G-Protein Inhibitors for Treatment of Atrial Fibrillation

Published date: June 1, 2015

Technology description

Treatment for atrial fibrillation (AF) by modulation of nerves in the heart muscle using inhibitors of G protein signaling
#cardiology
In collaboration with industry partners, a scientist from Northwestern University has developed a novel strategy for treating atrial fibrillation (AF). Their innovative approach relies on modulating the autonomic nervous system in the heart using G protein inhibiting peptides, which enter the heart muscle and interrupt the aberrant signaling. Given that AF is the most common heart rhythm disorder, developing novel treatment modalities is imperative. In laboratory studies performed to date, G protein inhibiting peptides could be delivered by injection to selectively inhibit AF formation. This invention holds promise for development into a therapetic for AF, but may also contribute to G protein signaling and autonomic nervous system research fields.

Publications

Aistrup GL, Villuendas R, Ng J, Gilchrist A, Lynch TW, Gordon D, Cokic I, Zhou R, Dean DA, Wasserstrom JA, Goldberger JJ, Kadish AH, Arora R (2009) Targeted G-Protein Inhibition as a Novel Approach to Decrease Vagal Atrial Fibrillation by Selective Parasympathetic Attenuation,Cardivoascular Research, 83: 481-92.

Application area

Treatment of AF
Research tool for G protein signaling

Advantages

Selective
Potential for personalized AF therapy

Institution

Northwestern University

Inventors

Rishi Arora*