

Special Issue

Microglia, Behavior, and Sex Differences: Neuroimmune Mechanisms in Development and Disease

Message from the Guest Editors

Microglia, the resident immune cells of the central nervous system, play essential roles not only in immune surveillance but also in shaping brain development, synaptic plasticity, and behavioral outcomes. In recent years, increasing evidence has shown that microglial function implicated in the pathophysiology of numerous neurological and psychiatric disorders, including autism spectrum disorders, depression, Alzheimer's disease, and multiple sclerosis. This Special Issue aims to gather cutting-edge research that advances our understanding of microglial biology and its impact on neurodevelopment and disease, with a particular focus on behavioral outcomes and sex-specific mechanisms. We welcome original research articles and reviews addressing topics such as microglial ontogeny, sex hormones and neuroinflammation, behavioral consequences of microglial dysregulation, and the development of sex-specific therapeutic strategies. We believe this Special Issue will serve as a valuable reference for researchers working in the fields of neuroimmunology, behavioral neuroscience, and neurodevelopment.

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Life (ISSN 2075-1729) is an international, peer-reviewed open access journal that publishes scientific studies related to fundamental themes in life sciences. Some papers are published individually, while others are submitted for inclusion in special issues with guest editors. You are invited to contribute a research article, essay, or a review to be considered for publication.

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