



## Dietary Modulation of the Immune Function: Direct and Microbiota Dependent Effects

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### Message from the Guest Editor

Diet is critical in maintaining optimal immune function. Extensive research has demonstrated the immunomodulatory properties of particular nutrients. In this regard, some dietary components are able to modulate the immune response by interacting directly with the mucosal and systemic immune cells, activating receptors (e.g., vitamins) or changing membrane properties or modulating gene expression (e.g., fatty acids). However, some nutrients may influence immune function indirectly, after being metabolized by the microbiota, either by generating new active components (e.g., polyphenol metabolites, short-chain fatty acids derived from fibre) or just by shaping microbial composition and functionality (e.g., probiotics and prebiotics), which in turn, will affect the immune response.

We invite authors to submit review articles and original research describing effects and mechanisms underlying the relationship between nutrition, microbiota and immunity.





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