SUCCESS STORY: TING THERAPEUTICS

Firm Receives Funding for Clinical Trials of New Medical Therapies





REPORT DATE

January, 2020

INDUSTRY

Pharmaceutical Preparation Manufacturing

CONSULTING

SBIR phase I grant applications

RESULTS

 Two SBIR phase I grants and state matching funds awarded

CONSULTANT: JOSH NICHOL-CADDY DOUGLAS COUNTY STATE SENATE DISTRICT 6 CONGRESSIONAL DISTRICT 2 The Nebraska Business Development Center (NBDC) is helping a researcher team relatively new to Nebraska move forward in efforts to bring drug discoveries for hearing loss to clinical trials.

Ting Therapeutics LLC, owned by Jian Zuo, Ph.D., and Tal Teitz, Ph.D., was established in August 2018. Zuo came to Omaha earlier that year to serve as chairman and professor in the Department of Biomedical Sciences at the Creighton University School of Medicine. He had served the previous 20 years as a faculty member at the St. Jude Children's Research Hospital in Memphis, Tenn. Teitz currently serves as assistant professor in the Department of Pharmacology and Neuroscience at the Creighton University School of Medicine.

About eight years ago, Zuo and Teitz began working with a drug used in cancer treatment and adapting it for use in the prevention and treatment of hearing loss due to chemotherapy or noise.

"This effort has led to a similar discovery on multiple drug candidates," Zuo says. "That is why we are very keen in establishing paths to commercialization and getting these drug candidates into clinical trials."

While exploring the entrepreneurial landscape in Nebraska, they were referred to Josh Nichol-Caddy, NBDC technology commercialization director. "I took the opportunity to talk with Josh extensively," Zuo says. "He gave me a lot of valuable advice."

It included advice on how to write and submit their first Small Business Innovation Research (SBIR) grant application. "That was a major hurdle for us," Zuo says. "Josh was pretty much the engine moving our company forward."

Zuo and Teitz have applied for two SBIR Phase I grants and have also obtained matching funds from the Nebraska Department of Economic Development. They have also established a Transitional Hearing Center at Creighton to further explore and apply their drug innovations.

"We have published papers describing these drugs and how they can be protective against hearing loss due to chemotherapy," he says. "We have been very successful in identifying these populations, including pediatric populations being treated for neuroblastoma and other cancers. By adding these drugs to the chemotherapy, we hope to prevent a significant portion of these hearing losses. This would be especially important for children who have years ahead of them."

He says the drugs also have potential for treating hearing loss due to noise as documented in their recent paper. "This is also significant for several populations, especially veterans, for example," Zuo says. "The Veteran's Administration spends a large amount of money each year treating hearing loss."

He says it is estimated that about 10 percent of the world's population has some degree of hearing loss. "It may not be life threatening, but it really impacts the quality of life for these people," he says. "This is a huge medical problem that is unmet."

With the continued advice and support of NBDC, Zuo says, "we are confident we will have the golden opportunity to get these drugs to clinical trials and we are very optimistic about the outcomes."

Zuo says the NBDC has also been instrumental in adding his efforts to establish a university-wide drug discovery environment in Nebraska.

"Josh and his colleagues have introduced us to all kinds of important people," he says. "The NBDC has been the glue in these connections."

