Strategy for depleting immune cells implicated in asthma-associated inflammation

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Patients with asthma have chronic lung inflammation that results in sporadic narrowing of the airways and difficulty breathing. Symptoms and severity are variable among individuals; however, the cells and inflammatory factors that trigger asthmatic events have been fairly well characterized and are similar regardless of the asthma-inducing stimuli.

In this issue of *JCI Insight*, investigators led by Karin Reif of KARBio LLC and Cary Austin of Genentech Inc. identified human CRTh2 (hCRTh2), a protein expressed on several immune cell populations that are implicated in asthma, as a possible therapeutic target.

The research team generated antibodies targeting hCRTh2, and demonstrated that anti-CRTh2 depletes hCRTh2-positive cells from the lungs and lymphoid organs of asthmatic mice that were engineered to express the human form of CRTh2. Importantly, antibody treatment reduced production of asthma-associated cytokines and inflammation in these mice.

The results of this study support further exploration of CRTh2 as a therapeutic target for asthma.

More information: Tao Huang et al, Depletion of major pathogenic cells in asthma by targeting CRTh2, *JCI Insight* (2016). DOI: 10.1172/jci.insight.86689

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