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Bacteriophage Lysins in the Era of Antibiotic Resistance

Guest Editor:

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Message from the Guest Editor

Dear Colleagues,

The World Health Organization has listed microbial resistance to antibiotics among the major global health threats. It is not rare to see infections caused by bacteria resistant to all of the current antibiotics, leading to increased morbidity and mortality. This global challenge is provoking a high interest in seeking alternatives to traditional antibiotics. Bacteriophage lysins are hydrolytic enzymes capable of specifically recognizing the bacterial cell wall to cleave peptidoglycan for the release of progeny virions during the lytic cycle of bacteriophage. The advantages of lysins include fast bactericidal activity and low chance for bacteria to generate resistance. The aim of this Special Issue is to provide readers with an updated overview of the field, highlighting the most recent advances in lysin research.

We welcome contributions including, but not limited to, the following topics:

- Discovery and engineering variants of lysins;
- Synergistic combinations with other antimicrobials;
- Safety and host immune response;
- Development of lysins into pharmaceutical products;
- Other applications of lysins, such as in agriculture and cosmetics.









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Editor-in-Chief

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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 supragovernmental 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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