Course for Ph.D. students
XLI Cycle (1 Nov 2025 – 31 Oct 2028)

Curriculum
INNOVAZIONE NEL CAMPO DELLE SCIENZE FARMACEUTICHE

Title
Asymmetric Strategies for the Synthesis of Bioactive Molecules (1 ECTS - Advanced Course)

Prof. Claudio Curti (University of Parma)

Course language: English

Friday, 23 October 2026 (9:30–11:30 a.m., Room F – Pharmacy Building)
Friday, 30 October 2026 (9:30–11:30 a.m., Room F – Pharmacy Building)

To attend the course please contact:
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Course description
The increasing importance of chirality in modern drug discovery and development has made asymmetric synthesis a cornerstone of medicinal chemistry. This course examines the synthetic strategies used to access chiral active pharmaceutical ingredients (APIs) among drugs approved during 2024, with a particular focus on scalable enantioselective synthesis, chiral resolution, biocatalysis, asymmetric catalysis, and process chemistry considerations.
Using recent FDA, NMPA, and PMDA-approved drugs as case studies, students will critically analyze how stereochemistry influences route design, manufacturability, intellectual property, and therapeutic performance.

The course will be particularly useful to all PhD students who are attending bio-organic and/or medicinal chemistry laboratories, as well as to all students who intend to deepen and update their knowledge of bio-organic synthesis.

Evaluation: YES (Written Test)