FTY720 (fingolimod) forms as therapy for neurodegenerative synucleinopathies, including Parkinson's Disease

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Technology description

FTY720 (fingolimod) is an anti-inflammatory compound that regulates sphingosine-1 posphate receptors (S1P1) (Hiestand et al., 2008, Miron et al., 2008, Czech et al., 2009). FTY720 has been used in research to treat various health conditions, ranging from stoke and cancer to multiple sclerosis. The compound has been shown to regulate the activity of a major serine/threonine phosphatase PP2A (Perrotti and Neviani, 2008). In September 2010, FTY720 was approved by the FDA for the treatment of Multiple Sclerosis (MS), another condition in which alpha-synuclein is implicated (Papadopoulos et al., 2006, Lu et al., 2009). Dr. Perez has shown that FTY720 protects against increases in alpha-synuclein and alpha-synuclein aggregates in mice models of Parkinson’ s disease. Additionally, Dr. Perez has demonstrated that FTY720 effectively blocked microglial activation in these mice.

Key Words:
• FTY720
• Fingolimod
• Parkinson’ s disease
• Neurodegenerative disorder
• Alpha synuclein.

Application area

The technology is a more effective treatment for Parkinson’ s disease and could be marketed to the pharmaceutical industry.

Advantages

• A method of reducing alpha synuclein levels in a patient suffering from Parkinson’ s disease.

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