



## Non-invasive Biopharmaceutical/Vaccine Delivery Systems and Formulation Strategies

Guest Editors:

**Prof. Dr. Hyo-Jick Choi**

Department of Chemical & Materials Engineering, University of Alberta, Donadeo Innovation Center for Engineering, 13-281, 9211-116 St., Edmonton, AB T6G 1H9, Canada

**Prof. Dr. Fu-Shi Quan**

1. Department of Medical Zoology, Kyung Hee University School of Medicine, Seoul 02447, Korea  
2. Medical Research Center for Bioreaction to Reactive Oxygen Species and Biomedical Science Institute, School of Medicine, Graduate School, Kyung Hee University, Seoul 02447, Korea

Deadline for manuscript submissions:  
**closed (20 August 2023)**

### Message from the Guest Editors

This Special Issue focuses on developing a universally applicable, efficient, and non-invasive biopharmaceutical/vaccine delivery system and formulations. The extensive potential of highly effective, long-term, thermally stable, liquid or solid-type drugs arises from their dose-sparing effect, the ability to stockpile, the lack of any need for cold-chain storage/transportation, and self-administration.

This Special Issue should be of immediate interest to a diverse readership, including those interested in non-invasive drug/vaccine technology for a wide range of biopharmaceuticals (i.e., genes, peptides, proteins, virus, cells, etc.).

For the purpose of this Special Issue, the submission of any original research articles and reviews on non-invasive biopharmaceuticals/vaccines (oral, transdermal, and intranasal) will be highly appreciated. Research areas may include (but not limited to) the following: drug/vaccine manufacturing, stability, formulation, administration routes, delivery system, and dose-sparing technology.

We look forward to receiving your contributions.

Prof. Dr. Hyo-Jick Choi  
Prof. Dr. Fu-Shi Quan  
Guest Editors





an Open Access Journal by MDPI

## Editor-in-Chief

### Prof. Dr. Patrick J. Sinko

Department of Pharmaceutics,  
Ernest Mario School of  
Pharmacy, Rutgers University,  
Piscataway, NJ 08854, USA

## Message from the Editor-in-Chief

*Pharmaceutics* (ISSN 1999-4923) is an online open access journal on the science and technology of pharmaceutics and biopharmaceutics. The scientific community, the wider community and the general public have unlimited and free access to the content as soon as a paper is published; this open access to your research ensures your findings are shared with the widest possible audience. Please consider publishing your impressive work in this high quality journal. We would be pleased to welcome you as one of our authors.

## 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 (*Pharmacology & Pharmacy*) / CiteScore - Q1 (*Pharmaceutical Science*)

## Contact Us

---

*Pharmaceutics*  
MDPI, St. Alban-Anlage 66  
4052 Basel, Switzerland

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

[mdpi.com/journal/pharmaceutics](http://mdpi.com/journal/pharmaceutics)  
[pharmaceutics@mdpi.com](mailto:pharmaceutics@mdpi.com)  
[@MDPIpharma](https://twitter.com/MDPIpharma)