

# IgE and Anti-IgE: Past, Present, and Future

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The studies on IgE have reached an interesting juncture. T. W. Chang invented the anti-IgE approach in 1987, 20 years after the discovery of IgE in 1967. Now 20 years after introducing the anti-IgE approach, anti-IgE has been approved in the USA, EU, Taiwan, and many countries for treating patients 12 years and older with severe or moderate-to-severe allergic asthma. In more than 30 Phase II and III clinical trials and numerous case studies, anti-IgE has also been shown to be effective in treating pediatric asthma, seasonal and perennial allergic rhinitis, peanut allergy, latex, atopic dermatitis, and other IgE-mediated diseases. It will take probably another 10 years to gain marketing approval for these various indications in most regions of the world.

The human studies of anti-IgE have helped establish the role of IgE in the pathogenesis of allergic asthma and several other diseases, in which the role of IgE had not been clear. In another development with far-reaching impact, anti-IgE has been shown to reduce the risk of anaphylaxis and to augment the therapeutic effects of specific or rush immunotherapy. Now that IgE and IgE-expressing B cells have been firmly established as therapeutic targets, new approaches targeting these immunological components are being actively pursued.

