

## master's degree in medical biotechnology

The Master Degree in Medical Biotechnology includes two curricula: molecular medicine (MM) and nanobiotechnology (NBT). For both curricula during the first year an advanced knowledge in cellular biochemistry, human genetics, oncology, molecular biology-diagnostics, pharmacogenetics and biostatistics will be given. The second year will be focused either on molecular cardiology, nutrition and molecular immunology (MM) or nano-biotechnology, molecular biophysics and biomaterials/tissue engineering (NBT).

**The following courses are held in English**

### 1<sup>st</sup> YEAR

- Molecular oncology, 6 ECTS, I semester
- Molecular diagnostics, 6 ECTS I semester
- Molecular biology of organs and tissues, 6 ECTS, II semester
- Pharmacogenetics, 6 ECTS, II semester

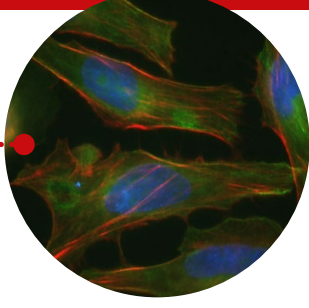
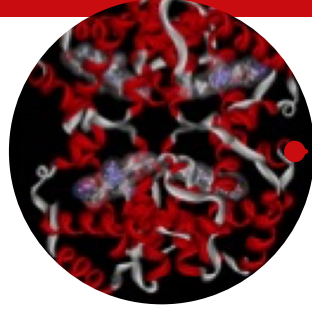
### 2<sup>nd</sup> YEAR

#### ❖ Curriculum Molecular Medicine

- Molecular cardiology, 6 ECTS, I semester
- Nutrition, 6 ECTS, I semester
- Immunology and molecular pathology, 12 ECTS, I semester

#### ❖ Curriculum Nanobiotechnology

- Molecular biophysics, 6 ECTS, I semester
- Biomaterials and tissue engineering, 6 ECTS, I semester
- Nanobiotechnology, 12 ECTS, I semester



## international master's degree in neuroscience

The two-year International Masters Degree in Neuroscience aims at providing a multidisciplinary training in Neurobiology, with topics ranging from Molecular to Behavioural Neurosciences. Thanks to a common and multi-level approach to Brain Research, Scientists at the BRAIN Centre for Neuroscience and International School for Advanced Studies (ISAS-SISSA), offer graduate neuroscience studies at the University of Trieste. Intensive short courses and workshops will also be held, with participation of Visiting Professors from International Academic Institutions as well as Representatives from SMEs and Multinational Pharmaceutical Industries.

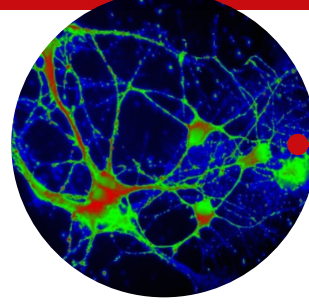
**The entire course is held in English**

### 1<sup>st</sup> YEAR

- Developmental neurogenetics, 6 ECTS, I semester
- Cellular and Molecular Neurobiology, 12 ECTS, I semester
- Molecular Neurophysiology, 8 ECTS, I semester
- Neuroanatomy and Neuropharmacology, 7 ECTS, I/I semester
- Integrative Neurophysiology, 7 ECTS, II semester
- Neuropathology, 9 ECTS, I/I semester

### 2<sup>nd</sup> YEAR

- Neurofunctional Techniques, 10 ECTS, I semester
- Cognitive Neuroscience, 7 ECTS, I semester



UNIVERSITÀ  
DEGLI STUDI DI TRIESTE



DIPARTIMENTO DI  
SCIENZE DELLA VITA

## international courses

at the department  
of life sciences

The **Department of Life Sciences** is the largest Department at the University of Trieste. In **research** and **education** the Department interests span different levels of organization from **molecules** and **cells to brain, mind, individuals and environment**.



2016-2017

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## master's degree in global change ecology

The Master Degree in Global Change Ecology is aimed at strengthening the knowledge of biology and natural sciences, with special focus to the impact of global environmental change on living organisms. Special attention is given to morpho-functional and ecophysiological adaptation of living organisms to contrasting habitats. Theoretical and practical activities, both in the laboratory and in the field, will be aimed at providing examples of experimental and monitoring techniques, data elaboration and interpretation, experimental design and implementation.

**The following courses are held in English**

### 1<sup>st</sup> YEAR

- Global and regional climate change, 6 ECTS, I semester
- Design and analysis of environmental monitoring and experiments, 6 ECTS, I semester
- Genetics and molecular biology for environmental analysis, 12 ECTS, I semester
- Marine ecosystems and global change, 6 ECTS, II semester
- Plant stress ecophysiology, 6 ECTS, II semester
- Scientific writing, 6 ECTS, I semester
- Ecological modelling, 3 ECTS, II semester

### 2<sup>nd</sup> YEAR

- Environmental Toxicology, 6 ECTS, I semester
- Biodiversity informatics, 6 ECTS, I semester

## master's degree in functional genomics

The Master Degree in Functional Genomics is an international course characterized by subjects in molecular biology, genomics, transcriptomics and proteomics applied to different fields including biomolecular medicine, diagnostic and pharmaceuticals. A peculiarity of the course is an international program that allows to obtain also the Double Degree from the Universities of Paris 7 and Paris 5.

**The following courses are held in English**

### 1<sup>st</sup> YEAR

- Molecular genetics and genomics, 6 ECTS, I semester
- Proteomics, 9 ECTS, I semester
- Cellular biochemistry, 9 ECTS, I semester
- Human genetics, 6 ECTS, II semester
- Epigenetic regulation, 6 ECTS, II semester
- Molecular and cellular technologies, 6 ECTS, II semester

### 2<sup>nd</sup> YEAR

- Gene expression, 6 ECTS, I semester
- Transcriptomics, 6 ECTS, I semester
- Molecular immunology, 6 ECTS, I semester
- Model organisms, 6 ECTS, I semester

## the city of trieste

Trieste is a fascinating city, a hub of relations and a crossroads where various branches of knowledge meet. Located between the sea and the extraordinary natural beauty of the Carso plateau, Trieste is one of the cities with the best quality of life in Italy.

Trieste hosts a high number of world-known research institutions, academic institutions, international organisations, technological transfer and high-level research infrastructures, which have made Trieste known as "City of Science". This unique scenario offers the most favourable conditions for developing technological innovations and business competitiveness as well as a large choice of internship for students.

The University is part of such lively system providing access to state-of-the-art equipment and facilities and the possibility to interact with leading researchers in many fields. The city of Trieste itself has a distinctive international feel to it, thanks to its history and its location as the gateway between Western and Eastern Europe.

