Drug Discovery & Development

Mouse Model for Mania

WARF: P100188US01

Inventors: Stephen Gammie

The Wisconsin Alumni Research Foundation (WARF) is seeking commercial partners interested in a mouse model to understand the genetic and neurobiological basis of mania and aid in the development of new anti-mania drugs.

Overview

Presently, there are no good rodent models for mania, which is a critical component of bipolar disorder. The most commonly used approach is to inject normal mice with amphetamines to produce hyperactivity. Many researchers feel these drug-induced traits do not model true mania.

The Invention

A UW–Madison researcher has developed a novel line of mice which exhibit at least four characteristics of mania: hyperactivity, elevated aggression, increased risk taking and decreased sleep.

The line of mice originally was derived from outbred hsd:ICR mice as part of a study of high wheel-running. The researcher now has found that the mice exhibit mania behaviors like decreased daytime sleep and cage hyperactivity. Furthermore, some of these behaviors were tempered following treatment with the common anti-mania drugs valproate and olanzapine, as well as lithium.

Applications

- Mouse model for research and drug development/testing

Key Benefits

- Model provides a new avenue for understanding the genetics and neurobiology of mania.

Publications

- Saul M.C., Gessay G.M. and Gammie S.C. 2012. A New Mouse Model for Mania Shares Genetic Correlates with Human Bipolar Disorder. PLoS One. 7, e38128.

Tech Fields

- Drug Discovery & Development : Disease models
- Research Tools : Animal & disease models

For current licensing status, please contact Jennifer Gottwald at jennifer@warf.org or 608-960-9854