







Special Issue Reprint

# **Drug Candidates for Allergic Diseases**

www.mdpi.com/books/reprint/12027

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ISBN 978-3-7258-6079-1 (Hardback) ISBN 978-3-7258-6080-7 (PDF)



Over the last two decades, novel drugs have emerged, paving the way for the personalized management of allergic diseases. Bronchoscopy studies and mouse models of asthma have provided initial insights into the mechanisms of allergic inflammation, establishing the role of Th2 type 2 cytokines, including IL-4 and IL-5 IL-13, leading to the development of several monoclonal antibodies (mAbs) targeting these cytokines. Omalizumab was the first mAb used successfully to treat severe asthma patients. Subsequently, other drugs emerged, including antibodies that block IL-5 (mepolizumab, reslizumab) and the IL-5 receptor (benralizumab), the IL-4/IL-13 receptor alpha chain (dupilumab), and the thymic stromal lymphopoietin (Tezepelumab). These novel biologicals have been shown to be effective alternative therapies to corticosteroids, particularly in severe asthma management, where they have improved the quality of life of many patients. Given their success in asthma, these drugs have been used in other allergic diseases, including atopic dermatitis, chronic urticaria, eosinophilic esophagitis, chronic rhinosinusitis with nasal polyps (CRSwNP), and idiopathic hypereosinophilic syndrome. Currently, a number of novel antagonists targeting other inflammatory mediators are still in the preclinical stages of development.





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