

Special Issue

Major Histocompatibility Complex Antigens in Disease

Message from the Guest Editors

Major histocompatibility complex (MHC) antigens are crucial in adaptive immune response to infections, cancers, autoimmune diseases, aging, and chronic conditions. Human MHC genes are divided into Class I, II, and III. **Human leukocyte antigen (HLA)** genes, in both the Class I and II regions, encode proteins responsible for presenting peptide antigens to T cells, thereby triggering immune responses. Non-classical HLA, like **HLA-E, HLA-F, and HLA-G**, also have roles in disease but remain under-researched. Many **Class III** genes, such as those that code for cytokines and complement proteins, are involved in immune response, inflammation and disease. **MHC transposable elements (TEs)** are important sources of tumor-specific antigens. For this Special Issue on “Major Histocompatibility Complex Antigens in Disease”, we welcome submissions exploring the link between MHC antigens and disease. We seek to advance understanding of MHC antigen function and disease across various vertebrates, including sharks, fish, birds, reptiles, monotremes, non-primate mammals, primates, and humans.

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