

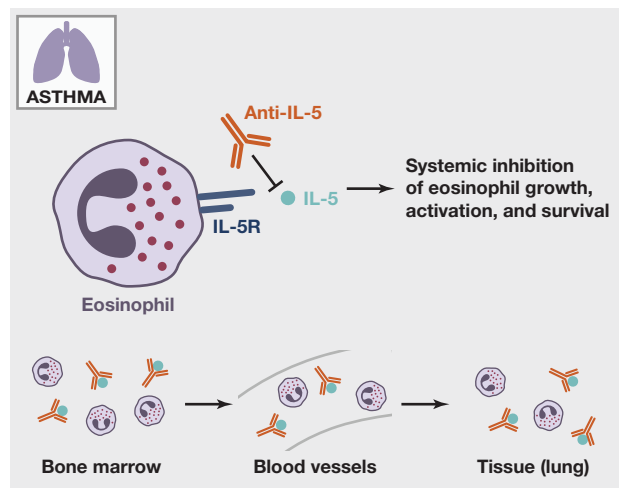
Humanized Anti-IL-5 Antibody Therapy

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Eosinophils are suppressed by a new class of drugs targeting Interleukin-5 (IL-5), an eosinophil growth, activation, and survival factor. Humanized anti-IL-5 antibodies are effective in treating asthma patients with the severe eosinophilic form of the disease and are the first new class of asthma drugs approved in 12 years.

NAME

Mepolizumab (Nucala) and Reslizumab (Cinqair)

APPROVED FOR

Adult and adolescent patients with eosinophilic asthma

TYPE

Mepolizumab (fully humanized IgG1 κ); Reslizumab (fully humanized IgG4 κ)

MOLECULAR TARGETS

Interleukin-5

CELLULAR TARGETS

Eosinophils, white blood cells that promote an excessive inflammatory response in allergies, are born in the bone marrow, relocate into blood vessels, and traffic to tissues such as the lung. The growth, activation, and survival of these cells are suppressed systemically by anti-IL-5 treatment.

EFFECTS ON TARGETS

Anti-IL-5 antibodies block binding of the cytokine IL-5 to the α chain of the IL-5 receptor complex on the eosinophil cell surface, thereby reducing the levels and activation status of eosinophils.

DEVELOPED BY

Glaxo Smith Kline and Teva Pharmaceuticals

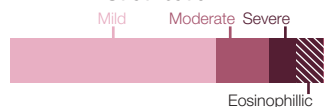
Worldwide incidence of asthma

334 million people worldwide or

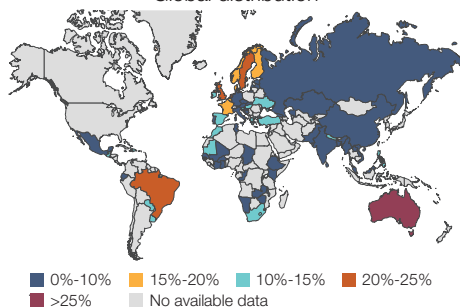


1 in 10 diagnosed with asthma

Stratification

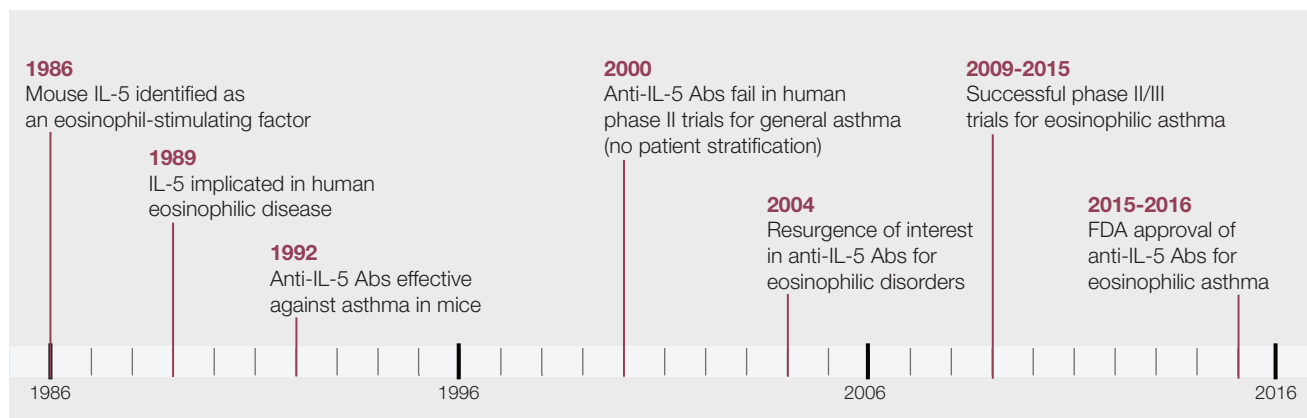


Global distribution



Yearly cost burden

\$100 billion



References for further reading are available with this article online: [www.cell.com/cell/fulltext/S0092-8674\(16\)30411-1](http://www.cell.com/cell/fulltext/S0092-8674(16)30411-1)



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