Epilepsy Foundation Awards $300K in Grants for New Treatments

dravetsyndromenews.com/2019/02/05/epilepsy-foundation-awards-300k-in-grants-for-new-treatments/

Mary Chapman

February 5, 2019

With the goal of advancing development of new treatments for patients living with poorly controlled seizures, the Epilepsy Foundation has awarded $300,000 in grants to two leading researchers.

The grants will go to Matthew Gentry, PhD, a professor at the University of Kentucky, and Greg Worrell, MD, PhD, professor of neurology and chair of clinical neurophysiology at the Mayo Clinic, through the foundation's New Therapy Commercialization Grants Program and Epilepsy Innovation Seal of Excellence Award. Each recipient will receive matching funding from commercial partners.

Gentry was awarded $150,000 to support pre-clinical testing of a compound (VAL-1221) that has promise to treat Lafora disease, a progressive epilepsy caused by genetic abnormalities in the brain's ability to process a sugar molecule called glycogen.

Gentry has joined with Valerion Therapeutics to develop VAL-1221, now in clinical trials for Pompe disease, a rare genetic disorder characterized by the abnormal buildup of glycogen inside cells. Early evidence suggests the compound can break down aberrant glycogen in cells of Lafora patients.

Worrell will receive $150,000 to support research Cadence Neuroscience, an early-stage company developing medical device therapies for epilepsy treatment and management. The company's core technology is management of uncontrolled epilepsy when a patient is undergoing Phase 2 evaluation for surgery.

Early evidence suggests that this procedure, which tests a variety of electrical stimulation parameters on intractable (hard-to-manage) epilepsy patients during evaluation, can be used to customize brain therapy and enhance seizure control. Worrell is expected to use his award to help develop a user-friendly work station to enable other clinicians to customize and optimize brain stimulation therapies.

"Every day, millions of people across the world lose seconds, minutes or hours of their lives to seizures, and these precious moments can never be regained," said Sonya Dumanis, PhD, senior director of innovation at the Epilepsy Foundation, in a press release.

"Depending on the type of epilepsy, seizures can often change lives and result in the loss of friends, jobs, mobility, and even the ability to function. Seizures can also increase the risk of death," she said.

Selected from nine applications, both awardees' submissions underwent a rigorous scientific advisory and business review process.

Foundation awards are based on prospective impact and value to patients, and the likelihood and timeframe for full development. They are part of the foundation's Epilepsy Therapy Project, a research program that aims to promote timely, innovative ideas in epilepsy seizure treatment and care. Since 2006, the project has invested more than $8.3 million in 90 initiatives.

The foundation's grants program funds research that promises to uncover new treatment options, and ultimately cures. Its focus is to foster innovation and entrepreneurship in order to get new epilepsy therapies to market faster.

In 2013, a foundation grant backed early clinical testing of prospective treatment Epidiolex in Lennox-Gastaut and Dravet syndromes. The trials ultimately led to the development and commercialization of the cannabis-based therapy, approved last year to treat seizures associated with the syndromes in patients two years or older. It's the first U.S. Food and Drug Administration (FDA)-approved medicine for Dravet patients.

According to the U.S. Centers for Disease Control and Prevention (CDC), roughly 3.4 million U.S. residents are affected by epilepsy, the tendency of the brain to produce seizures, which are sudden abnormal electrical energy bursts that disrupt brain function.

Dravet syndrome (also known as severe myoclonic epilepsy of infancy) is a severe form of epilepsy, which usually appears during the first year of life as fever-related seizures. As the disease progresses, other types of seizures such as myoclonus and status epilepticus also may be seen.