Special Issue

New Antimicrobial Strategies for Medical Implantation

Message from the Guest Editors

Advancements in nanotechnologies have allowed us to develop medical implants with excellent biocompatibility, cell proliferation, and non-inflammatory properties. However, most of the materials generally used for these nanostructures lack antibacterial properties, which play a critical role in avoiding postoperative complications.

Infections in surgical sites, which are rich in nutrients and favorable to bacterial proliferation and biofilm formation, are extremely common, difficult to eradicate, and can induce inflammatory processes with tissue destruction and implant loss. Moreover, antibiotic treatments are often ineffective against bacterial residues and can lead to antibiotic resistance. Therefore, the success of the implant is closely related to the prevention of post-operative infections.

For this purpose, the development of new antimicrobial strategies, also including anti-adhesive and anti-biofilm ones, for medical implants has attracted a great amount of interest.

The aim of this Special Issue is to provide an adequate multidisciplinary platform that aids the development of new antimicrobial strategies for tissue regeneration.

Guest Editors

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"Microorganism" merges the idea of the very small with the idea of the evolving reproducing organism is a unifying principle for the discipline of microbiology. Our journal recognizes the broadly diverse yet connected nature of microorganisms and provides an advanced publishing forum for original articles from scientists involved in high-quality basic and applied research on any prokaryotic or eukaryotic microorganism, and for research on the ecology, genomics and evolution of microbial communities as well as that exploring cultured microorganisms in the laboratory.

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