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Abstract

The Search for New Antimicrobial Agents, by Site-Selective Peptide Modification †

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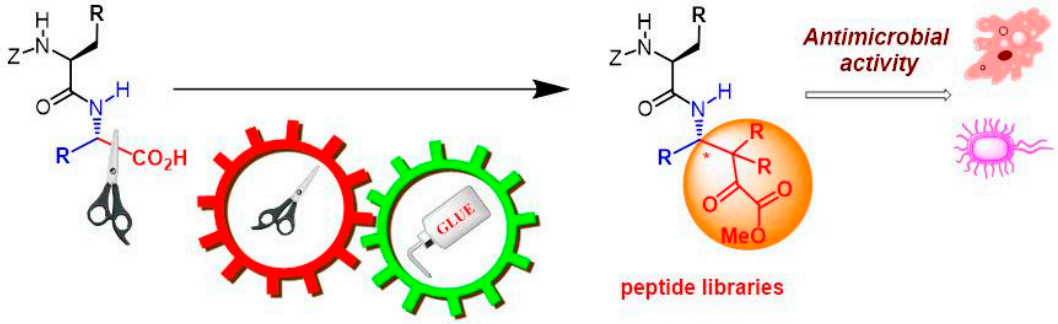
Antimicrobial peptides (AMPs) have been used by animals and plants for millions of years for defence against pathogens, and present important advantages as potential drugs, such as a broad spectrum of activity, no induction of resistances, and synergic action with conventional antibiotics [1].

However, many natural antimicrobial peptides present problems due to in vivo degradation or biodisponibility issues. The production of synthetic analogues would allow the discovery of antimicrobials with improved selectivity, stability, and biodisponibility. The site-selective modification of peptides would allow the fast, efficient generation of libraries of such peptides from a few "parent" peptides, saving time and materials in the discovery processes [2].

We describe two "customizable units" that allow the production of peptides "à la carte", with many different lateral chains and functional groups, and their evaluation as antimicrobials for human and animal health, and as crop protection agents.



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Conflicts of Interest: The authors declare no conflicts of interest.

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