TECHGROWTH**ohio**



THE COMPANY'S INNOVATIVE SOUND THERAPY TECHNOLOGY IS IN CLINICAL TRIALS AT THE CLEVELAND CLINIC n estimated 50 million Americans suffer, to one degree or another, from tinnitus — ringing, or other subjective sounds — in one or both ears. For some, it's an intermittent or occasional, lowlevel irritation, while for others, it's constant and debilitating.

There is no cure, but there are many treatments that cover up the condition rather than providing lasting relief.

"Many tinnitus sufferers use some form of 'white noise' to distract or mask the sound of tinnitus," says Rick Giancola, CEO-designate at Sanuthera Inc.

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Everyone but Sanuthera, that is. Many treatments based on white noise can be just as annoying as the tinnitus sounds they are masking, Giancola says. They provide temporary relief with little proven long-term benefit. To address the problem, the 2010 startup has innovated an audio technology that incorporates complex, customized, music- and nature-based sound for white noise.

Dr. Jeffrey J. DiGiovanni, a Ph.D. audiologist with an electrical engineering degree, innovated the technology centered on a sound-generating device that wirelessly connects with the patient's hearing aid. (Eighty-five percent of tinnitus sufferers also have some form of hearing loss.) The fact that the technology will work as one integrated audio device is a market-changer, creating an advantage over existing tinnitus-masking hardware that works independently of the hearing aid, making it necessary for patients to use two separate audio devices.

The Sanuthera device is easily customized for each patient to create sound that blends with the frequency of the patient's tinnitus and works over time to reduce or even end the tinnitus by changing the way the brain functions.

"We're retraining the brain through commonly accepted, scientific principles of neural plasticity," says Giancola, adding that a typical round of therapy might entail the use of the device for two hours a day over a period of six months to a year.

While the company received its first round of funding independently, TechGROWTH Ohio has helped it continue to grow, attracting nearly \$1 million in additional financing to the young company. The regional incubator is also supporting Sanuthera's growth through consultative services and it has helped the company establish an advisory board.

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Sanuthera anticipates TechGROWTH Ohio's continued involvement in its growth and its ongoing plans, which include a current clinical study at the Cleveland Clinic and long-range plans to collaborate with a hearing aid company to offer a blended audio product. Sanuthera has also approached thought leaders in the U.S. Department of Veterans Affairs and the Department of Defense, as about 20 percent of all hearing aids sold in the U.S. are to veterans, and tinnitus is the No. 1 service-related disability.

SANUTHERA INC.



PRODUCT

A sound-generating device that wirelessly connects with the patient's hearing aid, used to reduce or even eliminate tinnitus.

HOW IT WORKS

Devices are custom-programmed to create musicand nature-based sound that blends with the frequency of the patient's tinnitus.

SUCCESSES Current clinical study at the Cleveland Clinic

UTURE PLANS

To approach the U.S. military about the use of its product

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