

Special Issue

Recent Scientific Advances in Plant-Based Vaccines

Message from the Guest Editors

In the early 1990s, the concept of using transgenic plants for 'edible' vaccines and immunotherapeutics gained momentum, leading to what we now call 'molecular pharming.' Notable milestones include the licensing of the first plant-made veterinary vaccine in 2006 (targeting Newcastle Disease Virus) and the first human drug in 2012 (glucocerebrosidase for Gaucher's disease). Advancements in plant molecular biology, especially transient transfection platforms, accelerated the field, culminating in the first plant-made human vaccine for SARS-COV-2 in 2022. This Special Issue highlights recent progress in using whole plants, plant-derived cells, and materials (like protein and lipid adjuvants) to create vaccines for humans and animals. We welcome submissions on prophylactic and therapeutic vaccines, process development, non-clinical and clinical research, and advances in plant molecular biology. We invite you to contribute an original report, observation, or review on plant-based vaccine production.

Guest Editors

Prof. Dr. Brian Ward

Research Institute of the McGill University Health Centre, Montreal, QC H4A 3J1, Canada

Dr. Marc-André D'Aoust

Consultant, Medicago Inc., Québec, QC G1V 3V9, Canada

Dr. Sandiswa Mbewana

Biopharming Research Unit, University of Cape Town, Cape Town 7700, South Africa

Deadline for manuscript submissions

closed (30 April 2024)



Vaccines

an Open Access Journal
by MDPI

Impact Factor 3.4
CiteScore 9.9
Indexed in PubMed



mdpi.com/si/185767

Vaccines
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
vaccines@mdpi.com

[mdpi.com/journal/
vaccines](https://mdpi.com/journal/vaccines)





Vaccines

an Open Access Journal
by MDPI

Impact Factor 3.4
CiteScore 9.9
Indexed in PubMed



[mdpi.com/journal/
vaccines](https://mdpi.com/journal/vaccines)



About the Journal

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.

Editor-in-Chief

Prof. Dr. Ger Rijkers

Department of Health, Cognition and Behavior, University College
Roosevelt, 4331 CB Middelburg, The Netherlands

Author Benefits

High Visibility:

indexed within Scopus, SCIE (Web of Science), PubMed, PMC, Embase, CAPlus / SciFinder, and other databases.

Journal Rank:

JCR - Q2 (Medicine, Research and Experimental) /
CiteScore - Q1 (Pharmacology (medical))

Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 18.1 days after submission; acceptance to publication is undertaken in 2.8 days (median values for papers published in this journal in the second half of 2025).