

Special Issue

Advances in Hydrogels for Tissue Engineering

Message from the Guest Editors

Tissue engineering and so-called advanced therapy medicinal products offer groundbreaking new opportunities for the treatment and understanding of disease and injuries. Over the last few decades, there have been tremendous advances in the generation of new tissue models that are increasingly biomimetic and functional. Manufacturing techniques usually combine biomimetic materials, patterning methods, bioactive chemical molecules, and cells to generate new therapeutic substitutes or disease models.

In this context, hydrogels have been postulated as one of the biomaterials that are most faithfully capable of simulating the native extracellular matrix of tissues. The high hydration rate of these polymeric scaffolds provides the ideal supramolecular microenvironment for cell survival, proliferation, communication, and differentiation. Due to the hydration and diffusion control of the 3D structure of hydrogels, they have also been used as drug delivery systems.

This Special Issue aims to collect original comprehensive reviews and research articles focused on hydrogel manufacturing for tissue engineering applications.

Guest Editors

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About the Journal

Message from the Editorial Board

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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