



ALMA MATER STUDIORUM  
UNIVERSITÀ DI BOLOGNA

DIPARTIMENTO  
DI FARMACIA  
E BIOTECNOLOGIE

## AVVISO DI SEMINARIO

Il giorno **29 Maggio 2024**  
alle ore **11:30**

### **Prof. Immaculada Conception Posadas Mayo**

Professoressa di Farmacologia,  
Dipartimento di Scienze Mediche, Università Castilla La-Mancha  
(ospite della Prof.ssa Donatella Canistro)

terrà un seminario in lingua inglese dal titolo:

## **Dendrimers in Neurodegenerative Diseases**

Area tematica: Neuropharmacology

*in presenza:*

**Aula 1, via Belmeloro 6, Bologna BO**

*e/o in streaming:*

<https://teams.microsoft.com/l/meetup-join/19%3aN09c0NlyEssBnF7ObCyDOQwkgDWM1qdd9f7F2nJV9fw1%40thread.tacv2/1631519544944?context=%7b%22id%22%3a%22e99647dc-1b08-454a-bf8c-699181b389ab%22%2c%22oid%22%3a%225a941351-ef41-4aa4-8771-fa50a6d62ca1%22%7d>

Collegli e studenti sono cordialmente invitati

## **ABSTRACT**

Neurodegenerative diseases (NDs), such as Parkinson's Disease (PD), Alzheimer's disease (AD), Multiple Sclerosis (MS) and amyotrophic lateral sclerosis (ALS), are characterized by progressive loss of structure or function of neurons. Current therapies for NDs are only symptomatic and long-term ineffective. This challenge has promoted the development of new therapies against relevant targets in these pathologies. In this review, we will focus on the most promising therapeutic approaches based on dendrimers (DDs) specially designed for the treatment and diagnosis of NDs. DDs are well-defined polymeric structures that provide a multifunctional platform for developing different nanosystems for a myriad of applications. DDs have been proposed as interesting drug delivery systems with the ability to cross the blood-brain barrier (BBB) and increase the bioavailability of classical drugs in the brain, as well as genetic material, by reducing the synthesis of specific targets. In summary, DDs have emerged as promising alternatives to current ND therapies since they may limit the extent of damage and provide neuroprotection to the affected tissues.

## **BIOGRAPHICAL SKETCHES**

Since July 2011, Prof. Posadas Mayo is Professor of Pharmacology at the University of Castilla La-Mancha. The incorporation to the UCLM has allowed to focus her research work on the study of the molecular mechanisms involved in neuronal death that characterizes the processes of neurodegeneration that occur in diseases such as Parkinson's, Alzheimer's or stroke. Recently, her research work has focused on the study and characterization of different nanoparticles as potential transfection vectors of genetic material, as drug-carriers or as drug by itself.

In the last 4 years she has developed a management function as Academic Director of the Vice-Rectorate for Science Policy.

In addition, she has developed an important role in the dissemination of science by participating in the European Night, in the Pint of Science, and in different local activities including the Primavera Científica en CLM, Visiting Prisons, and 8-M outreach activities.