

EMBARGO: the following media release is embargoed by the New England Journal of Medicine until Tuesday May 20th 2014 at 11.15h EST

Hamilton Researchers Discover New Potential Antibody Treatment for Asthma

Tuesday, May 20th 2014 – Hamilton, ON – Researchers at St. Joseph's Healthcare Hamilton and McMaster University have successfully tested an antibody that can improve the quality of life for individuals with asthma by relieving inflammation in the lungs. The research was led by Dr. Gail Gauvreau, associate professor at McMaster University and Dr. Paul O'Byrne, executive director of the [Firestone Institute of Respiratory Health](#) (FIRH) at St. Joseph's Healthcare Hamilton and chair, Department of Medicine at McMaster University. The study was published in the *New England Journal of Medicine* and presented at the American Thoracic Society conference in San Diego. It concluded that blocking a specific protein in the lungs with an antibody both alleviates baseline inflammation and provides resistance to allergens for those with mild allergic asthma.

"It was known that the epithelial cells which line the airways in the lungs produce a protein called thymic stromal lymphopoietin (TSLP) that causes inflammation. This study, for the first time, proved that these cells continually produce this protein in humans with asthma," states O'Byrne. "While we studied patients with allergic asthma, this research opens the door for the development of new treatments not only for this population, but for those diagnosed with severe asthma as well."

Individuals with allergic asthma are typically treated with inhaled corticosteroids or bronchodilators that help to control their asthma when taken regularly. While antibodies are typically reserved for severe asthma, this research can lead to antibody treatment for those who have mild allergic asthma. This study can lead to quality of life improvements for those with allergic asthma that have issues with inhalers or steroid-based medications.

The study – conducted by the Clinical Investigator Collaborative, a multi-centre, Phase II clinical trials group supported by the [Allergy, Genes and Environment Network \(AllerGen\)](#) – recruited patients at five sites across Canada, with the majority of participants recruited in Hamilton. After 12 weeks of participant monitoring, the antibodies significantly reduced baseline inflammation and protected the participants against inhaled allergens when compared to a placebo.

O'Byrne, along with fellow researchers at the Firestone Institute for Respiratory Health and other Clinical Investigator Collaborative sites, continues to work closely with clinicians and patients in order to uncover the best treatments, medications and procedures which will improve the quality of life for those diagnosed with respiratory illnesses such as asthma, allergies and pulmonary disease.

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Note to Editors: [Dr. Paul O'Byrne is attending the](#) American Thoracic Society conference in San Diego and it available for telephone interviews.

Photo is available upon request

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For interview requests after business hours or on the weekends or statutory holidays (Monday, May 19th 2014) please call 905-522-1155 ext. 33311 and ask for the Public Affairs team member on call to be paged.

More Information

About St. Joseph's Healthcare Hamilton

St. Joseph's Healthcare Hamilton is a regional leader in patient-centred care providing acute care, research, teaching, community and international outreach programs throughout our network. Our researchers aim to better understand prevalent medical and mental health issues in order to develop advanced therapies and treatments that will improve the quality of life for patients in our community and around the world. Since being founded by the Sisters of St. Joseph in 1890, our hospitals span three specialized campuses in the Greater Hamilton Area (Charlton Campus, West 5th Campus and King Street Campus). For more information about St. Joseph's Healthcare Hamilton, please visit www.stjoes.ca.

About McMaster University

McMaster University, one of four Canadian universities listed among the Top 100 universities in the world, is renowned for its innovation in both learning and discovery. It has a student population of 23,000, and more than 150,000 alumni in 128 countries.

About AllerGen NCE

AllerGen NCE Inc., the Allergy, Genes and Environment Network, (est. 2004), is a national research network dedicated to improving the quality of life for people suffering from allergic and related immune diseases. Funded by Industry Canada through the federal Networks of Centres of Excellence (NCE) Program, the Network is hosted at McMaster University in Hamilton.

For more information about AllerGen NCE or the Clinical Investigator Collaborative, please contact: Kim Wright, Manager, Communications and Knowledge Mobilization | AllerGen NCE | 1280 Main Street West #3120 | Hamilton, ON | T: 905.525.9140 ext. 26641 | E: kimwright@allergen-nce.ca