UPCOMING EVENTS for SAgE INNOVATION

Identifying Solicitations and How to Develop a Quad Chart
Virtual | July 8 | 1 – 2:30 p.m.

OnRamp Agriculture Conference
Virtual | July 15

SBIR Week
Virtual | July 19 – 23
- Resources for Innovation from NeDED (July 20 | 9-10 a.m.)
- Cuss and Discuss (July 22 | 9-10 a.m.)

HOMEWORK
NEXT STEPS

- Identify agencies that have funded innovations like yours.
- Research funding priorities, then find and contact relevant program managers.
- Develop quad charts and/or other supporting document.
Pole-based solar mounting and tracking system for use in cattle production

*SBC: FarmAfield Labs, LLC  Topic: 12e*

Rural areas in the United States have under-developed solar power capabilities relative to urban areas due to challenges matching energy demand centers with underutilized land and consequent cost challenges related to smaller installations that lack economies of scale. This project addresses these problems by proposing solar installations that operate synergistically with livestock production oper ...
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<td><strong>Technology/Research Overview:</strong> The team has developed a method to reduce triglycerides; improve glucose tolerance; and reduce weight using an adult stem cell technology platform.</td>
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<td><strong>Intellectual Property Protection:</strong> Two issued patents and one patent pending.</td>
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<td><strong>Stage of Development:</strong> Basic research.</td>
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<td><strong>Value Proposition:</strong> Can reduce the risk of cardiovascular disease for those that cannot treat this syndrome with exercise.</td>
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<td><strong>Mission:</strong> To improve patient outcomes by transforming great science into actionable solutions for the treatment of metabolic diseases.</td>
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<tr>
<td><strong>Founded:</strong> 2005</td>
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<tr>
<td><strong>Number of Employees:</strong> 20</td>
</tr>
<tr>
<td><strong>Facility Description:</strong> We are currently developing this method in a laboratory located at the Mayo Clinic in Rochester, MN.</td>
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<td><strong>Product Sales:</strong> None to date</td>
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<td><strong>Target Customer:</strong> About 32% of people in USA are considered to suffer from metabolic syndrome, with the risk increasing with age (e.g., 40% of people aged between 40 and 60 are considered to suffer from this syndrome).</td>
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<td><strong>Market Opportunity:</strong> Our technology aims to address the rise in obesity rates in order to reduce the risk of a debilitating stroke or myocardial infarction.</td>
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PROJECT PITCH

Technology Innovation | up to 500 words
Describe the technical innovation that would be the focus of a Phase I project, including a brief discussion of the origins of the innovation as well as explanation as to why it meets the program’s mandate to focus on supporting research and development (R&D) of unproven, high-impact innovations.

Technical Objective and Challenges | up to 500 words
Describe the R&D or technical work to be done in a Phase I project, including a discussion of how and why the proposed work will help prove that the product or service is technically feasible and/or significantly reduce technical risk. Discuss how, ultimately, this work could contribute to making the new product, service, or process commercially viable and impactful. This section should also convey that the proposed work meets the definition of R&D, rather than straightforward engineering or incremental product development tasks.

Market Opportunity | up to 250 words
Describe the customer profile and pain point(s) that will be the near-term commercial focus related to this technical project.

Company and Team | up to 250 words
Describe the background and current status of the applicant small business, including key team members who will lead the technical and/or commercial efforts discussed in this Project Pitch.
INTRODUCTION to SBIR/STTR with NATIONAL SCIENCE FOUNDATION

Presented by Nebraska Business Development Center

Josh Nichol-Caddy
Director of NBDC's Innovation and Technology Program
jnicholcaddy@unomaha.edu
AGENDA

- SBIR/STTR program information
- Project Pitch process for National Science Foundation SBIR/STTR
- Upcoming events
- Homework
A competitive awards-based program, SBIR enables small businesses to explore technological potential and provides the incentive to profit from its commercialization.

Three phases

- Phase I – Establish feasibility
- Phase II – Continue research and development
- Phase III – Commercialization

Technical assistance grants and matching funds available from Nebraska's Department of Economic Development

- Phase 0 grants can reimburse up to $5,000 per project for costs incurred preparing a federal Phase I proposal.
- Phase I and II grants will match federal SBIR/STTR awards up to $100,000 or 65% of the federal grant, whichever is less.
ELIGIBILITY

“The SBIR and STTR programs are designed to support small, independent, U.S. firms. To ensure that only these types of firms receive program funds, all awardees are required to certify at the time of award that the awardee firm meets the size, ownership, and control requirements of the programs.”

Size

An SBIR/STTR awardee, together with its affiliates, must not have more than 500 employees. For SBIR/STTR, size is determined only by number of employees; there are no revenue limits.

- For the SBIR/STTR programs, an employee includes all individuals employed on a full-time, part-time, or other basis. This includes employees obtained from a temporary employee agency, professional employee organization, or leasing concern.

- For the SBIR/STTR programs, concerns and entities are affiliates of each other when one controls or has the power to control the other, or a third party (or parties) controls or has the power to control both. Bases for finding affiliation include: ownership; options, convertible securities, or agreements to merge; common management; identities of interest; newly organized concerns; joint ventures; ostensible subcontractors; license agreements; totality of the circumstances.
ELIGIBILITY

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Ownership

An SBIR/STTR small business awardee must be a business concern.

A majority (more than 50%) of a firm’s equity must be directly owned and controlled by one of the following:

1. One or more individuals who are citizens or permanent resident aliens of the U.S.
2. Other for-profit small business concerns (each of which is directly owned and controlled by individuals who are citizens or permanent resident aliens of the U.S.
3. A combination of 1 and 2.
4. Multiple venture capital operating companies, hedge funds, private equity firms, or any combination of these, so long as no one such firm owns or controls more than 50% of the equity.
ELIGIBILITY

“The SBIR and STTR programs are designed to support small, independent, U.S. firms. To ensure that only these types of firms receive program funds, all awardees are required to certify at the time of award that the awardee firm meets the size, ownership, and control requirements of the programs.”

Control

The purpose of the ownership requirement is to ensure that the awardee firm is controlled directly by individuals who are U.S. citizens or permanent resident aliens or by businesses that are majority-owned by such. Actual control of the firm must reside within the eligible ownership majority and may not reside outside of that ownership block. One of the following must describe the control of a firm – the company must be more than 50% controlled by:

- One U.S. citizen or permanent resident alien or more than one U.S. citizen or permanent resident alien.
- One other small business that is directly owned and controlled by U.S. citizens or permanent resident aliens or more than one other small business, each of which are directly owned and controlled by U.S. citizens or permanent resident aliens
- Any combination of the above.

An awardee firm may be owned by venture capital operating companies, hedge funds, or private equity firms if:

- they qualify as a small business that is majority owned and controlled by individuals who are citizens or resident aliens of the U.S.
- they own 50% or less of an awardee, so long as it does not have the power to control the awardee.
**SMALL BUSINESS TECHNOLOGY TRANSFER**

**SBIR** Phase I projects constrain the use of subcontractors because no more than 33% of the research can be subcontracted.

**STTR** is much more generous, allowing for up to 60% of the R&D to go to the nonprofit RI. The guidelines for STTR state that the small business must perform 40% of the work on the project and the research institution must perform at least 30% of the R&D.

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<th>SBIR</th>
<th>STTR</th>
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<tr>
<td>Phase 1 duration</td>
<td>6 months</td>
<td>12 months</td>
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<tr>
<td>Number of participating agencies</td>
<td>11</td>
<td>5</td>
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<tr>
<td>Phase I award size</td>
<td>Up to $150,000</td>
<td>Up to $150,000</td>
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<tr>
<td>% of Agency's extramural R&amp;D budget [FY16]</td>
<td>3.00%</td>
<td>0.45%</td>
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<tr>
<td>IP allocation agreement required</td>
<td>No</td>
<td>Yes</td>
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<tr>
<td>Nonprofit RI or FFRDC participation required</td>
<td>No</td>
<td>Yes</td>
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<tr>
<td>PI employment</td>
<td>small business</td>
<td>small business or RI</td>
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<tr>
<td>Applicant</td>
<td>small business</td>
<td>small business</td>
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The Online Tutorials features courses designed to help interested parties learn more about the Small Business Innovation Research (SBIR) and the Small Business Technology Transfer (STTR) programs. From learning the nuances of each agency’s programs to figuring out how to calculate indirect rates, the Online Tutorials covers all of the bases within the application process for federal funding. While some tutorials are broad and can be helpful to the novice, others are tailored to more seasoned SBIR/STTR awardees. Please see the Tools section within each tutorial for additional resources and be sure to take the short quiz at the end to ensure you’ve fully mastered the course.

COURSES

01 PROGRAM BASICS

02 AGENCY INTRODUCTIONS

03 AGENCY SOLICITATIONS

04 FINDING TOPICS

05 REGISTRATION REQUIREMENTS
REQUIRED REGISTRATIONS

Get a Dun & Bradstreet D-U-N-S® Number

The D-U-N-S Number is used to establish your company’s D&B® file, which can help potential partners and lenders learn more about your business, and may also help them make more informed decisions about whether or not to work with you as a client, supplier, or partner.

The first step in creating a new D-U-N-S Number is searching to see whether Dun & Bradstreet has already created one for you.
REQUIRED REGISTRATIONS

Entity Registrations

You may use this for FREE to do the following.
- Register to do business with the U.S. Government
- Update or renew your entity registration
- Check status of an entity registration
- Search for entity registration records

What is an entity?

Registered entities are public information, but you must be signed to search and view them.

Register Your Entity

Register your entity to get started doing business with the federal government.

Getting started searching entity registrations
REQUIRED REGISTRATIONS

IRS EIN TAX ID NUMBER
Online Application
EIN Processing & Filing Service

APPLY ONLINE
FOR AN IRS EIN/TAX ID NUMBER
IN MINUTES.

SELECT YOUR ENTITY TYPE

Select your desired entity and fill out your information on our simplified forms to obtain a Federal Tax ID Number / EIN from the IRS in just 3 simple steps. Govt Assist agents will provide a filing service and process your application with the Internal Revenue Service. You will receive your EIN via e-mail that same day, usually within an hour, if submitted during business hours.

- Sole Proprietor / Individual
- Limited Liability Company
- Trust
- Estate Of Deceased Individual
- Non Profit Organization
- Partnership
- Corporation
- S-Corporation
- Personal Service Corporation
- Church Controlled Organization
REQUIRED REGISTRATIONS

Account Registration

- NSF Proposal & Award Policies & Procedures Guide (PAPPG) specifies that each individual user of NSF systems should not have more than one NSF ID (Chapter 1.G.4, NSF ID).
  
  * Required Fields

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<tr>
<th>Prefix</th>
<th>* First Name</th>
<th>Middle Name/Initial</th>
<th>* Last Name</th>
<th>Suffix</th>
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<td>Select Prefix</td>
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Alternate Name(s) Nickname, maiden name, etc.

* Primary Email

* Confirm Primary Email

Secondary Email

Confirm Secondary Email
REQUIRED REGISTRATIONS

Company Registration

Company registration is meant for small businesses to register and gain access to the SBIR.gov system. Completed registrations will receive a unique SBC Control ID to be used for submissions at any of the 11 participating agencies in the SBIR or STTR programs.

1. Certification Tool

The SBIR certification tool is for informational purposes only. Ineligibility does not prohibit registration.

2. Have you Registered?

Type of Firm

Is your business organized as a for-profit company?

- Yes
- No

Is your principal place of business located in the United States?

- Yes
- No
REQUIRED REGISTRATIONS

REGISTER

Registering with Grants.gov
One account to manage all your profiles, applications, and subscriptions.

Applicants
1. Complete the required form fields.
2. Confirm your email address.
3. Add an organization applicant profile or an individual applicant profile after registering.

Learn more on the Applicant Registration page.

Grantees
1. Complete the required form fields.
2. Confirm your email address.
3. Ask your agency point of contact to associate your email address with the agency.

Learn more on the Grantee Registration page.

Get Registered Now »
KEY ELEMENTS OF THE FULL APPLICATION

Technical proposal for review by panel of experts that must address “intellectual merit,” “broader impacts,” and “commercial potential.”

What is the deliverable?

Budget, with justifications from Bureau of Labor Statistics

What will it reasonably cost (applicants may include fee) to produce that deliverable?

Timeline

What are the milestones to achieve that deliverable, working backward from that 6-month deadline?
Technology Innovation | up to 500 words
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Market Opportunity | up to 250 words
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HOMEWORK
NEXT STEPS

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- Research funding priorities, then find and contact relevant program managers.
- Develop quad charts and/or other supporting document.
The broader impact/commercial potential of this project is the development of drone-based technology to manage fires more safely, efficiently, and effectively. Wildfires cause hundreds of billions of dollars in annual damages in the United States. As the size and number of wildfires increases, prescribed fires have emerged as one of the most cost-effective tools to reduce catastrophic damage by re...

Pole-based solar mounting and tracking system for use in cattle production
SBC: FarmAtfield Labs, LLC  Topic: 12e
Rural areas in the United States have under-developed solar power capabilities relative to urban areas due to challenges matching energy demand centers with underutilized land and consequent cost challenges related to smaller installations that lack economies of scale. This project addresses these problems by proposing solar installations that operate synergistically with livestock production oper...

Multifunctional Antioxidant to Prevent Noise-Induced Hearing Loss
SBC: Therapeutic Vision, Inc.  Topic: NIDCD
Noise induced hearing loss (NIHL) is the most common occupational disease for which no clinically effective drug is available. Since NIHL involves oxidation linked loss of sensory hair cells and auditory neurons in the cochlea, there is a need for potent and effective antioxidants that offer protection to these tissues. In preliminary studies we have observed that the orally administered multifunctional ant...

Seromucin Signature for the Early Diagnosis of Pancreatic Cancer
SBC: Sanguine Diagnostics And Therapeutics, Inc.  Topic: 102
ABSTRACT Pancreatic cancer (PC) is an extremely aggressive malignancy with one of the worst prognoses of all cancers. With periampullary obstruction, it is often difficult to distinguish between PC and other periampullary malignant tumors. Although early diagnosis is critical for successful treatment of PC, current diagnostic methods are limited in their ability to diagnose disease in a timely manner. Our goal is to develop a seromucin signature that offers a highly specific and sensitive means of diagnosing PC through a simple blood test. This work will use a combination of bioinformatic and computational approaches to identify a set of key molecular markers associated with PC development and progression.
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*Intellectual Property Protection:* Two issued patents and one patent pending  
*Stage of Development:* Basic research  
*Value Proposition:* Can reduce the risk of cardiovascular disease for those that cannot treat this syndrome with exercise.

**COMPANY INTRODUCTION**  
*Mission:* To improve patient outcomes by transforming great science into actionable solutions for the treatment of metabolic diseases.  
*Founded:* 2005  
*Number of Employees:* 20  
*Facility Description:* We are currently developing this method in a laboratory located at the Mayo Clinic in Rochester, MN.  
*Product Sales:* None to date

**RESEARCH NEED**  
Seeking funding to test this platform on diabetes, high blood pressure, and abnormal cholesterol levels.

**OPORTUNITY**  
*Need/Problem:* Metabolic syndrome is becoming increasingly common due to a rise in obesity rates among adults. In the future metabolic syndrome may overtake smoking as the leading risk factor for heart disease.  
*Target Customer:* About 32% of people in USA are considered to suffer from metabolic syndrome, with the risk increasing with age (e.g., 40% of people aged between 40 and 60 are considered to suffer from this syndrome).  
*Market Opportunity:* Our technology aims to address the rise in obesity rates in order to reduce the risk of a debilitating stroke or myocardial infarction.
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