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Biomedical Applications of Biodegradable Composites

Guest Editor:

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Message from the Guest Editor

Dear Colleagues,

The use of biodegradable composites is increasing in the biomedical space. Composites, by their nature, impart the beneficial properties of the individual components while overcoming their limitations through the synergistic combination of distinctly different materials. However, the potential of biodegradable composites can only be achieved if there is intimate, uninterrupted contact between the reinforcement and matrix phases of the composite and in the case of nanocomposites exfoliation of the nanoparticles. This can, in itself, be difficult to achieve while retaining the biocompatibility of the final construct, as the matrix and reinforcement agent are generally not compatible. Approaches for this can include the following:

Surface treatment Reactive extrusion Process optimisation

These composites can be used to overcome shortfalls of traditional materials in a variety of applications such as:

Tissue engineering Bone repair Cardiovascular, urinary, and other stents In-situ controlled release of active pharmaceutical ingredients







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Message from the Editor-in-Chief

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