

BBC *etc*

Developing the Business of Science

Introduction to the SBIR/STTR Program

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BBCetc



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www.bbcetc.com

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Michigan Economic Development Corporation

What is the SBIR/STTR Program?

- A \$2 Billion+ Federal Funding Program
 - SBIR: Small Business Innovation Research
 - STTR: Small Business Technology Transfer

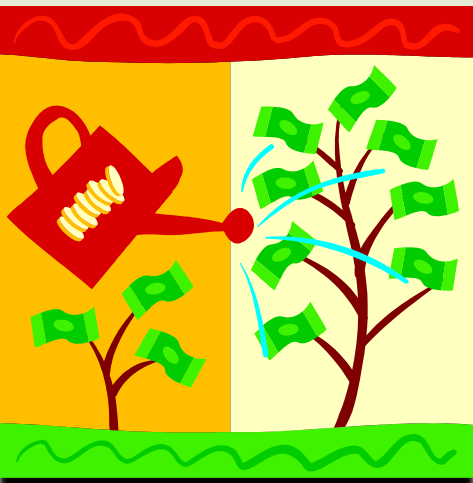


What is the SBIR/STTR Program?

- A federal funding mechanism to support small business to:

- Stimulate technological innovation

- To develop products with commercial merit

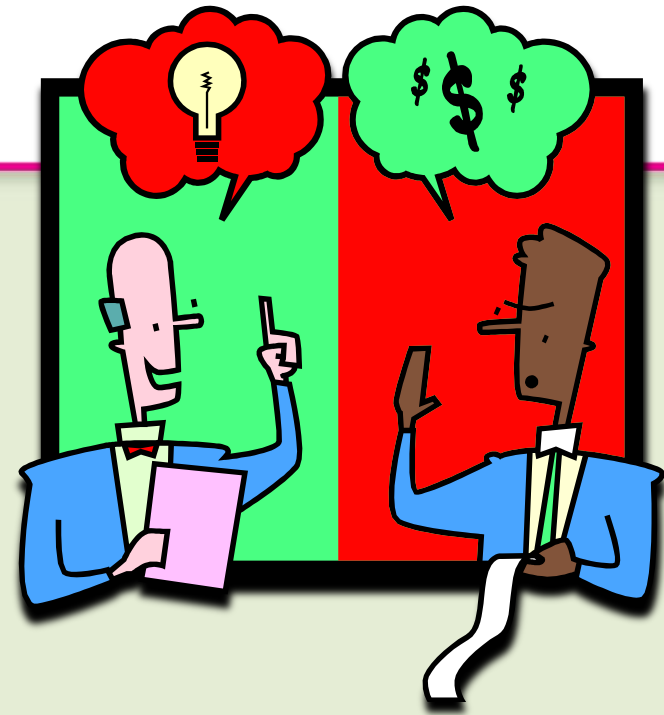


Purpose of SBIR/STTR Programs

- Develop innovative technologies
- Create jobs
- Promote small businesses
- **Not** an alternative source of funding basic research



Important Reminder



*A good idea is
necessary but
not sufficient*

What is Commercialization?

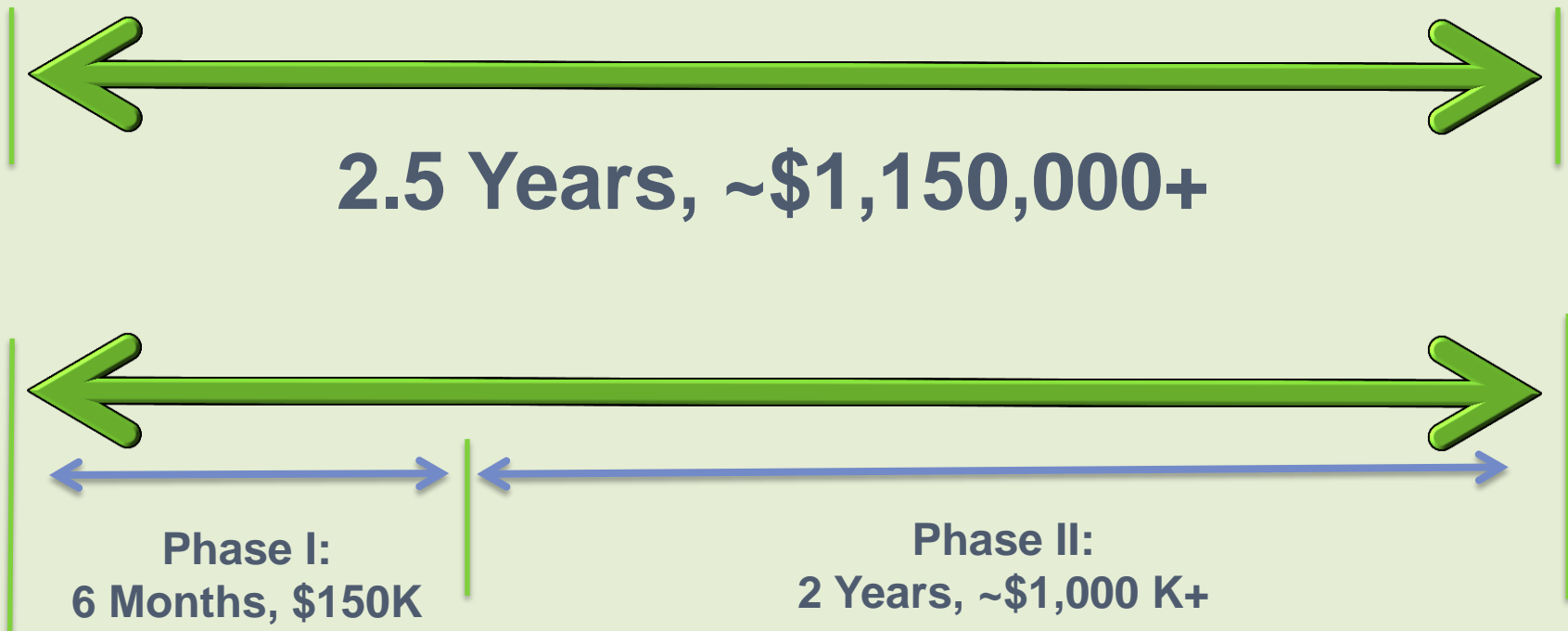
- Ability to provide a solution to a problem in exchange for money
 - Targeted and Differentiated Solution
 - Important Problem
 - Viable Business Model





**“We don’t know why we make these,
so we’re hoping to find people
who don’t know why they buy them.”**

The Basics of SBIR: 3 Phases



Phase III: Commercialization (no federal \$\$)

Three Phases of SBIR/STTR

Details Agency Dependent

■ Phase I – Feasibility*

- 6 months – 1 year
- \$60k – 225k

■ Phase II - Expand results, pursue further development*

- 2 years
- \$500k - \$1.5m

■ Phase III – Commercialization

- Your own \$\$ (ie - no government \$!)

*Phase I and II supplements available at some agencies



Participating Federal Agencies*

SBIR STTR	SBIR Only
DOD - \$1,200 m	USDA - \$19 m
HHS - \$690 m	DOT - \$4 m
NASA - \$138 m	EPA - \$7 m
NSF - \$105 m	DOC - \$9 m
DOE - \$102 m	DoED - \$8 m
	DHS - \$30 m

TOTAL: >\$2.4 B FY 2010

www.sbir.gov

**Learn the
Rules!**



Eligibility Issues



- Small business
 - < 500 employees
 - For-profit
 - Located in the U.S.
 - R&D must be performed in the U.S.
- At least 51% U.S. owned and independently operated
 - Firms more than 50% owned by corporations, VCs, institutions are not (currently) eligible for SBIR/STTR awards
- Must have company-controlled research facilities

Company-controlled research facilities



Documentation Required! **Access to special facilities is permitted

University Research vs. SBIR/STTR

University

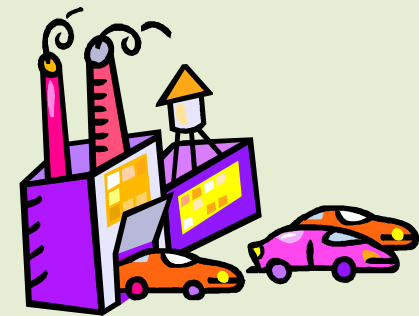
- Open ended
- Basic Research
 - Unpredictable
 - Can change direction
 - No promises
- Long term
- Individual control
- Individualistic
- Publication
- Societal Responsibility

Company

- Goal oriented
- Develop product
 - Specific objectives
 - Specific tasks
 - Specific end points
- Short term
- Company control
- Team
- Confidentiality
- Proprietary responsibility

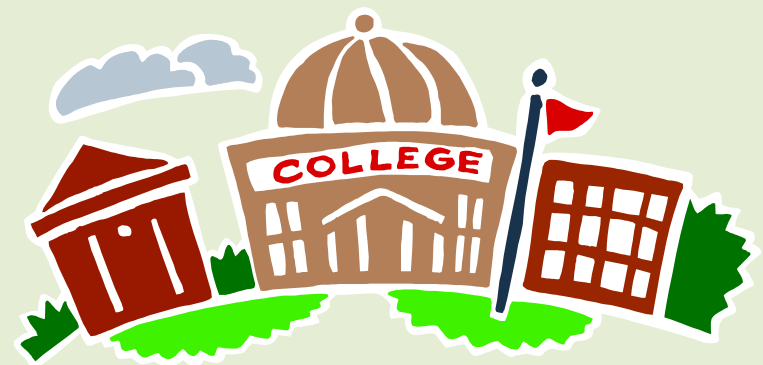
R41 SBIR Small Business Innovation Research

- Business applies for and receives award
- **PI must be employed >50% by the small business**
- Multiple PIs allowed
 - Primary PI must be at the company
 - Academic PI/co-investigator allowed
- Limited subcontracting allowed (<33%)
- FY2012 R43 success rate
 - 10.3% first submission
 - 18.4% resubmission



R41 STTR Small Business Technology Transfer Research

- Small business applies for and receives award
- Requires research institution partner responsible for >30% of the work (by budget)
- Small business must conduct >40% of the work
- Remaining funds can go to subcontract, business or consultants
- **PI must commit >10% effort but can remain employed by the research institution**
- FY2010 R41 success rate
 - 16.6% first submission
 - 22.4% resubmission



NIH SHIFT Award



SHIFT Award

- **Purpose**

- (1) foster research that is translational in nature and
- (2) transform academic scientific discoveries into commercial products and services.

- **Features**

- Investigator must be primarily employed by a U.S. research institution at the time of application and “shift” to a SBC to become primarily employed (more than 50% time) by the SBC by or at time of award.
- Enables an SBC to increase both its scientific research staff and its core competencies.

- **Participating Institutes/Centers (11) :**

- NIA, NIAAA, NIAID, NIAMS, NICHD, NIDDK, NIDA, NIGMS, NHLBI, NCCAM, NCRR

- **Awards:** \$200K/yr for 2 yrs (Phase I); \$750k/yr for 3 yrs (Phase II)

SBIR SHIFT award



■ PI SHIFT requirement

- At time of application, PI must be employed at the research institution
- At time of award, PI must be primarily employed at the small business
- Budget
 - Phase I = \$200k/year for 1-2 years
 - Phase II = \$750k/year for 2-3 years

■ Not all NIH institutes participate



SHIFT Connector



National Institute of Allergy and Infectious Diseases
Leading research to understand, treat, and prevent infectious, immunologic, and allergic diseases.

Search
Advanced Search

NIAID Home | Health & Research A to Z | Labs & Scientific Resources | Funding | About NIAID | News & Events

NIAID > Research Funding > Small Business Awards

Research Funding

- Newsletter and Blog
- Opportunities and Announcements
- Paylines and Funding
- Grants
- Contracts
- Training and Career
- International Awards
- Small Business Awards
 - Small Business High-Priority Areas of Interest
 - Advice Presentations
- Science Policy Areas
- Standard Operating Procedures
- Questions and Answers
- Advisory Council
- Glossary
- Find It! A-Z
- Latest Funding Updates

SHIFT Connector: Bringing Business Jobs to Academic Investigators

NIAID is hosting this pilot site to help investigators and businesses connect for the **SHIFT SBIR** program, regardless of the funding institute or center.

Businesses can post their interests and investigators can propose product-oriented research topics. After connecting, the PI usually writes the SHIFT SBIR application that the business submits to NIH for funding.

Table of Contents

- SHIFT Connector pages
 - [SHIFT Connector: Academic Investigators](#)
 - [SHIFT Connector: Build a Strong Title](#)
 - [SHIFT Connector: Businesses](#)
 - [SHIFT Connector: Networking](#)
- Instructions
 - [Academic Investigators](#)
 - [Businesses](#)
 - [Networking Sponsors](#)

How to SHIFT Into Gear

Academic Investigators

1st Gear: Decide that you would accept a job in business.

2nd Gear: Think about product-oriented research you could direct as a PI.

3rd Gear: Post a research title on [SHIFT Connector: Academic Investigators](#) by emailing deaweb@niaid.nih.gov the following:

Website Tools

- ✉ [Email this page](#)
- 🖨 [Print this page](#)
- 📖 [Order publications](#)
- 🔖 [Bookmark & share](#)

Stay Connected

[f](#) [t](#) [flickr](#) [YouTube](#)
[in](#)

[Social media privacy policy and disclaimers.](#)

Highlights

- [NIAID Funding Newsletter, April 25, 2012](#)
- [All About Grants](#)
- [Strategy for NIH Funding](#)
- [Samples and Examples](#)
- [Sample Applications](#)
- [Top Policy Changes](#)
- [Resources for Researchers](#)

Look It Up

- [small business award](#)
- [Small Business Innovation Research \(SBIR, R13](#)

SBIR vs. STTR

- The Small Business is always the applicant
- Subcontracting
 - SBIR: no more than 33% in a Phase I and 50% in a Phase II
 - STTR: at least 40% at small business and at least 30% at partner non-profit research institution
- Principal Investigator rules
 - SBIR: PI at least 51% EMPLOYED at small business
 - STTR: PI has an 'official relationship' with the small business and at least 10% effort on the grant but can remain at the Research Institution

Advantages of STTR over SBIR

- Company lacks credible PI (>50% employed)
 - No scientists employed by company
 - Not ready to leave the University
- Access to superior academic facilities
 - Institutional Review Board (IRB)
 - Animal Welfare Committee
 - Lab space/Equipment
- Higher percent subcontract possible



STTR Applications - Extra Requirements

- Company & its University partner must sign intellectual property (IP) agreement
- “Budget and Certification of Research Institution” form required
- **Virtual companies do not qualify**
- Conflict of interest issues



How Can Academics Participate?

- Faculty member can own small company and identify someone else (well-qualified) as PI
- Faculty member can take leave of absence
- Faculty member can be PI of subcontract
- Faculty member can provide analytical and other support services
- Faculty member can be a consultant



SBIR/STTR Information (www.sbir.gov)



An Official Website of the United States Government

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SBIR/STTR
SMALL BUSINESS INNOVATION RESEARCH
SMALL BUSINESS TECHNOLOGY TRANSFER

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Site Awards Open Solicitations

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SBIR FAQs STTR FAQs AGENCY FAQ LINKS DATA RIGHTS TERMS AND ABBREVIATIONS

Home » Frequently Asked Questions » SBIR FAQs

Frequently Asked Questions - SBIR

- What is the SBIR Program?
- What are the objectives of the SBIR Program?
- What Federal Agencies participate in the SBIR Program?
- Does the Small Business Administration (SBA) make any awards under the SBIR Program?
- What are the three phases of the SBIR Program?
- What is an SBIR funding agreement?
- May a portion of an SBIR award be subcontracted?
- Can a firm go directly to a Phase II award without having to compete for Phase I?
- Can a firm go for self-initiated projects that do not address topics listed in solicitations?

Featured Resources

- Applicants
- Awardees
- Investors
- Large Businesses
- Agencies

The new SBIR.gov: Answering questions

1 2 3 4 5

SBIR Gateway

The Most Comprehensive and Easy to Use
SBIR Information Site

SBIR Open Topic Search

GO

Now Includes DoD 12.1 topics

Resources

[SBIR Insider Newsletter](#)

[Solicitation Dates](#)

[SBIR Agency Links](#)

[SBIR Events Calendar](#)

[SBA FAST Awardees](#)

[About SBIR Funding](#)

[Federal Laboratories](#)

[EPSCoR Program](#)

[Other Grant Info](#)

[SBIR Policy Directive](#)

[Contact Us](#)

News Items

SBIR/STTR/STTR Reauthorized!!

Programs reauthorized through 09/30/2017

[View Latest Solicitation News](#)

News Updated 12/22/11

[SBIR Person of the Year](#)

Senator Mary Landrieu

[SBA Opens Tibbetts Awards Nominations](#)

Nominations Close 01/31/12

[NIST Opens FY-2012 SBIR](#)

Opens 12/20/11 Closes 03/2/12

[Dept of Education \(NIDRR\) Opens SBIR](#)

Opens 12/13/11 Closes 2/13/12

[Dept of Education \(IES\) Opens SBIR](#)

Opens 12/20/11 Closes 2/1/12

[NOAA Opens FY-2012.1 SBIR](#)

Opens 11/16/11 Closes 2/1/12

[DoD Issues FY-2012.1 SBIR Prerelease](#)

Opens 12/12/11 Closes 1/11/12

[DOE Issues FY-2012 \(R2\) SBIR/STTR Topics](#)

Opens ~11/28/11 Closes 1/31/12

Search Services

[Open SBIR/STTR Solicitation Topics](#)

Select an Agency's Open SBIR Topics

[Closed SBIR/STTR Solicitation Topics](#)

Topics often recycled for future solicitations

[Past SBIR/STTR Awards](#)

SBIR/STTR Awards Databases

[Federal Laboratory R&D Resources](#)

Keyword search for federal tech resources

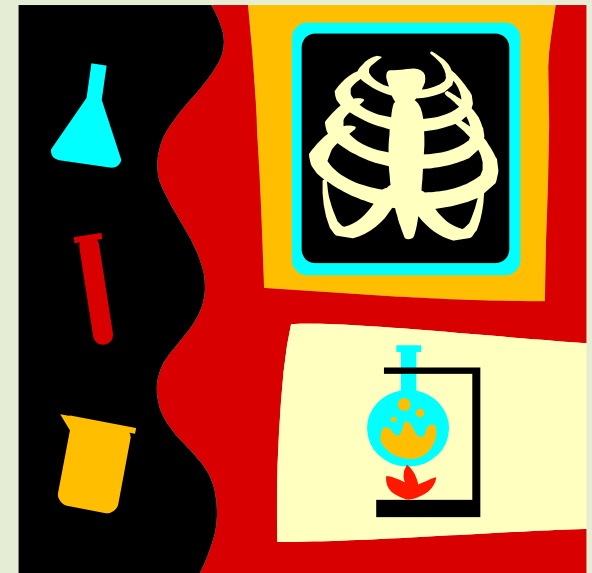
SBIR/STTR Deadlines

Solicitation	Released	Proposals Accepted	Proposal Deadline
DOT SBIR	2 Apr 2012	2 Apr 2012	5 Jun 2012
EPA	15 Mar 2012	15 Mar 2012	3 May 2012
DOE SBIR/STTR Letter of Intent Due 5-1-12	5 Mar 2012 topics only	1 May 2012	3 Jul 2012
HHS/NIH SBIR/STTR Non-AIDS Related Topics PHS 2012-2 Omnibus	24 Jan 2012	5 Mar 2012	5 Apr 2012 5 Aug 2012 5 Dec 2012
HHS/NIH SBIR/STTR AIDS Related Topics Only PHS 2012-2 Omnibus	24 Jan 2012	5 Mar 2012	7 May 2012 7 Sep 2012 7 Jan 2012

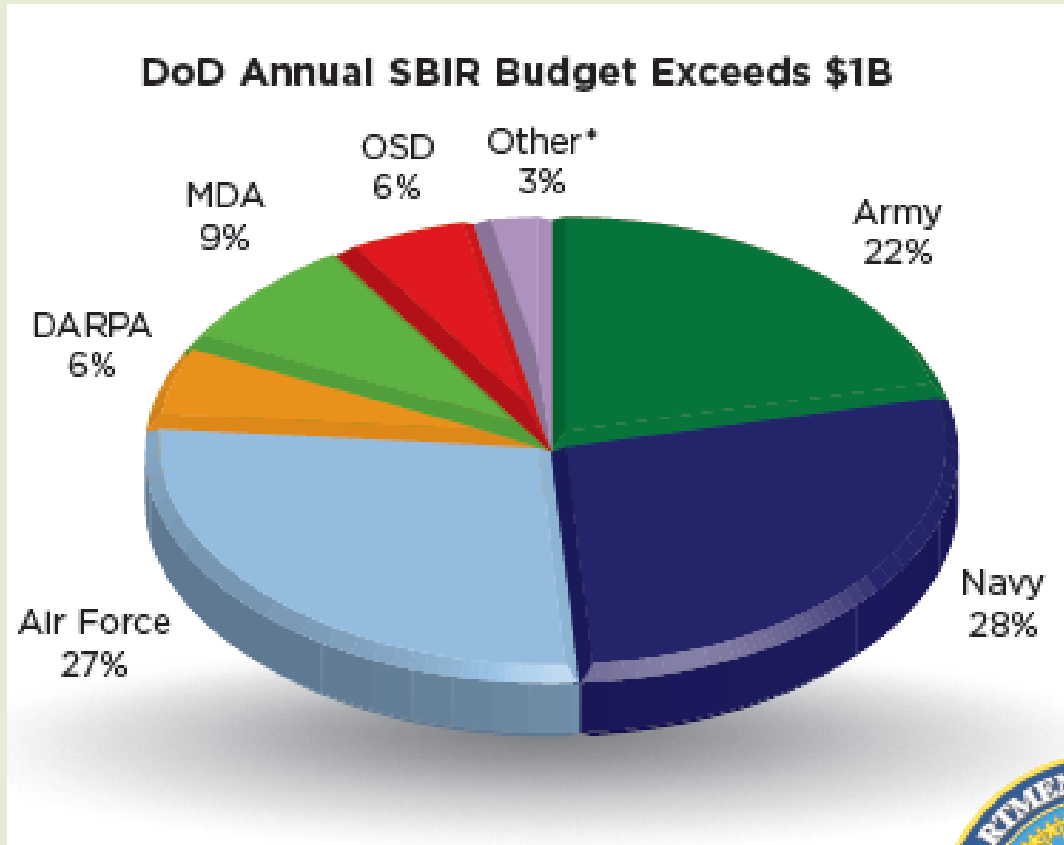
▪ <http://www.zyn.com/sbir/scomp.htm> or <http://www.sbir.gov>

Federal SBIR/STTR Agencies Funding Life Sciences

- National Science Foundation
- Department of Defense
 - Army
 - Navy
 - Air Force
 - SOCOM
 - OSD
- National Institutes of Health



The DoD SBIR Program



http://www.acq.osd.mil/osbp/sbir/docs/SBIR_Program_Flyer.pdf



■ Army

- A10-115 Manufacturing Development of Biomimetic Tissue Engineering Scaffolds
- A10-116 Miniaturized Fluidic Chip for Impedance Monitoring of Vertebrate Cells
- A10-119 Ultrafast Fiber Lasers Smart Surgical Tool Development
- A09A-T030: Incremental Learning for Robot Sensing and Control
- A10-074 Universal Bio-Sample Preparation Module

NSF SBIR Program

■ Mission of NSF

- To promote the progress of science; to advance the national health, prosperity, and welfare; and to secure the national defense.



NSF SBIR/STTR Deadlines



■ SBIR

- Due June 19, 2012
- Due Dec, 2012

■ Closed solicitations

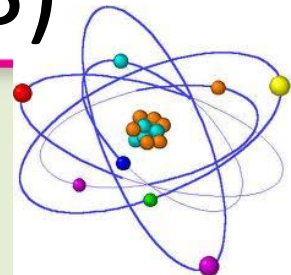
- STTR

■ Phase II Deadlines

- Phase I Awards Expiring on December 31, 2011 have submission opportunity dates of: January, 2012 or July, 2012
- Phase I Awards Expiring on June 30, 2012 have submission opportunity dates of: July, 2013 or January, 2013

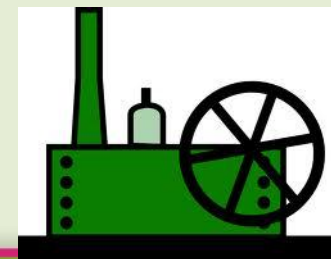


FY 2013 Solicitation (NSF 12-548)



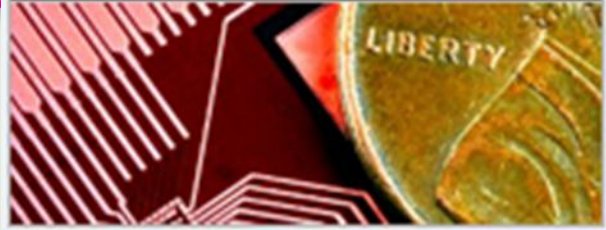
Four Broad Topic Areas

- Biological and Chemical Technologies (BC)
- Education Applications (EA)
- Electronics, Information and Communication Technologies (EI)
- Nanotechnology, Advanced Materials, and Manufacturing (NM)



NSF SBIR proposals

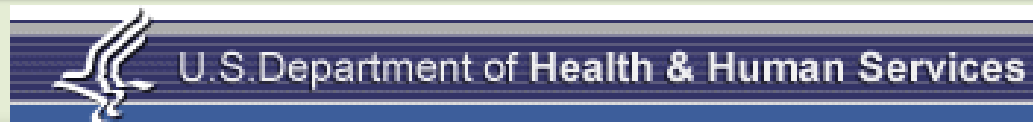
Industrial Innovation
and Partnerships (IIP)



■ PLEASE NOTE...

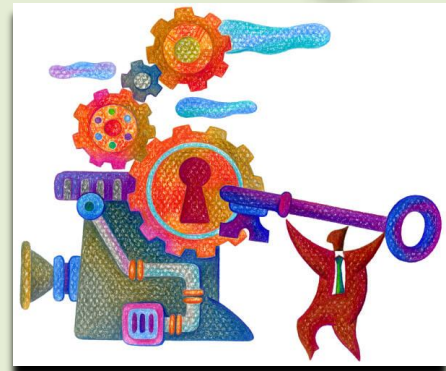
- Focus on near-term commercialization
- Letters of support from commercialization partners are required
- Communication with Program Officer is strongly encouraged
- Provide Program Officer a 1-2 page executive summary

NIH SBIR/STTR Program



Purpose of NIH SBIR/STTR Program

- Stimulate technological innovation
 - New technologies
 - Refinement of existing technologies
 - New applications for existing technologies
- Increase the commercial application of NIH supported research
 - New medical or biological products
 - Improved value
 - Improved efficiency
 - Improved costs



NIH SBIR/STTR Solicitation

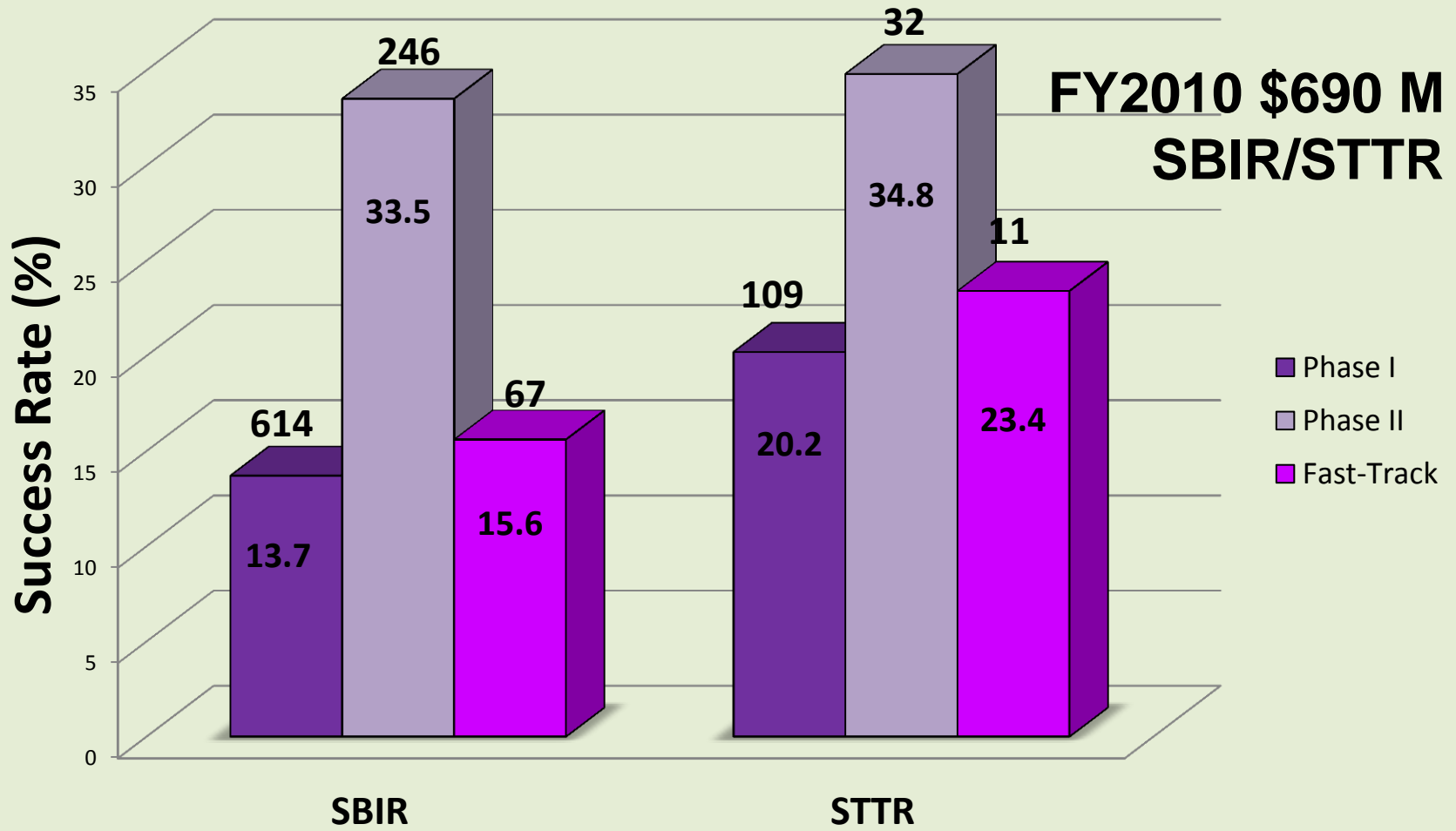
SBIR/STTR Omnibus Solicitation



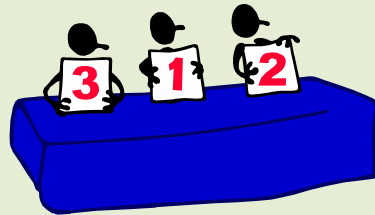
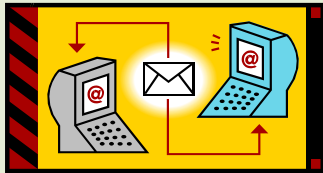
Investigator Initiated Research

- 3 deadlines per year: April, August, December
- Unrestricted Grants
 - Phase I: \$150k , 6 months
 - Phase II: \$1 million, 2 years
 - Well justified deviations from guidelines allowed

NIH SBIR Success Rates 2010

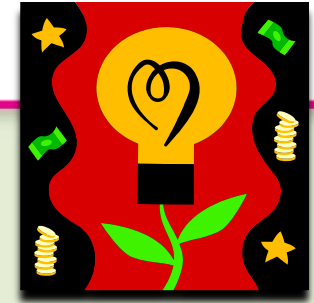
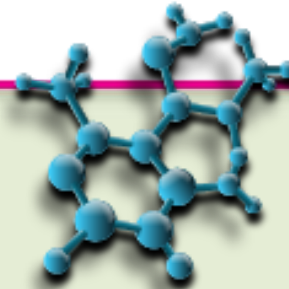


NIH: Peer Review Process

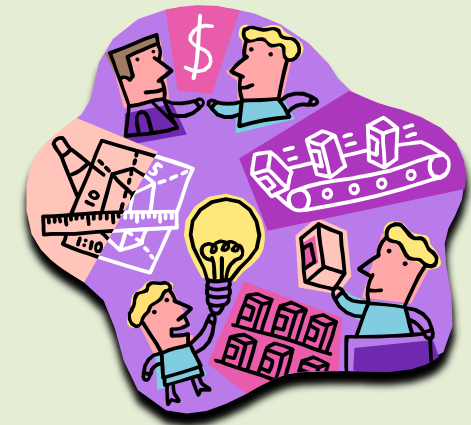


Application Receipt Dates*	National Technical Merit Review	Advisory Council Board Review	Estimated Award Date
April 5	June/July	Sept/Oct	November
August 5	Oct/Nov	Jan/Feb	March
December 5	Feb/March	May/June	July

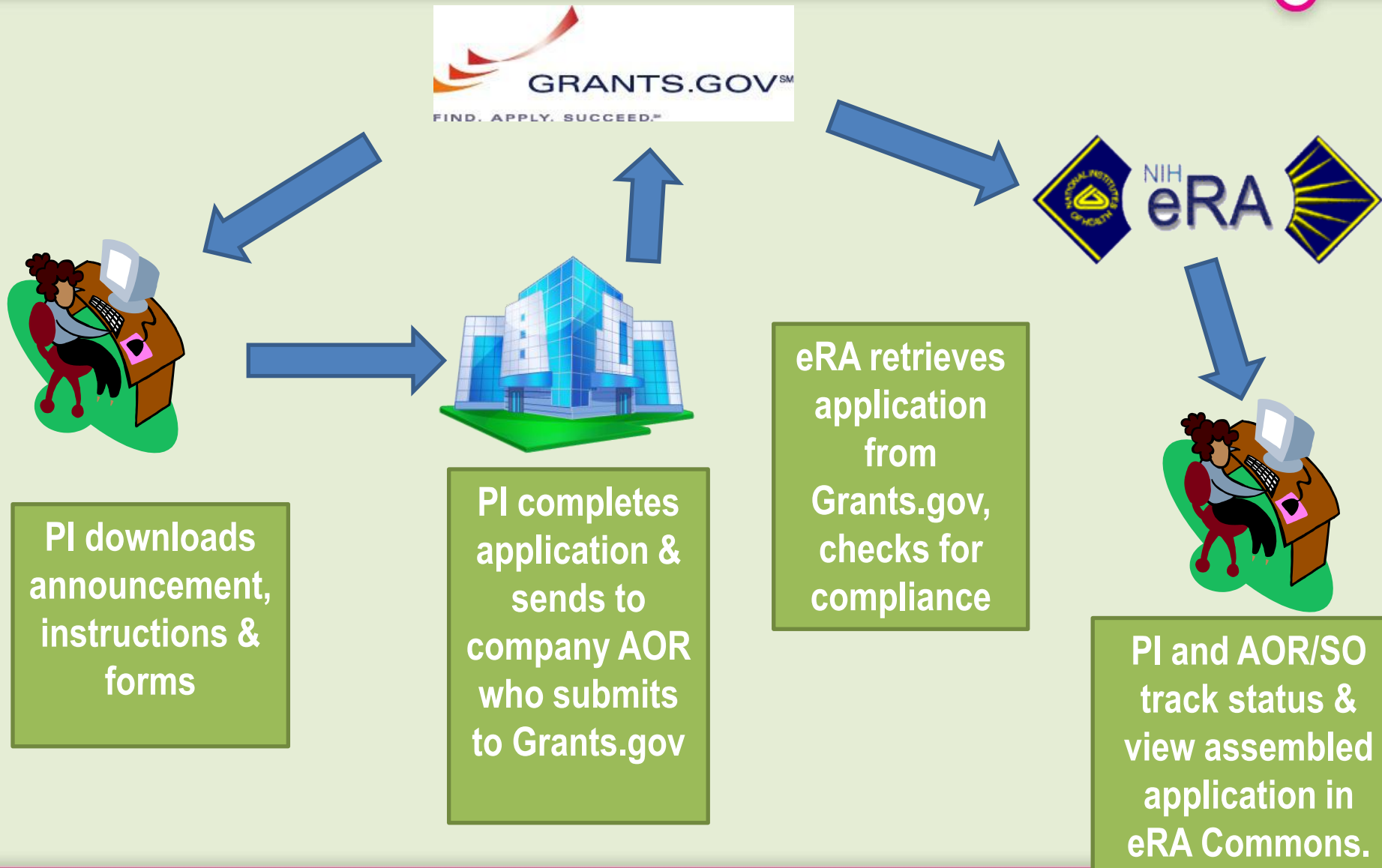
Review Criteria



- Significance
 - Technical merit
 - Commercial value
- Investigators
- Innovation
- Approach
- Environment



Overview of Electronic Application @ NIH



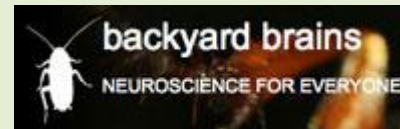
SBIR/STTR: Why?

- Non-dilutive capital (i.e. – its free)
- Peer Review
- Validation of Technology
- Commercialization focus
- Funds technology risk
- Enables early transfer of technology and establishment of start-up companies



Why apply for an SBIR/STTR?

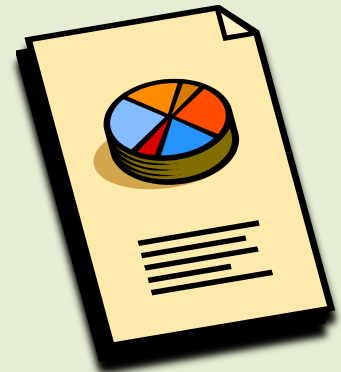
- Over \$100 million awarded to MI client companies since 2002



Understand the problem

... as well as you understand your solution

- Market size and growth
- Customer profile
- Competitors
- Sales and market share projections
- Pricing and margin analysis
- Market trends



Know Your Customer

- The Federal Government

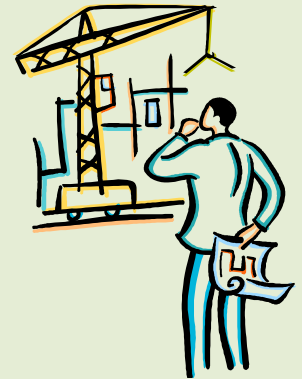
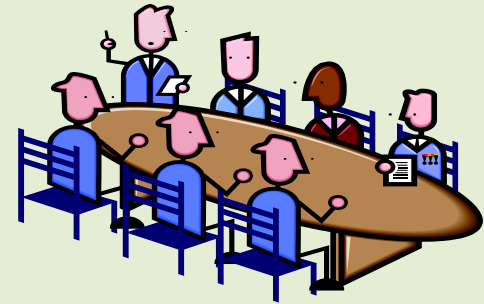
- NIH, NSF, DoD

- CSR, TPOC -- Reviewers

- Institute – TPOC, Program Manager

- The Target Market / End Users

- Other Investors



MI SBIR/STTR ASSISTANCE PROGRAM

■ GOALS

- Increase the number of applications from Michigan
- Increase the quality of applications from Michigan

■ PROGRAM COMPONENTS

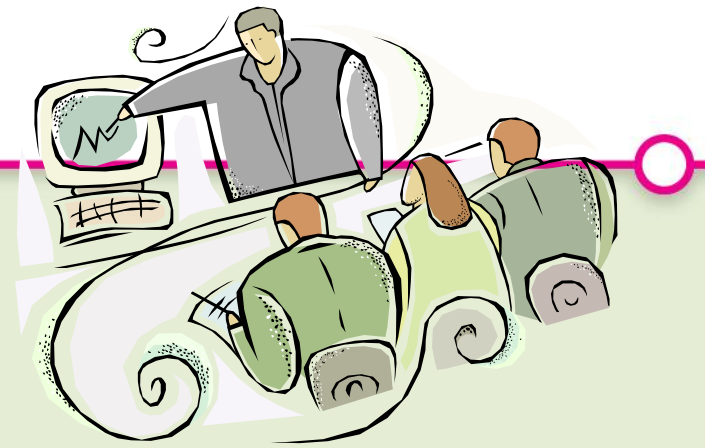
- Training
- One-on-one Proposal Assistance
- Outreach



One-on-one Assistance: Eligibility

- Located in Michigan
- Focused on commercialization of technology
- Meet requirements of an SBIR/STTR solicitation
- Must attend agency specific proposal preparation SBIR/STTR Training
- Must have qualified PI and project
- Must have sufficient time prior to deadline
 - Fees – only due if SBIR/STTR is funded:
 - \$1500 Funded Phase I
 - \$5000 Funded Phase II

BBCetc Training



Primary Training

- SBIR/STTR 101: ½ day (\$50)
- Agency Specific Proposal Preparation:
 - NIH: 2 days (\$125)
 - NSF, DoE, or DoD: 1 day (\$75)

Other Training

- Commercialization Plan Development: ½ day (\$50)
- Electronic Submission: webinar (\$25)
- Accounting/Grants Mgmt: webinar series (\$25 ea)

<http://www.bbcetc.com/training.html>

BBC's Grant Assistance



- Assessment of competencies and capabilities
- Strategic planning
- Grant sourcing
- Training on all aspects of the process including in-depth proposal preparation
- Pre-submission review and editing
- Assistance with revision and resubmission
- Post-award administrative assistance and grant management

You've Got Funding!

Michigan Resources

Michigan Emerging Technologies Fund

Start an Application

Program Guidelines

Welcome to the Michigan Emerging Technologies Fund web site!

The Michigan Emerging Technologies Fund (Michigan ETF) is designed to expand funding opportunities for Michigan technology based companies in the federal innovation research and development arena. The Michigan Small Business and Technology Development Center (MI-SBTDC) in partnership with the Michigan Economic Development Corporation (MEDC), dedicated \$1.4 million per year in 2008 through 2011 to match federal SBIR/STTR funding opportunities for exceptional research and technical innovation generated in Michigan. The fund will match both Phase I and Phase II SBIR/STTR awards until funds are exhausted.

For a complete list of our award recipients [view this page](#).

Effective 4/16/09 – the MI-ETF guidelines have been updated and will apply to all new applications. Please review the new Program Guidelines [here](#) before submitting new applications.

The purpose of the Michigan Emerging Technologies Fund is to:

- Encourage companies to pursue SBIR/STTR grants and contracts
- Increase Michigan's competitiveness in obtaining SBIR/STTR funds
- Increase commercial success of Michigan SBIR/STTR projects
- Stimulate early stage technology investing activity in Michigan

[SBIR/STTR proposal writing training available.](#)

SBIR/STTR Matching funds in Michigan

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Michigan Emerging
Technologies Fund

- Match up to \$25k for Phase I, \$125k Phase II
- Requires third party match
- **MUST APPLY PRIOR TO SBIR SUBMISSION**

www.mietf.org



- **Lisa M. Kurek, MS** – Managing Partner
- **Michael P. Kurek, PhD, MBA** – Partner
- **Andrea Johanson, PhD** – Principal Consultant
- **Bhramara Tirupati, PhD** – Principal Consultant
- **Kris Bergman** – Consultant, Grants and Contract Management
- **Jayne Berkaw** – Director, Marketing and Outreach
- **Marilyn (Mickey) Katz-Pek** – Partner Emerita & Founder



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