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Biomolecules in the Treatment of Biofilm-Related Diseases

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Deadline for manuscript submissions:

30 July 2024

Message from the Guest Editors

Dear Colleagues,

Biofilms are adhesive macrostructures build by various microorganisms together with produced by them extracellular matrix. Studies on classic antimicrobial agents such as antibiotics and disinfectants indicate that microorganisms enclosed in a biofilm are 10 to 1000 times more resistant to their action compared to planktonic form of the same microorganism. This poses a challenge to conventionally used antimicrobials and indicates the need for developing new therapies. Newly developed strategies to combat biofilms on one hand should effectively break the biofilm barrier, on the other, overcome gradually increasing resistance mechanisms, by interfering with new molecular targets.

In this issue, we would like to take up the topic of natural origin substances, which can provide therapy targeted on treatment of biofilm related diseases by interfering with biofilm formation on all stages of this process. The topic of interest includes, but is not limited to: antimicrobial peptides, enzymes, natural-origin small molecules as well as biologically active nanomaterials.













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Message from the Editor-in-Chief

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