



BioMed Research International

Special Issue on
**Pharmacology: The Pharmacodynamics of Nutrients
and Nutrient Interactions in Biological Functions**

CALL FOR PAPERS

Nutrition has a significant role in the growth, maintenance, and healing of biological tissues, but the mechanisms through which nutrients confer their benefits are complex. Lipid soluble nutrients likely have converging signaling effects at some receptor and transcription factor systems, while certain water soluble nutrients serve as cofactors to enzymes that are critical to cellular function. The pharmacokinetics of nutrients in biological systems and the consequences of gross nutrient deficiencies are well characterized and have resulted in recommended daily intakes for individual nutrients. However, the pleiotropic effects of nutrients and the pharmacodynamics of their interactions are not understood.

Emerging data indicate that some nutrients can either mitigate tissue injury or help with tissue recovery after a traumatic event. In addition, the effects of subclinical nutrient deficiencies are only slowly being realized. Thus, there is interest in understanding the pharmacological roles and interactions of nutrients in the diet as they relate to general health as well as how they might promote healing with larger therapeutic windows than some receptor-directed drugs. Indeed, some health care providers are now calling for proper nutrition or directed nutrient supplementation prior to surgical interventions in an effort to enhance the healing process.

The purpose of this special issue is to present and discuss leading developments in nutrient biology and increasing the understanding of it from a pharmacological perspective. We seek original research articles as well as review articles that focus on the dose-response characteristics of individual nutrients or their interactions with other nutrients in the food supply.

Potential topics include, but are not limited to:

- ▶ Feasibility studies
- ▶ Data mining studies relevant to the receptor pharmacology or genomics related to nutrient function and signaling
- ▶ Methods for ensuring the proper design and interpretation of preclinical or clinical studies of nutrient function
- ▶ Studies using cutting-edge technology to provide novel insights to nutrient function or nutrient pharmacology
- ▶ Preclinical or clinical studies assessing the impact of specific nutrients, nutrient interactions, or overall nutrition on surgical outcomes, outcomes after trauma, or general health

Authors can submit their manuscripts via the Manuscript Tracking System at <http://mts.hindawi.com/submit/journals/bmri/pharmacology/nnibf/>.

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First Round of Reviews

Friday, 25 September 2015

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