

Inhibitor for Preventing the Onset of Neurodevelopmental Disorders

Tech ID: 34339 / UC Case 2019-431-0

ABSTRACT

Researchers at the University of California, Davis and the Chiba University Center for Forensic Mental Health in Japan have collaborated to develop an enzyme inhibitor that prevents the onset of neurodevelopmental disorders.

FULL DESCRIPTION

Prior research has confirmed that maternal infection during pregnancy increases the risk of offspring developing neurodevelopmental disorders such as schizophrenia and autism spectrum disorder (ASD) later in childhood or adulthood. One effect of maternal immune activation during pregnancy is a measurable increase in soluble epoxide hydrolase in affected juveniles. However, limited understanding exists currently regarding the precise mechanisms of how these infections during pregnancy trigger later neurological disorders in children. So research has focused instead on mitigating the symptoms associated with these disorders in children.

Researchers have developed an inhibitor that can help reduce neuroinflammation and endoplasmic reticulum stress in the brains of affected offspring. Thus the inhibitor could exhibit prophylactic or therapeutic effects in individuals with a range of neurodevelopmental disorders. It has also been determined that early interventions may prove effective in subjects with specific, high risks for developing a psychosis later in life.

APPLICATIONS

- ▶ Preventing the onset of neurodevelopmental disorders, including psychosis.

FEATURES/BENEFITS

- ▶ Inhibits and/or reverses neurodevelopmental disorders related to maternal immune activation.

PATENT STATUS

Country	Type	Number	Dated	Case
United States Of America	Issued Patent	12,357,598	07/15/2025	2019-431

Additional Patent Pending

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OTHER INFORMATION

KEYWORDS

maternal immune activation, neurodevelopmental disorders, inflammation, prevention, autism spectrum disorder (ASD), psychosis, schizophrenia, soluble epoxide hydrolase

CATEGORIZED AS

- ▶ **Medical**
 - ▶ Disease: Central Nervous System
 - ▶ Disease: Genetic Diseases and Dysmorphic Syndromes
 - ▶ Therapeutics

RELATED CASES

2019-431-0

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
- ▶ Targeting Cancer Cachexia with Soluble Epoxide Hydrolase Inhibitors
- ▶ 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
- ▶ Potential Therapeutic Agent for Laminitis in Equines
- ▶ 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
- ▶ Methods of Improving Cancer Immunotherapy
- ▶ 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
- ▶ Soluble Epoxide Hydrolase Inhibitors For The Treatment Of Arrhythmogenic Cardiomyopathy And Related Diseases
- ▶ A New Pharmaceutical Therapy Target for Depression and Other Central Nervous System Diseases

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