

Discovery of asthma cause could help treat sufferers

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(Medical Xpress) -- Scientists at the University of Bath have found a new cause of severe asthma that could help develop a treatment and potentially prevent the 1100 asthma deaths each year in the UK.

Asthma is one of the most common [allergic diseases](#) and affects around 300 million people worldwide. It is associated with closure of the airways in response to [environmental factors](#), leading to breathlessness.

Now scientists in the University's Department of Pharmacy & Pharmacology have found a new underlying cause of [severe asthma](#), which could help in developing a new treatment for the disease and eventually save lives.

The research has been published in the world's leading allergy journal, the *Journal of Allergy and Clinical Immunology*.

Although most patients with asthma can be treated with inhaled medication, approximately 5-10 per cent of patients do not respond to these drugs. These individuals are classified as severe asthmatics and are the most likely to suffer from asthma attacks, leading to hospitalisation and even death.

Professor Mark Lindsay, from the Department of Pharmacy and Pharmacology, said: "Our research team has identified a novel mechanism that might underlie severe asthma.

“In collaboration with researchers from Imperial College, the University of Manchester and Pfizer Pharmaceuticals, we have found that patients with severe asthma show activation of a specific group of immune cells, called CD8+ T-cells.”

The research team is now looking to attract funding to study the reasons why CD8+ T-cells are switched on in sufferers of severe asthma.

Professor Lindsay said: “We need to determine why CD8+ is switched on, in order to understand whether it is a cause of extreme asthma or whether it is suffering with extreme asthma that switches it on.

“If it is a cause and we are able to target the activation of these immune cells using drugs, we might be able to prevent the switching on of CD8+ and provide a novel approach to the treatment of severe [asthma](#).”

Provided by University of Bath

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