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The Role of Immune Cells in Multiple Sclerosis

Guest Editors:

Dr. Alexander Mildner

Max Delbrück Center for
Molecular Medicine, Berlin,
Germany

Dr. Chotima Böttcher

Laboratory of Molecular
Psychiatry, Charité -
Universitätsmedizin Berlin,
Berlin, Germany

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Message from the Guest Editors

Multiple sclerosis (MS) is a complex chronic inflammatory demyelinating disease of the central nervous system (CNS). Past therapeutic interventions mainly focused on the depletion or blockade of lymphocytes. However, recent evidence obtained from new genetically modified animal models and high-dimensional single-cell technologies has indicated a much more complex picture of MS pathophysiology. These methodologies uncovered Th17 cells as the main pathogenic lymphocyte subset due to the release of the effector cytokine GM-CSF, which plays a critical role in the instruction of tissue-destructive monocytes. Further, dendritic cells, natural killer cells, microglia, and other immune cells have been shown to contribute to disease progression. Environmental parameters such as diet, fasting, and a deregulated circadian rhythm also have an effect on immune cell functions and indirectly influence the course of disease.

In this Special Issue, we would like to collect review articles that summarize the current knowledge of immunological components of MS. Our goal is to provide the reader with a wide range of immune cell activities and how these cells influence the disease course of MS.



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Special Issue



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Editor-in-Chief

Prof. Dr. Lluís Ribas de Pouplana

Institute for Research in Biomedicine (IRB Barcelona), The Barcelona Institute of Science and Technology, 08028 Barcelona, Spain

Message from the Editor-in-Chief

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Contact Us

Life Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

Tel: +41 61 683 77 34
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