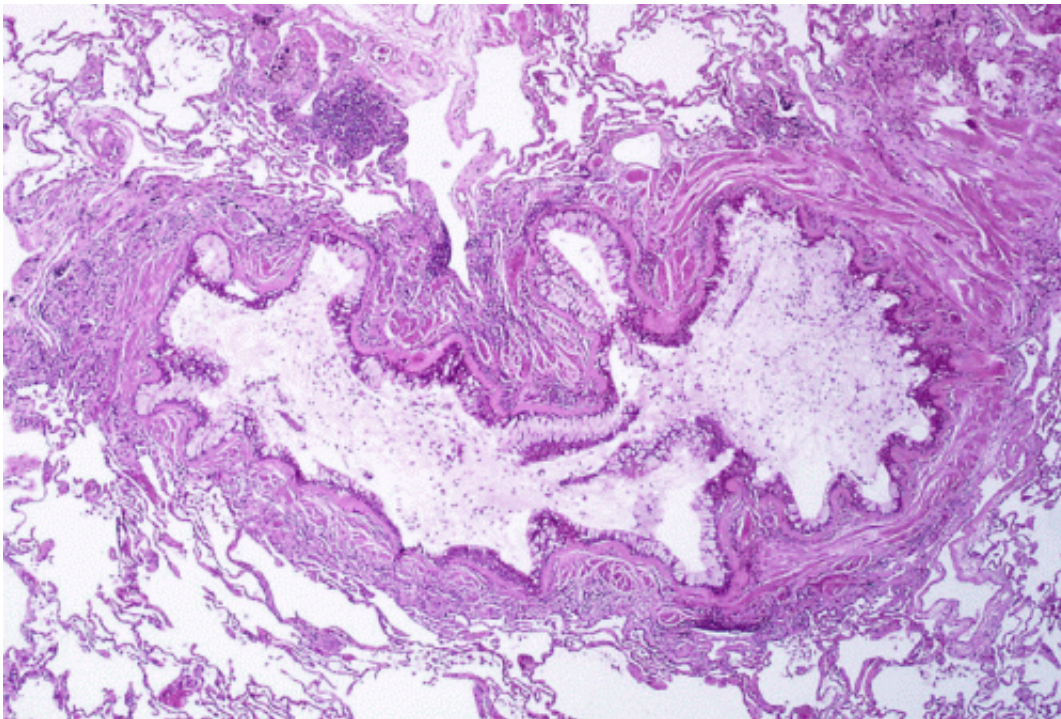


Study brings hope of a new treatment for asthma sufferers

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Obstruction of the lumen of a bronchiole by mucoid exudate, goblet cell metaplasia, and epithelial basement membrane thickening in a person with asthma. Credit: Yale Rosen/Wikipedia/CC BY-SA 2.0

Improved treatments for people with severe asthma are a 'step closer' after a research team led by the University of Leicester identified a breakthrough in the cause of airway narrowing.

Scientists have, for the first time, discovered that an active form of a [key protein](#), HMGB1, is increased and related to narrowing of the airway in people with [severe asthma](#).

The finding will now enable drug makers to specifically target the protein in future treatment for non-allergy related asthma.

The study, published in the *Journal of Allergy and Clinical Immunology*, was carried out on mucous and airway muscle samples gathered from people with mild to moderate asthma, severe asthma and healthy volunteers recruited from Leicester's Glenfield Hospital.

Dr Ruth Saunders, lead author of the study from the University of Leicester Department of Infection, Immunity & Inflammation, said: "For a number of people with asthma, particularly severe asthma, treatment is not 100 per cent effective. Although a number of new therapies are under investigation for allergy-related asthma, there is still a need for new therapies for asthma that is not related to allergies.

"We have shown that the amount of HMGB1, a protein that can be released in the airways by cells involved in inflammation or by damaged cells, is increased in the mucous from the airways of people with severe asthma.

"To our knowledge, this is the first study to show a direct effect of HMGB1 on enhancing airway muscle contraction in response to stimuli. The findings of this research bring us a step closer to improved treatments for people with severe asthma."

Asthma is a long-term condition that affects the airways. When a person with asthma comes into contact with something that irritates their sensitive airways it causes the body to react in several ways which can include wheezing, coughing and can make breathing more difficult.

Provided by University of Leicester

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