, the responsibilities of the managing PI, the activities of associated partners, and arrangements for the networking, exchange, and dissemination of data and the translation of results to organizations with experience in scale-up and integration to commercial scale. 5. Details on the education, training, and any outreach activities planned as part of the project should be included.

If you are affiliated with HSC, please contact Corey Ford at 272-6950 for more information.