



Master degree  
in Pharmaceutical Biotechnologies  
Dipartimento di Scienze del Farmaco

## International Seminars 2018

**Prof. Manuel Montalbán López**

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### **Peptide design for the discovery of novel antimicrobial peptides. From expression to screening**

**April 5, 2018, 14.30 -16:30 - AULA 7 edificio B**

**April 6, 2018, 14.30 -16:30 - AULA 2 edificio A**

*In these lectures, prof. Montalbán López will provide an overview of the huge problem that the lack of antimicrobials created and how peptide engineering can bring some solutions to new compounds development. He will introduce students to the innovative discipline of "Synthetic Biology" and will focus on its successful application for the development of novel antibiotics based on post-translationally modified peptides (i.e. lantibiotics and circular bacteriocins) produced by Gram-positive bacteria, showing potent antimicrobial action against a wide range of other Gram-positive bacteria.*

*Prof. Montalbán López will describe how to produce and engineer lantibiotics to alter, and even enhance, the antimicrobial activity and antibacterial spectrum. He will explain how to rearrange biosynthetic clusters in order to improve the synthesis of lantibiotics, how to modify lantibiotic core peptides by the design and high-throughput screening of a peptide library and how to introduce additional modifications. In addition, he will provide an overview of the potential of site directed mutagenesis to unravel the mechanism of action and maturation of the circular enterocin AS-48, which focuses his interest at the moment.*

*Finally, prof. Montalbán López will summarize the pipeline of the development of novel antimicrobials: from the discovery, through production and purification, to the preclinical tests.*

**Venue:** Dipartimento di Scienze del Farmaco, via Marzolo 5, PD

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