

# Special Issue

## Nutrition and Brain Metabolism

### Message from the Guest Editors

Brain metabolism is very demanding in terms of energy, specific nutrients, and trace elements. The brain's energy metabolism is based on carbohydrates, but also on the production of neurotransmitters by amino acids. In addition, many minerals such as sodium, potassium, magnesium, iodine, and selenium, as well as vitamins such as B1, B3, B6, and B12, among many others, are crucial for optimal brain function. All these requirements must be met through a rich and balanced diet, and specific nutrient deficiencies may be involved in the pathogenesis of brain diseases. In this Special Issue, we will provide updates in relation to the most relevant advances in brain nutrition, addressing the general metabolic needs of the brain, how carbohydrates fuel brain metabolism, how specific nutrient deficits affect brain function and development, the effect of diets on the inflammatory environment of brain diseases, how gut signaling reaches the brain to modify food intake and metabolism, or how dietary changes can modify the microbiome and affect brain pathophysiology. Any other contributions addressing the links of nutrition to brain function and diseases would also be very welcome.

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### Message from the Editorial Board

*Nutrients* is an on-line open access journal that was first published in 2009. *Nutrients* adheres to rigorous peer-review and editorial processes and publishes only high quality manuscripts that address important issues related to the impacts of nutrients on human health. The Impact Factor of *Nutrients* has risen rapidly since its establishment and it is now ranked in the first quartile of journals publishing in the field of nutrition and dietetics research.

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