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- Date: November, 10, 2015
- Title: “Immune Mechanisms Contributing to Allergic Asthma Severity”
- Synopsis: Asthma is a chronic disease of the lung that results from inflammatory responses in the airways leading to eventual narrowing, significant mucus production and impaired respiratory function. Therapeutic options globally targeting inflammation and airway smooth muscle are widely used, but not effective in all asthmatics. Similarly, newer “biologic” therapeutics targeting specific immune components such as IL-4, IL-13, IL-5 and IgE show efficacy, but only in those with evidence of type 2 inflammation. Undoubtedly, the next generation of asthma therapeutics will rely on a better understanding of immunopathogenic mechanisms that contribute to asthma phenotypes/endotypes. Asthma associated with an environmental allergen trigger is thought to account for more than two-thirds of asthma. While atopic measurements have long been a component of characterizing asthma subsets, little attention has been paid to differentiating asthma severity by specific environmental allergen sensitivities (dust mite, cockroach, fungi etc.). Upon stratifying asthmatics by reactivity to these allergens, we have uncovered specific immune mechanisms that contribute to severity of disease.