Special Issue

Phage Engineering: Pioneering Advances in Biomedical and Environmental Fields

Message from the Guest Editor

Phage engineering is as a groundbreaking area of biotechnology which leverages the specialized abilities of bacteriophages, the viruses that target and multiply within bacteria. The essence of phage engineering involves modifying phage genomes to boost their innate properties or provide them with new capabilities. Phage engineering has particularly promising applications in healthcare, especially for treating bacterial infections that are resistant to standard antibiotics. Phage therapy, or the use of phages to combat bacterial infections, presents a focused, effective, and environmentally friendly alternative to traditional antibiotics. Engineered phages can also be tailored to bypass bacterial defense strategies, thereby improving success rates in eliminating harmful bacteria. Furthermore, phages can be modified to carry genes encoding for antibacterial enzymes or antibiotics, thus enhancing their antimicrobial efficacy. We are seeking original research and review articles on phages. Contributions should explore the molecular sciences behind phage applications in the biomedical, industrial, and environmental arenas.

Guest Editor

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The International Journal of Molecular Sciences (*IJMS*, ISSN 1422-0067) is an open access journal, which was established in 2000. The journal aims to provide a forum for scholarly research on a range of topics, including biochemistry, molecular and cell biology, molecular biophysics, molecular medicine, and all aspects of molecular research in chemistry. *IJMS* publishes both original research and review articles, and regularly publishes special issues to highlight advances at the cutting edge of research. We invite you to read recent articles published in *IJMS* and consider publishing your next paper with us.

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