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Development of Bioactive Materials and Coatings for Biomedical Applications

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Message from the Guest Editors

Dear Colleagues,

An ever-increasing number of cutting-edge biomedical innovations, materials, and items are being created, including metal-based implants and biocompatible coatings, which could replace damaged bones and foster healing.

The surface of implants plays an essential role in the interaction with living tissue. In some cases, fibrous tissue forms at the implant interface, which can lead to its loosening and even loss. The modification of metal implants by coating deposition is one of the most suitable and useful methods for improving their surface properties, such as in terms of biocompatibility and biological activity, to intensify osteoinduction and angiogenesis and prevent bacterial growth. The synthesis of a coating on the metal surface can occur with the help of such methods as electrophoretic deposition, laser ablation, sol-gel, RF-magnetron sputtering, electroplasma spraying, biomimetic coating, hydrothermal deposition, micro-arc oxidation, etc. This Special Issue is focused on recent progress in the development of bioactive materials and coatings on medical implants via various techniques.

Dr. Ekaterina Komarova
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Guest Editors





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Message from the Editor-in-Chief

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