



Pathophysiology of Choline and Choline Transporters

Guest Editor:

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Message from the Guest Editor

Choline is an organic cation that is essential for the normal function of all cells. Choline deficiency affects the expression of genes involved in cell proliferation, differentiation, and apoptosis, and it is associated with liver dysfunction and cancer. Therefore, the study of choline transport and the characteristics of choline transporters are of central importance to understand the mechanisms that underlie membrane integrity and cell signaling. The choline transport system has been categorized into three transporter families. They include (I) polyspecific organic cation transporters (OCTs) with low affinity for choline, (II) high-affinity choline transporter 1 (CHT1), and (III) choline transporter-like proteins (CTLs). They are expressed in different organisms and cell types, and this implies its importance for choline transport for a broader purpose, such as acetylcholine and phospholipid synthesis.

This Special Issue focuses on the latest research on the pathophysiology of choline deficiency and its relationship to various diseases, and on the role of choline transporters in the pathophysiology and development of drugs as therapeutic targets.





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Message from the Editor-in-Chief

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