



Review

Experimental asthma in rats

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Abstract:

Animal models of asthma have been used for over 100 years. The accuracy of extrapolations from animal models to human asthmatics is highly dependent on the species of animal selected. The rat, in comparison with other animals, demonstrates many features of airway allergy and allergic asthma that are similar to the human conditions. The following features of human asthma can be effectively investigated in a rat model of the disease: cellular infiltration of the lung, antigen-specific IgE production, and a predominant Th2 response. The majority of available models of asthma are restricted to the acute inflammatory response following a short period of allergen exposure. The frequently used model of ovalbumin (OVA) sensitization and challenge replicates the inflammatory process in the airways.

Key words:

asthma, animal model of asthma, rat
