Università di Torino

Presentazione del Corso di Laurea Magistrale in

Molecular Biotechnology

12 luglio 2021
What is Molecular Biotechnology?

In its broadest sense, molecular biotechnology is the use of laboratory techniques to study and modify nucleic acids and proteins for applications in areas such as human and animal health, agriculture, and the environment.
Molecular Biotechnology

Understanding biological processes

Creating a useful product
The **interdisciplinary** character of the program allows students to specialize according to their interests and prepares them for a scientific career in **Life Sciences**.

- **Bachelor of Science**
  - Master of Molecular Biotechnology
  - PhD / Doctorate

- Industry / Academia
  - Research Assistant
  - Group Leader
  - Technician
Students profit from their profound basic knowledge, their ability to think and work both interdisciplinary and translationally as well as from their early specialization and high level of independence.

Bachelor of Science

Students learn the basics in Biology, Chemistry, Mathematics, Statistics, Physics and Bioinformatics

Master of Molecular Biotechnology

Students get to know different scientific fields and environments during their internships and get the chance to get into contact with scientists around the world.

PhD / Doctorate

Students profit from their profound basic knowledge, their ability to think and work both interdisciplinary and translationally as well as from their early specialization and high level of independence.

The study program in Molecular Biotechnology prepares students for a career in Life Sciences
understanding biological processes

- Creating new diagnostics tools
- Identifying new therapeutic targets
- Developing innovative therapeutic approaches
Master Program in Molecular Biotechnology

- Translational Biotechnology
- Diagnostics and Drug Discovery

The Program is in English
Duration: 2 years
ECTS: 120
ECTS distribution

Common

Specific

Exp. Thesis

Stages

Free
The *Translational Biotechnology* Program focuses on the latest advances in genomics and genetic engineering in the biomedicine field with specific reference to technological aspects including next-generation sequencing, high-throughput screening, gene and cell therapy.

The *Diagnostics and Drug Discovery* Program addresses topics in the field of drug discovery and medical diagnostics with a focus on the latest advances in molecular imaging technology.

Experimental thesis

Academia:
• Molecular Biotechnology Center – MBC
• Candiolo Cancer Institute – IRCCS
• Neuroscience Institute Cavalieri Ottolenghi – NICO
• CeRMS– Centro di Ricerca in Medicina Sperimentale

Industry:
• Bioindustry Park Silvano Fumero, Colleretto Giacosa (TO) (Bracco, Merck-Serono)
• DiaSorin
• Chiesi Farmaceutici
Internationalization

The Program is open to foreign students

Join our mission to make study choice easier

Every year we change the lives of millions of students, by allowing them to explore all their study options in one place.

Discover what the best Universities, Business Schools, Law Schools, or Language Centres have in common. In today's society the possibilities for education are increasingly global. Allow your institution to be where the global students are searching. Ensure your institution is visible and can be chosen by the right students, for the right reasons.

Promote your courses to students worldwide
International mobility

- Erasmus program
- Agreement Double Degree: Université Grenoble Alpes, UFR de Pharmacie
- Agreement for International Academic Exchange: University of Minnesota
1. **Basic computer skills** (Microsoft office, internet navigation) and a **minimum B2 English language level** under the Common European Framework of Reference for Languages (CEFR).

2. an **Italian Bachelor Degree in either class L2 (Biotechnology) or class L13 (Biological Sciences) OR another Italian Bachelor Degree providing a solid background in General and Inorganic Chemistry, Organic Chemistry, Biochemistry, Cell Biology, Molecular Biology and Genetics.**

The scientific background will be verified by a written test. To be admitted at the verification test, candidates must have:

- **if holding an Italian Bachelor Degree, at least:**
  - 50 credits in one or more of the following scientific areas (SSD): BIO/01, BIO/05, BIO/06, BIO/09, BIO/10, BIO/11, BIO/13, BIO/14, BIO/16, BIO/17, BIO/18, BIO/19, CHIM/01, CHIM/02, CHIM/03, CHIM/06, CHIM/08;
  - 10 credits in one or more of the following scientific areas (SSD): FIS/01-FIS/08; MAT/01-MAT/09; SEC-S/01, SEC-S/02, MED/01, INF/01.

- **if holding a Degree obtained from a foreign University, an appropriate number of credits in the following subjects:** Mathematics, Statistics, Physics, General and Inorganic Chemistry, Organic Chemistry, Biochemistry, Cell Biology, Molecular Biology and Genetics.

**Candidates holding an Italian Bachelor Degree in either Biotechnology (class L2) or Biological Sciences (class L13) obtained with a final score above or equal to 102/110 are exempt from the verification test.**

We accept also candidates not yet holding a Bachelor Degree at the date of application.

Job opportunities

Industry: Biotech Companies, Pharma, Chemistry

Academia

https://www.biotecnologi.it/index.php/utilisbocchi-occupazionali
http://www.biotecnologi.org/professionebiotecnologo/
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