



Carbon-Based Nanomaterials for Bone Regeneration

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Message from the Guest Editor

Carbon nanomaterials have attracted a great deal of attention in the biological and medical science fields because of their unique physical and biological properties. Carbon nanomaterials possess high biocompatibility with bone tissue, and possible roles in bone regeneration have already been identified. Moreover, many composite materials developed using carbon nanomaterials are being tested as scaffolds and fillers for bone tissue regeneration. Since bony nonunion and large skeletal defects created by tumors, trauma, and congenital malformations are sometimes impossible to repair, clinicians are in need of innovative technologies for bone regeneration. This Special Issue invites all manuscripts involving the direct effects of carbon nanomaterials and their composites in bone tissue and cells *in vivo* and *in vitro*, the availability of such materials for scaffolding and filler material, and novel suggestions on their clinical implementation. Safety evaluations of the practical application of carbon nanomaterials are also welcome in this issue.





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Message from the Editor-in-Chief

Nanoscience and nanotechnology are exciting fields of research and development, with wide applications to electronic, optical, and magnetic devices, biology, medicine, energy, and defense. At the heart of these fields are the synthesis, characterization, modeling, and applications of new materials with lower nanometer-scale dimensions, which we call “nanomaterials”. These materials can exhibit unusual mesoscopic properties and include nanoparticles, coatings and thin films, metal–organic frameworks, membranes, nano-alloys, quantum dots, self-assemblies, 2D materials such as graphene, and nanotubes. Our journal, *Nanomaterials*, has the goal of publishing the highest quality papers on all aspects of nanomaterial science to an interdisciplinary scientific audience. All of our articles are published with rigorous refereeing and open access.

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