

Special Issue

Amino Acid Metabolism and Disease, 2nd Edition

Message from the Guest Editor

Amino acids are better known as the building blocks of proteins, but their role extends to the synthesis of other key compounds for the function of any organism and even the post-translational modification of proteins. Among these additional roles, a special place is reserved for the synthesis of S-adenosylmethionine, which seems to be involved in as many reactions as ATP, but also for the synthesis of neurotransmitters, glutathione, and nucleotides. Pathways of amino acid metabolism are interconnected to recycle essential amino acids, thus guaranteeing their supply during unfavorable conditions, but also with energy metabolism. Vitamins and cations are important for enzymes in these routes, further linking amino acid metabolism to nutrition. Moreover, human mutations in genes involved in amino acid metabolism are constantly being discovered, studied, and linked to a variety of outcomes, including major and rare diseases. This Special Issue focuses on these additional roles of amino acids, how pathological impairments of their metabolism impact cell function, and whether they can be prevented or ameliorated by drugs and/or nutritional interventions.

Guest Editor

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