

# THE IL-33/ST2 SYSTEM REGULATES INFLAMMATION IN BRONCHOPULMONARY DISEASES

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## *Abstract*

Bronchopulmonary diseases is an urgent problem of modern pulmonology. Increasing attention is being paid to the mechanisms of the development of airway inflammation and the therapeutic effects directed at them.

The article provides modern information about interleukin-33 (IL-33) and its receptor ST2 as regulators of the level of inflammation in bronchopulmonary diseases. It has been presented the data on the structure, synthesis, relationship, production and modification of IL33 / ST2.

With references to authoritative scientific sources, the role of IL33 / ST2 in the pathogenesis of the immune response in allergic inflammation by activation of mast cells and type 2 T-helpers, acute respiratory infection is highlighted. The role of viral infection and innate immunity in the production of IL-33 is explained. The IL33 / ST2 system is important in the development of chronic obstructive pulmonary disease, asthma, which pathogenesis is affected by several environmental factors.

Information is provided on the individual genetic variation of IL-33 / ST2 due to the existence of single nucleotide polymorphisms that are associated with diseases of the bronchopulmonary system.

The prospect of an in-depth study of the IL33 / ST2 system in the regulation of inflammation in bronchopulmonary diseases as a possible therapeutic target has been shown.

**Key words:** bronchopulmonary diseases, inflammation, interleukin-33, ST2 receptor, single nucleotide polymorphism, IL-33 / ST2 system.

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