GENERAL OUTLINE

Objectives
The Master of Science in Medical Biology degree is intended for students who are interested in biological research in the medical field.

This Master program focuses on the acquisition of key areas of expertise necessary for the development of new pre-clinical and clinical medical applications. This training gives students an in-depth knowledge of basic cellular functions, systems that transmit signals inside and among cells, human biology, and the normal and pathological functioning of the most important systems of the human organism.

Considerable attention is also paid to learning and applying techniques used in medical biology, as well as to personal research work.

Career prospects
This Master will help you develop many transversal skills: oral and written communication, critical, analytical and summarising skills, abilities in research, management of bibliographical resources and familiarisation with scientific literature relating to the field, etc.

This panoply of skills, combined with specialist knowledge acquired during this Master, is an excellent preparation for positions in a wide range of sectors, including:

- Academic research
- Pharmaceutical industry
- Biomedical industry
- Biotechnology firms
- Medical laboratories
- Hospital environment
- Toxicological analysis laboratories

Example of opportunities and alumni’s profiles:
www.unil.ch/perspectives/unil-et-apres

Version: February 2023
Subject to changes
Only the official texts should be considered binding.

www.unil.ch/masters
EDUCATIONAL CONTENT

Description
The first semester provides an introduction to human biology in the broad sense. Teaching covers the basic cellular functions and the transmission systems of signals inside and among cells, as well as the normal and pathological functioning of the most important systems of the human organism.

The second semester is dedicated to specialisation and you choose a study path among the three options available: Immunology and Cancer, Neurosciences, and Pharmacology and Toxicology. You then begin your Master research project by a grant writing exercise. You may also obtain the animal experimentation certification or the good clinical practice certification.

The third semester is dedicated to the completion of your Master research project.

PRACTICAL INFORMATION

Admission requirements
Candidates must be holders of a Bachelor of Science in Biology or in a field considered to be equivalent awarded by a Swiss university. Another degree awarded by a foreign university may be judged equivalent and give access to the Master’s degree course, with or without further conditions.

Director of the programme
Prof. Sanjiv Luther
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Enrolment and final dates
Applications must be submitted to the Admissions Service before 30th April: www.unil.ch/immat
Candidates requiring a visa to study in Switzerland: 28th February.

Part-time Master’s degree
Subject to certain conditions, Master’s studies can be followed part-time. In this case they correspond to semi-continuous studies (50%) for the entire duration of the course.
For more details concerning the requisite conditions: www.unil.ch/ formations/master-temps-partiel

Career prospects
www.unil.ch/perspectives

Accommodation and financial assistance
www.unil.ch/sasme

General information on studies, guidance
www.unil.ch/soc

International
www.unil.ch/international

SYLLABUS

1st semester - 30 ECTS
Common study programme
Courses, seminars and e-learning in:
- Cell Biology
- Intracellular Signalling
- Biostatistics
- Microbiology
- Cardiovascular Diseases
- Neurosciences and Brain Diseases
- Metabolic Diseases
- Immunology and Cancer
- Pharmacology and Toxicology
- Impact of a Patent on your Research
- Scientific Writing and Communication

2nd semester - 30 ECTS
Choice of study path
Options:
- Immunology and Cancer
- Neurosciences
- Pharmacology and Toxicology

Optional modules
- Animal Experimentation Certificate
- Good Clinical Practice Certificate

Start of personal Master research project

3rd semester - 30 ECTS
Continuation and conclusion of Master research project

Mobility
The Master research project can be conducted in a partner institution recognised by UNIL.