

Asthma

Repurposing of Cysteamine for the Treatment of Asthma

Brief Description of Technology

Cysteamine, an FDA approved treatment for cystinosis, has been shown to be an effective oral treatment for steroid resistant asthma including airway hyperresponsiveness (AHR) and airway inflammation.

TECHNOLOGY ID

2017-0201

COMPLEMENTARY TECHNOLOGY

2013-1213

BUSINESS OPPORTUNITY

Exclusive License or Sponsored
Research

TECHNOLOGY TYPE

Small Molecule

PATENT INFORMATION

Nationalized

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Technology Overview

Asthma is a heterogenous disease affecting over twenty-five million people in the U.S. alone and has been described as an epidemic by the U.S. Department of Health and Human Services.

Between 40-70% of patients do not respond well to currently available therapies largely reliant on steroids. An FDA approved drug for the treatment of cystinosis, Cysteamine, has been found to work prophylactically to attenuate asthma development as well as significantly decrease the AHR and airway inflammation of established disease at dosages four-fold lower than that required for treatment of cystinosis. This represents a new, and potentially steroid sparing, oral treatment option for asthma.

Advantages

Oral administration of FDA approved drug

Market Overview

- Asthma affects 25.7 million people in the US including 7 million children. The US Department of Health and Human Services classifies childhood asthma as an epidemic.
- 2/3 of those with asthma report at least one attack in the last year.
- There are 2 million emergency visits and half a million hospitalizations per year.
- \$56 billion in total costs per year.

Investigator Overview

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