



The Role of Alarmins in Human Pathologies: Impact on Diagnostic and Therapeutic Approaches

Guest Editors:

Prof. Dr. Giuseppe Murdaca

Head of Allergology and Clinical Immunology Unit, Department of Internal Medicine, University of Genoa and San Bartolomeo Hospital, Sarzana, Italy

Prof. Dr. Sebastiano Gangemi

Department of Clinical and Experimental Medicine, School and Operative Unit of Allergy and Clinical Immunology, University of Messina, 98125 Messina, Italy

Deadline for manuscript submissions:

30 April 2024

Message from the Guest Editors

Alarmins are endogenous proteins or peptides that are substitutively expressed and have chemotactic roles. When alarmins are released in excess as a result of injury or powerful stimuli, they cause the dangerous effects of a cytokine storm, resulting in the development of what have been recognized as "damage associated molecular models (DAMP)". These mediators have been shown to play a fundamental role in the pathogenesis of numerous allergic and immune-mediated diseases by the "IL-31/IL-33 axis", as well as in the neuroinflammatory processes involved in multiple brain conditions, including stroke and neurodegenerative diseases. Furthermore, alarmins also appear to be involved in metastatic progression and drug resistance of some forms of cancer, such as multiple myeloma. In the future, the assay of these cytokines could be useful for the diagnosis, staging and identification of specific therapeutic molecules capable of controlling their release and, thus, provide information on disease progression.





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Editor-in-Chief

Prof. Dr. Felipe Fregni

1. Neuromodulation Center and
Center for Clinical Research

Learning, Spaulding
Rehabilitation Hospital and
Massachusetts General Hospital,
Harvard Medical School, Boston,
MA 02114, USA

2. Department of Epidemiology,
Harvard T.H. Chan School of
Public Health, Boston, MA 02115,
USA

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