



The Implications of One Carbon and Homocysteine Metabolism in Nutrition and Health

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Message from the Guest Editors

It is now 90 years since homocysteine was first identified as an important amino acid linking methionine and sulfur metabolism, over 26,000 research papers have described its relevance to several inborn errors of metabolism, folate, vitamin B12, vitamin B6, and riboflavin status, as well as to diseases as diverse as cardio- and cerebrovascular disease, dementia, renal disease, thyroid disease, and pregnancy complications to name but a few. There have also been important recent developments in the closely related metabolic cycles involving folate, vitamin B12, and B6. Assays revealed the elevation of blood homocysteine concentration in association with several diseases, drugs, disorders, and lifestyle factors. However, in each case, considerable debate still exists concerning its exact contribution to disease pathogenesis.

This Special Issue welcomes research concerning: homocysteine and related metabolites in cardiovascular and cerebrovascular disease, genetic determinants of hyperhomocysteinemia, its role in pregnancy complications, cognitive deficits, including dementia, and issues and debates concerning its practical assay and relevance in modern routine clinical practice.





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