Special Issue on
Immunological Underpinnings of Chronic Neuroimmune and Neuroinflammatory Diseases

CALL FOR PAPERS

Many neuroimmune and neuroinflammatory diseases, such as multiple sclerosis, myalgic encephalomyelitis/chronic fatigue syndrome, Alzheimer's disease, schizophrenia, and autism, have multisystemic immunological contributions, involving wide array of biological pathways. In spite of their heterogeneous nature and diverse etiology, many common themes exist among these diseases. Objective immune differences including inflammatory sequelae and innate immune dysregulation, as well as clinical presentations, such as gastrointestinal dysfunction and fatigue, are commonly observed. Additionally, alterations in the microbiota are frequently associated with these diseases and may represent a bridge between immunological pathology and clinical symptomology.

This research topic will thus focus on how the innate and adaptive immune systems contribute to the pathophysiology of chronic neuroimmune and neuroinflammatory diseases with a special emphasis on the identification of immune comorbidities and biomarkers, as well as understanding the roles of microbial coinfections.

The present research topic addresses a critical need in that no single biological marker or clinical parameter can be used to definitively make a diagnosis of these diseases. Therefore, a diagnosis is typically made through a lengthy and costly process of excluding other potential causes while meeting specific inclusion criteria. This limitation also hinders research progress and the development of efficacious treatment protocols. The vision of this special issue is to foster research that may lead to the identification of clinically relevant biomarkers that can be used to make more accurate diagnoses and follow disease progression and treatment. Research that addresses these goals will also lead to a greater understanding of chronic neuroimmune and neuroinflammatory diseases pathophysiology.

Research themes that endeavor to identify immunological mechanisms of disease are encouraged. Reviews that articulate the current state of a given field are also encouraged.

Potential topics include but are not limited to the following:

▶ The contribution of coinfections to inflammation

▶ Cytokines, metabolomics, and other circulating molecules as biomarkers

▶ Identification of antibodies or autoantibodies as potential biomarkers

▶ Characterizing immune cell populations that associated with disease presentation

▶ Identifying dysregulated immune pathways and oxidative stress pathways

▶ Addressing the contributions of mitochondria to disease presentation

▶ Diseases of interest include, but are not limited to, multiple sclerosis, myalgic encephalomyelitis/chronic fatigue syndrome, Alzheimer's disease, Parkinson's disease, Sjögren's syndrome, schizophrenia, posttreatment Lyme disease syndrome, gulf war syndrome, and autism

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

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

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