



## **Visiting Professor Program Academic Year 2024/2025**

**TEACHING COMMITMENT:** 18 hours

**COURSE TITLE**

**Course 1: Bioinspired Nanoengineering for Biotech Drugs**  
**Course 2: Bioinspired Nanoengineering for Therapy and Diagnostic**

**TEACHING PERIOD**

2nd term

**SCIENTIFIC AREA**

Pharmaceutical Technology

**LANGUAGE USED TO TEACH**

English

**COURSE SUMMARY**

Insegnamento n.1:

This course will present bioinspired nano-engineering and its applications in biology and medicine. It will focus on nanomedicines based on biotech drugs (proteins, nucleic acids, vaccines), in particular for cancer therapy. The topics to be discussed are of considerable interest across a broad range of research areas in bioinspired nano-engineering and medicine.

Insegnamento n.2:

This course will focus on bioinspired nano-engineering and its applications in biology and medicine. The topics to be discussed are of considerable interest across a broad range of research areas in bioinspired nano-engineering and medicine. In particular, it will describe the possible application of nanomaterials for theranostic (Therapeutic+Diagnostic) purposes.

## **LEARNING OBJECTIVES**

Insegnamento n.1:

(1) Understand the state-of-the-art bioinspired nano-engineering technologies, applied to biotechnology for cancer therapy. (2) Be able to critically read, analyze, and interpret the scientific literature in bioinspired nanoengineering. (3) Apply knowledge of bioinspired nano-engineering to think critically about possible biomimetic nanoparticle solutions for unmet needs in medicine. (4) Be able to represent ideas in oral presentations.

Insegnamento n.2:

(1) Understand the state-of-the-art bioinspired nano-engineering technologies. (2) Be able to critically read, analyze, and interpret the scientific literature in bioinspired nano-engineering. (3) Apply knowledge of bioinspired nano-engineering to think critically about possible biomimetic nanoparticle solutions for the development of theranostics.

Insegnamento 1.:

Four hours will be dedicated by the visiting professor to the demonstration of synthetic and analytical techniques for bioinspired nano-engineered materials.

## **OTHER ACTIVITIES BESIDES THE COURSE**

The Visiting Professor will be available for a seminar to the Department, available to Ph.D students, researchers, and faculty members.

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## **VISITING PROFESSOR PROFILE**

The Visiting Professor has a background in chemical or biomedical engineering and is an expert in the development of nanosized biomaterials for the sustained release of genetic cargo, proteins, and small molecules. His/Her contribution to the state of the art of the nanomedicine and bioengineering field must be proven by an excellent publication record and outstanding international experience. Furthermore, he/she should have a proven teaching experience in international institutions.

## **CONTACT REFERENT**

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