

Special Issue

Innate Immune Memory in Health and Disease

Message from the Guest Editor

The ability of the innate immune system to develop adaptive features and provide long-term protection against pathogenic reinfection is termed trained immunity or innate memory. Epigenetic modification of various transcriptional pathways, as well as metabolic reprogramming of innate immune cells by both endogenous and exogenous stimuli, is the main driving force for innate memory. Similar to adaptive immune response, innate memory is associated with an augmented immune reaction in response to secondary stimulations. In general, innate memory is known to provide relatively short-term protection ranging from about 3 months to 1 year. Nevertheless, recent findings have challenged our understanding of innate memory, with several laboratories showing that innate memory can be long-lived and transmitted across generations. On the other hand, there is a knowledge gap in how innate memory works during and against tumor development and progression. This Special Issue on innate immune memory provides a venue for publishing research that increases our understanding of cellular and molecular mechanisms that mediate those responses.

Guest Editor

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Message from the Editor-in-Chief

Biomedicines (ISSN 2227-9059) is an open access journal devoted to all aspects of research on human health and disease, the discovery and characterization of new therapeutic targets, therapeutic strategies, and research of naturally driven biomedicines, pharmaceuticals, and biopharmaceutical products. Topics include pathogenesis mechanisms of diseases, translational medical research, biomaterial in biomedical research, natural bioactive molecules, biologics, vaccines, gene therapies, cell-based therapies, targeted specific antibodies, recombinant therapeutic proteins, nanobiotechnology driven products, targeted therapy, bioimaging, biosensors, biomarkers, and biosimilars. The journal is open for publication of studies conducted at the basic science and preclinical research levels. We invite you to consider submitting your work to *Biomedicines*, be it original research, review articles, or developing Special Issues of current key topics.

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