Funding New Health Technology Development

The **Small Business Innovation Research (SBIR)** program provides two rounds of seed capital to help entrepreneurs turn their innovative medical or healthcare technology concepts into commercially viable, problem-solving solutions.

Medical Technologies

Digital Health Technologies

Healthcare Information Technologies (IT)

Eighteen Ventures
www.Eighteenventures.com

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Small Business Innovation Research (SBIR) Program Basics

The Small Business Innovation Research (SBIR) program offers entrepreneurs an opportunity to acquire seed grants, a Phase I award and a Phase II award, for the development of innovative, marketable healthcare or medical solutions. Phase I funding is used for six months to demonstrate the feasibility of a proposed technology concept. Phase II funding is used for two years to produce a product prototype.

Through a competitive proposal development and submission process entrepreneurs are awarded the money. By using a company's business plan, market research & analysis findings and scientific reports/studies, applicants can apply the necessary information to prepare a winning SBIR Phase I proposal. A Phase II proposal includes the same information sources plus the results from the successful completed Phase I feasibility study.

After completing both funding phases, the company is expected to commercialize its new healthcare or medical technology. The company, in particular, uses its business plan to enter the new technology into a designated market and offer it to identified potential buyers, such as hospitals, individuals, health systems, health insurers, pharmaceutical companies or large employers. On the other hand, the company can seek additional money from private sector investors, e.g., venture capitalist, business angels or corporate venture capitalist, to help manufacture, promote and sell the new technology solution.

NIH SBIR Program, Purpose & Proposal Submission

(**1**) The National Institutes of Health (NIH) Small Business Innovation Research (SBIR) program awards nearly **$1billion** dollars in new technology development seed grants to health technology startups and emerging small firms. The money is designed to help small and emerging firms produce original products that solve unmet healthcare or medical problems and grow their businesses.

(**2**) Two-three (**23**) participating NIH Institutes and Centers (ICs), like the National Cancer Institute (NCI), provide direct funding through a request for proposal (RFPs) process. Small companies respond to RFPs issued by the ICs. Also, small firms can offer unsolicited project ideas that match the mission of the ICs and solve unmet medical or healthcare needs.

(**3**) The NIH SBIR program issues thousands of broad requests for proposals in June. Applicants have three times in a year to submit a Phase I proposal: Submission due dates are **April 5, 2018**, **September 5, 2018** and **January 5, 2019.** Grant funding is awarded approximately six (**6**) months after submission.

NIH SBIR Program Funding Rounds

Funding Rounds	Funding Amount	Use of Funds
Phase I	**$225,000**	**Money is used, for six months, to conduct research to determine whether or not the technology concept is actually feasible.**
Phase II	**$1 Million**	**Money is used, for two years, to produce a technology prototype.**

NIH SBIR Program Eligibility

⊙ Small companies organized for profit, with a place of business located in the United States, which operates primarily within the United States or which makes a significant contribution to the United States economy through payment of taxes or use of American products, materials or labor.

⊙ Small companies formed as an individual proprietorship, partnership, limited liability company, corporation, joint venture, association, trust or cooperative, except that where the form is a joint venture, there must be less than 50 percent participation by foreign business entities in the joint venture.

⊙ Small companies that have no more than 500 employees.

NSF SBIR Program, Purpose & Proposal Submission

(**1**) The National Science Foundation Small Business Innovation Research (SBIR) program awards new technology development seed grants to health technology startups and emerging small firms. The money is designed to help small and emerging firms produce original products that solve unmet healthcare or medical problems and grow their businesses.

(**2**) NSF SBIR program is interested in funding novel products, processes, or services that will enable the delivery of high quality, economically efficient healthcare and small business growth.

(**3**) The NFSBIR program issues broad requests for proposals in **April** and **September** with Phase I proposal submission deadlines in **mid-June** and **mid- December .** Grant funding is awarded approximately six (**6**) months after submission.

NSF SBIR Phase I and Phase II Funding Rounds

Funding Rounds	Funding Amount	Use of Funds
Phase I	$225,000	Money is used, for six months, to conduct research to determine whether or not the technology concept is actually feasible.
Phase II	$750,000	Money is used, for two years, to produce a technology prototype.
Phase II B	$500,000	Matching funding to help accelerate the development of Phase II project.

NSF SBIR Program Eligibility

- Small companies organized for profit, with a place of business located in the United States, which operates primarily within the United States or which makes a significant contribution to the United States economy through payment of taxes or use of American products, materials or labor.

- Small companies formed as an individual proprietorship, partnership, limited liability company, corporation, joint venture, association, trust or cooperative, except that where the form is a joint venture, there must be less than 50 percent participation by foreign business entities in the joint venture.

- Small companies that have no more than 500 employees.

SBIR New Health Technology Developing Funding Process

(1)

Small Health Technology Firm

- Identified Healthcare Problem
- Health Technology Concept
- Market Research
- Scientific / Technical Information
- Business Strategy (Model)

→ **SBIR Phase I**

Phase I Funding Proposal Document

→ **SBIR Phase I Grant**

- $225,000
- 6 Months of Work
- Produce Feasibly Study

(2)

Small Health Technology Firm

- SBIR Phase I Proposal
- Market Research
- Scientific / Technical Information
- Business Strategy (Model)

→ **SBIR Phase II**

Phase II Funding Proposal Document

→ **SBIR Phase II Grant**

- $750,000 - $1million
- 2 Years of Work
- Produce Technology Prototype

(3)

Small Health Technology Firm

- SBIR Funded New Technology
- Market Research
- Business Strategy (Model)
- Business Plan

→ **Private Investors**

- Business Angels
- Venture Capital
- Corporate Venture Capital

→ **U.S. Healthcare Market**

Funded Technology Development Areas

A list of selected health and medical technology development areas funded by the NIH SBIR and NSF SBIR programs

Telemedicine/Telehealth	Biosensors	Social Media	Point of Care Technologies
Data Analytics	Digital Wireless	Diagnostics	Internet of Things
Nanotechnology	Medical Imaging	Virtual Reality	Health Record Systems
Artificial Intelligence	Sensors	Surgical Tools	Medical Devices
Mobile Health (mHealth)	Robotics	Cybersecurity	Cloud Computing
Biomedical Engineering	Ultrasound	Gamification	Web-based tools

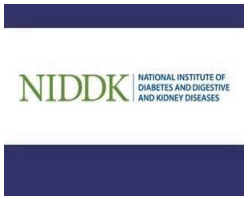
Healthcare Digital Technology Development Opportunities

Both NIH SBIR and NSF SBIR programs offer funding to produce digital technologies designed to help transform the U.S. healthcare industry.

Industry Sectors	Technology Development Applications	
Infrastructure	• Payment • Provider Efficiency • Big Data/Analytics • Clinical Decision Support System	• Administration/Workflow • Interoperability • Clinical Trials • Cybersecurity
Treatment	• Self Care • Care Coordination • Telemedicine/Telehealth	• Personalized Medicine • Medication Management
Engagement	• Social Media • Wearables • mHealth (Apps)	• Patient Portals • Virtual Reality • Gamification
Diagnosis	• Provider Diagnosis • Self Diagnosis • Remote Monitoring	

NIH SBIR Program Funding Example

Health Tech Startup



SBIR Grants

New EHR Software

Patient Application

(**1**) Based on its market research findings, the health technology startup identifies an opportunity to develop data-mining software for Electronic Health Records (EHRs). The proposed technology solution is intended to help physician practices better use their EHRs as a clinical decision tool to improve outcome for elderly diabetic patients.

(**2**) Utilizing the NIH SBIR program awards data-base, the company found eight participating Institutes/Centers (I/Cs) that provided SBIR funding for similar past projects. The startup decides to approach the National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK), which was one of the eight identified ICs, to seek funding for the proposed data-mining software.

(**3**) The startup uses market analysis findings, technical & scientific studies and its business strategy to prepare a NIDDK SBIR Phase I proposal.

(**4**) NIDDK, based on its mission and past funding history, awards the startup a **$225,000** Phase I seed grant, for six months, to demonstrate the feasibility of the proposed software solution. After successfully completing Phase I, the company uses the feasibility study, market research, scientific reports and its business plan to prepare a NIDDK Phase II proposal. Winning the NIDDK Phase II funding enables the startup to receive a maximum of **$1.5 million** dollars, covering two years, for the production of a technology prototype.

(**5**) After developing its SBIR-funded innovative, data-mining software, the startup sells the technology solution worldwide to physician practices providing health services to elderly diabetic patients. The startup, moreover, has a new market-driven novel healthcare IT solution that will help grow its business.

NSF SBIR Program Funding Example

Health Tech Startup

NSF SBIR Grants

New EHR Software

Patient Application

(**1**) Based on its market research findings, the health technology startup identifies an opportunity to develop data-mining software for Electronic Health Records (EHRs). The proposed technology solution is intended to help physician practices better use their EHRs as a clinical decision tool to improve outcome for elderly diabetic patients.

(**2**) The startup researched NSF SBIR's awards database and reviewed its past request for proposals (RFPs) to locate information about the agency's interest in funding the proposed technology solution. The research revealed that NSF SBIR's Smart Health technology topic offered funding to develop EHR solutions.

(**3**) The startup prepared a two page executive summary that included the identified problem, the proposed solution and its potential commercial viability, the targeted technology users, the industry's competitors, and the firm's proposed research & development approach. Next the small firm sent the executive summary to the NSF SBIR Smart Health program director for review and advise.

(**4**) Following discussions the with the Smart Health program director, the startup uses market analysis findings, technical & scientific studies and its business strategy to prepare a winning NSF SBIR Phase I funding proposal. The successful completion of the Phase I project enables the company to win Phase II money, covering two years, for the development of a technology prototype.

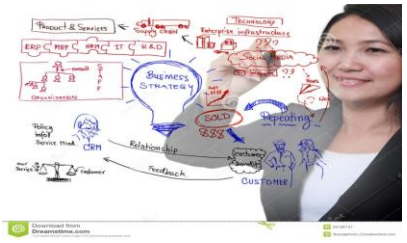
(**5**) After winning two rounds of SBIR grants to develop the data-mining software, the startup sold the technology solution worldwide to physician practices providing health services to elderly diabetic patients. The startup, moreover, owned a new market-driven novel healthcare IT solution that helped grow its business.

SBIR Program Benefits

► Thirty percent (**30%)** of the grant budgets, Phase I & Phase II, can be used to hire experienced personnel or experts needed to augment the project team.

► Small companies can earn a **7%** profit off the proposed project budgets.

► Small companies retain the Intellectual Property (IP) rights from their inventions.



► Awarded companies are attractive candidates for private capital investors, e.g., Venture Capital, Business Angels, and Corporate Venture Capital.

About Eighteen Ventures

Based in the Miami-Fort Lauderdale, FL metro area, Eighteen Ventures (EV) is a small business development consulting firm offering services nationwide.

In particular, we help health technology entrepreneurs, (e.g., engineers, physicians, nurses, researchers, inventors, technologists, scientists and non-medical, experienced healthcare industry professionals), start and build successful small businesses. We also help health technology entrepreneurs and startups organize and prepare Small Business Innovative Research (SBIR) grant proposals for the production of innovative, marketable, problem solving healthcare or medical solutions.

Eighteen Ventures published *Acquiring Small Business Innovation Research (SBIR) New Health Technology Development Funding*, which presents information on winning SBIR health technology development grants from six participating federal agencies.

Eighteen Ventures is now ready to help health technology entrepreneurs prepare and submit a NSF SBIR Phase I before the **mid-June 2018** submission deadline or NIH SBIR Phase I proposal before the **April 5th, 2018** submission deadline. Contact us today , at Darrell@Eighteenventures.com, so that you can beat the deadline and win the funding.

Mr. Darrell Williams, Eighteen Ventures' founder President and CEO, is an experienced small business development consultant, who has been involved in the Small Business Innovation Research (SBIR) program since 1999. Mr. Williams can be reached at Darrell@eighteenventures.com or (207) 347-1214.

Health Technology Entrepreneur

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Innovative Health Technology

We help health technology entrepreneurs acquire and use SBIR grants to develop innovative healthcare technologies