Methods for diagnosing and treating Alzheimer?s disease (AD) using the molecules that stabilize intracellular calcium (Ca2+) release. - 1834

Published date: Dec. 15, 2017

Technology description

Market Opportunities

It has been shown that biochemical, molecular, and cellular abnormalities in classic AD involve cell loss and is associated with increased activation of pro-death genes and signaling pathways, impaired energy metabolism, mitochondrial dysfunction, chronic oxidative stress, and cerebrovascular disease/ cerebral hypoperfusion. Invention shows potential as a pharmaceutical that can reduce, inhibit or reverse calcium dysregulation in brain cells.

Technology Solution

The invention is a method that involves administering a molecule that promotes calcium-release stabilization in the ryanodine receptors and/or inositol triphosphate receptors in the brain cells of the patient. It also involves a method for treating Alzheimer’ s disease, early-stage AD, elevated risk of AD, mild cognitive impairment, etc. by administering a calcium-release stabilizer that induces reduction, inhibition or reversal of calcium dysregulation.

Application area

pharmaceuticals; treatment method; Alzheimer’ s disease; mild cognitive impairment (MCI); ryanodine receptors (RyR); inositol triphosphate receptors (InsP3R); brain cells

Advantages

Method of intervention is targeted specifically to brain cells and has the potential to treat calcium dysregulation that is associated with cognitive decline due to normal aging and/or AD.

Institution

University of Kentucky

Inventors

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