

Scientists collaborate in discovery of new targets for the treatment of asthma

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A collaboration between scientists in Trinity College Dublin and the United Kingdom has identified new processes that lead to the development of a novel cell implicated in allergies. The discovery has the potential for new strategies to treat asthma and other allergic diseases. The research findings have just been published in the leading international journal *Nature Immunology*.

The work was performed by Professor Padraic Fallon, Science Foundation Ireland Stokes Professor of Translational Immunology of TCD's School of Medicine and Dr Andrew McKenzie of the Medical Research Council Laboratory for Molecular Biology in Cambridge.

The number of people with allergic disease, such as asthma and [atopic dermatitis](#), is increasing globally with Irish children having the fourth highest incidence of asthma in the world. A major area of research in developing new strategies to treat [allergic diseases](#) is directed towards increasing understanding of the processes and cells involved that cause [allergic inflammation](#).

Professor Fallon and colleagues previously discovered a new white blood cell, the nuocyte, that initiates the early generation of the immune responses that can lead to asthma or other allergic conditions. In this study, a new pathway for the development of nuocytes was identified and a transcription factor, RORalpha, was shown to be critical for both the generation of nuocytes and allergic-like inflammation.

This new finding identifies targets for allergic diseases that could be developed into new therapeutic strategies. Professor Fallon's research on allergies is supported by Science Foundation Ireland, The Wellcome Trust, Health Research Board and National Children's Research Centre, Ireland.

Provided by Trinity College Dublin

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