

## Special Issue on **Polyunsaturated Fatty Acids Signaling in Inflammatory Diseases: The Usual Suspects and Beyond**

# CALL FOR PAPERS

This special issue is focused on the intricate world of lipids, from dietary fat and energy balance to cellular membranes and lipid-derived mediators and their relationship with inflammatory states and diseases associated with inflammation. In its essence, inflammation, triggered by signals incoming from tissue injury and the inflammatory condition, is the first line of defense against life threats and a set of organized responses aimed to repair injuries and reestablish homeostasis.

This special issue will be focused on long-chain polyunsaturated fatty acids (LC-PUFAs) and their derivatives to collect expert opinion and original investigation concerning the impact of this class of lipids on inflammatory processes. Dysregulation of LC-PUFAs signaling and metabolism can affect cell and immune system function. Thus, this special issue will collect studies about the anti-inflammatory and proinflammatory potential of PUFAs. Indeed, lipid mediators such as LC-PUFAs can play the role of either proinflammatory or anti-inflammatory molecules with opposite consequences on disease prognosis and healing of injured tissues.

In this context, the investigation of LC-PUFAs signaling in inflammatory diseases will consider both PUFAs metabolism and metabolic effects and their binding to different receptors (e.g., liver X receptors, nuclear receptors, and prostaglandins receptors). Both proinflammatory and anti-inflammatory LC-PUFA will be discussed as these are key mediators in the regulation of inflammatory processes. These will be considered in their different contribution to chronic inflammatory conditions and mechanisms involved in their pathogenesis.

We ask for high quality original research as well as review articles focused on LC-PUFAs-dependent signaling as concept to bridge multiple lipid-derived pathways, receptors, and signaling cascades to the common inflammatory environment shared by different diseases.

Potential topics include but are not limited to the following:

- ▶ PUFAs in adiposity, chronic inflammation, and obesity (including diabetes and insulin resistance)
- ▶ PUFAs in autoimmune diseases (e.g., psoriasis, multiple sclerosis, and systemic lupus erythematosus)
- ▶ PUFAs and neuroinflammation in neurodegenerative diseases such as Alzheimer's disease, Parkinson disease, and Huntington disease
- ▶ PUFAs-mediated signaling, inflammation, and cancer
- ▶ Novel advances in the field of LC-PUFAs as proresolutive factors and proresolving mediators
- ▶ PUFAs, diet-gene interaction, microbiota inflammation, and epigenetic changes underlying chronic inflammatory states
- ▶ PUFAs and their receptor targets
- ▶ Advanced methods for PUFAs investigation and PUFAs-mediated biological effects
- ▶ Interaction between PUFAs and other families of lipids (e.g., cholesterol)

Authors can submit their manuscripts through the Manuscript Tracking System at <http://mts.hindawi.com/submit/journals/mi/lisid/>.

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### **Manuscript Due**

Friday, 25 November 2016

### **First Round of Reviews**

Friday, 17 February 2017

### **Publication Date**

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