



STAT3 a Moonlighting Protein: Focus on Its Post-translational Modifications and Protein Interactors

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Message from the Guest Editors

The signal transducer and activator of transcription 3 (STAT3) is a protein with polyhedral activities: it mediates, directly or indirectly, multiple cellular signaling pathways (cytokines of growth factors, hormones and oxidative stress). In addition, it is a key protein in the modulation of metabolism and mitochondrial activity and it is involved in the regulation of microtubule dynamics in the cellular cytoskeleton.

STAT3 activation is crucial in various diseases such as chronic inflammation, cardiovascular and metabolic disorders and cancer. STAT3 can be considered a moonlighting protein and its multifaceted activities are mainly exerted via post-translational modifications such as phosphorylation, acetylation, glutathionylation and methylation and interaction with a variety of protein components. This Special Issue aims to investigate the key role of STAT3, its PTMs and its protein ligands in the modulation of cellular functions. We hope that researchers in the field will contribute with research articles, review articles, innovative hypotheses or commentaries on STAT3-related activities and regulations.





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Message from the Editor-in-Chief

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