

## Special Issue

# Hydrogels with Advanced Functionalities for Application in Regenerative Medicine and Tissue Engineering

### Message from the Guest Editors

This Special Issue is dedicated to bioengineers developing new hydrogels with advanced functionalities for application in the regenerative medicine and tissue engineering fields. Hydrogels are biomaterials of reference in the field of tissue engineering and regenerative medicine; they are a tridimensional network of crosslinked polymer chains which has attracted bioengineers to use hydrogels for biomedical purposes. Since then, first-generation hydrogels with physical-chemical, mechanical and biological properties have appeared. The control of hydrogels' rheological and mechanical properties came to be of particular interest since the revolution of 3D bioprinting. Smart, stimuli-responsive hydrogels capable of responding to a stimulus with a specific behavior also present a great potential as biosensors. All these frontline strategies enrich the state-of-the-art of hydrogels and bring new opportunities to the regenerative medicine and tissue engineering fields. We welcome submissions in this field and look forward to learning the knowledge these new works will provide. For more information, please visit: [mdpi.com/si/116411](https://mdpi.com/si/116411)

### Guest Editors

Dr. Lucília P. da Silva

Dr. Alexandra P. Marques

Prof. Dr. Rui L. Reis

### Deadline for manuscript submissions

closed (31 May 2023)



## Gels

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## About the Journal

### 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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### Editor-in-Chief

Prof. Dr. Esmail Jabbari

Biomimetic Materials and Tissue Engineering Laboratory, Department of Chemical Engineering, University of South Carolina, Columbia, SC 29208, USA

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