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**SBIR/STTR Newsletter**

**North Carolina SBTDC  
NC's Information Resource for Small Business R&D Funding**

## **SBIR/STTR Events - North Carolina**

<b>Event</b>	<b>Location</b>	<b>Date</b>	<b>Registration</b>
<b>SBIR Workshop No Fee</b>	<i>Greenville</i>	<i>March 10th 1:00 - 4:00</i>	<i>www.sbtcd.org/events/ sbir/workshops2004/</i>
<b>SBIR Workshop No Fee</b>	<i>Chapel Hill</i>	<i>April 13th 1:00 - 4:30</i>	<i>www.sbtcd.org/events/ sbir/workshops2004/</i>
<b>SBIR Proposal Preparation Conference</b>	<i>RTP</i>	<i>May 18th 9:00 - 5:00</i>	<i>TBA</i>

## **National SBIR/STTR Conference April 26-29, 2004 Atlanta, GA**

### **Selected Conference Topics:**

- ◆ SBIR/STTR 101: An Overview of the SBIR and STTR Programs
- ◆ The Do's and Don'ts of Proposal Writing
- ◆ Identifying Your Market Opportunities
- ◆ Partners (STTR): University & Federal Labs
- ◆ Partners: Utilizing Incubators
- ◆ Leveraging & Protecting Your Intellectual Property
- ◆ What the Agencies Look For & How They Do It
- ◆ Corporate Alliances - Overview

This conference also provides each participant with multiple opportunities to meet and network with SBIR/STTR Program Managers, and fellow attendees, including SBIR/STTR award winners, speakers and experts from businesses and the government willing to work with you to move your business ahead. Conference participation also guarantees entry into the co-located Small Business Tech Expo (SBTE). The expo will showcase new technologies, support services available to small business and technology development and commercialization opportunities.

**Agenda and Registration:** <http://www.SBIRworld.com/GA>

## **Inside this Issue**

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# SBIR/STTR Submission Deadlines



Agency / Program	Release	Closing
NIH - SBIR/STTR	January 9, 2004	April 1, 2004
DoD - STTR	January 2, 2004	April 15, 2004
DOT - SBIR	February 17, 2004	May 3, 2004
EPA - SBIR	March 25, 2004	May 28, 2004
DoD - SBIR	March 1, 2004	June 17, 2004
NIH - SBIR/STTR	January 9, 2004	August 1, 2004
USDA - SBIR	June 1, 2004	August 29, 2004

*Dates are subject to change. Visit agency websites for updates.*

## Proposal Reviews

**Send your draft proposal to John Ujvari for a review  
at least 14 days prior to the submission deadline.  
Proposals will be reviewed on an as received basis.  
Service available to NC firms only.**

## Air Force Virtual Mall Opens

For the past two decades, the Air Force Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) programs have stimulated research and development activity among small businesses, while providing the government innovative solutions to challenging technical and scientific problems. Thus, it is with great pride and honor that we announce a milestone event: the opening of the Air Force SBIR/STTR Virtual Shopping Mall on the World Wide Web.

**[www.sbirstrmall.com](http://www.sbirstrmall.com)**

Our goal is to increase the commercialization potential of the technologies developed by our country's small businesses under SBIR and STTR. We will increase the awareness for our military program offices, their prime contractors, and their chain of suppliers by providing ready access to basic information on our SBIR and STTR sponsored work.

The mall is a work in progress. This coming year, we will be adding "summary reports" on all of our active SBIR contracts. "Success stories" will also be encouraged whenever commercialization has been achieved. Next year, we will be adding information on our STTR contracts. Also in the future, we plan on providing "store fronts" for the military prime contractors so that the small businesses will be able to contact the right person the first time. And lastly, if the Air Force mall is successful in meeting your needs, we will be receptive to building new "mall concourses" for the other DOD components that manage SBIR and STTR programs.

Ultimately, the success of the shopping mall is dependent upon you, our customer. I would encourage you to book mark this web site and to provide your feedback on how we can make this mall more beneficial to you and your endeavors to find small business technologies.

Please feel free to submit comments and suggestions for improvements by e-mail ([info@sbirstrmall.com](mailto:info@sbirstrmall.com)) or by calling 1-800-222-0336.

## ***SBIR Funding Success in RTP An Interview with Mi-Co***

**E**lectronic forms, NIH and SBIR - a successful combination of ingredients for Mi-Co, an RTP-based tech firm. This month's SBIR column provides an up close look into Mi-Co's recent SBIR success. In a recent interview, Greg Clary, Mi-Co's Chief Technology Office and Co-Founder, provided insights into a number of interesting issues.

### **Tell me about Mi-Co - year founded, # of employees, etc.**

Mi-Co was founded in 1999 and created out of a merger in March 2000 when a software engineering business emphasizing handwritten forms capture joined a hardware business. Both businesses were owned by Greg Clary and Jim Clary. We currently have a total of 17 technologically oriented staff.



### **What products are currently being developed by Mi-Co?**

Mi-Forms offers a unique way to electronically capture, store, recognize and communicate handwritten information traditionally entered on paper forms. We can adapt existing paper forms and provide customers with digital writing solutions using Tablet PCs, Digital Pens, Pocket PCs, and other handwriting capture devices. Mi-Forms maintains computer audit trails and can provide leave-behind capability of the paper record. Mi-Forms patent pending technology recognizes and transforms the handwritten images into data with audio and visual feedback to the user, populating existing databases and automatically eliciting any required follow-up actions.

### **Why is this product/service important?**

Organizations spend over \$360 Billion a year manually converting paper based data into computerized information that can be used by the enterprise. Converting the data in an efficient and effective electronic manner provides real value to our customers. For efficient and effective mobile data capture, systems must be designed to utilize the best in technology with a thorough understanding of how people work - and for many applications, the best user interface is one that people have been using for centuries - pen on paper. As an example, one of our current customers in the health care industry reduced their daily paper workload from 2 hours per nurse to 1 hour per nurse representing a huge cost savings. Another customer cut the time from data capture to data storage in their central data base by as much as 67%.

### **How did you first learn about SBIR funding?**

Jim Clary, Mi-Co's President, was aware of the SBIR program opportunities through his work at Research Triangle Institute. The North Carolina Small Business and Technology Development Center's (SBTDC) Annual SBIR Conference at the NC Biotechnology Center in December 2002 was the first time that we gave serious consideration to applying. We were able to assimilate a great deal of practical information at the SBIR Conference that enabled us to put together a winning proposal.

### **What about the SBIR program was attractive to you?**

Mi-Co's digital form technology is applicable to any type of business that uses paper forms. Our current customers include businesses in healthcare, local government, federal government, financial services and entertainment. Clinical trials is an obvious candidate for Mi-Forms Software because the cost and time to market for new drugs can be greatly reduced by using electronic data capture for drug trials. We did not have a customer in clinical trials at the time of application submission, so we were able to use the SBIR project as a "proof of concept" in the clinical trials field.

***Continued on Page 4***

## ***Continued - Interview with Mi-Co***

### **Were there any downsides that you noticed about the SBIR program?**

It took a long time to get the results of our application – almost one year! Although to be fair, we should mention that the SBIR award Mi-Co won was a Contract Award instead of a standard SBIR Award and the normal timelines and response times do not apply to contracts.

### **Which agency did you apply to and why?**

Mi-Co submitted an SBIR application to National Cancer Institute at the National Institutes of Health because they had a broad solicitation for a contract on “Capturing Forms Data with Handheld Devices”.

### **How did you find the solicitation that you submitted your proposal for?**

At the SBIR/STTR Biotech conference in 2002, Kay Etzler from NCI used the example of a closed solicitation that was exactly in our field: Capture of Forms Information using Handheld Devices. She also explained that topics from previous solicitations occasionally come up again - and this one did! Based on what we had learned in the Conference, we were able to search at [www.sbirworld.com](http://www.sbirworld.com) and the NIH websites using keywords to find a solicitation that suited our company strengths.

### **Was the solicitation a good fit with your research goals?**

It was a perfect fit. In addition, Greg Clary, Mi-Co Chief Technology Officer and Principal Investigator on the SBIR proposal was able to involve investigators at a local research and teaching hospital to do the actual experiments using a variety of handheld devices (Tablet PC, Digital Pen, and Pocket PC) each with the same forms to determine which data collection method or combination of methods produces the best results in a clinical trials setting.

### **What were some of the most challenging aspects of SBIR proposal development?**

Limiting the scope of the project so that it would fit into the Phase I time frame of 6 months. Identifying the right partner was also a serious consideration.

### **Explain the role of the SBIR award in enabling the development of this technology?**

When the SBIR project is completed, we will be able to go into Phase II and achieve validation of our software product in a new vertical market where we can show significant ROI to other clinical trials customers outside the government.

### **What are your thoughts on the SBTDC's SBIR services?**

The Annual SBIR/STTR Conference is always a great event for learning about SBIR and STTR opportunities. The SBTDC hosts several other proposal writing workshops and accounting workshops through the year which Mi-Co has attended. All of these events are very helpful with the details of writing and submitting and maintaining successful SBIR programs.

**What are Mi-Co's plans after completing the SBIR/STTR research?** We will have the Mi-Forms software system validated for clinical trials and will be better able to sell directly into that market space.

**Are you working on the Phase 2 proposal yet?** Yes.

### **Would you recommend this funding mechanism to other small businesses? Why or why not?**

The SBIR program can provide baseline funding for Research and Development activities that are so critical to any technology business. In Mi-Co's case, we have strong science behind our marketing messages, and the SBIR program has significantly strengthened our position.

More information about Mi-Co is available at: [www.mi-corporation.com](http://www.mi-corporation.com)

# Pre-Proposal Homework

## Part 2 of 2

By John Ujvari

Last month's SBIR/STTR (Small Business Innovation Research / Small Business Technology Transfer) article offered several very important programmatic principles to help your business make the "go" or "no-go decision" *before* you invest the time to develop a competitive proposal seeking these federal R&D funds.

These included:

- ◆ Making sure the timeline laid out in your business plan complements that of the SBIR/STTR federal funding programs,
- ◆ Reviewing the resources that will be necessary to carry out the R&D in an SBIR/STTR project, and
- ◆ Considering the willingness of you and your team members to propel the project beyond R&D into commercialization.

This article will focus on several additional issues for your consideration before taking the SBIR proposal writing plunge.

Developing an SBIR or STTR proposal is not simply a writing assignment. Think of a completed proposal as a work of art. Most masterpieces were not created overnight and neither can a high quality proposal. Proposal development is a process that requires a clear understanding of where you stand, where you want to go, and how you are going to get there. In other words, everyone on your team must share a consistent vision. There are no guaranteed-to-win strategies, except of course if you listen to television's colorfully robed man in the question mark suit. Proposals are a dime a dozen and only high quality works of art are chosen to be funded.

### Solicitation Search

Your top priority should be the solicitation search. The SBIR and STTR programs are completely solicitation based. This means that a proposal you submit must match a current open solicitation that one of the eleven participating agencies has released. Each agency follows a different calendar of solicitation release dates and proposal submission deadlines. Searches have become relatively easy with the launch of several cross-agency solicitation search engines. Links to these sites, as well as a calendar of solicitation release and proposal submission dates, can be viewed at our SBIR/STTR focused website ([www.sbtdc.org/technology/sbirsttr.asp](http://www.sbtdc.org/technology/sbirsttr.asp)).

As you will notice in your search, the degree of specificity from one solicitation to another varies. For example, a hypothetical US Department of Defense (DoD) solicitation may request R&D on a lithium battery that is one inch wide, two inches thick, weighs no more than three ounces, has a life of 100 hours, and can be used in a temperature range of – 50 to 175 degrees F. This example, as with most DoD solicitations, is very specific. On the other hand, National Institutes of Health (NIH) may offer a solicitation that requests proposals focused on the development of any novel educational programs to prevent underage drinking. Here, the lack of specificity will enable a wider scope of R&D and thus a wider spectrum of firms for which the solicitation is a fit.

The bottom line: find a solicitation that is a fit with your company and its R&D-oriented objectives. Do not attempt to warp your business model just so it fits a particular solicitation. Also do not assume that the need stated in a solicitation equates to strong market viability for the end product. Thus, it is your responsibility to determine what already exists in the market via a literature search.

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## ***Continued - Pre-Proposal Homework...***

### **Literature Search**

In order to define the commercial viability as well as the overall state of the technology that you wish to pursue in response to a solicitation, a comprehensive literature review is necessary. Your search should focus on:

- ◆ Alternative/competing technical areas
- ◆ Key application areas
- ◆ Potential market opportunities
- ◆ The patent situation

Much of this research can, of course, be conducted via the Internet. However, two strong sources of research assistance lie within North Carolina's Small Business and Technology Development Center (SBTDC) and the North Carolina Biotechnology Center (NCBC). The SBTDC's Research Services group can work with you to identify information resources that may be helpful as you conduct the search. The SBTDC charges a cost recovery fee for research that requires more than one or two hours. Access this service through your SBTDC business counselor (see <http://www.sbtcd.org/offices/index.asp> or call 800.258.0862). The NCBC's research library has on staff several highly trained librarians who can, for an hourly fee, assist with the collection of information. More information on this service is available at [www.ncbiotech.org/ncindustry/library/library.cfm](http://www.ncbiotech.org/ncindustry/library/library.cfm)

### **Communication with Agency**

Pre-proposal work should also include communication with the SBIR/STTR program representatives at the agency to which you plan to apply. There are several means of communicating with agency representatives, including one-on-one sessions that are offered at the SBTDC's annual SBIR conferences in North Carolina as well as at national SBIR conferences, the next of which will be in Atlanta on April 26-29, 2004 ([www.sbirworld.com/ga](http://www.sbirworld.com/ga)). Here you have the opportunity to pitch your idea to the agency and ask specific questions such as whether your project may be a fit with that particular agency's mission and the solicitation you have identified. Phone and e-mail also work well after locating the specific agency representative that is associated with the solicitation you are targeting.

### **Pre-Proposal Checklist**

The final pre-proposal task is to review all of the components we have covered in this and last month's article:

- ◆ Timeline
- ◆ Resources available
- ◆ Interest in commercializing
- ◆ Solicitation search
- ◆ Literature review
- ◆ Communication with agency

With each of these important items addressed, you are now prepared to begin developing your proposal. While this may appear to be a great deal of up-front work, the efforts do pay off in the end. Remember, proposals are a dime a dozen. A masterpiece proposal is what it takes to win.

***SBTDC's SBIR/STTR Website***  
***[www.sbtcd.org/technology/sbirsttr.org](http://www.sbtcd.org/technology/sbirsttr.org)***

## *Priming the Pump*

### *Biotechnology Center loans help young companies grow, develop*

By Barry Teater

North Carolina Biotechnology Center

**W**hen entrepreneurs form new biotechnology companies in the state, one of the first resources they typically consult is the North Carolina Biotechnology Center in Research Triangle Park. The state-funded, non-profit organization offers advice, referrals, networking events, business information and financial assistance to help these fledgling companies survive and grow. Doing so fits squarely with the Biotechnology Center's mission of providing long-term economic and societal benefits to North Carolina by supporting biotechnology research, business and education statewide.

The Biotechnology Center's financial assistance is particularly sought after because young biotechnology companies typically don't yet have fully developed products for sale or significant revenues and therefore can't obtain conventional financing. The Biotechnology Center steps in with four low-interest loan programs aimed at helping early stage biotechnology companies develop and commercialize their technologies so they can attract additional funding and move toward profitability.

**Small Business Research Awards (SRAs)** support biotechnology company research leading to the development or refinement of a product with clear commercial potential. The maximum loan amount is \$150,000.

**Small Business Innovation Research (SBIR) Bridge loans** provide up to \$75,000 to help biotechnology companies bridge the gap between funding phases of the federal government's SBIR program, which provides grants for company research and development.

**Business Development Awards (BDAs)** provide loans of up to \$15,000 to support nonscientific, business-related activities that are critical to the commercialization of a company's technology. The company must provide matching funding for approved activities under the loan.

**Proof-of-Principle Awards (PPAs)** allow North Carolina academic research institutions to apply for loans up to \$25,000 through their institutional technology transfer offices. The loans support small-scale research projects deemed critical for assessing the commercialization potential of a technology. Successful projects often lead to the startup of a new company.

Companies or universities interested in any of the four loan programs first consult the staff of the Biotechnology Center's Business and Technology Development Program. Companies with appropriate projects are invited to submit a pre-proposal, which is reviewed by the staff. At this point, the staff may help companies develop a more focused research project or business plan. Companies with clearly defined projects are then invited to make an official application for funding. Reviews and recommendations are integrated by staff and presented to the Biotechnology Center's Senior Vice President for Science and Business Development and to the President and CEO. The President and CEO is responsible for funding decisions for PPA and BDA proposals. SRA and SBIR Bridge loan proposals are presented to the Executive Committee of the Center's Board of Directors for decisions.

*Continued on Page 8*

## ***Continued... Priming the pump***

All loan applications are subjected to thorough technical and commercial due diligence. SRA applications receive at least two formal external technical and business reviews. SBIR Bridge applications rely on the technical reviews obtained for the company's federal SBIR Phase I award. Additionally, external experts may be recruited to complement staff evaluations as necessary for the SBIR Bridge, PPA and BDA applications.

Scientific evaluation criteria include measures of scientific quality (such as the strength and appropriateness of the study design, the technical feasibility, and the probability of success), significance, development phase, budgetary analysis and project length. Business reviewers are asked to comment on commercial potential, commercialization strategy, market opportunity, intellectual property position, strength of the management team, and benefits to North Carolina.

Reviews and recommendations are integrated by staff and presented to the Biotechnology Center's Senior Vice President for Science and Business Development and to the President and CEO. The President and CEO is responsible for funding decisions for PPA and BDA proposals. SRA and SBIR Bridge loan proposals are presented to the Executive Committee of the Center's Board of Directors for decisions.

The staff negotiates terms of the loans with each company that gains an award.

Since the Biotechnology Center's founding in 1984, about 90 companies – from AlphaVax to Zen-Bio – have received financial assistance totaling about \$13.5 million. The investments have helped those companies obtain more than \$800 million in follow-on funding from other sources such as government agencies, angel investors, venture capital funds, banks and public stock offerings.

**For more information about the Biotechnology Center's loan programs, contact John Craichy, Business Development Director, or Dr. Rob Lindberg, Technology Development Director, at 919-541-9366, or visit [www.ncbiotech.org/ouractivities/grantsloans/loans.cfm](http://www.ncbiotech.org/ouractivities/grantsloans/loans.cfm).**

**Save the Date!**

**Tuesday, May 18th**

***Full-Day SBIR Proposal Preparation  
Workshop***

***RTP - NC Biotech Center***



## SBIR/STTR Calendar of Events

**March 10, 2004**

SBIR/STTR Workshop  
East Carolina University  
Greenville, NC

[Registration](#)

Contact: [John Ujvari](#)

**March 18, 2004**

Federal Government Accounting  
Systems Workshop  
WFUBMC - Victoria Hall  
Winston-Salem, NC

[Registration](#)

Contact: [Jim DeCristo](#)

**April 13, 2004**

SBIR/STTR Workshop  
UNC Chapel Hill  
Chapel Hill, NC

[Registration](#)

Contact: [John Ujvari](#)

**April 22, 2004**

How to Find Government Grants and Contracts  
and What to do Once You Find Them  
Winston-Salem, NC

Contact: [Jim DeCristo](#)

**April 26-29, 2004**

National SBIR Spring Conference  
Atlanta, GA

[Registration](#)

Contact: [Sharon DelaBarre](#)

**May 18, 2004**

Proposal Preparation Workshop  
NC Biotechnology Center  
RTP, NC

Registration (TBA)

Contact: [John Ujvari](#)



## Biotech Forum

### Effective Clinical Trial Design and Lessons Learned

Monday, March 8, 2004

**Time:** 5:00 p.m. - 8:00 p.m.

**Location:** North Carolina Biotechnology Center

**Fees:** CED and NCBio members \$20 (\$25 on-site); non-members \$35 (\$40 on-site)

**Contact:** [cwaters@cednc.org](mailto:cwaters@cednc.org)

**Register:** [https://secure.cednc.org/programs/industry\\_forums/biotech\\_forum/register.html](https://secure.cednc.org/programs/industry_forums/biotech_forum/register.html)

## Carolina Innovations Seminar

### Venture Capital Panel

Thursday, March 18, 2004

March brings the official start of Spring, when a young company's fancy lightly turns to thoughts of... Venture Capital! OTD has assembled a panel of four representatives of local venture firms who will share with us their musings on the state and near-term future of venture funding in the Triangle. After a group discussion, the panel will take questions from the audience, so come with your most challenging questions! Our panel will include representatives from Academy Funds, the Wakefield Group, Aurora Funds and Intersouth Partners. Please contact [Jennifer Cole](#) with any questions.

For more information, visit: <http://research.unc.edu/otd/seminar/>