Special Issue

Symbiotic Materials for Pharmaceutics

Message from the Guest Editors

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.

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Editor-in-Chief

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