

Tentative Outline

Special Issue for: Central Nervous System Agents In Medicinal Chemistry

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Current strategies for drug discovery targeting neurological autoimmune diseases

Aims & Scope:

This thematic issue is aimed at bringing updated concepts of regulation of autoimmune responses, focusing but not limited to neurological autoimmune diseases. Immune pathogenesis of onset and progression of Multiple sclerosis (MS), Experimental autoimmune encephalomyelitis (EAE), Neuromyelitis optica (NMO), Guillian Barre (GB), Experimental autoimmune neuritis (EAN) and similar inflammatory and neurodegenerative diseases will be revisited. Clinical, experimental and translational studies will be discussed with an aim to emphasize molecular pathways suited as potential targets for therapy.

Keywords: Autoimmunity, myelin proteins, T cells, immunoglobulins (IG), glia, blood-brain barrier (BBB), inflammation, demyelination, axonal degeneration, neurons, nervous system, MS, EAE, NMO, GB, EAN.

Subtopics:

1. How genetic factors shape autoimmune responses to myelin specific antigens
2. Role of environmental and epigenetic factors in regulation of autoimmune disease
3. Restrictive capacity of BBB for therapy distribution into CNS
4. Myelin specific antigen - directed autoimmune responses in multiple sclerosis
5. Specific role of myelin oligodendrocyte glycoprotein (MOG) in autoimmune neurological diseases
6. Experimental models of autoimmune neurological diseases: similarity is essential
7. Mechanisms of autoimmune CD4+ T cell mediated inflammation
8. Interleukin-16 in regulation of CD4+ T cell mediated autoimmune responses
9. Role of other cell types, including B cells, mast cells, basophils, in regulation of MS and EAE
10. Specificities of children multiple sclerosis and neuromyelitis optica
11. Role of viruses in regulation of infection, autoimmune responses and cancer – common premises for therapy
12. Other related topics suggested by authors

Schedule:

Manuscript Submission deadline: June 2017

Peer review due: August 2017

Revision due: November 2017

Notification of acceptance: December 2017

Final manuscript due: March 2018