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Development of Nanogels/Microgels for Regenerative Medicine

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Message from the Guest Editors

In recent years, enormous growth in nano-material technology and science has been attained in the biomedical field. For example, nanosized hydrogels, so-called nanogels, have been reported to provide a feasible drug-delivery system that enables the efficient transfer of chemotherapeutics and short interfering RNA, and slow-release anti-bacterial peptide, growth factors and cytokines on-site. Through the functions, nanogels can inhibit tumor growth, and enhance wound-healing and blood vessel regeneration. Moreover, nanogels are also used as a scaffold for tissue engineering, including bone, cardiac and urethra tissue regeneration. In general, nanogels are highly biocompatible and biodegradable. Nanogels are also considered to be excellent scaffolds for preparing composites as a novel class of advanced materials, which comprise both nanogels and other constituents, such as polymers or inorganic nanoparticles. Thus, the development of nanogels and their effective application will play an important role in the regenerative medicine field.



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Special Issue



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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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