



## **COVID-19 Vaccines: From Immune Escape to Neutralizing Antibody-Based Therapeutics to Sterilizing Immunity**

Guest Editor:

### **Dr. Fabrizio Maggi**

1. Department of Medicine and Surgery, University of Insubria, Varese, Italy  
2. Laboratory of Virology, National Institute for Infectious Diseases L. Spallanzani, Rome, Italy

Deadline for manuscript submissions:

**closed (25 July 2022)**

### **Message from the Guest Editor**

The COVID-19 pandemic has been largely contained thanks to massive deployment of anti-spike vaccines. Different technologies have been in place, but none of them has been convincingly able to induce sterilizing mucosal immunity. Transmission of infection from vaccines to nonresponding immunosuppressed patients at risk for severe COVID-19 demands the development of next-generation mucosal vaccines able to induce sterilizing immunity. Mucosal vaccines come with additional benefits, such as oral route, home self-administration, and no need for needles or refrigeration chains. These manufacturing efforts are nevertheless halted by the ongoing evolution of the spike protein. Clinical experiences with neutralizing antibody-based therapeutics (i.e., anti-RBD monoclonal antibodies and convalescent plasma) have largely contributed to identifying the critical residues within the spike proteins which should be monitored for vaccine resistance.





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**, **CAPus / 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)