

Marinus Pharmaceuticals Announces U.S. Department of Defense Grant to Study Ganaxolone in Fragile-X Syndrome

NEW HAVEN, Conn. – April 13, 2011 – Marinus Pharmaceuticals, Inc., the leader in the development of neurosteroids for central nervous system disorders, today announced the award of a \$3 million grant by the U.S. Department of Defense to study its lead candidate ganaxolone for the treatment of Fragile-X Syndrome (FXS). Ganaxolone modulates GABA-A ion channels by selective binding to the neurosteroid receptor. Early research suggests that normalizing neurosteroid levels with ganaxolone treatment may eliminate the behavioral symptoms associated with FXS.

The \$3 million federal grant was awarded to three University of California, Davis (UCD) researchers: Randi Hagerman, M.D., an international authority on Fragile X-related disorders; Michael Rogawski, M.D., Ph.D., a world-renowned epilepsy researcher; and David Hessel, Ph.D., an expert in psychophysiology studies. The group will enroll 60 children between the ages of six and 17 years to study the safety and effectiveness of ganaxolone for treating behaviors and anxiety common with FXS.

"The fact that a study with ganaxolone was awarded this grant is a testament to the potential for neurosteroid augmentation as a new treatment for FXS patients," stated Gail Farfel, Ph.D., Chief Clinical and Regulatory Officer of Marinus. "The scientific data suggests that ganaxolone may be ideally suited to reverse FXS symptoms related to the down-regulation of the neurosteroid binding site on GABA-A ion channels."

"Over the next few months, we will work with UCD to provide ganaxolone for the FXS study and work on obtaining regulatory approval from the Food and Drug Administration to allow the researchers to conduct this study under Marinus' Investigational New Drug Application," commented Kenneth Shaw, Ph.D., Senior Vice President, R&D at Marinus.

About Ganaxolone

Ganaxolone is a synthetic neurosteroid and a derivative of the naturally occurring neuromodulator, allopregnanolone. Ganaxolone has been administered to more than 950 healthy adult volunteers and patients in Phase 1 and Phase 2 studies. Completed Phase II epilepsy studies have generated data supportive of the efficacy and safety of ganaxolone in the treatment of both children and adults suffering from refractory epilepsy (patients who continue to have seizures despite taking multiple anticonvulsant drugs). Scientific research has suggested that ganaxolone therapy may be useful in the treatment of several other central nervous system disorders including posttraumatic stress disorder (PTSD) and fragile-x syndrome (FXS). Ganaxolone is being developed as a first in class treatment in epilepsy, PTSD and FXS.

Marinus has successfully developed several proprietary and novel patented formulations of ganaxolone.

About Fragile-X Syndrome

The result of a defect on the X chromosome, Fragile X Syndrome (FXS) is the leading cause of inherited mental disability and the most common single-gene cause of autism. The condition is estimated to affect one in 3,600 males and one in 4,000 females. Approximately one-third of all children diagnosed with fragile X syndrome also have some degree of autism. Fragile-X symptoms include learning and memory impairment, anxiety, hyperactivity and social avoidance. Up to 30% of people with Fragile-X also develop seizures.

About Marinus Pharmaceuticals

Marinus is a specialty pharmaceutical company dedicated to the reformulation, development, and commercialization of novel drugs to treat serious neurological and psychiatric disorders. Marinus is located in Branford, Connecticut. Its investors include Domain Associates, Canaan Partners, Sofinnova Ventures and Foundation Medical Partners. For additional information, please visit the company's Web site at www.marinuspharma.com.

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