



Symbiotic Materials for Pharmaceutics

Guest Editors:

Prof. Dr. Asako Yamayoshi

Graduate School of Biomedical Sciences, Nagasaki University, 1-14 Bunkyo-machi, Nagasaki-shi, Nagasaki 852-8521, Japan

Prof. Dr. Mitsuhiro Ebara

Research Center for Functional Materials (RCFM), National Institute for Materials Science (NIMS), 1-1 Namiki, Tsukuba 305-0044, Japan

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Message from the Guest Editors

Dear Colleagues,

The human body encompasses amazing symbiotic relationships with several organisms, the relationship between a mother and her unborn baby being one such remarkable interaction. The mother does not reject her fetus, even though the fetus is a completely separate organism. In contrast, although research on many different types of functional molecules has been realized, the mechanisms of the symbiosis between humans and non-self molecules/materials is less understood; even highly optimized advanced drugs exhibit immunogenicity in some cases, which has become a major challenge for clinical applications.

In this Special Issue, we refer to the symbiosis between human living cells and materials as “material symbiosis”. We aim to elucidate relationships between biomolecules and materials in terms of biophysical chemistry and review the development of biomaterials that exhibit desired relationships with biomolecules or living cells. We hope this Special Issue will act as an effective design guideline for materials and drugs to avoid conventional side effects.

Prof. Dr. Asako Yamayoshi

Prof. Dr. Mitsuhiro Ebara

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Editor-in-Chief

Prof. Dr. Patrick J. Sinko

Ernest Mario School of
Pharmacy, Rutgers, The State
University of New Jersey, William
Levine Hall, Room 225C, 160
Frelinghuysen Road, Piscataway,
NJ 08854-8020, USA

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Contact Us

Pharmaceutics Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

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