

Editorial

Exosomes and Immunoregulation



Tooba Ghazanfari¹

1. Immunoregulation Research Center, Shahed University, Tehran, Iran.



Citation Ghazanfari T. Exosomes and Immunoregulation. Immunoregulation. 2023; 6(1):1-2. <http://dx.doi.org/10.32598/Immunoregulation.6.1.8>

<http://dx.doi.org/10.32598/Immunoregulation.6.1.8>

In the Editorials of several previous issues, several internal and external factors of the immune system (or body) were mentioned as important factors in immunoregulation. Meanwhile, the main role of immunoregulation in the prevention, control and eradication of various diseases and in protecting individual's health, and the effect of dysregulation in immune responses as the cause of the development of many diseases were mentioned [1, 2]. Accordingly, identifying different mechanisms of immunoregulation is a significant issue in preventing and improving the disease.

Recently, the important role of exosomes as substances and metabolites carrier elements, for transporting the cell mediators and intracellular information, between the cells and tissues has been noticed. Meanwhile, the essential character of these molecular carriers in the immunoregulation of various diseases including autoimmune diseases, cancer and chronic lung disease is considerable [3-5]. Exosomes can be secreted from cancer cells to inhibit and regulate immune responses against cancer and affect immune cells and also can be used therapeutically to strengthen immune responses in cancer immunotherapy [3]. Given these vital cellular mediators, it may be beneficial in the future for regulation and modulation of the immune response and creating an appropriate immune response in various disease states.

References

- [1] Ghazanfari T. Immunoregulation: A new horizon ahead. Immunoregulation. 2018; 1(1):1-2. [DOI:10.32598/IMMUNOREGULATION.1.1.1]
- [2] Ghazanfari T. Immune dysregulation in diseases. Immunoregulation. 2019; 2(1):1-2. [DOI:10.32598/IMMUNOREGULATION.1.3.119]
- [3] Zhang X, Pei Z, Chen J, Ji C, Xu J, Zhang X, et al. Exosomes for immunoregulation and therapeutic intervention in cancer. Journal of Cancer. 2016; 7(9):1081-7. [DOI:10.7150/jca.14866] [PMID] [PMCID]
- [4] Zou J, Peng H, Liu Y. The roles of exosomes in immunoregulation and autoimmune thyroid diseases. Frontiers in Immunology. 2021; 12:757674. [DOI:10.3389/fimmu.2021.757674] [PMID] [PMCID]
- [5] Hough KP, Chanda D, Duncan SR, Thannickal VJ, Deshane JS. Exosomes in immunoregulation of chronic lung diseases. Allergy. 2017; 72(4):534-544. [DOI:10.1111/all.13086] [PMID] [PMCID]

* Corresponding Author:

Tooba Ghazanfari, professor.

Address: Immunoregulation Research Center, Shahed University, Tehran, Iran.

Phone: +98 (21) 66418216

E-mail: tghazanfari@yahoo.com



Copyright © 2023 The Author(s);

This is an open access article distributed under the terms of the Creative Commons Attribution License (CC-BY-NC: <https://creativecommons.org/licenses/by-nc/4.0/legalcode.en>), which permits use, distribution, and reproduction in any medium, provided the original work is properly cited and is not used for commercial purposes.

This Page Intentionally Left Blank