



## Advanced Polymeric Scaffolds Applied in the Biomedical Field

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### Message from the Guest Editors

Every day, hundreds of people around the world suffer trauma or bone diseases that in many cases can only be treated through partial repairs or complete replacement of the affected organ or tissue. Scaffolds mimic the characteristics of the extracellular matrix and allow incorporation into the host body. Bone regeneration requires scaffolds that are porous and mechanically stable to promote tissue integration and angiogenesis, which is essential for tissue regeneration. Scaffolds can be biodegradable, which are completely replaced by new tissue; biocompatible, some of which do not degrade; or bioinert. The biomechanical properties of a scaffold must be compatible with the native tissue, so it is necessary to achieve an optimal balance between shape, quantity, pore size and mechanical strength for the proper formation of new bone tissue. Scaffolds are available in practically all types of materials, among which polymeric materials are notable for their versatility.

In this Special Issue of *Polymers*, we wish to explore the advances made in polymeric scaffolds for biomedical applications, which will undoubtedly move us closer to having a market-ready product.





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