

## Foreword



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*Consulting Editor*

Paul Ehrlich first identified the mast cell as the metachromatic cell of the tissue, and it has remained “metamorphic” ever since. Initially considered to be important primarily for allergic diseases, mast cells have been shown to be involved in a plethora of pathologic conditions. Although the mast cell remains the quintessential cell of type I hypersensitivity reaction, there is now evidence that it plays an important role in Th1-type processes, such as multiple sclerosis and rheumatoid arthritis. In addition, it has been implicated in a wide range of pathologic processes: acute response in microbial infections (through TNF secretion) and ischemic stress (through endothelin destruction), angiogenesis, tissue regeneration, fibrosis, oncogenesis, and atherosclerosis.

There are many outstanding questions related to our understanding of mast cell physiology. We do not understand fully how these cells are physiologically activated and what their physiological function is (ie, what good things these cells do). The role of antagonistic and protagonistic function of the receptors for the immunoglobulins—IgE versus IgG—remains a challenge. The receptor for stem cell factor c-Kit plays an important role in mast cell differentiation. Its role in mature mast cell activation is still an open question. Significant progress has been made in regard to c-Kit mutations in the development of mastocytosis. The pathogenesis of other forms of mastocytosis remains unclear, however. Dr. Cem Akin, a leader in the field, has invited a group of distinguished experts to update us on mast cell physiology and mastocytosis. This issue contains a thorough review of the basic

science development and a comprehensive compendium of the diagnosis and management of mastocytosis.

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