Small Business Innovation Research (SBIR)
Phase I Solicitation FY-2014: NSF 13-546

Small Business Technology Transfer (STTR)
Phase I Solicitation FY-2014: NSF 13-547

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National Science Foundation

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The overview webinar presentation is available at:
Award Information

• Type of Award & Award Amounts
  – SBIR: 6 month; not to exceed $150,000
  – STTR: 12 months; not to exceed $225,000
  – SBIR and STTR Phase II not to exceed $750,000
  – Fixed-price grants
  – SBIR characteristics:
    • Two thirds of the work must be done by the small business
    • Balance of work may be done by others
  – STTR characteristics:
    • Minimum of 40% of research done by the small business
    • Minimum of 30% of research done by research institution.
Eligibility Information

Organization Requirements:

– Proposals only may be submitted by companies that qualify as a small business
  • For-profit business
  • Fewer than 500 employees
  • Located in the US
  • >51% owned and controlled by US individuals (>50% ownership by VC or private equity firms and hedge funds is not allowed for NSF funding)

– No more than 2 proposals per company during this cycle (cycle includes both SBIR 13-546 due June 11 and STTR 13-547 due June 13)
Eligibility Information

• **Principle Investigator (PI) Limit:**
  – Primary employment of the PI must be with the small business at the time the award is made
    • Defined as 51% (of a 40 hour work week) or greater
  – The PI must commit at least 1 calendar month to the SBIR Phase I project
  – The PI must commit at least 2 calendar months to the STTR Phase I project
  – No more than 1 proposal per Pi, or Co-PI
Key Additional Eligibility Info

• FastLane registration for company and PI required (www.fastlane.nsf.gov)
• Dun and Bradstreet Data Universal Numbering System (DUNS) number required - including subawardees (www.dnb.com)
• System for Award Management (SAM) registration required (www.sam.gov)
• Small Business Administration (SBA) Company Registry registration required (http://sbir.gov/registration)
Proposal Preparation and Submission

SBIR Proposal submission window: May 11 – June 11, 2013

SBIR Deadline: June 11, 2013


STTR Deadline: June 13, 2013

Due by 5:00 pm Proposer’s Time
## Responsible Program Directors

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### Administrative/Compliance Questions:

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### FastLane Help Desk

1-800-673-6188
Award Information

• Estimated Number of Awards (pending availability of funds)
  – SBIR: 200 ($30,000,000 - pending availability of funds)
  – STTR: 50 ($11,250,000 - pending availability of funds)
  – No obligation to make a specific number of awards
The SBIR/STTR Program

• Intended to stimulate technological innovation in the private sector

• Primary goals:
  – Strengthen the role of small business in meeting Federal research and development needs
  – Increase the commercial application of federally-supported research results
  – Encourage participation by socially and economically disadvantaged, and women-owned, small businesses
NSF’s SBIR/STTR Program

• Seeks to fund transformational, game-changing technology
• Strong focus on commercialization
• Powerful translation tool
• High-leverage for post-academic effort
• Encourages ties to private sector
The STTR Program requires researchers from non-profit research institutions to play a significant role in the project.

This STTR aims to encourage the commercialization of NSF-funded fundamental research:

- It is highly desirable that the core innovation has NSF funding lineage, which should be documented in the proposal.
- Investigators of the NSF-funded fundamental research are not required to be a part of the proposed project.
• Small Business must perform at least 2/3 of the research, as determined by the budget

• Consultants and/or subawardees may perform up to 1/3 of the research, as determined by the budget
• Organization Requirements:
  – Collaboration with a research institution is required
    • A minimum of 40% of the research must be performed by the company, as measured by the budget
    • A minimum of 30% of the research must be performed by the collaborating research institution, as measured by the budget
Other Important
STTR Specific Requirements

• Cooperative Research Agreement (CRA)
  – A signed CRA between the small business and the research institution is required at the time the award is made
  – A model (example) agreement is available on our website
  – Proposal should contain a draft of the CRA, or a letter stating that the CRA will be provided
Prior to Submission

- Communicate with the Program Director
  - Preferred method – e-mail
    - Send 1 e-mail!
  - Send 1-2 page summary that discusses:
    - Company/team (including experience with previous SBIR awards)
    - Market Opportunity
    - Technology/innovation
    - Competition
Proposal Guidelines

• Phase I
  – Feasibility and proof-of-concept research focus

• Phase II (must receive a Phase I award to be eligible to submit a Phase II proposal)
  – Prototype development and testing research focus
Proposal Guidelines

• Successful proposals
  – Provide evidence of a commercially viable product, process, device, or system
  – Meet an important social or economic need
Resubmission Guidelines

• Revise proposal addressing weaknesses and suggestions captured in the Review Panel Summary

• Resubmit in next (or subsequent) SBIR solicitation cycle

• No special process; resubmitted proposals are reviewed and compete with new proposals
• Four broad topic areas:
  – Biological and Chemical Technologies (BC)
  – Education Applications (EA)
  – Electronics, Information and Communication technologies (EI)
  – Nanotechnology, Advanced Materials, Manufacturing (NM)
Subtopic Description

• Biological and Chemical Technologies (BC):
  – Biological Technologies
  – Biomedical Technologies
  – Environmental Technologies
  – Chemical Technologies
Subtopic Description

• Education Applications (EA):
  – Pre-College Education
  – College and Post-College Education
  – STEM Educational Gaming
  – Entrepreneurial Education
  – Tools for Learning and Assessment
• Electronics, Information and Communication Technologies (EI):
  – Services: Security & privacy; search & mining; digital arts; financial
  – Applications: Mobile; collective intelligence; design/test; virtualization
  – Systems: HCI; robotics; wireless; instruments; energy management
  – Components: MEMS; sensors; optoelectronics; RF; packaging
  – Devices: Optoelectronics; IC design; other novel devices
Subtopic Description

• Nanotechnology, Advanced Materials, and Manufacturing (NM):
  – Nanomaterials, Nanomanufacturing, Nanodevices, and Nanoinstrumentation
  – Electronic, Optical, and Magnetic Materials
  – Materials for Energy Generation and Storage
  – Structural Materials, Coatings, and High-Temperature Materials
  – Sustainable Materials and Smart Materials
  – Manufacturing Equipment and Processes
Funding Criteria

• We fund **high-risk, high-payback** innovations
  – With the high potential for commercialization
  – That demonstrate strategic partnerships with research collaborators, customers, industry partners, and equity investors

• We do NOT fund
  – Basic research
  – *Evolutionary* optimization of existing products and processes or modifications to broaden the scope of an existing product, process or application
  – Analytical or “market” studies of technologies
Merit Review Criteria

• Intellectual Merit - Quality of the Research
  – A sound approach for establishing technical and commercial feasibility
  – Qualified technical team
  – Sufficient access to resources
  – Significantly advances “state-of-the-art”

• Broader Impact – Potential impact on society
  – Commercial and societal benefits
  – Marketable product
  – Commercialization track record
  – Business expertise
  – Intellectual Property/Other Competitive advantages
Merit Review Criteria

• Commercialization Potential:
  – The company’s strategic vision
  – The addressable market opportunity
    • Is this an enabling technology
  – The company/team
    • Business and commercialization experience
  – The product features and benefits compared to the competition
  – Financing and revenue model
• Positioned to attract additional investment
Doing Business with NSF

- NSF is not the Final Customer; NSF is not buying your product
- NSF has broad market-driven technology topics: You identify the problem/opportunity, propose the technological solution, and devise your business strategy
- NSF wants to see you commercialize your research successfully
- NSF provides incentives to encourage you to find investment $$ (Phase IB and Phase IIB Supplemental funding)
Top Reasons to Seek SBIR Funding

• Provides funding for technologies on a path toward commercialization
• Provides “pre-seed” funding to demonstrate proof-of-concept
• Not a loan/no repayment
• Provides validation, recognition, visibility
• May be leveraged to attract investment/partnerships
• Allows small business to retain IP
• Values/encourages/facilitates partnerships, which enable success
A step-by-step user guide is available for entering a SBIR or STTR Phase I proposal in NSF’s FastLane system. PLEASE USE IT!


You must register your company and PI in FastLane prior to submitting your proposal, a process that could take 3-5 days.
Compliance requirements are clearly described beginning on Page 6 of the Solicitation 13-546.

All proposals that fail to address the following items will be considered non-responsive and will be returned without review:

1. A proposal submitted after 5:00 p.m. (proposer's/submitter's local time) on the deadline date. The "proposer's time" is the time zone associated with the company's address, as registered with NSF at the time of proposal submission.
2. A proposal that does not contain all the required components uploaded into the appropriate module within FastLane. See the required components below that make up a complete proposal. All proposals must have each of the items listed below, without exception.
A complete proposal consists of the following:

- Project Summary
- Project Description
- References Cited
- Biographical Sketches
- Budgets and Sub-Awardee Budgets*
- Budget Justification (include letters from sub-contractors and consultants, 3 page limit is waived for SBIR/STTR)
- Current & Pending Support*
- Facilities, Equipment and Other Resources*

*Templates provided in FastLane. All documents listed above are REQUIRED.
3. ONLY the items listed below may be included in the Supplementary Documents module:

- Company Commercialization History on NSF template (required if company received previous Phase II award/s)
- Data Management Plan
- SBA Company Registration documentation
- Letters of Support (maximum 3 – do not upload letters from subcontractors or consultants here)
- Post-Doc Mentoring Plan*
- IRB or IACUC letters

* Only required if funds are budgeted on line B.1 Post Doctoral Scholars of a university sub-awardee budget.
Other compliance issues:

- SBIR proposal budget may not exceed $150K
- Do not put proposal documents in the “Additional Single Copy Documents” module
- Do not submit “collaborative” or “preliminary” proposals to NSF SBIR/STTR Program
- Proposal must have sufficient technical and commercial potential substance to justify review*
- Proposal must fall within scope of the solicitation topic*
- Proposal must contain research in science, engineering, or education*

* Determined by Program Director and Senior Advisor
100% COMPLIANCE REQUIRED
OR PROPOSAL WILL BE
RETURNED WITHOUT REVIEW