

Biomimetic Hydrogels to Recapitulate the 3D Cellular Microenvironment

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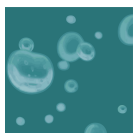
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Message from the Guest Editor

The versatility of hydrogel materials in recapitulating these microenvironmental features makes them attractive platforms for culturing cells in physiologically relevant 3D contexts *ex vivo*. Biomimetic engineered hydrogel platforms are being investigated as culture systems to expand, differentiate, and transplant stem cells for therapeutic applications, as *in vitro* models to study the underlying biology of development and disease, and as drug screening and diagnostic tools.

This Special Issue focuses on the development of hydrogel platforms that mimic aspects of the native cellular microenvironment. Emphasis is placed on novel methods for controlling hydrogel biochemical and biophysical properties, such as development of new chemistries to crosslink and functionalize cell-laden hydrogels, protein-engineered materials, self-assembling materials, and additive manufacturing approaches to impart spatial organization in engineered constructs.





gels



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Message from the Editor-in-Chief

Gels (ISSN 2310-2861) is recently established international, open access journal on physical and chemical gel-based materials. The journal aim is to encourage scientists to publish their experimental and theoretical results in as much detail as possible. General topics include but not limited to synthesis, characterization and applications of new organogels, hydrogels and ionic gels made either from low molecular weight compounds or polymers, composite and hybrid materials where a metal is by some means incorporated into the gel network, and computational studies of these materials in order to provide a better understanding of gelation mechanism. We cordially invite you to consider publishing with us and contribute with your own grain of sand to the advance in this fascinating field.

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