

## Special Issue

# Protein Aggregation: From Molecular Biology to Human Disease

### Message from the Guest Editor

Cells have evolved multiple pathways to control the synthesis, folding, and degradation of proteins. These pathways contain thousands of components and are collectively called the proteostasis network (PN). The PN balances the synthesis and degradation of proteins to prevent the buildup of toxic protein aggregates in the cell. It is recognized that a disruption in the PN leads to a variety of human diseases such as neuromuscular and neurodegenerative disorders, cancers, and diabetes. Important pathways that contribute to the PN include ribosomal translation, the ubiquitin–proteasome system, the unfolded protein response, autophagy, and the heat shock response. Recent data from multiple studies suggest that the robustness of the PN varies depending on the cell and tissue type, and the activity of the PN appears to decline with age. There is a great deal still unresolved concerning the regulation and decline of PN activity with age or human disease. This Special Issue focus on the regulation of the PN molecular mechanisms involved in the prevention or clearance of protein aggregates in health, disease, and aging.

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### Guest Editor

Dr. Robert Youker

Department of Biology, Western Carolina University, Cullowhee, NC, USA

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### Deadline for manuscript submissions

closed (30 November 2023)



## International Journal of Molecular Sciences

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