Journal of Immunology Research

Hindawi

Special Issue on
Extracellular Vesicles and Pathogens 2023

CALL FOR PAPERS

Extracellular vesicles (EVs) are particles formed by a lipid bilayer containing proteins, glycoproteins, mRNA, other small RNA species, and lipids. EVs are derived and released by many types of pathogens. The EVs can act as mediators in intercellular communication and regulate physiological processes, pathological processes, inflammatory disease, and infectious diseases. The field of EVs research has expanded enormously in the past decade to understand pathogen-host interactions, but there are still many questions to be answered in the field, especially when it comes to EVs isolated from pathogens.

Extracellular vesicles (EVs) isolated from pathogens are known to mediate communication under a variety of physiological and pathological conditions and modulate the host's immune system to induce inflammation and to control the infectious process. The field of EVs is a new research area that can provide valuable information on how a pathogen is sending messages to other pathogens, as well as to the host. Understanding these signals can potentially lead to novel therapeutic avenues that may stop not only the essential communications between the infectious agents, but also between these pathogens and their host. Therefore, more studies are needed as one of the fundamental points for the control of endemic parasitic diseases is the understanding of mechanisms involved in the pathogen-host interaction.

The aim of this Special Issue is to present studies focusing on the mechanism of how EVs contribute to the communication between the host and infectious agents (viruses, parasites, fungi, and bacteria). We will discuss, amongst others, the nature and origin of EVs and how EVs can best be identified and characterized, and how they modulate host immune response, vaccination, biomarkers, therapeutic strategies, molecular diagnosis, and treatment of infectious diseases. We invite original research and review articles covering all aspects related to these structures.

Potential topics include but are not limited to the following:

- EV release from pathogens
- EV shedding from parasites, viruses, fungi, and bacteria
- EV purification from pathogens: modulation of the host immune response
- EVs from pathogens modulating host humoral response
- EVs from pathogen modulating host interaction and communication
- Protocols to purify EVs
- EVs and vaccine development
- EVs and biomarkers (therapeutic strategies)
- EVs in immunological and molecular diagnosis
- EVs and potential treatments for infectious diseases

Authors can submit their manuscripts through the Manuscript Tracking System at https://review.wiley.com/submit?specialIssue=557244.

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

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