

Special Issue on PPARs as Targets of Redox Regulation

CALL FOR PAPERS

PPARs have important roles in metabolism, cancer, and inflammation. These proteins are very important in cell signaling due to the varying mechanisms of PPAR action—for example, as a nuclear receptor facilitating DNA binding and transactivation of target genes upon ligand binding or, in a DNA unbound state, by transrepression of transcription factors or coactivators. Therefore, a role for the cellular redox status in regulating the function of PPARs is to be expected. Redox regulation can occur directly by altering redox sensitive amino acids such as cysteines, which consequently will affect DNA binding via the zinc-finger motif. Thus, transactivation is impaired and target genes are not expressed. Moreover, indirect redox-mediated effects can alter phosphorylation of PPARs, which has been established to affect function and localization of PPARs. Notably, research has found that sumoylation might also be sensitive to redox regulation, especially for PPAR- γ . In summary, redox regulation might affect the function of PPARs, which can be important in disease initiation, progression, and consequently treatment.

This Special Issue aims to collate a selection of original research topics and current review articles in the field of PPAR-dependent research, analyzing or reviewing redox-sensitive regulation of PPARs function, stability, or localization. Submissions to this issue should clearly illustrate the cellular response to redox modified/regulated PPARs, instead of cell response to oxidative stress.

Potential topics include but are not limited to the following:

- ▶ Review and research articles discussing redox-sensitive regulation of PPARs, associated signaling, and related diseases research
- ▶ Experimental studies of PPAR-regulating compounds, whose functions are altered in response to redox regulation
- ▶ Studies analyzing the redox status of cells (cell lines or primary cells) and the associated status of PPARs, e.g., PPAR phosphorylation, stability, or localization
- ▶ Research examining the role of PPAR expression/activation on the cellular redox status
- ▶ PPAR-related clinical studies providing the redox status associated with the disease and its impact on PPAR function
- ▶ Experimental studies in the area of PPAR research, when experimentation is aimed at identifying redox-dependent modifications of PPARs or altered redox-based responses

Authors can submit their manuscripts through the Manuscript Tracking System at <https://mts.hindawi.com/submit/journals/ppar/ptrr/>.

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

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