Oxidative Medicine and Cellular Longevity

Hindawi

Special Issue on

ER Stress and the UPR in Immunity and Inflammation

CALL FOR PAPERS

Endoplasmic reticulum (ER) is a cellular organelle for protein folding, calcium storage, and lipid biosynthesis. When ER homeostasis is disturbed, cell initiates defensive mechanism called unfolded protein response (UPR). Several decades of research have revealed the important function of ER stress and the UPR in a variety of diseases including diabetes, liver diseases, and neurodegenerative diseases. Interestingly, recent studies increasingly suggest that ER stress and the UPR have crucial function in immunity and inflammation. The UPR has now been recognized to be involved in immune cell differentiation and function as well as regulate immune and inflammatory responses including those associated with infections, metabolic inflammation, cancer, and autoimmune diseases. Given the crucial role of ER stress and the UPR for cellular and tissue homeostasis, it is essential to understand how ER stress is manipulated to enable appropriate immune response and how the UPR is involved in exerting efficient immune response.

We invite investigators to contribute high-quality original research articles as well as review articles addressing recent advances on the mechanisms and significance of the role of ER stress in immunity and inflammation.

Potential topics include but are not limited to the following:

- How ER stress and the UPR are involved in immune cell differentiation and function
- The role of redox changes (oxidative/reductive stress) in ER stress-mediated immunity and immune related diseases
- ER stress in metabolic inflammation including obesity-induced insulin resistance and type 2 diabetes
- The role of ER stress and the UPR in infectious diseases
- The relationship between autoimmune response and ER stress/the UPR
- How ER stress and the UPR are involved in the pathogenesis of neuroinflammatory diseases
- ER stress in tumor-related immune response

Authors can submit their manuscripts through the Manuscript Tracking System at https://mts.hindawi.com/submit/journals/omcl/ersu/.

Papers are published upon acceptance, regardless of the Special Issue publication date.

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