



Glycation in Health and Disease

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Message from the Guest Editors

Glycation is the result of the covalent bonding of a free amino group from a biological macromolecule (DNA, protein & lipids) to reduced sugars or dicarbonyls, which results in the formation of advanced glycation end products (AGEs). Glycation has gained substantial attention recently for its alleged influence over various diseases' progression such as diabetes, atherosclerosis, cancer, and Alzheimer's disease. Age-related accumulation of AGEs could serve as danger signals to initiate and accelerate disease processes via mitochondrial perturbation. Glycation can trigger variable transcription factors. In addition, the receptor of AGE (RAGE) has been linked to various signaling pathways. How these pathways, transcription factors, and epigenetic alterations are conveyed through numerous pathologies' progression is still not fully understood. Our proposed work is expected to greatly enhance our understanding of glycation states under health and disease conditions. Published data and explanations will no doubt accelerate the discovery of new therapeutic targets for the treatment of glycation-associated complications in relation to health and disease.





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