

## Special Issue

# Rational Design and Applications of Hydrogels in Regenerative Medicine

### Message from the Guest Editors

This Special Issue on “Rational Design and Applications of Hydrogels in Regenerative Medicine” focuses on recent advancements in the synthesis, characterization, and application of advanced hydrogels within regenerative medicine. Various tissue targets, including soft tissues, cartilage, bone, and overall musculoskeletal tissues, will be discussed. The goal is to gather works that design advanced biomaterials in the form of hydrogels for specific applications after carefully examining the target tissue characteristics. To advance this field, interdisciplinary efforts are required to enhance our understanding of tissue features that influence hydrogel behavior, allowing us to tailor material properties effectively. A thorough characterization of produced hydrogels is essential, covering physical, chemical, and morphological analysis, rheology, mechanical and tribological properties, and biocompatibility assessments. It is hoped that this topic will stimulate new research and discoveries in the synthetic and natural hydrogel field.

### Guest Editors

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### Deadline for manuscript submissions

30 April 2026



## Gels

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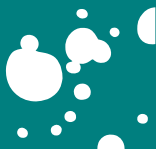


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## About the Journal

### 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

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