SBIR & STTR Program Overview
- NIH Focus

December 5, 2014

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Workshop Sponsored by:
California SBDC

http://californiasbdc.org/
www.tritechsbdc.org/
The SBIR & STTR Programs
SBIR/STTR History

- **SBIR**
  - Small Business Innovation Development Act of 1982
  - Most recent reauthorization 2011 (FY2012-2017)
  - 1983-2013
    - 132,924 awards
    - $32.9B awarded

- **STTR**
  - Small Business Technology Transfer Act of 1992
  - Most recent reauthorization 2011 (FY2012-2017)
  - 1995-2013
    - 9897 awards
    - $2.62B awarded
Characteristics of SBIR/STTR grants

- **SBIR** – Small Business Innovative Research
  - Company performs >67% of work
- **STTR** – Small-business Technology Transfer
  - Collaboration required between university & small business
  - PI can be university researcher
  - Company performs 40-70%
  - University performs 30-60%
- **Grants in phases**
  - Phase I – typically technical proof of principal/concept
  - Phase II – complete research, development
  - Phase III – commercialization
Characteristics of SBIR/STTR grants

• 12 federal agencies administer SBIR programs
• 5 agencies administer STTR programs
• Only US-based small businesses are eligible
• Goals of SBIR/STTR programs
  – Innovative products
  – Successful companies
• Small businesses eligible for MANY other federal grant/contract programs
• SBIR/STTR program reserved for only small businesses
SBIR AND STTR Programs

• Company submits proposal
• Company eligibility at time of award
  – Organized for profit
  – Place of business located in the United States
  – At least 51 percent owned and controlled by one or more individuals who are US citizens or permanent residents
  – No more than 500 employees, including affiliates
• GOAL: R&D leading to innovative products, successful companies
SBIR Awards

• Company submits proposal
  – >67% of work at small business
• PI must be >50% employed by small business
  – At the time of award!
  – (cannot be working >50% somewhere else!)
• Twelve federal agencies (DoD, HHS, DoE, NSF, NASA, USDA, DoEd, DHS, DoT, EPA, NOAA/NIST)
• 2.8% of agency budget set aside for SBIR awards…rising to 3.2% by 2017
STTR Awards

- Required collaboration between small company and research institution
  - PI from either institution
  - >40% of work at small business; >30% of work at research institution
  - Required intellectual property agreement
  - Required collaboration in both Phases I and II*
- Five federal agencies (DoD, HHS, DoE, NSF, NASA)
- Research institution eligibility
  - Nonprofit college or university
  - Domestic nonprofit research organization
  - Federally funded R&D center (FFRDC)
- 0.3% of agency budget set aside for STTR awards…rising to 0.45% by 2017
Federal Agencies with SBIR Programs

- These federal agencies have SBIR programs:
  - Department of Agriculture
  - Department of Commerce - National Institute of Standards and Technology
  - Department of Commerce - National Oceanic and Atmospheric Administration
  - Department of Defense
  - Department of Education
  - Department of Energy
  - Department of Health and Human Services
  - Department of Homeland Security
  - Department of Transportation
  - Environmental Protection Agency
  - National Aeronautics and Space Administration
  - National Science Foundation

- Each agency manages its SBIR/STTR programs
SBIR/STTR Budgets (2012) $2.4B

SBIR/STTR Budgets by Agency, 2012

- **DOE**: $1.1B
- **NASA**: $717.0M
- **NSF**: $188.3M
- **NIH**: $161.8M
- **National Science Foundation (NSF)**: $150.6M
- **All Others**: $91.6M

Percent of research budget “set aside” for SBIR and STTR programs

- **U.S. Department of Agriculture (USDA)**: $19.3M
- **Department of Education (ED)**: $13.4M
- **Department of Homeland Security (DHS): Science and Technology Directorate (S&T) and Domestic Nuclear Detection Office (DNDO)**: $12.5M
- **Department of Transportation (DOT)**: $8.6M
- **Environmental Protection Agency (EPA)**: $4.8M
- **Department of Commerce: National Oceanic and Atmospheric Administration (NOAA) and National Institute of Standards and Technology (NIST)**: $4.7M

~ $2.4B in FY 2012 across all agencies

http://science.energy.gov/sbir/funding-opportunities/
This is an overview - Always check the specific agency solicitation!

## Characteristics of SBIR/STTR Awards

<table>
<thead>
<tr>
<th>Agency &gt;</th>
<th>DoD</th>
<th>NASA</th>
<th>DoT</th>
<th>EPA</th>
<th>DoE</th>
<th>DHS</th>
<th>DoC-NOAA</th>
<th>DoC-NIST</th>
<th>NSF</th>
<th>USDA</th>
<th>DoED</th>
<th>NIH</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Award Type (Contract, Grant)</strong></td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>G</td>
<td>C</td>
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<td>C</td>
<td>G</td>
<td>G</td>
<td>G/C</td>
<td>G/C</td>
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<tr>
<td>**Max. Award Amount **</td>
<td>150K&lt;sup&gt;a&lt;/sup&gt;</td>
<td>125K</td>
<td>150K</td>
<td>80K</td>
<td>150K</td>
<td>100K</td>
<td>95K</td>
<td>90K</td>
<td>150K</td>
<td>70K-100K</td>
<td>100K</td>
<td>150K&lt;sup&gt;b&lt;/sup&gt;</td>
</tr>
<tr>
<td><strong>Phase I</strong></td>
<td>150K&lt;sup&gt;a&lt;/sup&gt;</td>
<td>125K</td>
<td>150K</td>
<td>80K</td>
<td>150K</td>
<td>100K</td>
<td>95K</td>
<td>90K</td>
<td>150K</td>
<td>70K-100K</td>
<td>100K</td>
<td>150K&lt;sup&gt;b&lt;/sup&gt;</td>
</tr>
<tr>
<td><strong>Time of Phase I</strong></td>
<td>6 mo</td>
<td>6 mo (12 mo STTR)</td>
<td>6 mo</td>
<td>6 mo</td>
<td>9 mo</td>
<td>6 mo</td>
<td>6 mo (12 mo)</td>
<td>6 mo (12 mo STTR)</td>
<td>8 mo</td>
<td>6 mo</td>
<td>6 mo</td>
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<tr>
<td><strong>Award Amount Phase II</strong></td>
<td>1MM</td>
<td>750K</td>
<td>1MM</td>
<td>300K</td>
<td>1MM</td>
<td>750K</td>
<td>400K</td>
<td>300K</td>
<td>500K</td>
<td>450K</td>
<td>500K</td>
<td>1MM</td>
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<td><strong>Time of Phase II</strong></td>
<td>24 mo</td>
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<td><strong>Review Process</strong></td>
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<tr>
<td><strong>Research Topics</strong></td>
<td>S</td>
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<td>S</td>
<td>B</td>
<td>B</td>
<td>S</td>
<td>B</td>
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<tr>
<td><strong>Gap Funding</strong></td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
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<tr>
<td><strong>Communication</strong></td>
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<tr>
<td><strong>Recent Success rates (Ph I, 2010)</strong></td>
<td>16%</td>
<td>22%</td>
<td>9%</td>
<td>7%</td>
<td>14%</td>
<td>17%</td>
<td>8%</td>
<td>18%</td>
<td>17%</td>
<td>14%</td>
<td>20%</td>
<td></td>
</tr>
<tr>
<td><strong>Recent Success rates (Ph II, 2010)</strong></td>
<td>73%</td>
<td>50%</td>
<td>70%</td>
<td>61%</td>
<td>33%</td>
<td>67%</td>
<td>41%</td>
<td>29%</td>
<td>62%</td>
<td>23%</td>
<td>41%</td>
<td></td>
</tr>
<tr>
<td><strong>Avg mo's - Phase I proposal deadline and start of award</strong></td>
<td>5.8</td>
<td>4.9</td>
<td>4.2</td>
<td>9</td>
<td>7.1</td>
<td>4</td>
<td>6.3</td>
<td>6.1</td>
<td>6.5</td>
<td>9.5</td>
<td>7.6</td>
<td>9.9</td>
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</tbody>
</table>

<sup>a</sup>varies
Success Rates for SBIR awards

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<tr>
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<td>B</td>
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</tbody>
</table>

• Resubmissions often allowed, and often higher % success than average
• Talking with agency personnel often helps understand competitiveness,
• Especially with agencies that solicit Specific (rather than Broad) Research topics
NIH SBIR Website

• Omnibus solicitations
• Special topic solicitations
Company eligibility

- Company structure, ownership
  - Organized, for-profit, U.S.-based
  - Ownership – changing requirements
    - Past: At least 51% owned by US citizens or perm. residents (precluded majority venture-backed companies)
    - To come soon: Agency-by-agency allowing some companies with majority venture fund ownership
  - 500 employees or fewer including affiliates

- PI’s primary employment with the small business

- Proposed work must occur in US
  - Exceptionally difficult/impossible to overcome this
Preparing to Apply for an SBIR/STTR Award

- Does your company qualify for SBIR/STTR Award?
- Who is the Principal Investigator?
- How will you manage the project?
- Which agencies are appropriate?
## Current Open Solicitations (11/17/2014)

<table>
<thead>
<tr>
<th>Program</th>
<th>Release Dates</th>
<th>Accepts Proposals</th>
<th>Closing Dates</th>
</tr>
</thead>
<tbody>
<tr>
<td>NSF STTR</td>
<td>25 Aug 2014</td>
<td>5 Nov 2014</td>
<td>5 Dec 20134</td>
</tr>
<tr>
<td>HHS/NIH SBIR/STTR (Grants)</td>
<td>17 Jan 2014</td>
<td>5 Mar 2014</td>
<td>5 Apr 2014</td>
</tr>
<tr>
<td>Non-AIDS Related Topics</td>
<td></td>
<td></td>
<td>5 Aug 2014</td>
</tr>
<tr>
<td>PHS 2014-2 Omnibus</td>
<td></td>
<td></td>
<td>5 Dec 2014</td>
</tr>
<tr>
<td>HHS/NIH SBIR/STTR (Grants)</td>
<td>17 Jan 2014</td>
<td>5 Mar 2014</td>
<td>7 May 2014</td>
</tr>
<tr>
<td>AIDS Related Topics Only</td>
<td></td>
<td></td>
<td>7 Sep 2014</td>
</tr>
<tr>
<td>PHS 2014-2 Omnibus</td>
<td></td>
<td></td>
<td>7 Jan 2015</td>
</tr>
</tbody>
</table>

*NIH Special SBIR / STTR Funding Opportunities*

These are separate from the regular NIH omnibus solicitation.

- Agencies differ
- Email alerts when solicitations released
  - DoD, DoE – multiple releases/year
- Some agencies only one SBIR solicitation/year
- Solicitation provides instructions, topics, eligibility…

FROM: http://www.zyn.com/sbir/scomp.htm
** Don’t rely on this! Check the dates on agency website!!

<table>
<thead>
<tr>
<th>Program</th>
<th>Release Dates</th>
<th>Accepts Proposals</th>
<th>Closing Dates</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Education IES Regular</strong></td>
<td>1 Dec 2014</td>
<td>1 Dec 2014</td>
<td>15 Jan 2015</td>
</tr>
<tr>
<td><strong>Education IES Fast Track</strong></td>
<td>1 Dec 2014</td>
<td>1 Dec 2014</td>
<td>15 Jan 2015</td>
</tr>
<tr>
<td><strong>DoD SBIR 2015.1</strong></td>
<td>12 Dec 2014</td>
<td>15 Jan 2015</td>
<td>18 Feb 2015</td>
</tr>
</tbody>
</table>

FROM: http://www.zyn.com/sbir/scomp.htm
## Funding Opportunities for U.S. Small Businesses

<table>
<thead>
<tr>
<th>Re-issued 2013 SBIR and STTR Omnibus Grant Solicitations of the NIH, CDC, FDA and ACF</th>
<th>Re-issued SBIR Parent Funding Opportunity Announcement (PA-13-234)</th>
<th>Standard Receipt Dates Remaining: Aug 5, Dec 5</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Program Descriptions and Research Topics (PDF - 1 MB or MS Word - 350 KB)</td>
<td><strong>Receipt dates vary. See individual announcements for dates.</strong></td>
</tr>
<tr>
<td><strong>Special Funding Opportunities and Announcements</strong></td>
<td><strong>See individual announcements</strong></td>
<td><strong>SBIR Phase I Contract Solicitation PHS 2014-1 and Amendment #0001 (amended 10/24/2013)</strong></td>
</tr>
<tr>
<td><strong>SBIR Phase I Contract Solicitation PHS 2014-1 and Amendment #0001 (amended 10/24/2013)</strong></td>
<td><strong>PDF - 1.1 MB or MS Word - 530 KB and Contract Proposal Forms and Amendment #0001</strong></td>
<td><strong>Closing Date: November 25, 2013, 4:30PM Eastern Time</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Solicitation Open and deadline extended.</strong></td>
<td><strong>Different SBIR &amp; STTR Solicitation #’s Know the Solicitation #</strong></td>
</tr>
</tbody>
</table>
NIH SBIR Solicitation (PA14-071)

• AKA “Funding Opportunity Announcement”
• Relatively short document

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   Section II. Award Information
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   Section V. Application Review Information
   Section VI. Award Administration Information
   Section VII. Agency Contacts
   Section VIII. Other Information
NIH SBIR Grants

- Award budget: $225K Phase I “hard cap”
  - $1.5MM Phase II “hard cap”
- Award timing: 6 months or less - Phase I
  - 2 years or less - Phase II

| Award Budget | According to statutory guidelines, total funding support (direct costs, indirect costs, fee) normally may not exceed $150,000 for Phase I awards and $1,000,000 for Phase II awards. CDC, FDA, and ACF will not consider SBIR applications above these guidelines. For NIH, with appropriate justification from the applicant, Congress will allow awards to exceed these amounts by up to 50% ($225,000 for Phase I and $1,500,000 for Phase II, a hard cap). Please refer to the appropriate Institute’s or Center’s topic section for additional budget guidance. Applicants are strongly encouraged to contact program officials prior to submitting any application. In all cases, applicants should propose a budget that is reasonable and appropriate for completion of the research project. Phase IIB budgets must be submitted in accordance with participating IC-specific budget limitations described in the current SBIR/STTR Program Descriptions and Research Topics of the NIH, CDC and FDA. |
| Award Project Period | According to statutory guidelines, award periods normally may not exceed 6 months for Phase I and 2 years for Phase II. Applicants are encouraged to propose a project duration period that is reasonable and appropriate for completion of the research project. |
NIH - Format of the Application

• Information in SF424 SBIR/STTR Application Guide
  – 154 pages..details!
  – How to register on electronic systems
  – Required software (PDF document creator)
  – Using the application “package”, filling in forms
  – Allowable fonts, margins, headers, page limits...
  – Organization of the application
  – How to submit
Register on Electronic Submission Sites

  - Get a DUNS #
  - Register organization on SAM.gov [https://www.sam.gov/portal/public/SAM/](https://www.sam.gov/portal/public/SAM/)
  - Register on eRA Commons (NIH site)

- For each site
  - Keep track of who is the Authorized Organizational Rep (AOR) and their login name/pw
  - There is (usually) one AOR per company, though there can be many PI’s
  - PI electronic signature and AOR electronic signatures required to submit application

- Start early – this can take 6-8 weeks (last step is slow!)

- Other registrations required before you can accept an award – you might as well register now
Create a Responsive Proposal

• Identify a specific topic & subtopic
  – Catch up on the field – review references listed in the topic
  – Listen to the archived topics webinar
• Imagine your project - beginning to end
  – Create the overall workplan, Phase I, Phase II boundaries, milestones
  – Phase I intended as “Proof of Concept”
• Write up an abstract
  – “We have novel technology that does this….We could use it to do this
    (which meets request of topic #, subtopic #)….This would create XXX,
    which is superior to existing products/methods, because….”
• Email the topic program manager, send the abstract
  – Ask for guidance – is the project responsive?
  – Listen carefully, take notes, review your notes as you write the proposal
SBIR/STTR Review Process

• Your submission

• Administrative review
  – Outcomes: ok/rejection; automated

• Technical review
  – Internal or external depending on agency
  – Outcomes: rank order of proposals based on technical merit

• Programmatic review
  – Internal program managers
  – Outcomes: Recommended/not recommended for funding

• Administrative decisions to award funds
For Information & Advice

• Online
  – www.sbir.gov
  – http://www.calsbir.com/
  – Agency SBIR websites (see next slide for agency SBIR links)
    • Information about application & review processes
    • Solicitations
    • Guides to better grant writing

• In person
  – SBDC organizations – TriTechSBDC
  – Paid consultants

• There is no reason to do it alone!
Molly B. Schmid, Ph.D.

- California SBIR
- http://www.calsbir.com/
- TriTechSBDC Consulting: www.TritechSBDC.org