Special Issue

Eosinophils and Associated Disorders: From Basic Science to Therapeutic Perspectives

Message from the Guest Editors

Eosinophils have been subdivided into different subpopulations with distinct phenotypes and functions, namely, resident and inflammatory eosinophils. Growing evidence now reveals a role for eosinophils not only in asthma but also in autoimmune diseases and vasculitis as well as in hypereosinophilic syndromes. Their presence in inflammatory tissues is a hallmark of the type 2 inflammatory response. Eosinophils primed by interleukin (IL)-5, IL-3, granulocyte macrophage colonystimulating factor (GM-CSF), and eotaxins can express membrane receptors and adhesion molecules involved in activation and tissue migration. Treatment of eosinophilic diseases has traditionally been through nonspecific eosinophil attenuation via the use of glucocorticoids. However, several novel biologic therapies targeting eosinophil maturation factors, such as IL-5 and IL-5R or IL-4/IL-13R, have recently been approved for clinical use. The aim of this Special Issue is to highlight new findings on the physiological and pathophysiological roles of eosinophils in the various pathologies in which they are involved and discuss current and future therapeutic strategies.

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