Soluble Epoxide Hydrolase Inhibitors For The Treatment Of Arrhythmogenic Cardiomyopathy And Related Diseases

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ABSTRACT

Researchers at the University of California, Davis have developed an effective drug therapy, utilizing Soluble Epoxide Hydrolase (sEH) inhibitors, to prevent sudden death and treat the progression of myocardial dysfunction in patients with Arrhythmogenic Cardiomyopathy ("ACM").

FULL DESCRIPTION

ACM is a progressive myocardial disease characterized by fibrous and fatty deposits in the ventricular myocardium, which limit blood flow and can cause sudden death in severe cases. This sudden death syndrome has very few treatments, none of which treat the underlying condition. Currently, the only effective treatment available is an implantable defibrillator. This device can extend the life of patients, but it does pose serious risks and does nothing to treat the underlying heart muscle disease or prevent its progression. Additionally, drug therapy treatments are limited by their impact on a patient's immune system and most likely would require chronic administration. New approaches are necessary to limit the immunosuppressant properties of any potential drug therapy.

Researchers at the University of California, Davis have developed a novel and effective drug therapy utilizing sEH inhibitors that may provide a safe and effective long-term treatment for ACM. This new drug therapy has the potential to reduce the risk of sudden death and limit the progression of myocardial injury and dysfunction without significantly impairing a patient's immune system. This new drug therapy utilizes endogenous molecules to stimulate mechanisms that promote resolution of inflammation without compromising the immune system.

APPLICATIONS

- Reduce risk of sudden death and limit progression of ACM without impairing immune response

FEATURES/BENEFITS

- Treatment and prevention of underlying heart disease
- Limited impairment of immune system, making it a safe long-term drug therapy

PATENT STATUS

Country	Type	Number	Dated	Case
United States Of America	Published Application	20240024302	01/25/2024	2021-605

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OTHER INFORMATION

KEYWORDS

soluble epoxides

hydrolase inhibitor,

arrhythmogenic disease,

cardiomyopathy, epoxy

fatty acids

CATEGORIZED AS

- **Medical**
  - Disease: Cardiovascular and Circulatory System
  - New Chemical Entities, Drug Leads
  - Therapeutics

RELATED CASES

2021-605-0

ADDITIONAL TECHNOLOGIES BY THESE INVENTORS

- Method of Preventing Bone Loss and Periodontal Disease
- Multi-Target Inhibitors for Pain Treatment
- Improved Dioxin Detection and Measurement
- Detection System for Small Molecules
- Small Molecule sEH Inhibitors to Treat Alpha-Synuclein Neurodegenerative Disorders
- Soluble Epoxide Hydrolase-Conditioned Stem Cells for Cardiac Cell-Based Therapy
- Beneficial Effects of Novel Inhibitors of Soluble Epoxide Hydrolase as Adjuvant Treatment for Cardiac Cell-Based Therapy
- Antibodies: Bacillus Delta Endotoxin PAbs
- Antibodies: Bromacil Herbicide PAbs
- Novel Neuropathy Treatment Using Soluble Epoxide Inhibitors
- Novel and Specific Inhibitors of p21
- Antibodies for Pseudomonas (P.) aeruginosa
- Antibodies: Urea Herbicide Pabs
- Bioavailable Dual sEH/PDE4 Inhibitor for Inflammatory Pain
- Chemical Synthesis of Lipid Mediator 22-HDoHE and Structural Analogs
- Antibodies: Triazine Herbicide Pabs
- Optimized Non-Addictive Biologics Targeting Sodium Channels Involved In Pain Signaling
- A New Pharmaceutical Therapy Target for Depression and Other Central Nervous System Diseases

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