

Special Issue

The Immunoproteasome in Health and Disease

Message from the Guest Editors

The immunoproteasome is a cytokine-inducible variant of the standard proteasome in which the catalytically active subunits β 1, β 2, and β 5 are replaced by the subunits β 1i (LMP2), β 2i (MECL-1), and β 5i (LMP7). With the help of immunoproteasome-selective inhibitors and gene-targeted mice, it could be shown that immunoproteasomes promote the differentiation of pro-inflammatory T helper cell subsets (Th1, Th17) and the production of pro-inflammatory cytokines (e.g., interferons, TNF, IL-6, IL-17, IL-23). These are involved in the development and persistence of autoimmune diseases. Excitingly, immunoproteasome inhibitors are presently tested as therapeutics against autoimmune diseases and cancer in humans. The almost exclusive expression of immunoproteasomes in virtually all types of immune cells poses questions about a potential special function of immunoproteasomes in leukocytes, which is currently being investigated. This Special Issue is exclusively dedicated to immunoproteasome research. *Co-*

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Cells has become a solid international scientific journal that is now indexed on SCIE and in other databases. We have successfully introduced a special issues format so that these issues serve as mini-forums in specific areas of cell science. *Cells* encourages researchers to suggest new special issues, serve as special issues editors, and volunteer to be reviewers. Our main focus will remain on cell anatomy and physiology, the structure and function of organelles, cell adhesion and motility, and the regulation of intracellular signaling, growth, differentiation, and aging. We are open to both original research papers and reviews.

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