



Journal of Immunology Research

Special Issue on

The Role of the Microbiome in the Pathogenesis of Rheumatic Diseases: Should We Focus the Gut?

CALL FOR PAPERS

The notion that gut microorganisms can modulate extraintestinal autoimmunity is not novel. The gastrointestinal microbiome and the immune system are closely tied, each influencing and being influenced by the other. Recent evidence shows that the commensal microbiota 'programs' many aspects of T cell differentiation, thus augmenting the developmental instructions of the host genome to engender the full function of the adaptive immune system.

T helper 17 (Th17) cells are a recently identified CD4⁺ subset thought to be critical to the pathogenesis of several autoimmune diseases. Gut-resident bacteria can have a strong influence on the emergence and/or maintenance of particular CD4⁺ T cell subsets.

Intestinal bacteria may be critically involved in the differentiation of some gut Treg subsets. Accordingly, several commensal bacteria (e.g., *Bifidobacterium infantis* and *Faecalibacterium prausnitzii*) have been shown to induce Foxp3⁺ Tregs and IL-10 production in the gut.

Given these tight associations, it is not surprising that gut microbiota have been linked to pathologies of the immune system, even if the mechanism of this microbial influence in disease pathogenesis remains elusive.

We invite authors to contribute original research articles as well as review articles that will help to understand the role of the microbiota in these diseases and may offer novel insight into factors that initiate and drive disease progression, stratify patient risk for complications, and ultimately could deliver new therapeutic strategies.

Potential topics include, but are not limited to:

- ▶ The capacity of the intestinal microbiota to shape immune responses
- ▶ The possible role of dysbiosis as causative or a consequence of systemic inflammation
- ▶ The relationship between nutrition and immune homeostasis and the impact of nutrition on inflammatory autoimmune diseases

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

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