Special Issue

Discovery and Development of the Novel Antimicrobial Agent

Message from the Guest Editors

Secondary metabolites, also known as natural products, are produced by a range of species, including bacteria, fungi, and plants. Many medical agents with divergent chemical structures and biological activities such as antibiotic, immunosuppressive, and anti-inflammatory properties have been developed as treatments with potential therapeutic applications for many human diseases. Confronted by the loss of the efficacy of existing antibiotic treatments and the rising incidences of intractable infections and morbidity, there is an urgent need to discover new antibiotic classes that have not been compromised by existing resistance mechanisms. Microbes are a rich source of new drug leads and include polyketides, non-ribosomal peptides, and aminoglycosides. One of the famous microbial polyketides is erythromycin, which was originally isolated from *Streptomyces erythraea*. This antibiotic is prescribed for many human diseases such as syphilis, acne, and whooping cough. Therefore, microbe-derived biologically active natural products and their analogues will continue to inspire the development of new chemical entities.

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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.

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