



Preface



We are very pleased to present the special issue on 'The pharmacological modulation of mast cells and basophils'. Mast cells and basophils are potent effector cells of the innate immune system and play an important role in allergy, autoimmune diseases and cancer. This issue contains a collection of reviews focusing on various aspects of mast cell and basophil biology such as development (Schmetzer et al., 2015; Schwartz et al., 2015), activation and intracellular signaling (Blank et al., 2015; Draber et al., 2015; Yu et al., 2015), and production and release of specific mediators (Caughey, 2015; Kulinski et al., 2015; Saluja et al., 2015). Furthermore, their interactions with other cells of the innate and acquired immune system (Gangwar et al., 2015; Mekori et al., 2015) and their role in various inflammatory diseases (Bischoff, 2016; Cruse and Bradding, 2015; Kritikou et al., 2015; Marone et al., 2015; Ribatti, 2015; Suurmond et al., 2015; Theoharides et al., 2015) is discussed. Although *anti*-histaminergic drugs and *anti*-leukotrienes are widely used to reduce symptoms associated with mast cell activation, at present, no drugs are available to specifically inhibit mast cell and basophil activation. Present strategies and novel advances in the development of targeted therapies to prevent mast cell and basophil activation and/or to limit the biologic consequences thereof are further highlighted (Forsythe, 2015; Zhang et al., 2015).

We are thankful to all contributors for their timely and excellent contributions. This special issue is a joint effort of members of COST Action BM1007 Mast cells and Basophils – Targets for Innovative Therapies, which now has completed its work and will continue within EMBRN, the European Mast Cell and Basophil Research Network, a leading global network on mast cell and basophil biology and mast cell and basophil-driven diseases (www.embrn.eu). EMBRN members include leading scientists in the fields of immunology, pharmacology, physiology, pathology as well as dermatology, allergology, rheumatology and neurology, unified by their common interest in defining the role of mast cells and basophils in health and disease. The research done by EMBRN members has led to a better understanding of the physiological and pathological functions of mast cells and basophils and better treatment options for patients with mast cell and basophil driven diseases.

We sincerely hope you will enjoy reading this special issue.

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