Journal of Immunology Research

Special Issue on

The Joint-Gut Axis and the Immune System: From Bench to Bedside

CALL FOR PAPERS

Recent advances in sequencing technologies have allowed the deep characterization of the human microbiota, thus giving the chance to improve our knowledge on the role of the microbiome in human health and disease. Gut microbiota indeed plays a crucial role in modulating innate and acquired immune responses and thus interferes with the fragile balance between inflammation and tolerance.

Abnormalities in the gut microbiota have been reported in patients with both Inflammatory Bowel Diseases (IBD) and chronic autoimmune arthritis such as Spondyloarthritis (SpA) and Rheumatoid Arthritis (RA). In particular SpA shares different genetic, immunologic, and clinical features with IBD; the coexistence of both conditions called enteropathic SpA (eSpA) represents the clinical evidence of a shared pathophysiology. It has been described that up to 50% of patients with SpA present subclinical gut inflammation; on the other hand, arthritis is the most frequent extraintestinal disease manifestation in patients with IBD. A multidisciplinary approach coordinated by both the rheumatologist and the gastroenterologist would therefore be advisable to improve management of this complex diseases in the clinical practice.

Translocation of intestinal microbes, caused by the increased permeability of the intestinal epithelial cell layer, or increased exposure to microbial products, would result in a persistent antigenic stimulation with activation of effector T cells and release of inflammatory cytokines.

Furthermore, several factors such as smoke, diet, infections, and synthetic or biotechnological immunosuppressive therapy (i.e., anti-TNF-alpha, anti-IL12/23) used in both patients with IBD and chronic autoimmune arthritis can affect bacterial growth, shaping gut microbiota composition.

A better elucidation of the potential role of the individual microbiota in these diseases aiming to identify possible markers of disease severity and therapeutic response is a promising tool that deserves to be explored.

This journal publishes research articles, review articles, and clinical studies related to classical immunology, molecular immunology, clinical immunology, autoimmune diseases, and immunotherapy.

The journal is soliciting original research manuscripts as well as review articles for a themed issue addressing this special issue. Also studies focused to identify novel biomarkers which have the potential to evaluate disease severity and the outcome of immunosuppressive/biotechnological drugs in these conditions are encouraged.

Potential topics include but are not limited to the following:

- Gut microbiota in chronic autoimmune arthritis and IBD
- Shared genetic and immunological background among chronic autoimmune arthritis and IBD
- The role of environmental factors (i.e., smoke, diet, and infections) in shaping microbiota composition and impact disease outcome of IBD and chronic autoimmune arthritis
- Epidemiologic data and multidisciplinary management of eSpA

Authors can submit their manuscripts through the Manuscript Tracking System at https://mts.hindawi.com/submit/journals/jir/jgbb/.

Papers are published upon acceptance, regardless of the Special Issue publication date.

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