



Antibiotic Targets in Bacterial DNA Replication and Cell Division

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Message from the Guest Editors

Dear Colleagues,

This issue of Antibiotics is dedicated to the topics of Bacterial DNA Replication and Cell Division and Inhibitors of these processes. Following replication initiation, for most bacteria governed by the DnaA protein, replication of the bacterial chromosome is carried out by a multi-protein complex called the replisome, which is present in only few copies per cell. The proteins involved in DNA replication should provide an attractive target for antimicrobial inhibition and yet only antibiotics that indirectly target the replication process are in clinical use. These inhibit the type-II topoisomerases that relieve topological stress created by DNA unwinding and decatenate daughter chromosomes prior to cell division.

This Special Issue summarizes current knowledge of bacterial DNA replication and cell division, and their inhibition by antimicrobials. It is our pleasure to invite submissions of high quality primary research manuscripts and review articles addressing the molecular mechanisms of bacterial DNA replication and cell division, their coordination and regulation, and their inhibition by established drugs and novel compounds.





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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 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.

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