

Natural product for seizure relief and long term disease modification in Dravet Syndrome

Published date: May 15, 2017

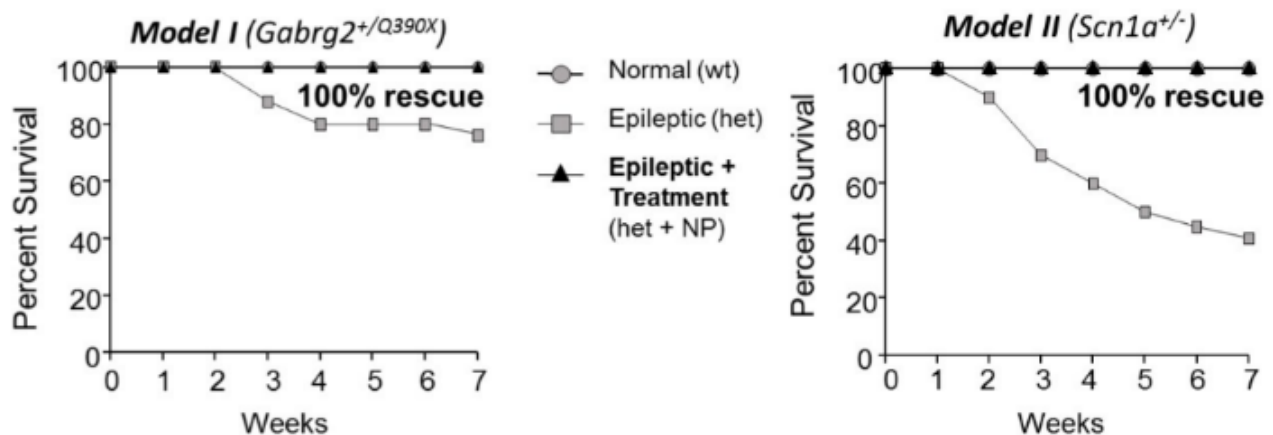
Technology description

Summary

Dravet syndrome is a lifelong form of epilepsy beginning in early childhood. Children with Dravet syndrome suffer aggressive seizures, impaired cognition, and an increased risk of premature death. Dravet syndrome does not respond to conventional anti-epileptic drugs, and current treatment regimens fail to fully elevate seizures. No disease modifying treatments exist. Researchers at Vanderbilt University have discovered a novel application of a known natural product in treating Dravet syndrome. This natural product could be beneficial to children suffering from Dravet syndrome in both reducing seizures and treating the underlying disease cause.

Innovation and Impact

Vanderbilt neuroscientists have identified a natural product (NP) that shows promise in the treatment of Dravet syndrome. In multiple epilepsy mouse models, intermittent NP dosing increased survivorship to 100% (Figure, two different mouse Dravet models), reduced disease progression, and blocked seizures. Dr Kang, through extensive cell signaling studies, has linked the NP's treatment of disease phenotype to enhanced GABAergic signaling. This increased GABAergic signaling had also suggested an increase in cognitive function and prolonged reduction in disease phenotype without continued administration, suggesting that it is also disease modifying. Therefore, the application of this NP to the treatment Dravet syndrome could increase patients' quality of life by controlling seizures as well as potentially treating the disease, which is an advantage over both the current options for treatment and the only drug currently in clinical trials.



Institution

[Vanderbilt University](#)

联系我们



叶先生

电话 : 021-65679356

手机 : 13414935137

邮箱 : yeyingsheng@zf-ym.com