

Special Issue

Micro/Nano-Bubbles as a New Ultrasound Imaging and Drug Delivery Tool

Message from the Guest Editor

Recently various types of microbubbles and nanobubbles for ultrasound contrast imaging have been under development. The advantage of small bubbles is their capability to easily perfuse into the capillaries, resulting in images of biological tissues. These bubbles can become a superior ultrasound contrast agent. Other than the size, shelled and non-shelled bubbles have shown different acoustic characters, ultrasound images, and biological reactions. Utilizing bubble-shell material may permit molecular targeting and imaging. Another aspect of bubbles is their ability to carry drugs to a specific location within the body. The collapse of bubbles due to high intensity-focused ultrasound in a localized area can induce the sonoporation phenomenon, resulting in the opening of a hard-to-penetrate blood-brain barrier or increasing cell membrane permeability. Although the mechanism of sonoporation and imaging of nanobubbles are not known, combining ultrasound and bubbles may prove to be an ideal, non-invasive therapy/diagnosis modality. This Special Issue invites manuscripts on subjects relating to ultrasound imaging and drug-delivery systems by means of micro and nano-bubbles.

Guest Editor

Prof. Katsuro Tachibana

Department of Anatomy, Fukuoka University Faculty of Medicine,
Fukuoka, Japan

Deadline for manuscript submissions

closed (15 April 2019)



Pharmaceutics

an Open Access Journal
by MDPI

Impact Factor 5.5
CiteScore 10.0
Indexed in PubMed



mdpi.com/si/20558

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

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





Pharmaceutics

an Open Access Journal
by MDPI

Impact Factor 5.5
CiteScore 10.0
Indexed in PubMed



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



About the Journal

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.

Editor-in-Chief

Prof. Dr. Patrick J. Sinko
Department of Pharmaceutics, Ernest Mario School of Pharmacy,
Rutgers University, Piscataway, NJ 08854, USA

Author Benefits

High Visibility:

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

Journal Rank:

JCR - Q1 (Pharmacology and Pharmacy) / CiteScore - Q1
(Pharmaceutical Science)

Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 14.9 days after submission; acceptance to publication is undertaken in 3.3 days (median values for papers published in this journal in the first half of 2025).