

## Special Issue

# Mast Cells: From Host Defense to Pathology

### Message from the Guest Editor

The evolutionary role of mast cells has been to act as a first line of defense against parasites and venoms. For this reason, they are found predominantly at the interface between the host and the external environment, at places of potential entry of pathogens or that are in contact with harmful substances. They express a wide spectrum of cell surface receptors, including immunoglobulin Fc receptors, toll-like receptors for pattern recognition, and other innate receptors, that enable them to respond to endogenous mediators and exogenous stimuli to release immune mediators to overcome the insult. However, mast cells are best known and widely recognized for their role in pathology as they are the main effector cell in allergies and anaphylaxis, a severe allergic reaction that may cause death. In the last few decades, the incidence of allergies and anaphylaxis has risen at an alarming rate and continues to rise. Therefore, a better understanding of the molecular basis for mast cell function will have repercussions that range from host defense to pathology.

### Guest Editor

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