Special Issue

Thio Modified Aminoglycoside Antibiotic Analogs

Message from the Guest Editor

Aminoglycoside antibiotics represent a clinically important class of antibiotics, with broad activity against many strains of Gram-negative bacteria. However, pathogens with the resistant strains code for enzymes will often inactivate various aminoglycoside antibiotics via enzymatic phosphorylation, acetylation or adenylation. Indeed, insertion of a sulfur bridge at the specifically designated sugar unit will potentially create molecules that are more biologically active, stable, and hopefully less inactivated by specific enzymes. The main subject of this Special Issue includes articles on specific modification of core structure of the antibiotic unit through thio-functionalization or other functional group modifications. This Special Issue seeks manuscript submissions that further our understanding of antimicrobial resistance by building prototype molecules with little or no resistance at all. In addition, manuscripts describing other structure-related areas of core unit modifications of aminoglycosides are also very welcome. Keywords: thio-neamine; aminoglycosides; thio-functionalization; antimicrobial resistance; phosphorylases

Guest Editor

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Deadline for manuscript submissions

closed (30 November 2021)

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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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