Special Issue

Immunologic and Nonimmunologic Mechanisms Leading to Airway Remodeling in Asthma

Message from the Guest Editor

Airway wall remodeling is a frequent pathology in asthma which, currently, can only be treated by bronchial thermoplasty. Remodeling narrows the airway lumen, limiting airflow, and reduces the tissue's flexibility, thereby slowing muscle relaxation. Neither anti-inflammatory drugs nor bronchodilators have any effect on tissue remodeling structural changes. The classic meaning of remodeling involves hyperplasia and hypertrophy of the airway smooth muscle bundle, it is therefore necessary to determine the mechanisms that increase the thickness of the sub-epithelial basal membrane. In addition, the following questions are of interest: What changes the composition of the airway's extracellular matrix? Why do myo-fibroblasts increase? Recent studies suggest that epigenetic events are the key to understanding asthma and airway wall remodeling.

This collection aims to provide studies to improve the understand of (i) how different asthma triggers (allergic and non-allergic) may activate the same mechanism(s) leading to remodeling and (ii) if there are data that suggest different types of airway wall remodeling.

Guest Editor

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