OPEN ACCESS Freely available online

Journal of Biomolecular Research & Therapeutics

Editorial

Editorial Note on Immunobiology

Bindu Madhavi

Department of Biotechnology, Vignan's University, Vadlamudi, Andhra Pradesh, India

EDITORIAL NOTE

Immunology is a branch of biology that explores how immune systems function in all living things. Immunology maps, analyses, and contextualizes the immune system's physiological functioning in both health and disease; immune system malfunctions in immunological disorders; and the physical, chemical, and physiological features of immune system components *in vitro, in vivo* and *in situ*. Immunology is used in a wide range of medical areas, including organ transplantation, oncology, rheumatology, virology, bacteriology, parasitology, psychiatry, and dermatology.

Early physicians characterized organs that would later be shown to be important components of the immune system prior to the classification of immunity, which comes from the etymological root immunis, which means "exempt" in Latin. The thymus, bone marrow, and chief lymphatic tissues such as the spleen, tonsils, lymph vessels, lymph nodes, adenoids, and liver are essential lymphoid organs of the immune system. Parts of the immune system organs, such as the thymus, spleen, bone marrow, lymph nodes, and other lymphatic tissues, may be surgically excised for analysis when patients are still alive when health problems escalate to emergency level. Many immune system components are cellular in nature and are not related to any particular organ.

The ability of the body to respond to antigens is influenced by a person's age, antigen type, maternal influences, and the environment in which the antigen is presented. Since both their innate and adaptive immune responses are significantly inhibited, neonates are said to be in a state of physiological immunodeficiency. Protein antigens are well-received by a child's immune system after birth, but glycoproteins and polysaccharides are not. In reality, low-virulence species like *Staphylococcus* and *Pseudomonas* cause a large number of infections in newborns. Opsonic activity and the ability to trigger the complement cascade in neonates are extremely restricted. Immunotherapy is the use of immune system components or antigens to treat a disease or condition. Allergies, autoimmune diseases like Crohn's disease and rheumatoid arthritis, and some cancers are all treated through immunotherapy. Immunotherapy is also often used in immune compromised individuals (such as HIV patients) and those with other immune deficiencies.

The analysis of the immune system's interaction with cancer cells can lead to diagnostic tests and therapies for detecting and treating cancer. Immunology is the study of the physiological reactions that characterize the immune system. The study of immunological aspects of the reproductive process, including foetus acceptance, is the focus of this branch of immunology. Fertility clinics have also used the term to refer to concerns like infertility, repeated miscarriages, premature births, and dangerous conditions like pre-eclampsia.

Correspondence to: Bindu Madhavi, Department of Biotechnology, Vignan's University, Vadlamudi, Andhra Pradesh, India.

Received: March 04, 2021; **Accepted:** March 11, 2021; **Published:** March 15, 2021

Citation: Madhavi B (2021) Editorial Note on Immunobiology. J Biol Res Ther. 10:196