DMRF and Cure Dystonia Now Announce Collaboration to Investigate Possible New Treatment

Medication May Lessen Dystonia with Fewer Side Effects than Existing Drugs

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The Dystonia Medical Research Foundation (DMRF) and Cure Dystonia Now (CDN) are collaborating to co-support a research investigation that may lead to a new drug for dystonia, the third most common movement disorder following essential tremor and Parkinson’s disease. The medications most frequently prescribed to treat this debilitating disease are ironically those with some of the highest incidence of intolerable side effects, which limit their use. A team of American and European investigators is exploring whether a drug called AZD1446 could potentially provide relief for dystonia patients without the unintended effects frequently caused by existing pharmacological therapies.

The investigation is led by David Standaert, MD, PhD, Professor and Neurology Chair at University of Alabama and includes Antonio Pisani, MD, PhD, Associate Professor of Neurology at University of Rome Tor Vergata.

Art Kessler, President of the DMRF, explains: “This project addresses two important issues for the dystonia community: We need additional treatment options and we need to find new ways to offer treatment with minimal side effects. This project provides an important opportunity to investigate a possible new medication for dystonia while pursuing a better quality of life for patients.” Kessler developed an especially debilitating childhood onset form of dystonia at age eight and knows firsthand the challenges inherent in treating the disease.
Marc Miller, Director and Co-President of CDN states, “Our priority is to work with the brightest and most motivated doctors and scientists, and our goal is to discover new treatments. This project is an exciting opportunity to do both.” Two generations of the Miller family are affected by dystonia.

Dystonia is a neurological disorder that causes skeletal muscles to contract or spasm involuntarily, resulting in twisting, repetitive movements and/or sustained, abnormal postures. A person who is affected by dystonia struggles against the movements of his/her own body to walk, sit or rest comfortably, eat, write, and/or speak. It may be impossible to sit still. Treatment typically requires a combination of approaches including oral medications, botulinum neurotoxin injections, surgical interventions, and supportive therapies such as physical therapy. In some people, a class of drugs called anticholinergics may replace or compound the physical symptoms with equally disabling cognitive effects such as drowsiness, hallucinations, and memory difficulties. Striking a balance between controlling the dystonia and preserving the ability to function in daily life is a challenge for physicians and patients alike.

Dystonia results from improper signals in the nervous system that instruct muscles to contract excessively. Experts do not yet fully understand the neurological mechanism that causes the abnormal muscle contractions, but the origins appear to stem from an imbalance of neurotransmitters in the brain and changes in brain cell synapses. Standaert and team are using a genetically engineered mouse with abnormal neuronal signaling to examine whether AZD1446 can correct the abnormal signaling and restore the balance of neurotransmitters. In separate studies, the drug has been examined for use in treating attention deficit/hyperactivity disorder and Alzheimer’s disease.

Cure Dystonia Now is a 501(c)(3) non-profit organization working with researchers on cutting edge treatments and ultimately a cure for dystonia. Learn more about Cure Dystonia Now at www.curedystonia.now.org.

The Dystonia Medical Research Foundation is a 501(c)(3) non-profit organization dedicated to advancing research for improved dystonia treatments and ultimately a cure, promoting awareness, and supporting the well-being of affected individuals and families. The DMRF can be reached at 800-377-3978 or www.dystonia-foundation.org.