



Direzione Ricerca,  
Innovazione e  
Internazionalizzazione

**UNIVERSITÀ  
DI TORINO**

**ID**

**VP\_018\_BIOTEC**

## **Visiting Professor Program Academic Year 2025/2026**

**TEACHING COMMITMENT:** 16 hours

**COURSE TITLE**

**Pharmacology and Drug Therapies: Drug Discovery, Basic Principles**

**TEACHING PERIOD**

I semester

**SCIENTIFIC AREA**

Medicinal Chemistry

**LANGUAGE USED TO TEACH**

English

**COURSE SUMMARY**

The course aims to give an overall understanding of the discovery and development of novel pharmaceuticals (drug discovery/development). It covers target selection, lead discovery/optimization, biophysical assays for high throughput screening or characterisation of interactions, non-clinical in vitro/in vivo safety and efficacy studies, clinical trials, formulation and use of biomaterials for pharmaceutical purposes. The course also highlights examples of existing drugs and how they have been developed, and their mechanisms of action.

**LEARNING OBJECTIVES**

The course is designed to provide students with a strong foundation in the principles and practices of drug discovery and development.

Following this course, students will understand and explain: the structure of the drug discovery and development process; the challenges and the main approaches used in modern day drugs design and discovery process; how drugs are tested to determine their efficacy and toxicity; how drugs

could be formulated and how biomaterials could be successfully used in the pharma field; develop skills relevant for the medical and pharmaceutical industries.

#### **OTHER ACTIVITIES BESIDE THE COURSE**

The teaching activity will be deepened in seminars for PhD students and research fellows, regarding the drug discovery and development field

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#### **VISITING PROFESSOR PROFILE**

The candidate must be a highly experienced and accomplished academic in the fields of Medicinal Chemistry, Pharmaceutical Technology, and Biomaterials, with a strong focus on the intersection of chemical sciences, pharmaceutical innovation, and material development.

#### **CONTACT REFERENT**

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