Special Issue

Carbohydrate-Based Strategies in Antimicrobial Research

Message from the Guest Editor

Among the therapeutic opportunities that carbohydrate-containing molecules and their analogs have provided, their antimicrobial potential has been a focus of intense research, encouraged by the various compounds of these classes approved as antibiotics or as antiviral or antiparasitic drugs. Moreover, the threat of antimicrobial resistance, which remains a major healthcare problem, hindering the ability of drugs to combat microorganisms that cause severe infections, necessitates the discovery and exploitation of novel agents that display alternative mechanisms of action. The relevance of glycostructures at the surfaces of pathogenic microbes for recognition and adhesion, their presence as essential constituents of bacteria and viral envelopes, as well as their role in microbial proliferation make them unique targets for the development of therapeutic approaches using carbohydrate derivatives. In this context, we welcome in this Special Issue contributions illustrating the importance of this topic in antimicrobial therapy research, highlighting recent findings. **Keywords**: carbohydrates; nucleos(t)ides; antibacterial agents; antiviral agents; antiparasitic agents

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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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