



## Human Leukocyte Antigen (HLA)—Antigen Interactions in Vaccine Development

Guest Editor:

**Prof. Dr. Apostolos P.  
Georgopoulos**

Department of Neuroscience,  
Brain Sciences Center, University  
of Minnesota Medical School,  
Minneapolis, MN 55455, USA

Deadline for manuscript  
submissions:

**12 November 2024**

### Message from the Guest Editor

Dear Colleagues,

Vaccines are used to prevent illnesses caused by pathogens. Vaccines contain antigens of pathogens that induce the host to produce antibodies against them. The success of vaccines in prevention or therapy depends on the ability of the host to make antibodies against the vaccine antigen(s). In turn, this depends on host immunogenetics, i.e., the availability of human leukocyte antigen (HLA) alleles that can form a complex with the antigen (or its fragments) to engage CD4<sup>+</sup> T lymphocytes and then B cells for antibody formation. Thus, this antigen–HLA interaction is critical for the production of antibodies and success of the vaccine. This Special Issue centers on this association between vaccine antigens and HLA molecules that initiate antibody production. This journal welcomes original research articles and reviews on research areas focusing on antigen–HLA interactions in vaccine development and vaccine effectiveness. Research or review articles on the role of HLA in antigen presentation, antibody production, and vaccine effectiveness are welcome.





an Open Access Journal by MDPI

## Editor-in-Chief

### **Prof. Dr. Ralph A. Tripp**

Department of Infectious  
Diseases, College of Veterinary  
Medicine, University of Georgia,  
Athens, GA 30602-7387, USA

## Message from the Editor-in-Chief

*Vaccines* (ISSN 2076-393X) has had a 6-year history of publishing peer-reviewed state of the art research that advances the knowledge of immunology in human disease protection. Immunotherapeutics, prophylactic vaccines, immunomodulators, adjuvants and the global differences in regulatory affairs are some of the highlights of the research published that have shaped global health. Our open access policy allows all researchers and interested parties to immediately scrutinize the rigorous evidence our publications have to offer. We are proud to present the work and perspectives of many to contribute to future decisions concerning human health.

## Author Benefits

**Open Access:** free for readers, with **article processing charges (APC)** paid by authors or their institutions.

**High Visibility:** indexed within **Scopus**, **SCIE (Web of Science)**, **PubMed**, **PMC**, **Embase**, **CAPLus / SciFinder**, and **other databases**.

**Journal Rank:** JCR - Q1 (*Immunology*) / CiteScore - Q1 (*Pharmacology (medical)*)

## Contact Us

---

*Vaccines* Editorial Office  
MDPI, St. Alban-Anlage 66  
4052 Basel, Switzerland

Tel: +41 61 683 77 34  
[www.mdpi.com](http://www.mdpi.com)

[mdpi.com/journal/vaccines](http://mdpi.com/journal/vaccines)  
[vaccines@mdpi.com](mailto:vaccines@mdpi.com)