

>Application and scholarships

A programme of excellence in learning and research looking for clinicians, biologists, biochemists, biophysicists, bioengineers and applied mathematicians.

BioHealth Computing EM is a one year MSc programme, open to well motivated students who are top-level **Bachelor completed by a first year of Master of science**, or equivalent degree (240 ECTS). Students are required having a **fluent level in English**, certified by a TOEFL score (at least paper based 580).

Within the BioHealth Computing Ms Programme, three types of **Erasmus Mundus Scholarships** are available for:

- Non-European applicants (Category A);
- European applicants (Category B);
- Scholars and Academics.

Industrial Scholarships will be assigned by BioHealth Computing Consortium, to applicants whose background and interest match closely with the priorities of the Partner Industries.

Each host institution has **facilities to help in the social integration of students** (visas, accommodation, cultural activities).

Application must be submitted through the website from October 1st to January 15th for Erasmus Mundus Scholarships; and from January 15th to May 15th for Industrial Scholarships.



>Contact information

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ADMISSION / COORDINATION

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PARTNER UNIVERSITIES

Joseph Fourier University Grenoble I, France
Universitat de Barcelona, Spain
Università degli studi di Torino, Italy
University of Maastricht, The Netherlands
Universitatea de Stiinte Agricole si Medicina Veterinara de Cluj Napoca



ASSOCIATE PARTNERS

University of Geneva, University of Osaka, Dongguk University, Seoul, Tongji University, Shanghai, Middle East Technical University, Ankara, VetAgo Sup, ESRF Grenoble, Institut Pasteur-Korea, Institut Pasteur of Shanghai, University of Keel, University of Birmingham, University of Istanbul, Bilkent University, National University of Science and Technology of Pakistan, Parc Cientific de Barcelona (Barcelona), BioCat (Barcelona), BioIndustry Park Silvano-Fumero (Torino), Floralis (Grenoble) and BioPark (Archamps-Genève Technopole), Swiss Institute of Bioinformatics, University Hospitals of Grenoble (La Tronche), of Barcelona (Clinic Hospital), of Cluj-Napoca, of Dongguk and of Tongji, Sanofi-Pasteur, bioMérieux, Merial, SoBios, Novadiscovery, NovImmune, Pharmapeptides, LyonBioPôle, BioPmed.

www.biohealth-computing.eu

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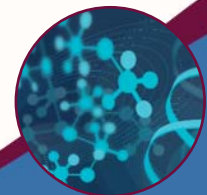
BIOHEALTH COMPUTING

Erasmus Mundus programme



BioHealth Computing Joint Master

Understanding and Computing Systems Biology for
accelerating innovation in Clinical and Life Sciences



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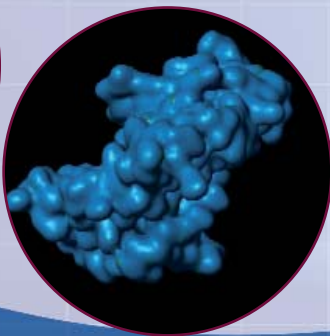
> Presentation

An advanced programme to maximize your PhD opportunities

Growing barriers between clinical and basic research, along with the ever increasing complexities involved in conducting health research, are making **it more difficult to translate new knowledge from bench to the bedside** - and back again to the bench. To tackle the problem of complexity is one of the greatest challenges of the BioHealth Computing Alliance.

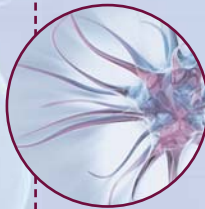
MULTIDISCIPLINARY APPROACHES

The students involved in the BioHealth Computing Master (Ms) will learn to work on a joint research program associating multidisciplinary approaches. They are expected **understanding biology** from molecules to cells, to organs, to organisms and to populations, **analyzing multiscale dynamics** of all the forces that make up the complex living systems, by the use of integrated system-wide approaches, systemic modeling and simulation tools including data from bedside, environment, omics and high-throughput techniques, for accelerating health innovation laboratory discoveries into treatments for patients.



> Study programme

The best laboratories to study in a fast moving environment...



The BioHealth Computing Ms Programme is organized into **two semesters followed at two leading Universities** that will be both in charge of awarding credits (30:30 ECTS). The courses start and finish in the Technopole of Archamps-Geneva by an intensive Summer School organized to allow students to develop communicational and entrepreneurial skills.



The first semester, dedicated to advanced courses, is divided into **four tracks, connecting each one to basic fields of application**, and to entrance requirements:

- Clinical Research
- Molecular Biotechnology
- Environmental and Animal Health
- Computational Mathematics



The second semester gives to students the **opportunity to apply their knowledge in a leading laboratory**, allowing them to master concepts, methodologies and tools required to develop a translational project.

> Job opportunities

New opportunities in Service and Discovery

The students having successfully carried out the two periods of study will be awarded a **Double Degree**, consisting of two independent national degrees, signed by the hosting universities, and an **Original Diploma "BioHealth Computing Ms"**, signed by all the Partner Universities.

INVESTIGATORS IN R&D DEPARTMENT

The innovative approach, of BioHealth Computing Ms programme, carries a significant potential in engineering design and progress driving in Clinical and Life industries. More and more, labs and R&D department of industries in Clinical and Life Sciences are **putting the core concept of Systems biology properly into practice** by informing their research through the iterative cycle between experimentation and modelling.

Large pharma and medtech industries need investigators driven by biology questions who can analyze data from different areas, approaching biology in a quantitative fashion. And **Small and Medium sized Biotech Enterprises** enroll people to develop software solutions for companies to handle their big amount of data effectively.

