

Findings could keep allergies in check

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Fresh insight into infection could improve scientists' understanding of allergies and inform new treatments.

Edinburgh research into the [immune system](#) has shed light on the role of a cell that is involved in the body's response to allergens, such as dust, pollen or pet hair.

The cell type - called a dendritic cell - is already known for helping to coordinate the body's response to [infection](#).

It does this by enabling the immune system to activate the white blood cells that fight back at infection.

Cell role

Scientists have shown that dendritic cells also have a role in dampening the body's immune response when it overreacts and could cause harm.

In effect, they can act as regulators for the immune system, helping to keep it in check.

Researchers say their discovery gives new insight into the type of immune response involved in allergic reactions, which occur when the immune system overreacts to allergens.

Their findings could inform the development of therapies to influence this mechanism and so suppress allergic reactions.

Fighting infection

The discovery was confirmed by studying the [immune response](#) to infection in mice and in lab tests.

Scientists say it helps explain how the body controls its fight against infection and seeks to restore stability.

The study, carried out in collaboration with the National Institutes of Health in the US, was published in the Proceedings of the National Academy of Sciences.

It was supported by the Medical Research Council and the Wellcome Trust.

"This gives us new insight into the complex workings of the immune system and takes us a valuable step closer to being able to control inflammation of the kind found in allergic reactions," said Andrew MacDonald, School of Biological Sciences.

Provided by University of Edinburgh

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