

Special Issue

The Unresolved Molecular Bases of Major Histocompatibility Complex (MHC) Function with Transplantation and Diseases Linkage

Message from the Guest Editor

MHC is a group of genes that encode proteins responsible for the regulation of the immune response. The MHC function of presenting microbial and other peptides to immune-competent cells to start an immune response was mostly discovered with mouse experiments. Only hypotheses are available to explain HLA and the particular autoimmune disease statistical association to certain HLA alleles or groups of alleles. These explanations for such associations are highly speculative, mainly used in vitro experiments, and the therapies for these diseases have been somewhat stuck over the years. The molecular physiopathology of HLA and transplantation outcomes and disease linkage needs to be discovered, and research in these fields is urgent since, for example, the statistical linkage of MHC and disease was already discovered more than 50 years ago, and many of the autoimmune-linked diseases are still treated like in the early years with scarce success.

In the present Special Issue, we aim to gather research addressing all these points, not only including human and animal pathology but also including phylogeny comparisons between the MHC and evolution of different animals.

Guest Editor

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