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Viscoelastic Hydrogels in Regenerative Medicine

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Message from the Guest Editor

This Special Issue on “Viscoelastic Gels in Tissue Regeneration” is dedicated to recent developments in the synthesis, characterization, and regenerative medicine applications of viscoelastic gels.

Biological soft tissues are typically viscoelastic and exhibit characteristic stress relaxation at different time scales. For ideal regenerative medicine, the implant should have appropriate mechanical properties that match the biological tissue and facilitate new tissue in replacing the implant to achieve tissue repair. Driven by clinical desire, research on viscoelastic hydrogels has shown explosive growth in recent years. Crosslinking through dynamic bonds (ionic bonds, dynamic covalent bonds, van der Waals forces, hydrogen bonds, etc.) offers viscoelastic hydrogels with different characteristic time scales.

We believe that advanced viscoelastic hydrogels will greatly promote the development of regenerative medicine and help people to gain a deeper understanding of biological processes. We look forward to the submission of new results on viscoelastic hydrogels. The submission of both advanced gel synthesis and biomedical application is welcome.



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Special Issue



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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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