Special Issue

Manipulation of Biomaterials to Achieve New Functionality: From Chemical to Physical Approaches

Message from the Guest Editor

Bioengineers have continued to develop novel chemical and physical approaches to manipulate biomaterials such that they may aid in tissue regeneration, enable delivery of bioactive molecules or cells, and tackle healthcare challenges such as antimicrobial resistance. The development of novel fabrication methods, chemical modifications, and new ways to manipulate biomaterials in 3D is supporting innovation in next-generation healthcare technologies. These advances are also aiding our basic understanding of the mechanisms involved in tissue repair. The development of biomaterials with unprecedented functionality offers great potential to impact the treatment of numerous diseases and, through translational efforts, to change clinical practice. This Special Issue is focused on recent advances in the manipulation of biomaterials, either through chemical modification or physical structuring, to enhance performance. Achieving new properties through these approaches offers exciting opportunities to tackle a range of bioengineering challenges, including tissue regeneration and infection control. Contributions from early-career researchers are especially encouraged.

Guest Editor

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Editor-in-Chief

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