



The World of Transglutaminases: From Basic Biological and Medical Research to Applied Sciences 3.0

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Message from the Guest Editors

Transglutaminases are important protein-modifying enzymes that are distributed in all kingdoms of life. The post-translational modifications catalyzed by these enzymes produce stable networks in the extracellular matrix, in body fluids, and inside cells, thus contributing to the regulation of many aspects of cell life and death. Besides the cross-linking function, other enzymatic reactions and non-enzymatic functions can be attributed to some members of the transglutaminase family. In this regard, the ubiquitous multi-functional tissue transglutaminase has been nicknamed "the bete noire" of the family or "a molecular swiss army knife." Evidence on the involvement of transglutaminases in human diseases, such as cancer, fibrosis, and neurodegenerative and autoimmune diseases, is rapidly increasing. Moreover, transglutaminases have been successfully employed as biotechnological tools in several industrial fields.

The aim of this Special Issue is to collect original and review articles on all aspects of research on the transglutaminases family, from basic research to biomedical and biotechnological applications.





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Message from the Editor-in-Chief

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