SBA
U.S. Small Business Administration

Small Business Technology Transfer Program (STTR)

Annual Report - FY 2002

Office of Technology
U.S. Small Business Administration
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Introduction

This is the ninth annual report presented by the U.S. Small Business Administration (SBA) pursuant to Public Law 102-564, the Small Business Research and Development Enhancement Act of 1992, as amended.

This report describes the operation and administration of the Small Business Technology Transfer program (STTR) for fiscal year 2002.

Summary of Legislation

Public Law 102-564, as amended

Title I of Public Law 102-564 amended the Small Business Act by reauthorizing the Small Business Innovation Research (SBIR) program. After extensive hearings by several committees and review of extensive testimony from numerous experts, Federal Government officials, participating small businesses, beneficiaries, and oversight groups including the General Accounting Office, Public Law 102-564 was passed by the Congress. At the time it was reauthorized, the SBIR program had been in effect for a decade, during which it achieved remarkable success in its program goals of helping small businesses develop important technology and helping keep the Nation at the forefront of technological innovation.

Seeking to further expand small business opportunities in the technical arena, Title II of the Act established the STTR program.

The STTR program shares the underlying philosophy of the SBIR program. It targets federally funded research and development as a base for technological innovation that will contribute to the growth and strength of the Nation's economy. It differs from the SBIR program in that STTR awards are made to small businesses that pursue technological innovation through cooperative research and development with Federal laboratories and non-profit scientific and educational institutions.

Duration of the Program

The Small Business Technology Transfer Program

Funding

Federal agencies that participate in the STTR program must have an extramural budget for research or research and development in excess of $1 billion. Program guidelines established the following percentages of funds an agency could expend with small businesses in connection with the STTR program:

- Not less than 0.05 percent of such budget in fiscal year 1994;
- Not less than 0.1 percent of such budget in fiscal year 1995; and
- Not less than 0.15 percent of such budget through fiscal year 2003.
- Not less than 0.3 percent of such budget in fiscal year 2004 and each fiscal year thereafter.

Federal Agencies Participating

The five Federal agencies that meet the funding threshold and participate in the program are:

- Department of Defense
- Department of Energy
- Department of Health and Human Services
- National Aeronautics and Space Administration
- National Science Foundation

The Three-Stage STTR Process

Public Law 102-564 structured the STTR program as a three-phase process designed to identify and nurture promising research and development interests within the small business community. These phases are:

Phase I: Awards are made to determine, to the extent possible, the scientific, technical, and commercial merit and the feasibility of ideas submitted. Phase I awards generally will not exceed $100,000 and are for a 1-year effort. Award amounts are set at the discretion of the participating agencies.

Phase II: In Phase II, Phase I projects with the most potential may be funded to further develop ideas to meet particular program goals. Phase II awards will generally not exceed $500,000 for a 2-year effort. Specific amounts awarded are at the discretion of the awarding agencies.

Phase III: No Federal STTR funds are expended during this phase. In Phase III, program participants pursue commercial applications of the
innovations developed in Phases I and II. However, in Phase III, program participants may receive additional non-STTR Federal funds to develop products and services for use by the Federal Government. They may also receive awards from non-STTR Federal funding sources for continuation of competitively selected research and research and development.

Eligibility for Participation in STTR

The STTR program involves cooperative research and development performed jointly by a small business and a research institution. Thus, each STTR project involves at least two partners, each of which must meet eligibility criteria in order for the project to be funded.

To be eligible for an STTR award, a small business must have no more than 500 employees, be independently owned and operated, not be dominant in the field of operation in which it is proposing, have its principal place of business in the United States, be organized for profit, and be primarily owned by U.S. citizens.

To be eligible for participation in an STTR award, a research institution must be a non-profit institution as defined by the Stevenson-Wydler Technology Innovation Act of 1980, or a federally funded research and development center (FFRDC) as identified by the National Science Foundation in accordance with the Office of Federal Procurement Policy Act. Thus, most universities and colleges, non-profit research centers, and Federal Government-owned, company-operated laboratories are eligible.

Small businesses interested in participating in the STTR program are required to find a research institution meeting this definition and to develop a working agreement before proposing to compete for an STTR award.

Distribution of Work

An STTR award is intended to be a true partnership venture for both the small business and the research institution. To ensure such a relationship, the program establishes minimum performance levels for each participant. Public Law 102-564, as amended, stipulates that under an STTR award, the small business must perform at least 40 percent of the work, and the research institution must perform at least 30 percent of the work.

Management of STTR Projects

Although the conduct of the project is a cooperative research and development venture, the small business exercises overall management, control, and responsibility for the project.

Participating agencies are required to ensure that the small business manages and controls the funding agreement pursuant to a business plan that provides for the commercialization of the technology being funded.

Continued Use of Federal Government Property

STTR guidelines also direct Federal agencies to allow small businesses that use Federal Government equipment during the conduct of an STTR award to continue to do so for not less than 2 years after the beginning of Phase III.
Model Agreements

Public Law 107-50 directs SBA to establish guidelines for a model agreement to be used by all STTR participating agencies in allocating intellectual property rights and follow-on rights.

Representatives of each of the five participating agencies issued two model agreements: one published by the Departments of Energy and Health and Human Services, and the other published by the Department of Defense, the National Science Foundation, and the National Aeronautics and Space Administration. The SBA approved both model agreements.

Small businesses are required to negotiate agreements with research institutions, but they are not required to use the model agreements. Rather, they are free to formulate and execute their own agreements or to use the models in whole or in part.

Rights to Data

A major concern of small, innovative firms is that data generated while performing research and development for the Federal Government will be made public. Therefore, STTR legislation stipulates that the program provide for the small business to retain the rights to data it generates while performing in the STTR program. These retention rights remain effective for at least 4 years. The intent of this provision is to authorize the participating agency to protect technical data generated under the STTR funding agreement and to refrain from disclosing such data to competitors of the small business. The statute also stipulates that the agency cannot use the information to produce future technical procurement specifications, thus protecting the participating small business until it has a reasonable chance to seek patent protection, if appropriate.

Therefore, the Policy Directive mandates that, except for program evaluation, participating agencies must protect technical data for at least 4 years from the completion of the project that generated the data. The Federal Government, however, retains a royalty-free license for Federal Government use of any technical data delivered under an STTR funding agreement, whether patented or not.

Follow-On Funding Agreements

Following completion of Federal research and development contracts, it is not unusual for the agency involved to have further research and development interests that result in a continuation of work. There have been numerous instances in which, following the completion of Phase II of STTR, agencies had chosen to continue development of an innovation to produce a product or service developed under the STTR award. To ensure smooth continuation of this work, protect the commercial rights to the innovation, and continue to employ the expertise of the originating small business, agencies are directed, to the degree practicable, to award any non-STTR, follow-on contracts or grants to the originating small business. To make this process more efficient, participating agencies have been advised that the competition for an STTR award serves as meeting the requirements of the Competition in Contracting Act. This allows the agencies to award non-STTR, follow-on work to the small business without further competition.
Critical Technologies

STTR legislation requires agencies to give special consideration to broad research topics and to topics that further one or more critical technologies. These technologies are identified by the National Critical Technologies Panel (or its successor). To assist the agencies, SBA annually requests a complete listing of critical technologies from the National Critical Technologies Panel and the Office of the Secretary of Defense. These listings were sent to each participating agency.
Authorities and Responsibilities of the Participants

Participating Agencies

As set forth in Public Law 102-564, the authorities and responsibilities of Federal agencies participating in the STTR program are to:

1. Unilaterally determine categories of projects to be included in its STTR program.

2. Issue STTR solicitations according to a schedule determined cooperatively with the SBA.

3. Unilaterally determine research topics within the agency's STTR solicitations, giving special consideration to broad research areas that further one or more critical technologies as identified by either the National Critical Technologies Panel or the Secretary of Defense.

4. Unilaterally receive and evaluate proposals resulting from STTR solicitations.

5. Unilaterally select awardees for its STTR funding agreements and inform each awardee, to the extent possible, of the allowable expenses under the funding agreement.

6. Administer its own STTR funding agreements.

7. Pay recipients on the basis of progress toward or completion of the STTR funding agreement requirements.

8. Submit an annual report on the STTR program to the SBA and the Office of Science and Technology Policy.

9. Develop a model agreement for approval by the SBA that allocates between small businesses' and research institutions' intellectual property rights and any rights to carry out follow-on research, development, or commercialization.

10. Develop procedures in consultation with the Office of Federal Procurement Policy and the Office of Federal Government Ethics to ensure that federally funded research and development centers that participate in STTR agreements:

   A) Are free from organizational conflicts of interest relative to the STTR program.

   B) Do not use privileged information gained through work performed for an STTR agency or private access to STTR agency personnel in the development of an STTR proposal.

   C) Use outside peer review, as appropriate.

11. Develop procedures for assessing the commercial merit and feasibility of STTR proposals.
Small Business Administration

Public Law 102-564 designates the SBA as the lead Agency to implement the program, govern its policy, and monitor and analyze its performance. As the lead Agency, the SBA's authorities and responsibilities are to:

1. Develop, coordinate, and issue a Policy Directive for the general conduct of the STTR programs.

2. Assist small businesses in obtaining Federal Government contracts for research and development.

3. Assist small businesses in obtaining benefits of research and development performed under Federal Government contracts or at Federal Government expense.

4. Develop and maintain a source file and an information program to help ensure each qualified and interested small business the opportunity to participate in technology transfer pilot programs involving Federal agencies.

5. Coordinate with participating agencies a schedule for release of STTR solicitations and prepare a master release schedule that maximizes small business opportunities to respond to solicitations.

6. Independently survey and monitor the operation of STTR programs within participating Federal agencies.

7. Report not less than annually to the Congress on the STTR programs of the Federal agencies.

8. Consult, cooperate, perform studies, and make recommendations to Federal Government agencies.

9. Consult with representatives of small business to assist and encourage such firms to undertake joint programs for research and development.

The STTR Program
Policy Directive

Public Law 102-564 authorized the SBA to issue a Policy Directive to conduct the STTR Pilot Program within the Federal Government. Before issuing this Policy Directive, the SBA consulted with the heads of the two Federal agencies participating in the formulation of the program: the Commissioner of Patents and Trademarks and the Administrator of the Office of Federal Procurement Policy.

The SBA met with the representatives of each of these organizations, and after significant discussion and modifications, finalized the Policy Directive effective October 1, 1993.

The Policy Directive guides participating agencies in the operation of the STTR programs. It provides simplified, standardized, and timely solicitations and funding processes. It also directs the participating agencies to reduce regulatory burdens associated with participation in STTR programs. In addition, the directive also provides guidelines for a model agreement to be used by all agencies for allocating intellectual property and other rights between small businesses and research institutions. It also provides procedures to ensure that recipients of STTR awards meet eligibility requirements as small businesses and that they manage and control the performance of the STTR funding agreement.

Finally, the directive instructs the participating agencies to develop procedures to ensure follow-on, non-STTR funding agreements with the small business when appropriate.
Surveying, Monitoring, and Reporting

Pursuant to the legislation, the SBA is required to independently survey and monitor the operation of the STTR programs within participating Federal agencies. The law directs SBA to report not less than annually to the Committee on Small Business of the Senate and the House of Representatives and to the Committee on Science of the House of Representatives on the STTR programs of the Federal agencies.
STTR—The Program’s 9th Year - FY 2002

Public Law 102-564, as amended, provides both general guidance and specific instructions concerning the implementation of the STTR program. To ensure a successful implementation, the law specifically directed several important actions and established completion dates. All mandated actions were implemented in a timely manner.

Solicitation Schedule

STTR policy directs each Federal agency participating in the program to issue STTR solicitations in accordance with a schedule determined cooperatively with the SBA. After approval of SBA’s master schedule, these agencies issued solicitations early in fiscal 2002 to invite small business to propose STTR projects.

After approval of its solicitation schedule, each participating agency provided SBA with information necessary to publish a pre-solicitation announcement. The announcements provided interested small businesses with information on forthcoming opportunities in the STTR program, as well as basic information on program requirements, opening and closing dates of solicitations, and agency contact points for further information.

In fiscal year 2002, the participating agencies had the following solicitation periods:

- Department of Health and Human Services - January 2002 with closings April 1, August 1 and December 1, 2002.

Award Obligation Requirements

Program policy required participating agencies to expend on STTR awards not less than 0.15 percent of their fiscal year 2002 development. In fiscal year 2002, $87,469,433 should have been obligated program-wide to meet this requirement; however, actual obligations were $95,806,429 exceeding the requirement by 1.09 percent.

Small-Business Participation

During FY 2002, small businesses submitted 1,523 proposals under the
STTR program, including 1,289 Phase I proposals and 234 Phase II proposals. A total of 470 awards were made, including 356 Phase I awards and 114 Phase II awards. Awards were made to 375 small businesses. In FY 2002, total STTR program obligations were $95,806,429. Small business received $55,415,501 or 57 percent of total funding. Research institutions received $38,004,766 or 39 percent.

Minority and Disadvantaged Firms

Of the 375 firms that successfully competed for STTR awards, 42 or 11.2 percent were firms owned by minority or disadvantaged persons. They received $8,404,053 or 9 percent of the $95,806,429 total obligated.

Research Institutions

Small businesses interested in participating in the STTR program must find a research institution that meets the program's definition and develop a working agreement before proposing to compete for an STTR award.

The statistics available at the end of the fiscal year indicate that 375 firms collaborated with 158 research institutions. Of contracts and grants awarded during the year, 399 were made to universities and colleges, 28 to federally funded research and development centers, and 30 to other non-profit research institutions. The research institutions were located in 44 states, the District of Columbia and Puerto Rico.

Table 1: Number of STTR Awards -- FY 1994 through FY 2002

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Table 2: Value of STTR Awards-- FY 1994 through FY 2002 (in thousands of dollars)

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*Does not include modifications

Highlights of Cumulative Data

The STTR program continues to receive recognition for quality performance. The following highlights accomplishments of the STTR program since it began in FY 1994:

- More than $549 million has been awarded.
- Participating agencies received a total of 12,098 Phase I and Phase II proposals in response to 45 STTR solicitations. A total of 2,914 Phase I (2,226) and Phase II (688) awards have been made.
• Minority/disadvantaged firms have received 312 awards, representing 10.7 percent of all STTR awards. The value of these awards is $63.5 million, representing 11 percent of all dollars awarded under the program.

• Awards have been made to firms in all 50 states, Puerto Rico and the District of Columbia.
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<td>Mayo Clinic (2)</td>
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<tr>
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<td>Other</td>
<td>Autonomous Undersea Sys., Inc.</td>
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<td>University of Medicine &amp; Dentistry (3)</td>
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<td>Los Alamos National Laboratory (2)</td>
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<td>North Carolina State (7)</td>
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<td>North Carolina A&amp;T State University</td>
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<td>Duke University</td>
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**Ohio**

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<td>Cleveland Clinic Foundation</td>
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<td>Children's Hospital Medical Center</td>
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<td>National Composite Center</td>
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**Oklahoma**

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**Oregon**

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<td>University of Oregon</td>
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**Pennsylvania**

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<td>Rockland</td>
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<td>Penn State University (6)</td>
<td>Western Pennsylvania Hospital</td>
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<td>University of Pennsylvania (4)</td>
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<td>Thomas Jefferson University</td>
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<td>Villanova University</td>
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**Rhode Island**

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<td>University of Rhode Island (2)</td>
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16
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<th>State</th>
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<td>S.D. School of Mines &amp; Technology</td>
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<td>University</td>
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<td>Vanderbilt University</td>
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<td>Texas</td>
<td>Other</td>
<td>M.D. Anderson Cancer Center</td>
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<td>Texas A&amp;M University</td>
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<td>University</td>
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<td>University</td>
<td>Texas Engineering Experiment Station</td>
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<td>Foundation for Responsible Citizens</td>
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<td>Other</td>
<td>Old Dominion Research Foundation</td>
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<td>University</td>
<td>College of William &amp; Mary</td>
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<td>University</td>
<td>George Mason University</td>
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<td>Washington</td>
<td>FFRDC</td>
<td>Pacific Northwest National Laboratory</td>
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<td>University</td>
<td>University of Washington</td>
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<td>Wisconsin</td>
<td>FFRDC</td>
<td>Wisconsin Center for Space Automation</td>
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FY 2002 STTR Phase I Awardees

Alabama
Birmingham
Vaxin, Inc. (2)

Huntsville
CFD Research Corporation (2)
Shearwater Polymers, Inc.
Erc, Inc.

Arizona
Paradise Valley
Phoenix Biotech, Inc.

Phoenix
Ocis Technology
Scottsdale
Azerx, LLC

Tempe
Scientific Monitoring, Inc.

Tucson
Materials & Electrochemical Research Corporation (2)
Advanced Ceramics Research, Inc. (5)
Medical Directions, Inc.

Arkansas
Fayetteville
NanoM materials and NanoFabrication Laboratories

California
Agoura Hills
First Point Sci. Inc.

Altadena
Ionfinity, LLC (2)

Anaheim
RST Scientific Research, Inc.

Berkeley
Imagize LLC

Aerosol Dynamics, Inc.

 Burlingame
Intermune Pharmaceuticals, Inc.

 Carlsbad
Ormet Circuits, Inc.

 City of Industry
Maxwell Sensors Corp.

 Costa Mesa
Irvine Sensors Corp.

 Dublin
Supergen, Inc.

 Folsom
Wilson Composite Technologies

 Glendale
Physical Domains

 Goleta
Frontier Technology, Inc.

 Huntington Beach
Integrated Coating Solutions, Inc.

 La Habra
Aeropath

 Lawndale
Language Weaver

 Livermore
The Fox Group, Inc.

 Los Alamitos
Proactive Oral Solutions, Inc.

 Los Angeles
Pivotal Biosciences

 Mojave
Xcor Aerospace, Inc.

 Mountain View
Fakespace Labs, Inc.

 Newport Beach
SRS Technologies
Northridge
Chemat Technology, Inc. (2)

Pacoima
Ultramet

Palo Alto
ILT Corporation Dba Think Composite

Pasadena
Tanner Research, Inc.
Luxtera, Inc.

Redwood City
CBL Technologies, Inc.

San Diego
V System Composites, Inc.
Polexis, Inc.
Information Systems Laboratories, Inc.
Surface Optics Corp.
Sabia, Inc.
Androscience Corporation
Fixon LLC
Call/Recall, Inc.
Vical, Inc.

San Dimas
Maxdem, Inc.

San Jose
Atlas Scientific

Santa Ana
Qflex, Inc.

Santa Barbara
Computational Sensors Corp.
Mission Research Corp.
Brandes Assoc., Inc.

Santa Clara
Silvaco Data Systems, Inc.

Santa Ynez
Pacific Advanced Technology

Santee
Rainmaker Technology

South San Francisco
Parallele Bioscience (2)

Sun Valley
Powdermet, Inc.

Sunnyvale
Intelligent Inference Systems Corp.
Cepheid

Tarzana
Iri Computer Communications Corp.

Thousand Oaks
Shape Change Technologies

Torrance
Opto-Knowledge Systems, Inc. (OKSI)
Waveband Corp.
Chan & Associates (2)
DBC Technology Corp.

Woodland Hills
Language Systems, Inc.

Colorado

Boulder
Gonex, Inc.
Astralux, Inc.
Tech-X Corp.

Denver
MBC Research, Inc.

Englewood
SEAKR Engineering Inc

Lafayette
Composite Technology Development, Inc.

Littleton
ITN Energy Systems, Inc.
Microsat Systems

Longmont
Nanomaterials Research Corp
Displaytech, Inc.

Westminster
Ald Nanosolutions, Inc.

Connecticut

Danbury
Fuelcell Energy, Inc. (2)

Farmington
Argus Vr International

Mystic
Madison Technology International, Ltd.
Storrs/Mansfield
Opel (2)

**Delaware**

*Newark*
EE Solutions, LLC

*Wilmington*
Analytical Biological Services, Inc. (2)

*District of Columbia*
Synergene Therapeutics, Inc.

**Florida**

*Coral Gables*
RMR Technologies, LLC

*Gainesville*
Sinmat, Inc.
Interdisciplinary Consulting Corp.

*Lauderhill*
Cyclotec Advanced Medical Technologies

*Melbourne*
Interface & Control Systems, Inc

*Miami*
New Span Opto-Technology, Inc.

*Orlando*
Zaubertek, Inc.

*Sarasota*
Medical Education Technologies, Inc.

*Tampa*
Micromaterials, Inc.

*Titusville*
Command and Control Technologies Corp.

**Georgia**

*Atlanta*
Cermet, Inc. (2)
Micrcoating Technologies, Inc. (3)

*Decatur*
Virtually Better, Inc.

*McDonough*
Guided Systems Technologies, Inc.

*Tucker*

Pharmasset, Inc.

**Hawaii**

*Mililani*
Rainbow Farms

**Illinois**

*Batavia*
Muons, Inc.

**Chicago**

*Nuvant Systems, LLC*
Keracure

*Evanston*
Sixtyseven Kilohertz, Inc.

*Hoffman Estates*
Polium Technologies, Inc.

*Niles*
MicroLink
Rolling Meadows
Cyther

*Urbana*
CU Aerospace

*Wilmette*
Rehabtek, LLC

**Indiana**

*Bloomington*
Quarrymen Optical, Inc.

*Greenville*
Space Hardware Optimization Technology

**Kentucky**

*Lexington*
Academic Edge, Inc.
DSP Techniques, Inc.

*Louisville*
Intellas Group, LLC

21
Maine
Arundel
Sea Run Holdings, Inc.

Maryland
Silver Spring
Technologies & Devices International, Inc.
Gaithersburg
Biotech Research Laboratories (BTRL)

Lanham
Research Support Instruments (3)

Rockville
Intelligent Automation, Inc. (3)

Silver Spring
Technologies & Devices International, Inc.
Simquest International, Inc.

Massachusetts
Andover
Physical Sciences, Inc. (3)
Arlington
Nascent Technology Corp.

Bedford
Spire Corporation
Billerica
Aerodyne Research, Inc.

Burlington
Spectral Sciences, Inc.
Cambridge
Icosystem Corp.
Omniguide Communications, Inc.
Charles River Analytics, Inc.

Chelmsford
Triton Systems, Inc. (3)
Sensera, Inc.

Fall River
Emitech, Inc.
Lexington
Speech Technology/Applied Research Corp.
Lowell
Konarka Technologies, Inc.

Medfield
Yankee Scientific, Inc.

Newton
Giner Electrochemical Systems, LLC
Salisbury
Biomod Surfaces
Somerville
Molecular Mechanisms LLC
Waltham
Foster-Miller, Inc. (2)

Westford
Linden Photonics, Inc.

Winchester
Agiltron Corp. (2)

Woburn
Scientific Systems Company, Inc.
Aptima, Inc.
Cambria Biosciences, LLC

Worcester
Insight Neuroimaging Systems, Inc.

Michigan
Ann Arbor
Soar Technology, Inc.
Mc3, Inc. (2)
Emag Technologies, Inc.
Picotronix, Inc.
T/J Technologies, Inc.

Detroit
NT Two

Grosse Pointe Farms
Biomide Corporation

Port Huron
Tel Med Technologies

Minnesota
Eden Prairie
SVT Associates, Inc. (3)
NVE Corporation

Faribault
Speechgear, Inc.

Minneapolis
Avanti Optics Corp.

**Mississippi**

*Starkville*
Semiscouth Laboratories

**Missouri**

*Chesterfield*
Innovative Technology Applications (2)

*St. Louis*
Reliable Biopharmaceutical Corporation

**Montana**

*Bozeman*
Chronochrome, Inc.
JC Nabity Lithography Sys
Ligocyte Pharmaceuticals, Inc.

**Nevada**

*Carson City*
Software and Engineering Associates, Inc

*Henderson*
Asi Technology Corp.

**New Hampshire**

*Manchester*
Cryo Industries Of America, Inc.

**New Jersey**

*Bound Brook*
Pilato Consulting

*Lincoln Park*
Kay Elemetrics Corporation

*Livingston*
Utility Development Corp.

*Long Branch*
Microsolv Technology Corporation

*Mount Laurel*
Liteweaver Technologies, Inc.

*Piscataway*
Structured Materials Industries (2)
Nanopowder Enterprises, Inc.

*South Plainfield*
PTC Therapeutics, Inc.

**New Mexico**

*Albuquerque*
Adherent Technologies, Inc.
Waya Research, Inc.

*Placitas*
Electrophorics, Inc.

**New York**

*Albany*
Mohawk Innovative Technology, Inc.

*Amherst*
Advanced Cytometry Instrumentation Systems

*Clifton Park*
Simmetrix, Inc.

*Cortland*
Cortland Cable Company

*Dix Hills*
Bethpage Technologies, Inc.

*Elmsford*
Hypres., Inc.

*Henrietta*
STS Biopolymers, Inc.

*Lansing*
Advanced Design Consulting, Inc. (2)

*Middle Island*
Heat Wise Inc.

**New York**

*Nanodynamics, Inc.*

*Rochester*
Impact Technologies, LLC

*Ronkonkoma*
Advanced Acoustic Concepts, Inc.

**North Carolina**

*Chapel Hill*
Applied Nanotechnologies, Inc.

*Durham*
Chatham Research, Ltd
Biostratum, Inc.
Tracera, Inc.
Greensboro
Software Safety-Critical Systems, Inc.

Raleigh
Hexatech (3)
Kyma Technologies, Inc.
Barr-Mullin Inc.
Geophex Ltd.

Research Triangle Park
Endacea, Inc.
Paragen

North Dakota
Fargo
Dakota Technologies, Inc. (2)

Ohio
Beaver Creek
Taitech, Inc.

Cincinnati
Molecular Diagnostics Laboratories, Inc.

Cleveland
Flow-Amp Systems, Ltd

Columbus
Srico, Inc.
Nova-Ther Technologies

Dayton
Cornerstone Research Group, Inc.
Innovative Scientific Solutions, Inc.

Dublin
Applied Engineering Solutions, LLC

Stow
Catawba Resources

Troy
Global Research & Development, Inc.

Worthington
Nextech Materials, Ltd.

Oklahoma
Stillwater
Nomadics, Inc. (2)
Sciperio, Inc.

Oregon

Eugene
Iris Media, Inc.

Myrtle Creek
Umpqua Research Company

Pennsylvania

Balas Cynwyd
Octagen Corporation

Bethlehem
Serenix Pharmaceuticals, Inc.

Dublin
Combustion Research & Flow Technology, Inc.

Exton
Morphotek, Inc.

Lower Gwynedd
Chi Systems, Inc.

Malvern
Nucleonics, Inc.

North Huntingdon
Nanomat, Inc.

Pittsburgh
Chromodynamics, Inc.

Xtal Matic, Inc.
Immunetrics, Inc.
Kit Solutions, Inc.
Maya Viz
Casurgica, Inc.

South Carolina

Charleston
Organ Recovery Systems, Inc.

Mount Pleasant
Argolyn Bioscience, Inc. (2)

South Dakota

Brookings
Gene tic Archit Edu Analys

Rapid City
Cynetics Corp.
Advintec, LLC

Tennessee

Knoxville
RIS Corp.
TPG Applied Technology

*Nashville*
Tk Tx Company (2)

*Rockford*
Atmospheric Glow Technologies

**Texas**

*Austin*
Innovalight, Inc.
Magellus Corp.
Xidex Corp.

*Bellaire*
Grassroots Pharmaceuticals, LLC

*Houston*
Synthecon, Inc.
Seqwright, LLC
Pharmareview Corporation
Mecom, Inc.
RosettaMed, Inc.
Cytogenix, Inc.

*Plano*
Microfab Technologies, Inc.

*Rockwall*
Twilight Training

*San Antonio*
Biomedical Development Corporation (2)

*Sweetwater*
Ludlum Measurements, Inc.

**Utah**

*Salt Lake City*
Axon Medical Inc.
Bionic
Ceramatec, Inc.

**Vermont**

*Burlington*
Healthsim, Inc.

*South Burlington*
Tolmie, Inc.

**Virginia**

*Alexandria*
Mirum Corp.

*Arlington*
System Planning Corp.

*Blacksburg*
Luna Innovations, Inc. (9)
Technology in Blacksburg, Inc. (2)
Prime Photonics, Inc.
Biodefense Technologies, Inc.

*Charlottesville*
Adenosine Therapeutics, LLC

*Christiansburg*
NanoSonic, Inc.

*Clearbrook*
Seaward International, Inc.

*Dulles*
Edenspace

*Fairfax*
Materials Modification, Inc. (2)
Cougar Software, Inc.
Glen Allen
Sentor Technologies, Inc.

*Herndon*
Aeroastro, Inc. (2)
Synterials, Inc.

*McLean*
N-Vision, Inc.
Innovative Concepts, Inc.

*Williamsburg*
Tao of Systems Integration, Inc.

**Washington**

*Bellevue*
Ewing Technology Assoc., Inc.

*Kennewick*
Vista Engineering Technologies, LLC

*Port Townsend*
The Davis Nelson Company

*Richland*
Innovatek, Inc.

*Seattle*
Insightful, Inc.
Corixa Corporation

*Vancouver*
Microenergy Technologies, Inc.
West Virginia

Triadelphia
Touchstone Research Laboratory, Ltd.

Wisconsin

Elm Grove
Bioinnovation, LLC

Middleton
Prairie Technologies, Inc.

Wyoming

Laramie
Firehole Technologies
FY 2002 STTR Phase II Awardees

**Alabama**
- Brownsboro
  - Information Systems Laboratories, Inc.
- Huntsville
  - Alabama Cryogenic Engineering, Inc.
  - Time Domain Corp.
- Pelham
  - Gem Pharmaceuticals, Inc.

**Arizona**
- Scottsdale
  - Three Rivers Holdings, LLC
- Tucson
  - Advanced Ceramics Research, Inc.
  - Lite Cycles, Inc.
  - Materials & Electrochemical Research

**California**
- Hawthorne
  - Systems Technology, Inc.
- Los Angeles
  - Technology Service Corp.
- Marina del Rey
  - Fetch Technologies
- San Diego
  - Orincon Corp.
  - Tristan Technologies, Inc.
- San Leandro
  - AASC
- Sherman Oaks
  - Arete Assoc.
- Sun Valley
  - Powdermet, Inc.
- Torrance
  - Opto-Knowledge Systems, Inc. (OKSI)
  - Intelligent Optical Systems, Inc.
- Westlake Village
  - Metacom T Technologies, Inc.

**Colorado**
- Boulder
  - Knowledge Analysis Technologies, LLC
- Lafayette
  - Boulder Nonlinear Systems, Inc. (2)
- Wheat Ridge
  - TDA Research, Inc.

**Connecticut**
- Farmington
  - Us Nanocorp, Inc.
- Wethersfield
  - Qualtech Systems, Inc.

**District of Columbia**
- Synergene Therapeutics, Inc.

**Florida**
- Alachua
  - Ixion Biotechnology, Inc.
- Jacksonville
  - Analysis, Design & Diagnostics, Inc.
- Oviedo
  - Zaubertek, Inc.

**Georgia**
- McDonough
  - Guided Systems Technologies, Inc.

**Hawaii**
- Honolulu
  - Oceanit Laboratories, Inc.

**Illinois**
- Champaign
  - NPL Associates, Inc.
- Chicago
  - Integrated Genomics, Inc.

**Downers Grove**
Vertec Biosolvents, Inc.

Evanston
Containerless Research, Inc.

Naperville
I.C. Gomes Consulting & Investment,

Iowa

Fairfield
Psychological Systems & Research

Kentucky

Columbia
Image Analysis, Inc.

Maine

Wiscasset
Technology Systems, Inc.

Maryland

Gaithersburg
Immersion Medical, Inc.
Verachem, LLC

Massachusetts

Andover
Physical Sciences, Inc.

Belmont
Natural Pharmacia International, Inc.
Cambridge
Pericor Science, Inc.
Chelmsford
Scientific Solutions, Inc.
Triton Systems, Inc. (2)

East Falmouth
Webb Research Corp.

Salisbury
Biomod Surfaces

Westborough
Boston Medical Products, Inc.

Weston
Gene Regulation Laboratories (2)

Woburn
Scientific Systems Company, Inc.

Michigan

Ann Arbor
Mechanical Compliance, Inc.
Emag Technologies, Inc.

Dexter
Bio Logic Engineering, Inc.

Minnesota

Minneapolis
Bioengineering, Inc.

Missouri

Chesterfield
Innovative Technology Applications
St. Louis
Virrx, Inc.

New Hampshire

Nashua
Scientific Solutions, Inc.

New Jersey

Monmouth Junction
Princeton Scientific Instruments, Inc.

Piscataway
Nanopowder Enterprises, Inc.

Princeton
Nanonex Corp.

Springfield
Orthogen Corporation

New Mexico

Albuquerque
Thor Technologies, Inc.
Adherent Technologies, Inc.
New York
Buffalo
Zeptometrix Corporation
Hawthorne
Acorda Therapeutics, Inc.
Ithaca
Expertology
New York
Weidlinger Assoc., Inc.
Yaphank
Nanoprobes, Inc.

North Carolina
Cary
3Tex Engineered Fiber Products (2)
Durham
Triangle Laboratories, Inc.
Raleigh
Hydrosize Technologies, Inc.
Hexatech

Ohio
Athens
Austral Engineering & Software, Inc.
Dayton
Ues, Inc.
Aps Material, Inc.
Fremont
Sierra Lobo, Inc.

Oklahoma
Stillwater
Nomadics, Inc.

Oregon
Gresham
Blue Road Research (2)

Pennsylvania
Bethlehem
Serenix Pharmaceuticals, Inc.
Fort Washington
Materials Sciences Corp.
Landisville
Electron Energy Corp.
Philadelphia
Near Infrared Monitoring, Inc. (Nim)
Warrington
Tiger Optics

South Carolina
Edgefield
Newtec Services Group, Inc.

Tennessee
Chattanooga
Accurate Automation Corporation
Nashville
Generx+, Inc.

Texas
Austin
Systems & Materials Resercah Cons
Agave Biosystems, Inc.
Bryan
Accelerator Technology Corporation
Houston
Fem Cadet
Richardson
Scenpro, Inc.
Sugar Land
Translite

Utah
Orem
Adept Systems, Inc.

Virginia
Alexandria
Mirum Corp.

Blacksburg
Aerosoft, Inc.

Centreville
Eyetel Corporation

Chantilly
Edenspace Systems Corporation

Charlottesville
Adenosine Therapeutics, LLC

Christiansburg
NanoSonic, Inc.

Falls Church
Cortana Corp.

Reston
Diamondback Vision, Inc.

Washington

Bellevue
Ewing Technology Assoc., Inc.

Richland
Yahsgs LLC

Seattle
Stirling Dynamics Inc

Woodinville
Sienna Technologies, Inc.
Sonic Concepts, Inc.

Wisconsin

Madison
Eragen Biosciences, Inc.

Wyoming

Sheridan
Big Horn Valve
### STTR Program Data - Fiscal Year 2002

#### AGENCY OBLIGATIONS

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#### STTR AWARD PROFILE - COMMITMENTS

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#### STTR SOLICITATION PROFILE

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#### RESEARCH INSTITUTION PROFILE

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31
## STTR Program Data - Fiscal Year 2002

### COOPERATIVE RESEARCH PROFILE

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<td>TOTAL DOLLARS OF AWARDS</td>
<td>43,127,635</td>
<td>5,544,221</td>
<td>5,839,444</td>
<td>6,548,626</td>
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### PHASE I

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<td>TOTAL DOLLARS OF AWARDS</td>
<td>17,768,349</td>
<td>1,999,131</td>
<td>1,698,105</td>
<td>1,995,232</td>
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## STTR Program Data - Fiscal Year 2002

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<td>4,553,394</td>
<td>17,794,102</td>
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FY 2002 dollars obligated include modifications to previous year's awards for DOD ($4,025,713)