

**Title: Design and synthesis of cyclic peptides as potential antibacterials and/or enhancers of antibiotics**

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**Description:** Multidrug-resistant bacteria constitute an increasing world-wide problem, and therefore it is a major challenge for medicinal chemists to discover and develop novel therapeutic antibiotics, and to devise efficient approaches for their delivery. Cyclic antimicrobial peptides (AMPs) are of particular interest: (i) some naturally occurring lipopeptides (produced by bacteria) are already in clinical use (e.g., colistin), (ii) they possess increased stability compared to linear analogues. Scaffolds that allows construction of cyclic and bicyclic peptidomimetics will be investigated. Both direct-acting antibacterial compounds and potentiators of existing antibiotics will be investigated. The biological evaluation may be performed by external collaborators or via own testing in the laboratories of collaborators.

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