Special Issue

Actinomycetes: The Antibiotics Producers

Message from the Guest Editors

Actinomycetes are well-known as an inexhaustible source for antibiotics. Most of the identified antimicrobials have been isolated from the genus Streptomyces, however, not the least, next-generation sequencing techniques with genome mining analyses, revealed that there are far more potential antibiotic producers in nature, belonging to other genera of Actinomycetales. Some of them have not been identified as they live in extreme or rare habitats, others have not been made accessible due to the impossibility of cultivating them in a lab. Today, around 75 years after Selman Waksman introduced the genus of Streptomyces for the first time, these bacteria still are a treasure chest for identifying novel antibiotics. This is more important since new antimicrobials are urgently needed, as resistances of live-threatening pathogens are rising. Novel cultivation strategies, elaborated screening techniques, new genetic manipulation tools, more insights in physiological aspects of actinobacterial life style and knowledge on new secondary metabolite biosynthetic pathways may open up a new era of antibiotic discovery. In this Special Issue we highlight the latest findings in the field.

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Message from the Editor-in-Chief

There are very few fields that attract as much attention as scientific endeavor related to antibiotic discovery, use and preservation. The public, patients, scientists, clinicians, policy-makers, NGOs, governments, and supra-governmental organizations are all focusing intensively on it: all are concerned that we use our existing agents more effectively, and develop and evaluate new interventions in time to face emerging challenges for the benefit of present and future generations. We need every discipline to contribute and collaborate: molecular, microbiological, clinical, epidemiological, geographic, economic, social scientific and policy disciples are all key. *Antibiotics* is a nimble, inclusive and rigorous indexed journal as an enabling platform for all who can contribute to solving the greatest broad concerns of the modern world.

Editor-in-Chief

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