



## **NeuroEM Therapeutics Awarded \$2.2M Grant from National Institute on Aging for Promising Device Against Alzheimer's Disease**

**Phoenix, AZ (March 24, 2021)** - NeuroEM Therapeutics, a clinical-stage medical device company, announced today that it has just received a two-year \$2.2M federal grant from the National Institute on Aging (NIA) to continue studies involving the Company's patented Transcranial Electromagnetic Treatment (TEMT) against Alzheimer's Disease (AD).

The grant builds on NeuroEM previously-published results of its initial clinical trial involving TEMT in AD patients, which reported that 2-months of daily in-home treatment safely reversed their progressive cognitive impairment. Those encouraging clinical findings, in addition to supportive pre-clinical studies, resulted last year in the FDA granting it's first "Breakthrough" designation for Alzheimer's Disease treatment to NeuroEM for the Company's bioengineered "MemorEM™" device.

The MemorEM device delivers full brain TEMT through emitters in a head cap connected to a control box/battery that is worn on the arm. Thus, the patient has near-complete mobility during daily 1-hour treatments at home, as administered by the patient's caregiver. NeuroEM has an on-going clinical trial further evaluating the safety and efficacy of its MemorEM device well beyond the 2-month period of their initial clinical study.

This newly-awarded NIA grant will use several types of Alzheimer's-related cell cultures to investigate whether there is an even more effective set of TEMT parameters than the set of parameters NeuroEM has used up to this point in its clinical studies. "We are very pleased with the set of TEMT parameters we are currently using," said Dr. Gary Arendash, principle investigator for the NIA grant. "However, this new grant gives us the opportunity to explore different frequency levels, different power levels, and different treatment paradigms that may provide even better effects on the various cellular processes involved in Alzheimer's Disease." Such studies would be impractical to do in Alzheimer's patients.

The grant research will be carried out jointly with both the University of South Florida (Tampa) and MegaNano Biotech (Tampa) through Dr. Chuanhai Cao, a long-time collaborator with Dr. Arendash and NeuroEM. Dr. Cao's laboratories are expert in cell culture work related to Alzheimer's Disease and will be investigating the effects of TEMT on cellular energy production, immunologic markers, and AD markers (such as  $\beta$ -amyloid).

"Our hope is that TEMT will be shown to be the first effective therapeutic to not just slow the progressive memory impairment of AD, but to stop and reverse it," stated Dr. Arendash. "Studies in this NIA grant could be critical in identifying the best set of TEMT parameters for doing so".

### **About Alzheimer's Disease**

Alzheimer's disease (AD) is a progressive and ultimately lethal brain disease leading to memory loss, language problems, difficulty in routine daily functions, and other serious symptoms. AD is caused by the damage or destruction of brain cells (neurons) in parts of the brain that control thinking, learning and memory. Over time, people with AD increasingly become limited in performing daily activities and eventually become bed-bound, requiring continuous care. AD is the sixth leading cause of death in the U.S. In 2022, an estimated 6.2 million Americans are living with the disease. By 2050, this number is projected to more than double to 14 million. In 2022, AD and other dementias will cost the U.S. approximately \$300 billion. By 2050, these costs could rise to \$1.1 trillion per year.

### **About NeuroEM Therapeutics, Inc.**

NeuroEM Therapeutics is a clinical stage medical device company focused on development of Transcranial Electromagnetic Treatment (TEMT) to treat neurodegenerative disorders such as Alzheimer's Disease, other forms of dementia, and Parkinson's Disease. The company is headquartered in Phoenix, AZ and has obtained research support from the National Institutes of Health (NIH), a prominent charitable foundation, and angel investors. NeuroEM's head device (the MemorEM™) is a first-in-class medical device that provides full brain electromagnetic treatment in-home and with near complete mobility. For more information about NeuroEM Therapeutics and this new bioengineering technology, go to [www.neuroem.com](http://www.neuroem.com).

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