Special Issue

Properties, Biosynthesis and Application of Antimicrobial Compounds

Message from the Guest Editors

When in their natural habitat, microorganisms synthesize a large number of compounds that allow them to regulate the number of both the producer strains themselves and other representatives of microbial communities. Antimicrobial agents include antibiotics, proteolytic enzymes complexes, compounds that disrupt the sense of quorum in the microbial population, and a variety of other examples. The ability of microbial strains to synthesize antimicrobial agents is widely deployed in biotechnology to obtain antibiotics, combat phytopathogens and restore the health of biocenoses. The list of microorganisms capable of synthesizing antimicrobial agents is steadily increasing. The most promising in terms of the synthesis of antimicrobial agents are fungi, actinomycetes, bacilli, and lysobacters. It seems likely that research will enable both the obtention of new and effective strains for the production of antibiotic compounds and the development of effective technologies for the production of antimicrobial agents, as well as methods for their use to reduce the chemical load on the environment.

Guest Editors

Dr. Inna P. Solyanikova

Regional Microbiological Center, Belgorod National Research University, 308015 Belgorod, Russia

Dr. Tatiana Abashina

Federal Research Center "Pushchino Scientific Center for Biological Research of the Russian Academy of Sciences", Skryabin Institute of Biochemistry and Physiology of Microorganisms, Russian Academy of Science, 142290 Pushchino, Russia

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Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
ijms@mdpi.com

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Editor-in-Chief

Prof. Dr. Maurizio Battino
Department of Odontostomatologic and Specialized Clinical Sciences, Sez-Biochimica, Faculty of Medicine, Università Politecnica delle Marche, Via Ranieri 65, 60100 Ancona, Italy

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