



UNIVERSITÀ
DEGLI STUDI
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**I SEMINARI DEL DIPARTIMENTO DI MEDICINA
MOLECOLARE E TRASLAZIONALE**

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Molecular modeling as virtual microscope at the nanoscale: some applications in neurodegenerative diseases and nanodelivery systems

lunedì 25 novembre 2019 ore 13:00

Aula A2

Abstract

In this talk, some examples will be presented showing how Molecular Modeling can act as virtual microscope to have insight on molecular mechanisms related to different biological problems. In the first part focused on neurodegenerative diseases, I will illustrate the structural polymorphism of Alzheimer's beta amyloid fibrils and its consequences on the toxicity of A β , and then the aggregation pathways of Ataxin in Spinocerebellar Ataxia 1 and 3. In the second part, I will discuss the importance of multivalence related to the efficiency of hyperbranched polymers (dendrimers) as gene delivery systems, the self-assembly mechanisms of the complexation between a virus and dendrons, and a new mechanism of penetration through the cellular membrane by particular proteins, the CPPs.

Ospite: Prof. Marco Rusnati

Tutti gli interessati sono invitati a partecipare