

AVVISO DI SEMINARIO

Il giorno 23/03/2026
alle ore 11:00 in Aula 22 - F

La prof.ssa Giorgia Oliviero

Dipartimento di Medicina Molecolare e Biotecnologie
Mediche, Università degli Studi di Napoli Federico II

Terrà un seminario dal titolo

From Molecular Scaffolds to Biotechnological Drugs: The Role of Oligonucleotides and Oligonucleotide Analogues in Nanotechnologies and Medicine

Nucleic acids represent the pillars of molecular biology, not only due to their role in the storage and transmission of genetic information. Their ability to adopt secondary structures characterized by non-canonical geometries endows these biomolecules with self-organization and molecular recognition properties of great chemical interest. Such features have enabled the use of nucleic acids as programmable molecular scaffolds for the design of biomaterials and supramolecular nanostructures, with potential applications in the development of nanodevices and molecular-scale functional components.

In parallel, the specificity of base-pairing interactions makes these molecules promising tools in the biomedical field as well. In particular, nucleic acids can function as biotechnological drugs that selectively modulate the activity of specific biological targets, such as proteins or other nucleic acids, and can be used as diagnostic probes and theranostic agents. Within this context, synthetic DNA analogues, such as peptide nucleic acids (PNA), hold particular interest due to their high chemical stability and strong hybridization affinity, which enable the selective recognition of nucleotide sequences associated with various pathologies, including cardiovascular diseases.

Gli interessati sono cordialmente invitati a partecipare

Il Direttore
Prof. Fabio Bellina

Il Responsabile
Prof. Lorenzo Di Bari