



NON-DILUTIVE NSF SBIR/STTR FUNDING FOR YOUR HAWAII TECH INNOVATION

WEBINAR

Demystify the NSF SBIR/STTR Process



ERIK PIERSTORFF, PhD
NSF SBIR/STTR Program Director



DATE
August 14, 2024



TIME
12:00 PM HST



ZOOM WEBINAR

Don't miss this opportunity to learn how the SBIR/STTR programs can provide the financial boost your startup needs.

NSF SBIR/STTR Program Director, Erik Pierstorff will guide you through:

- Learn the ins and outs of the NSF SBIR/STTR programs
- Discover eligibility requirements and application tips
- Get your burning questions answered by the program director

REGISTRATION

A collaborative effort by:



U.S. National Science Foundation



HAWAII AQUACULTURE COLLABORATIVE



Quest Accelerator

CENTER FOR TROPICAL AND SUBTROPICAL AQUACULTURE



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SEED FUND
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AMERICA'S SEED FUND

POWERED BY THE U.S. NATIONAL SCIENCE FOUNDATION

Erik Pierstorff | Program Director | 08.14.2024

11 Federal Agencies Have SBIR/STTR Programs



- Stimulate technological innovation.
- Meet Federal research and development needs.
- Foster and encourage participation in innovation and entrepreneurship by women and socially or economically disadvantaged persons.
- Increase private-sector commercialization of innovations derived from Federal R&D funding.

WHO WE ARE

America's Seed Fund, powered by the U.S. National Science Foundation (NSF), funds startups transforming **high-risk technologies** into products and services with commercial and societal impact.

WHAT WE DO

- **\$230+** million annually
- About **400** startups funded annually
- Up to **\$2 million** over several years in non-dilutive funding for research and development (R&D), helping companies de-risk technology to position them for commercial success.



OUR APPROACH TO SBIR/STTR

KEY TENETS

- Focus on high-risk, innovative and differentiating technology.
- Focus on startups and being “early catalytic capital”.
- Topic-agnostic approach.
- Commercially-focused program led by a team with deep startup, investment, and innovation experience.

FEATURES AND BENEFITS

- Very flexible funding instruments (grants or cooperative agreements) with the ability to pivot.
- Entrepreneurial support via programming and Program Director engagement.
- NSF is not a customer or user, and does not seek to influence awardee business models based on “agency needs”.

Scalable Impact

Carmot Therapeutics closes \$160 million Series D financing to advance clinical pipeline of novel incretin receptor modulators

Climate tech firm Turntide hits 'unicorn' status after \$80 mln funding

Ansa Biotechnologies ties up \$68M for DNA synthesis platform

Mission Bio raises \$70 million to help scale its tech for improving the development of targeted cancer therapies

AMP Robotics' recycling robots bring in \$91M

Biotech & Health

Meati Foods sinks teeth into \$150M to expand its mushroom-root meat operations

Construction-tech startup OpenSpace raises \$102M Series D

San Francisco-based company claims \$902M valuation after more than doubling equity funding

Comparison With Other Programs

- ✓ NSF often focuses on earlier stage and higher risk projects and earlier stage companies.
- ✓ NSF does not have an application specific focus.
- ✓ NSF is never a customer.
- ✓ NSF focuses on addressing market risk and increasing the chance of scalable commercialization.
 - ✓ Who is the customer? Does your product address a customer pain point?
 - ✓ Team/resources



THE DATA



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PORTFOLIO AND OUTCOMES

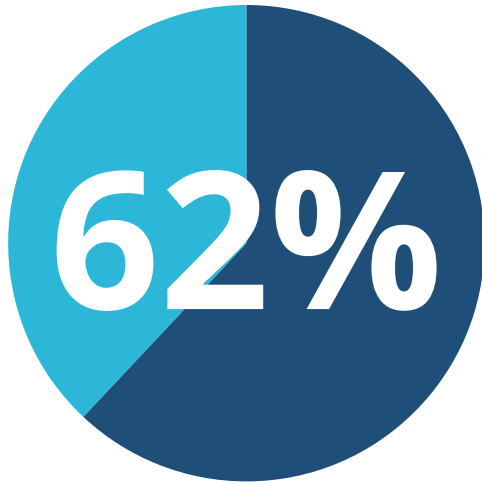
4,000+ awards to startups (2014–2023)

Equity and Exits from NSF-funded companies:

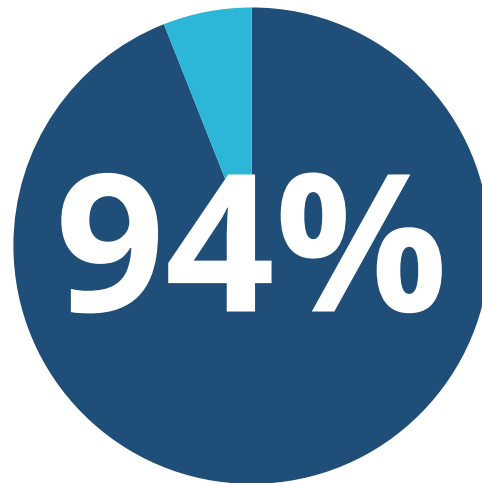
- **\$28** billion in follow-on private investment in fiscal years 2014 to 2023*
- **450** company exits (acquisitions, mergers, IPO's)

**These figures were pulled from Pitchbook from 10/01/2013 to 9/30/2023 and include data from companies that received NSF support prior to 2014.*

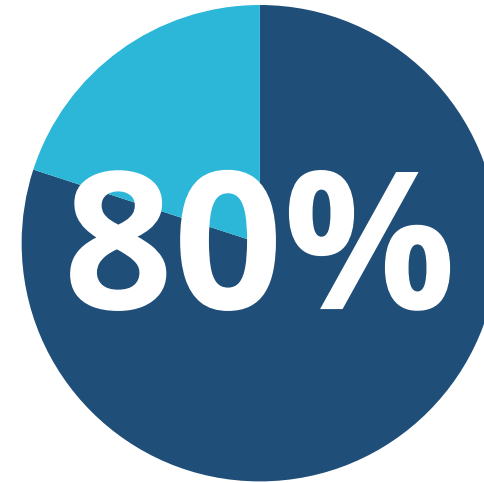
SUPPORTING INNOVATIVE STARTUPS



New To NSF



Fewer than 10
Employees



Created in the
Last 5 Years

Percentages based on Phase I Awards in Fiscal Year 2023

ADVANCED MANUFACTURING M	ADVANCED MATERIALS AM	ADVANCED SYSTEMS FOR SCALABLE ANALYTICS AA	AGRICULTURAL TECHNOLOGIES AG	ARTIFICIAL INTELLIGENCE AI	AUGMENTED AND VIRTUAL REALITY AV
BIOLOGICAL TECHNOLOGIES BT	BIOMEDICAL TECHNOLOGIES BM	CHEMICAL TECHNOLOGIES CT	CLOUD AND HIGH-PERFORMANCE COMPUTING CH	CYBERSECURITY AND AUTHENTICATION CA	DIGITAL HEALTH DH
DISTRIBUTED LEDGER DL	ENERGY TECHNOLOGIES EN	ENVIRONMENTAL TECHNOLOGIES ET	HUMAN-COMPUTER INTERACTION HC	INSTRUMENTATION AND HARDWARE SYSTEMS IH	INTERNET OF THINGS I
LEARNING AND COGNITION TECHNOLOGIES LC	MEDICAL DEVICES MD	MOBILITY MO	NANOTECHNOLOGY N	OTHER TOPICS OT	PHARMACEUTICAL TECHNOLOGIES PT
PHOTONICS PH	POWER MANAGEMENT PM	QUANTUM INFORMATION TECHNOLOGIES QT	ROBOTICS R	SEMICONDUCTORS S	SPACE SP

Topic fit is not required.

TECHNOLOGY TOPICS

All areas of technology are welcome!

- Must have significant R&D work and potential for commercial and societal impact.
- Note: Clinical trials or work on schedule 1 controlled substances will not be supported.



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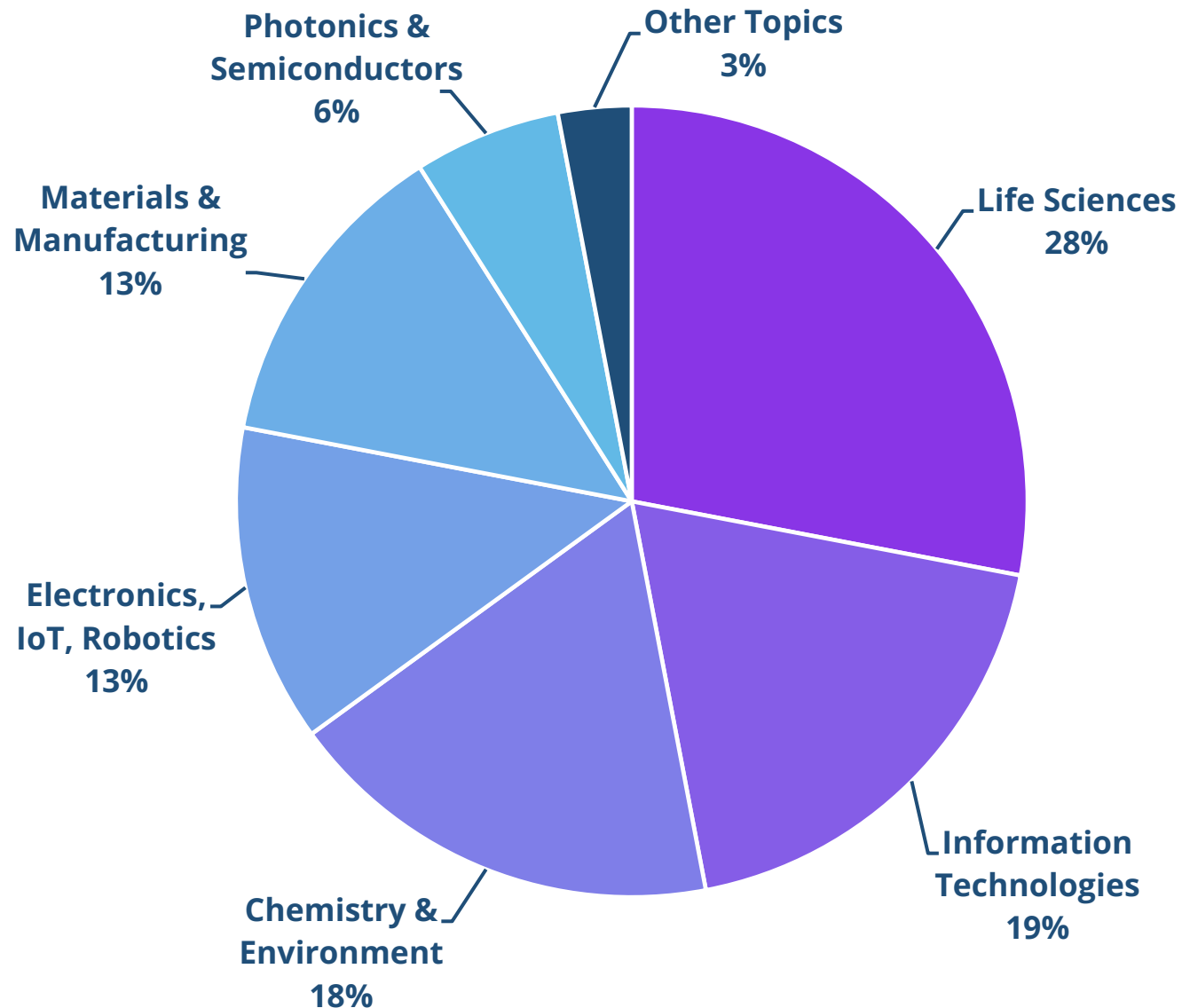
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WIRELESS TECHNOLOGIES W					

AWARDS FUNDED BY TECH AREAS

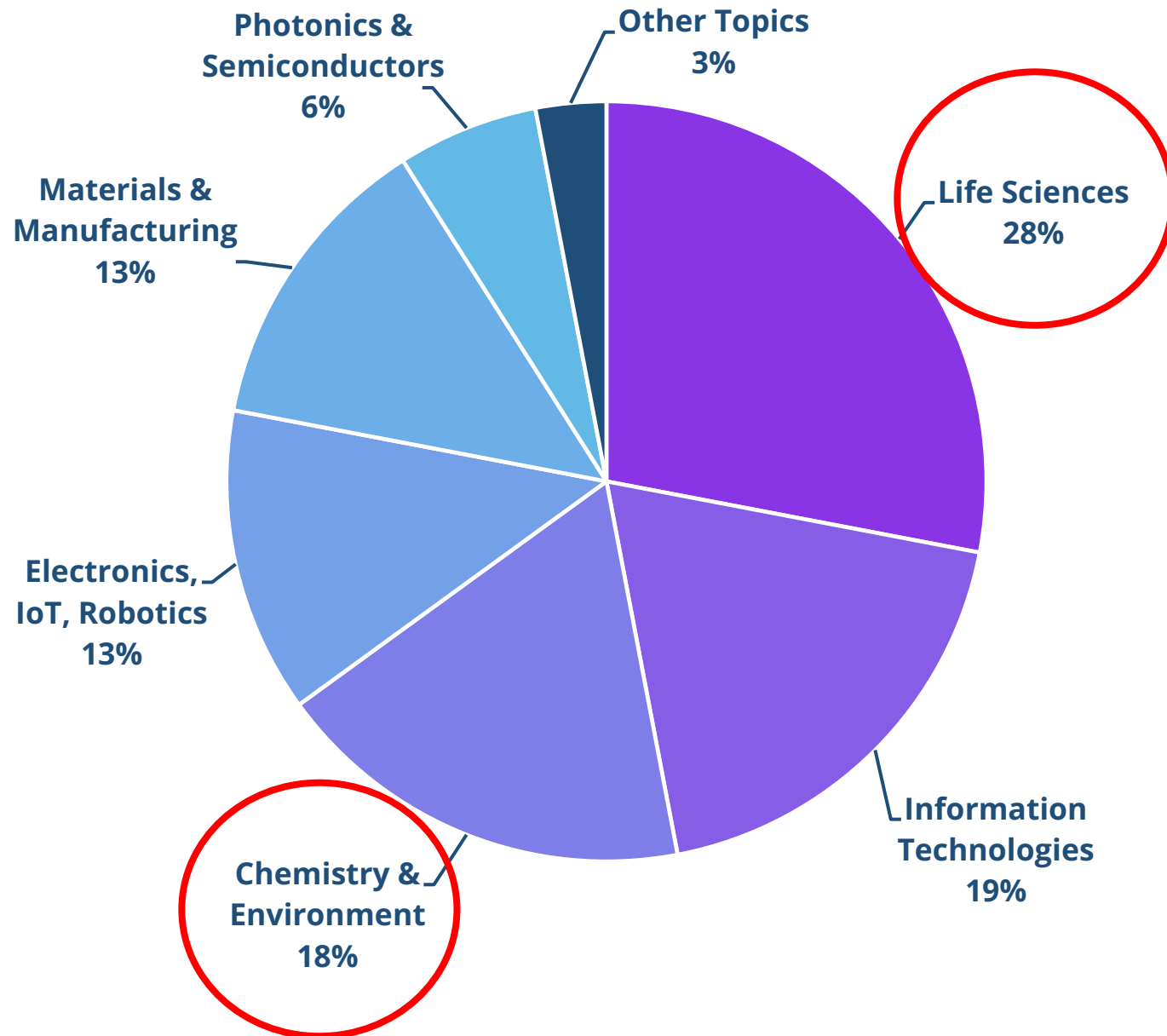


FY 2020 Funding **\$221 Million**



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AWARDS FUNDED BY TECH AREAS



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HOW DOES IT WORK?



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FUNDING PROCESS & TIMELINE

1.

SUBMIT A PROJECT PITCH

Accepted anytime.

NSF decision time:
1 month

2.

SUBMIT A FULL PROPOSAL

Startups can submit a proposal in an upcoming submission window but must submit a proposal **within the current or immediately following submission window.**

3.

PROPOSAL REVIEW & DECISION

NSF decision time:
About 6 months
after submission.



THE PROJECT PITCH



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WHAT IS THE PROJECT PITCH?

Step 1

The Project Pitch is a three-page, written synopsis of innovative idea. Entrepreneurs receive feedback to see if their work might be a good fit for NSF funding before writing a full proposal.



The Technological Innovation



The Technical Objectives and Challenges



The Market Opportunity



The Company and Team



THE PROJECT PITCH FINE PRINT

- Project Pitches are **accepted anytime** (365/24/7)
- **No government registrations or official company formation** is required to submit a Project Pitch.
- Only **1 Project Pitch** can be under review at a time (e.g. a small business cannot submit multiple Project Pitches at once)
- If invited, **full proposals are accepted** during an open submission window. (Typically, every 4 months. Dates are available online.)



AFTER SUBMISSION

If the project is a good fit...

- NSF will send an official, email **invite** to submit a full proposal. NSF will include feedback and designate a topic area for the project.

If the project is NOT a good fit ...

- A rationale for the decision by the managing NSF Program Director or Expert will be provided.
- Another Project Pitch may be submitted in the next submission window (typically, a few months later.)



THE PROPOSAL



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SUBMIT A FULL PROPOSAL

Step 2

- Review the Small Business Innovation Research/Small Business Technology Transfer (SBIR/STTR) Phase I solicitation
- Register the company and key personnel in SAM.gov and Research.gov
- Submit a SBIR/STTR Phase I proposal

FUNDING STAGES



PHASE I

Proof-of-concept:
6 – 18 Months

Up to
\$305,000



PHASE II

Prototype development:
24 Months

Up to
\$1,250,000



PHASE IIB

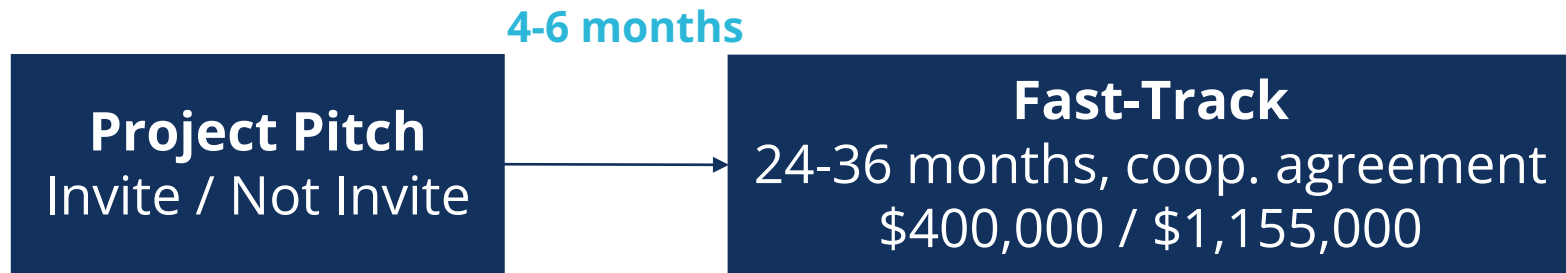
NSF 1:2 Match:
partnering for
commercial success

Up to
\$500,000

NSF SBIR/STTR PHASE I & PHASE II



FAST-TRACK PILOT



Eligible companies submit a single proposal that includes Phase I and Phase II components



FAST-TRACK ELIGIBILITY

Fast-Track applicants must meet the following requirements:

- Meet all the normal SBIR/STTR rules **AND**
- Receive a Fast-Track Project Pitch invitation **AND ...**
- **Additional lineage, customer discovery and team requirements**



EVALUATION



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PROPOSAL REVIEW & DECISION

Step 3

- NSF program directors run the Merit Review process. A panel of experts review the intellectual merit, broader impacts and commercial potential of the Phase I proposal.
- NSF may ask for additional information during "Due Diligence"
- A funding decision is typically made about 6 months after proposal submission.

THE BASICS

What We Look For:

- Impact (Commercial and Societal)
- Technological Innovation and Risk
- Market Pull
- Potential For Scale

Eligibility:

- Only open to U.S.-based for-profit small businesses with fewer than 500 employees
- Applicants must be majority owned and controlled by U.S. citizen or permanent residents
- All work must be done within the United States
- Project Principal Investigator must spend a majority of their time employed by the awardee company during the project

You Might Be A Good Fit If...

- ✓ You need to do **significant technical R&D** needed to overcome challenging technical hurdles in the creation of a new product or service
- ✓ You have a **unique and defensible technical innovation** that promises to create a durable competitive advantage for your firm
- ✓ Your company is structured for **aggressive commercialization** of the new product/service
- ✓ You have **significant understanding of market and customer** indicating potential to meet an unmet commercial need

What NSF SBIR/STTR Does Not Fund

- ✓ Incremental or evolutionary development, assessment of an already developed technology, straightforward engineering efforts with little technical risk, basic scientific research, business development, market research, and sales and marketing.
- ✓ Clinical trials.
- ✓ Schedule I controlled substances.
- ✓ Specific therapeutic candidates.

HOW TO ENGAGE

Join the mailing list!

Email signup link found in the website footer.

<https://seedfund.nsf.gov/>

Review for NSF!

Seeking experts with technical and/or startup/commercialization experience.

<https://seedfund.nsf.gov/resources/review/>

Stay in touch

Subscribe to our email list to be notified of upcoming deadlines.

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THANK YOU!

Get started today

<https://seedfund.nsf.gov/apply/>

Questions?

sbir@nsf.gov



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