

Special Issue

Latest Progress in the Polymyxin Class of Antibiotics

Message from the Guest Editors

Antibiotic resistance is an urgent global health threat. In particular, multidrug-resistant Gram-negative ‘superbugs’ (e.g., *Klebsiella pneumoniae*, *Pseudomonas aeruginosa* and *Acinetobacter baumannii*) represent the gravest challenges due to their resistance to almost all current antibiotics. Polymyxins (i.e., polymyxin B and colistin) are increasingly used as a last-line of clinical therapy against these life-threatening ‘superbugs’. This Special Issue covers both clinical and mechanistic studies of polymyxins in the following areas:

- Mechanisms of polymyxin antimicrobial activity;
- Mechanisms of bacterial resistance to polymyxins;
- Mechanisms of polymyxin-induced toxicity;
- The molecular design of novel polymyxins;
- The discovery of novel polymyxin-like antibiotics;
- The clinical usage of polymyxins (dose optimisation, therapeutic drug monitoring, adverse effects);
- The combination therapy of polymyxins with other antibiotics/non-antibiotics;
- Breakpoints of polymyxins;
- Novel formulations of polymyxins.

Guest Editors

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Deadline for manuscript submissions

closed (28 February 2023)



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About the Journal

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 disciplines 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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