

Abstract Template

Title (Insert your title here, keep it concise and avoid any abbreviations; Font: Times New Roman, Size: 14)

[**Author 1 Name**]¹, [Author 2 Name]², [Author 3 Name]³

¹ [Affiliation for Author 1, including department, institution, city, and country]

² [Affiliation for Author 2]

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Abstract (200 words maximum, Font: Times New Roman, Size:12)

[Provide a concise and clear summary of the research. Include the following points, where applicable:

- **Introduction:** Briefly introduce the research problem and its significance.
- **Objectives:** State the aim(s) of the research.
- **Methods:** Summarize the key methods and approaches used in the study.
- **Results:** Provide an overview of the main findings (without going into too much detail).
- **Conclusion:** Conclude with the implications of the results and their relevance to the field or future research.]

Keywords (Provide 3-5 keywords relevant to the research)

Example Abstract Template

Antimicrobial Activity of Bacteriophage-Derived Enzymes Against Multidrug-Resistant Bacteria

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Abstract (200 words maximum)

The rise of multidrug-resistant (MDR) bacteria poses a significant global health threat, creating an urgent need for alternative antimicrobial therapies. Bacteriophages, viruses that infect bacteria, produce enzymes known as lysins, which degrade bacterial cell walls. This study explores the antimicrobial potential of bacteriophage-derived lysins against MDR pathogens, particularly *Staphylococcus aureus* and *Pseudomonas aeruginosa*. Lysins were cloned and expressed from bacteriophages specific to these pathogens. Purified lysins were then tested for their bactericidal activity in vitro using agar diffusion and broth microdilution assays. The results demonstrated a significant reduction in bacterial viability, with lysins exhibiting potent and rapid bactericidal effects against both planktonic cells and biofilms. Moreover, the lysins showed synergy when combined with standard antibiotics, enhancing the effectiveness of conventional treatments. These findings suggest that bacteriophage-derived lysins represent a promising alternative to traditional antibiotics, particularly in combating MDR infections. Future studies will focus on optimizing lysin formulations and evaluating their efficacy in vivo to assess their potential as a therapeutic agent.

Keywords (3-5 words maximum)

Bacteriophages, lysins, multidrug-resistant bacteria, antimicrobial therapy, biofilms