7-2006-398 | Oxidized Cellulose Used to Prevent Allergic Reaction in Asthma, Seasonal Allergies, and Atopic Dermatitis

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Highlights

- Prevention of IgE-mediated allergic reaction by blocking and clearing pollen allergens with oxidized cellulose via its polysaccharide binding domain.
- Mode of administration: inhalation, intranasal, ocular, topical and mucosal.
- Oxidized cellulose has a long safety track record as an invasive medical device.
- A commercial source of GMP manufactured oxidized cellulose has been selected.
- Easy 510(k) regulatory pathway for certain indications.

Our Innovation

- Oxidized cellulose, effectively prevents allergies, asthma and hay fever.
- This is a biodegradable and biocompatible product that has exhibited a high efficiency for binding a broad-spectrum of allergens (pollen, mites, egg and cat dander).
- The low solubility level enables it to be cleared by the mucocilliary system from the airways to the gastro-intestinal track. In addition, the oxidised cellulose, bind the allergens and prevents epithelium barrier penetration thus prevents allergic reaction..
- The half life of oxidized cellulose is 14 days in the lungs and 55 days in the body.
- Mouse and Rat models (in vivo and in vitro) have established oxidized cellulose powder inhalation as an effective treatment in the reduction of allergic inflammation in the lungs.
- In-vitro assays have been developed to demonstrate mode of action and

The opportunity

- 5 to 15% of the population in industrialized world have asthma. The prevalence and morbidity of asthmas has been on the rise, despite standard (steroids) and new treatments.
- Asthma is the third leading cause of hospitalization among persons under the age of 18.
- Allergy related symptoms such as atopic dermatitis and hay fever affect huge populations.

Development Milestones

- The project is presently seeking to raise additional funding for clinical development

Patent Status

Granted US 9,095,603; Israel 194497

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