



EXECUTIVE SUMMARY

TEAM

Cherry Wongtrakool, MD

Clinical Lead

Khalid Salaita, PhD

Technical Lead

FUNDING

\$172K Biocivity Grant

\$50K GRA Grant

INTELLECTUAL PROPERTY

Patents pending (PCT)

STATUS

Lead Candidate

Optimization

TECHNOLOGY

Centizyme is an anti-inflammatory platform therapeutic with the ability to combat the most troubling conditions in the areas of pulmonology, gastroenterology, and oncology. The team's initial development focus is for Centizyme's use in the treatment of chronic, severe asthma. Of those with the severe Th2 asthma endotype, local delivery of this antisense technology replaces the need for corticosteroids and other biologicals. The treatment consists of a topical gold nanoparticle coated with specific deoxyribozymes (DNAzymes), which are able to regulate and silence the pro-inflammatory cytokines that cause severe asthma exacerbations.

Centizyme is designed to be delivered locally to the lungs where it is most needed, thereby avoiding systemic side effects seen with currently marketed therapies.

MARKET NEED

Today an estimated 1.6 million Americans suffer from severe asthma. Of those suffering from severe asthma, over 585,000 present with the Th2 endotype. In the Th2 asthma endotype, asthma attacks result from exposure to irritants that cause inflammation (eosinophilic asthma). While there are a number of treatment options, most patients with the most severe forms of asthma are prescribed one or more inhaled corticosteroids and monoclonal antibody drugs. The use of these systemic therapies are frequently complicated by well-known toxicities, adverse reactions, and side effects ranging from diabetes and osteoporosis to psychosis.

STATUS

The technology is based out of Emory University and has demonstrated efficacy for the treatment of severe asthma (Th2 endotype) in an industry accepted small animal model.

For more information on this technology email biocivity@gatech.edu or contact:

Cherry Wongtrakool, Clinical Investigator, cwongtr@emory.edu

Khalid Salaita, Principal Investigator, k.salaita@emory.edu

Sarah Wilkening, Licensing Associate, sarah.wilkening@emory.edu