Special Issue

Engineering Biomaterials with Antimicrobial Properties

Message from the Guest Editors

The emergence of antimicrobial resistance (AMR) has become a serious concern at a global scale that has dramatically increased over the past century partially due to the misuse of antibiotics. Antibiotic efficacy can be highly compromised by several resistance/adaptation mechanisms adopted by microorganisms, such as the formation of a biofilm layer. Hence, game-changing strategies and more in-depth research in engineering biomaterials with antimicrobials properties are required to tackle the rising occurrence of AMR. This issue focuses on biomaterials strategies struggling to limit AMR emergence by outlining promising strategies showcasing an increase in the infection-resistance of biomaterials. The main aim of this Special Issue is to publish original research articles that mitigate the occurrence and/or impact of implant-associated infections through different approaches, including the engineering of an interface between the implant and tissue that discourage the adhesion of microorganisms, the development of alternative antimicrobial agents and also the improvement of drug delivery systems.

Guest Editors

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