



## mRNA-Based Vaccine Development

Guest Editors:

### **Dr. Arun Kumar**

Vaccine Research and  
Development, Coalition for  
Epidemic Preparedness  
Innovations (CEPI), 0277 Oslo,  
Norway

### **Dr. Martina Ochs**

Vaccine Research and  
Development, Coalition for  
Epidemic Preparedness  
Innovations (CEPI), London NW1  
2BE, UK

Deadline for manuscript  
submissions:

**31 July 2024**

### **Message from the Guest Editors**

Dear Colleagues,

The COVID-19 pandemic has had a devastating impact worldwide, causing widespread illness, loss of life, and economic hardship. However, the rapid development of mRNA technology platforms has offered a glimmer of hope in the fight against the pandemic. Two of the most widely administered vaccines against SARS-CoV-2 are based on mRNA technology, highlighting the potential of this innovative approach for preventing and controlling future epidemics and pandemics. While mRNA-based vaccines have shown promising results, there are still significant challenges including, e.g., the sub-optimal expression of antigens *in vivo*, stability at ultra cold temperatures, higher cost of goods, etc.

Advancements in the existing mRNA technology and the fostering of innovative approaches are key to facilitating the discovery and development of improved vaccines. The scope of this topic will include original articles related to improving mRNA replicons/constructs, finding ways to improve immunogenicity and reduce reactogenicity, investigating targeted delivery, formulation strategies, exploring alternative routes of administration, reducing vaccine development timelines and more.





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)