

Special Issue on **The Role of Semaphorins and other Neuropeptides in Inflammatory Rheumatic Diseases**

CALL FOR PAPERS

Rheumatic diseases (RDs) are a heterogeneous cluster of pathological conditions characterized by cellular and humoral immune responses leading to an inflammatory milieu, with the production of proinflammatory cytokines. Musculoskeletal manifestations represent a shared aspect that appears together with several clinical features that range from skin to renal involvement to the production of a large variety of autoantibodies.

One of the most important unmet needs in RDs consists of the identification of biomarkers able to identify patients at risk to develop more aggressive phenotypes and to predict response to treatment. In the last years, some research has suggested a possible role for neural markers, such as semaphorin-3A (Sema3A), calcitonin gene-related peptide, nerve growth factor, and substance P, in immune response regulation. They are a large family of secreted or membrane bound proteins, interacting with specific receptors. These neuropeptide pathways could stimulate well-defined changes in the activity and function of bone cells, leading to RDs features.

For instance, Sema3A seems to exert a potent immunomodulator effect throughout the different stages of immune response, by acting on T- and B-cells, but also on FoxP3+ Tregs. This wide range of action strongly suggests a pivotal role for semaphorins in RD pathogenesis and the possibility to target these molecules as a therapeutic strategy. Data from the literature have so far provided contrasting results in terms of semaphorin serum levels in autoimmune diseases. Considering Sema3A, high levels of this molecule have been identified in patients affected by systemic lupus erythematosus, while low levels have been observed in rheumatoid arthritis. Moreover, Sema3A seems to be contributing to bone remodelling in patients affected by spondyloarthropathies.

Nonetheless, neuropeptides seem to be involved in the pain modulation of patients affected by fibromyalgia, suggesting a possible role in disease pathogenesis and treatment.

The aim of this special issue is to summarize the latest knowledge and novel findings on the role of neuropeptides in RDs. We encourage basic scientists as well as clinicians to submit original research articles describing novel findings as well as review articles summarizing the state of the art on neuropeptides in pathogenesis, as biomarkers and therapeutic targets in RDs.

Potential topics include but are not limited to the following:

- ▶ Role of neuropeptides in the pathogenesis of RDs
- ▶ Genetic variants of neuropeptides in RDs
- ▶ Potential role of neuropeptides in RDs therapy
- ▶ Neuropeptide modulation during treatment of RDs

Authors can submit their manuscripts through the Manuscript Tracking System at <https://mts.hindawi.com/submit/journals/mi/rsird/>.

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

Lead Guest Editor

Fulvia Ceccarelli, Sapienza Università di Roma, Rome, Italy
fulviaceccarelli@gmail.com

Guest Editors

Fabio Perrotta, University of Molise, Campobasso, Italy
f.perrotta85@gmail.com

Carlo Perricone, Sapienza Università di Roma, Rome, Italy
carlo.perricone@gmail.com

Submission Deadline

Friday, 1 February 2019

Publication Date

June 2019