

Winning SBIR Biotechnology & Biomedical Contracts

Imagine: A funding source providing your company with research and development (R&D) dollars to produce new biotechnology/biomedical products that contribute to your firm's growth. Moreover, the funding source does not want ownership of your company; nor does the source want your company to pay the money back.

Through its Small Business Innovation Research (SBIR) program, the US federal government is the funding source. SBIR, since 1982, provides biotechnology/biomedical companies and aspiring entrepreneurs *Seed* capital to develop and commercialize groundbreaking technology inventions/solutions.

SBIR Program & Purpose

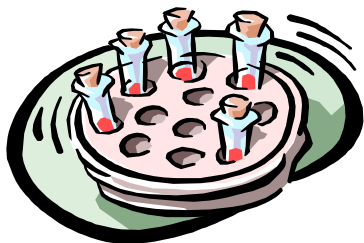
SBIR is a competitive proposal submission process involving eleven (11) US federal agencies. Small high technology firms and others vie for contract or grant funding awards for the development of innovative

technology products, services or advancement of scientific research methods that can be marketed in the governmental and/or commercial marketplace.

The federal money affords firms an opportunity to engage in high-risk research and development, which is normally cost-prohibitive for their companies. By commercializing the research and development results, more importantly, firms are able to generate additional revenue, achieve market leadership within their industry sector and expand their companies.

There are three stated purposes that drive the SBIR program:

- Help small high technology firms gain share of federal research & development dollars;
- Help small high technology firms grow their companies; and
- Help the eleven participating agencies solve real world problems.



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Biotechnology & Biomedical SBIR Contract Opportunities

Total Number of SBIR Contracts/Grants

(FY 2000 – FY 2007)

	Phase I & Phase II
Biotechnology	212
Biomedical	381
Total	

SBIR Biotechnology/Biomedical Contracts/Grants Awarded By Major Industry Sectors

(FY 2000 – FY 2007)

Therapeutics	44 Awards
Diagnostics	27 Awards
Agriculture	11 Awards
Genomics	26 Awards
Medical Device	158 Awards

SBIR Award Information Source: US Small Business Administration's Office of Technology

Best Agencies for Winning Biotechnology & Biomedical SBIR Contracts

Biotechnology

US Department of Defense
US Department of Energy
US Department of Health and Human Services/National Institutes of Health

Biomedical

US Department of Defense
US Department of Health and Human Services/National Institutes of Health
National Aeronautics and Space Administration

Participating Federal Agencies Awarding SBIR Contracts/Grants in Biotechnology/ Biomedical

US Department of Agriculture
US Department of Defense
US Department of Energy
US Department of Health and Human Services/National Institutes of Health
US Department of Homeland Security
National Aeronautics and Space Administration
National Science Foundation

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Sample SBIR Biotechnology & Biomedical Request For Proposals (RFPs)

National Aeronautics and Space Administration SBIR Phase I RFP Sample

Development of innovative technologies resulting in non-invasive methods for diagnosis, treatment, and therapeutic drug monitoring is needed to facilitate effective pharmacotherapy of humans in space. Many questions remain about the effectiveness of pharmaceuticals in micro- and hypogravity environments, which may interfere with their activity by sensitizing or desensitizing the crew member or interfering in other ways with the desired physiological effect. Micro-encapsulation of drugs and development of novel drug delivery systems under micro- and hypogravity conditions. Devices for continual monitoring of physiology during pharmacotherapy would also be advantageous to ensure that on-orbit expression of therapies relates to on-Earth histories.

Department of Energy SBIR Phase I RFP Sample

A continuing GTL need is more efficient processing of increasingly large data sets, which are generated by experimental groups. For example, there is a current need for automated identification of protein modifications from the mass spectra of trypsinized proteomic samples. Grant applications are sought to improve one or more of the component software packages that have already been developed by laboratory groups, in order to enhance user friendliness and thereby support their broad export to the biologist community. Of particular interest are approaches related to: (1) systems biology, (2) the processing of proteomics and metabolomics data sets, (3) improved integration and or querying of heterogeneous data sets, and (4) the automated development of cellular metabolic models from data sets on newly studied microbes. Grant applications are also sought to develop novel software in support of cellular modeling with predictive capabilities.

Department of Agriculture SBIR Phase I RFP Sample

Novel or innovative approaches to improve the efficiency of algal production systems including: identification of new species with improved nutritional profile for use in feeding to other aquacultural species or as a source of valuable human food supplements; development of improved bioreactor technology; and development of better methods for harvesting algal biomass.

Department of Defense SBIR Phase I RFP Sample

Objective of this topic is to develop new modalities of effective drug delivery to Central Nervous System (CNS) for the treatment of toxic chemical induced or combat related brain injuries. Emphasis is placed on innovative technologies that can deliver a different approved therapeutic drug to the CNS or being developed therapeutic drugs to the CNS with minimal side effects. That is, a generic carrier for brain delivery of a wide class of drugs. Description: Drug delivery to the brain is limited by the blood-brain barrier (BBB), which markedly impacts treatment for a vast number of central nervous system related injuries in military medicine. This has impeded CNS drug development and treatment. Therefore, discovery of new modalities of effective drug delivery to the CNS is of great importance for treatment of brain injuries, spanning the realm of brain injuries resulting from cholinergic overload as a result of organophosphate toxicity to treatments for traumatic head wound. The factors that determine penetration of substances from the blood to the CNS are lipid solubility, molecular size, and charge. Since few drugs cross the BBB, the development of BBB drug delivery technologies is a high priority for the treatment of brain injuries. This program will develop new and innovative targeting technology by enhancing the delivery of neuroprotectants such as oximes, cyclosporine A, adenosine receptor agonists, or nerve agent bioscavenger for effective protection against chemical warfare agents or combat related brain injuries.

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How to Actually Win SBIR Biotechnology/Biomedical Contracts

Business Plan

Winning a contract in the SBIR program requires your company to organize and prepare key information resources before agencies release their RFPs. This means your company must (1) use its business plan as the foundation for preparing a standard 25-page Phase I proposal, (2) identify and secure supportive academic, technical and industry/market research materials, (3) assemble a qualified team, and (4) be creative and original.

Eighty percent (80%) of the SBIR Phase I proposal content will come from a company's business plan. The business plan's marketing, management and financial sections contain the essential information needed to develop a comprehensive proposal document. More importantly, the proposal content is a clear reflection of a company's business plan: it shows a sponsoring federal

agency how the firm, based on its experience, knowledge and skills, intends to build and successfully commercialize a proposed biotechnology/biomedical technology solution.

Information

While eighty percent of the proposal's content comes from your company's business plan, the remaining twenty percent (20%) is comprised of research information. The proposal reviewers will be eager to learn if your company is aware of the "State-of-Art" regarding your firm's groundbreaking technical approach. Therefore, your company must demonstrate, by including key research references in the proposal document, that a proposed technology solution is based on commonly accepted science/technical principles.

Ingredients for Success

Your Company's Business Plan

- 80% of Proposal Content

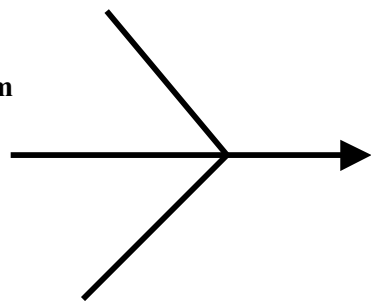
Your Company's Team

- Experience
- Knowledge
- Skills

Information

- 20 % of Proposal Content

(Market Research, Scientific & Technical Data)

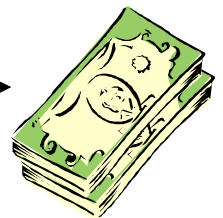


SBIR Phase I Proposal

Standard 25-Page Proposal

- Technical Section
- Commercialization Plan
- Cost (Budget) Section

SBIR Funding



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Research Leader & Team

The qualifications of the Principal Investigator (i.e., project leader) and research team are very important indicators for the proposal reviewers. In fact, it is one of the main reasons why many SBIR proposals are rejected. A solid, qualified team must have (1) technical expertise in the technology field of the proposed project, (2) knowledge of the product development and production process, and (3) experience in launching and marketing new products.

Note: For companies lacking qualified personnel, the SBIR program allows applicants to use up to thirty (30%) percent of their proposed project budget to hire consultants or outside talent that can enhance and/or augment a company's research team.

The core essence of the SBIR program is the expectation of small firms utilizing their talents to produce creative and original cutting edge

technologies. High marks are given to proposals that transcend the norm and present "out-of-the-box" solutions. In other words, the agencies are very interested in funding technical innovations that revolutionizes a technology field, as well as serve the needs of two or more markets (e.g., governmental, military and commercial product users) simultaneously. Thus, a solution that appears to be unique and marketable will pique the interest of proposal reviewers.

About the Writer:

Mr. Darrell K. Williams is the founder, president and CEO of Aurora International Consulting (AIC). Mr. Williams has developed expertise in small Business Planning, Market Research, Market Strategy and SBIR Proposal Development.

Mr. Williams founded and operated the DC-based Washington Emerging Technologies Center (WETC) from January 1999 until November 2006. As a private consulting firm, WETC specialized in helping small high technology companies and aspiring entrepreneurs win and grow their firms with Small Business Innovation Research (SBIR) contracts.

Under Mr. Williams' direction and leadership, WETC won three (3) US Small Business Administration (SBA) contracts to provide outreach activities (*Training, Consulting and Information Workshops*) for the SBIR program in the Washington, DC metropolitan area.

See how AIC's Consulting Services (i.e., Business Plan Development, Market Assessment, SBIR Proposal Development and SBIR Action Plan© Development) can help your company grow and succeed.

You can reach Mr. Williams at staff@auroraintercon.com and learn how your company can receive forty (40%) percent off of AIC consulting services.