

SBIR

NBDC program promotes technology transfer in Nebraska



Small businesses created more than 93% of all jobs from 1989 to 2005. Thirty-eight percent of America's scientists and engineers are employed by small businesses. Yet, the government only spends 4.3% of its extramural research funding on small businesses.

One research program available only to small businesses is the Small Business Innovative Research (SBIR) program. This grant program provides funding from 11 different federal agencies and is collectively worth more than \$2.2 billion.

According to Jean Waters, SBIR consultant for the Nebraska Business Development Center (NBDC), "Nebraska has not taken full advantage of the SBIR program. We have a few companies who have been very successful, but we do not have nearly as many proposals submitted as Wyoming, a state with one third our population."

The SBIR program is a revenue source to help Nebraska university faculty and researchers transfer their intellectual property to local businesses. It also provides critical research money for existing and start-up businesses. According to Waters, the NBDC SBIR program was established with a twofold mission—to raise awareness and provide education about the program.

With assistance from CBA graduate student Veronica Doga, Waters publishes a monthly electronic newsletter featuring grant-writing tips and information on federal agency requests for proposals. Last year, NBDC made several SBIR introductory presentations to businesses and faculty who are interested in commercializing their research.

The program recently brought two important national SBIR program managers to Nebraska. Jo Anne Goodnight from the National Institutes of Health (NIH) and Jim Gallup (pictured above left) from the Environmental Protection Agency (EPA) conducted workshops organized by Waters and Doga.

Waters also offers one-on-one consultation to answer specific questions as researchers prepare their proposals for submission. Waters says, "The partnerships we have made with economic development folks from across the state, university intellectual property offices, technology incubators, and other interested parties have been very fruitful. Everyone is working together to increase highly skilled, technical jobs in Nebraska.

For more information on the NBDC SBIR program or to sign up for the monthly newsletter, go to <http://nbdc.unomaha.edu/SBIR>.



JEAN WATERS is a Small Business Innovative Research/Small Business Technology Transfer (SBIR/STTR) program consultant with the Nebraska Business Development Center (NBDC). Waters has an M.S. in chemical engineering and directed the Pollution Prevention Resource Exchange for five years at NBDC. Previously, she was director of the Pollution Prevention Institute (PPI) at Kansas State University. At PPI she consulted individually with businesses and gave seminars on environmental management systems, air permits, and pollution prevention planning. She has served on numerous SBIR review panels for EPA. Prior to joining PPI, Waters was a process engineer for Raytheon Aircraft and plant chemist for Koch Fiberglass, both in Wichita, Kansas.

VERONICA DOGA is an instrumental part of the NBDC outreach on SBIR. She is responsible for significant data gathering and analysis on the SBIR program in Nebraska and nation-

wide. In addition to technical responsibilities for the monthly electronic newsletter, she manages multiple contact and resource lists, is responsible for electronic surveys and handles the logistics of events. Doga is a graduate student in economics at UNO's College of Business Administration. A native of The Republic of Moldova, she plans to find employment in an analytical field in the Omaha area.





Small Business Innovative Research Success Stories

LI-COR BIOSCIENCES

In 1971 LI-COR was launched to provide scientists from around the world with a basic instrument to measure the quantity of light usable for plant photosynthesis. The process was developed by William Biggs as a part of an agronomy research team at the University of Nebraska. This first instrument was the beginning of a product line that has been expanded over the years, partly due to SBIR grants. To date, LI-COR has received funding for 15 SBIR proposal submissions.

Today, LI-COR is considered to be a leader in the design and manufacture of instrument systems for biotechnology and environmental research. The company is based in Lincoln, Nebraska with subsidiaries in Germany and the United Kingdom.



NATURE TECHNOLOGY CORPORATION (NATURE TECH)

Clague Hodgson founded Nature Tech in 1997. Located in Lincoln, Nebraska, Nature Tech's DNA fermentation process is being used by the National Institute of Health's Vaccine Research Center to mass-produce vaccines for bird flu, avian flu, HIV-AIDS and Ebola viruses. Nature Tech's technology allows for the cost-effective production of these vaccines (about one dollar a dose).

Nature Tech, which has received six SBIR grants, uses the funds to supplement their research budget. Aaron Carnes, a University of Nebraska graduate and chemical engineer who took the lead in developing NTC's processes, is pictured at left.



21ST CENTURY SYSTEMS, INC.

21st Century Systems, Inc. (21CSI) develops innovative software that uses computer-assisted data monitoring to manage complex, high-stress environments. They have successfully commercialized numerous software products and employ over 140 workers.

Since 1996, 21CSI has applied for more than 70 SBIR grants and has successfully used funds awarded to develop software products for the Department of Defense. Today they are exploring other applications for their software, such as in hospital emergency rooms

The majority of 21CSI employees are located at the Scott Technology Transfer and Incubator Center in Omaha, Nebraska, but they also have offices in McCook, Nebraska and nine other states. Jeffrey D. Hicks, CEO, is pictured at left.