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The Role of Chaperone-Mediated Autophagy in Tissue Homeostasis and Disease Pathogenesis

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Message from the Guest Editors

Dear Colleagues,

Chaperone-mediated autophagy (CMA) is a selective proteolytic pathway in the lysosomes. Proteins are recognized one-by-one through the detection of a KFERQ motif or, at least, KFERQ-like motif by a heat shock cognate protein 70 (Hsc70), a molecular chaperone. CMA substrates are recognized and delivered to a lysosomal CMA receptor, lysosome-associated membrane protein 2A (LAMP2A), the only limit component of this pathway, and transported to the lysosomal lumen with the help of another resident chaperone HSp90. Since approximately 75% of proteins are reported to have canonical, phosphorylation-generated, or acetylation-generated KFERQ motifs, CMA maintains intracellular protein homeostasis and regulates specific functions in the cells in different tissues. CMA also regulates physiologic functions in different organs and, then, is implicated to disease pathogenesis related to aging, cancer, and the central nervous and immune systems. This Special Issue focuses on the recent advances on the role of CMA in tissue homeostasis and the disease pathogenesis.

Dr. Rut Valdor

Dr. Marta Martínez-Vicente

Guest Editors



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Special Issue



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Message from the Editor-in-Chief

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