

Special Thematic Issue for the Journal Proteins & Protein & Peptide Letters

Title of Thematic issue: Design and discovery of peptides targeted against infectious diseases and the constant fight in the era of resistance

Guest Editors: Dr. Cesar Augusto Roque-Borda

Scope of the Thematic Issue:

This special edition aims to promote drug discovery against the dreaded microbial resistance, articles are expected to be strongly based on bioactive peptides, primarily antimicrobial, and to have targeting or tolerance to instability, hydrolysis, or denaturation factors. Molecules must be correctly characterized and strongly discussed. It is hoped that this special edition will access combined *in silico* and *in vitro* studies, and possibly a preclinical breakthrough. Molecular transport studies as well as nanotechnology are welcome, as long as they use at least one antimicrobial peptide or protein. Studies of the synergistic effect between drug-peptide are also of great interest in this special edition.

Keywords: Antimicrobial agents, Drug discovery, Multi-drug resistance, Nanotechnology, Peptide derivatives Target delivery.

Sub-topics:

The sub-topics to be covered within the issue should be provided:

- Antimicrobial peptides
- Antimicrobial agents
- Bacterial emergence
- Drug discovery
- Drug development
- Drug delivery
- Microbial resistance
- Multi-drug resistance
- Nanotechnology
- Peptide-conjugates
- Synergistic effect

Tentative titles of the articles

1. Bacterial cellulose as a protective agent and carrier of antimicrobial peptides against multi resistant bacteria?
2. Lipid-based Nano composites for organ-specific targeted transport of antimicrobial peptides against resistant bacteria.
3. Pharmaceutical nanotechnology of antimicrobial peptides against emergency Gram-positive bacteria: *Staphylococcus aureus* and *Enterococcus* spp.
4. Target delivery of modified protein-metal complexes with specific activity against resistant bacteria
5. Are peptide loaded in photonanocomposites an alternative for the elimination of ESKAPE bacteria?

6. Proteins and peptides as inputs during nanotechnology formulations can generate stability and Pickering emulsions with antimicrobial activity
7. Peptide conjugates grafted onto macromolecules are an alternative for better antimicrobial activity
8. Can antimicrobial peptides be used to form nanostructured metal complexes to combat infectious diseases?
9. Diels alder reaction as excellent methods of incorporation of peptides in targeted nanosystems, fight against bacterial resistance.
10. Perspective of medicinal chemistry based on antimicrobial peptides against Mycobacterium tuberculosis.
11. Structure-function relationship of antimicrobial peptides derived from animal venoms against Mycobacterium.

Schedule:

- ✧ Thematic issue submission deadline: August 22, 2023.

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