



Optimizing Antibiotics' Pharmacokinetic/Pharmacodynamic (PK/PD) and Tissue Concentrations

Guest Editors:

Dr. Mehran Monchi

Department of Intensive Care
Medicine, Centre Hospitalier de
Melun-Senart, Melun, France

Dr. Sylvain Diamantis

Department of Infectious
Diseases, Centre Hospitalier de
Melun-Senart, Melun, France

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Message from the Guest Editors

Low target tissue concentrations of antibiotics are associated with incomplete clinical response and the emergence of multi-drug-resistant (MDR) pathogenic bacteria. Treating increasingly resistant bacteria cannot be based only on the development of new drugs. Optimization of dosage regimen of old drugs and drug combinations offer interesting alternatives to costly new drugs. Pharmacokinetic/pharmacodynamic (PK/PD) parameters can optimize tissue concentrations and predict the clinical antibacterial efficacy. Conceptually, the appropriate application of PK/PD principles has potential to improve the outcomes, extending the usage life of available antibiotics.

Some infected tissues are studied today with more specific methods of measurement of tissue concentrations such as microdialysis, and the blood–brain barrier is intensively investigated to optimize central nervous system concentration of antibiotics.





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Editor-in-Chief

Prof. Dr. Nicholas Dixon

School of Chemistry and
Molecular Bioscience, University
of Wollongong, Wollongong, NSW
2522, Australia

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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Antibiotics Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

Tel: +41 61 683 77 34
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