



Bioactive Surfaces and Coatings for Bone Regeneration

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Message from the Guest Editors

Bone regeneration is nowadays bounded to the use of biomaterials that are able to promote tissue regeneration and to degrade after their function has been performed. These biomaterials need to be designed to attract a sufficient number of cells to the site of defect, to regulate the inflammatory response, to induce blood vessel formation, and to finally allow bone cell maturation. [...]

This Special Issue "**Bioactive Surfaces and Coatings for Bone Regeneration**" of journal *Coatings* focuses on the development of bone regenerative strategies based on the design of materials that provide a bioactive surface. Furthermore, the Special Issue also includes coatings that may tune the properties of the biomaterial and provide, thus, signaling molecules that are required to stimulate bone tissue regeneration.

In particular, the topics of interest include, but are not limited to:

- Nano- and mesoporous based materials;
- Surface functionalization strategies;
- Molecule and/or ion releasing coatings;
- Surface modification techniques, including etching or plasma treatment, among others;
- Bioactive ceramic coatings on polymers and substrates.





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Message from the Editorial Board

Now more than ever, research is asked to deliver knowledge and technologies to solve the major challenges faced by our society. The development of new materials and devices for (without the ambition to be exhaustive) energy, health and food technology, together with the need for establishing processes that reduce the impact on critical resources and the environment, is indeed in the spotlight of most contemporary research. Surface science and engineering play a key role in this regard, with an incredible potential in delivering new and deep scientific understanding and technical solutions essential to solve most of the major societal challenges.

Coatings is a well-established, peerreviewed, online journal dedicated to the vibrant field of surface science and engineering. Coatings publishes original research articles that report cutting-edge results and review papers that make the point on the hottest research topics.

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