



Recent Advances in Hydrogels for Biomedical Applications

Guest Editor:

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Deadline for manuscript
submissions:

closed (20 August 2023)

Message from the Guest Editor

Dear Colleagues,

Rapid development of hydrogels is revolutionizing medicine. Hydrogel scaffolds are finding applications in well-established biomedical areas, such as stem cell patterning, drug delivery, neural engineering and organoid development. Hydrogel materials have adjustable electrical, mechanical, and chemical properties. This flexibility provides opportunities to recapitulate three dimensional microenvironments that are native to a variety of tissues and stem cells. Furthermore, recent advancements in 3D printing technology have improved the accuracy and complexity of fabricated cell-laden scaffolds, which can now resemble different organs with high precision and are used as research tools or transplants.

In this Special Issue, we are publishing recent developments in hydrogel applications. Example areas include implantable devices, targeted delivery of growth factors and/or drugs, stem cell differentiation and organoid development. We are also interested in hydrogel scaffolds used as in vitro models to investigate electrical, mechanical and chemical interactions in different tissues (e.g., nervous system).





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Message from the Editor-in-Chief

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