

## BIOHEALTH BioHealth Computing EM

**Duration:** 1 year

**Course description:**

University Joseph-Fourier of Grenoble, University of Barcelona, University of Torino, University of Maastricht, University of Agronomical Sciences and Veterinary Medicine of Cluj-Napoca, jointly set up a new program at Master of Science level, in the field of "BioHealth Computing", in partnership with Technology Transfert Companies, University Hospitals, SMEs specialised in Information and Bio Technology, Life Science Industries and Public Research Institutes.

Growing barriers between clinical and basic research, along with the ever increasing complexities involved in conducting clinical research, are making it more difficult to translate new knowledge to the bedside - and back again to the bench. Considering that a broad re-engineering effort is needed, this unique network of organizations is working together to engage communities in clinical research, to speed laboratory discoveries into treatments for patients, and to train clinical and translational researchers. BioHealth Computing EM Consortium aims to promote the use of systemic modelling and simulation tools to exploit biomedical databases. BioHealth Computing EM courses will prepare the students to set up new therapeutic & diagnostic tools, and to become leaders in research and development programs, for patient care, public health, and disease control.

BioHealth Computing EM is a one year MSc programme, open to well motivated students who have completed one year MSc course (60 ECTS), or equivalent degree. BioHealth Computing EM is organized in 2 semesters followed at two different Partner Universities, that will be both in charge of awarding credits (30:30 ECTS), and degrees to the student. Each year, the courses start and finish in the BioPark of Archamps-Genève, by a Summer School gathering all the students. During the first semester, students take Advanced Courses depending on their previous degree in the following tracks: Clinical Research, Molecular Biotechnology, Environmental and Animal Health and Computational Mathematics. The second semester is dedicated to a nine months Joint Research Project, associating students coming from different tracks to solve a unique problem.

The main learning output of BioHealth Computing EM Master's courses is the students' ability to work on a joint research program, for translating research into applications. The consortium provides students with a broad and excellent scientific background in the field and important skills such as teamwork, management of complex processes, conceptual approach, and high intercultural awareness. Language of education is English (TOEFL 550 required). An introduction to local culture and language will also be offered to the students in each semester. A student body of 50% overseas and 50 % European students is intended.

**Website:** <http://biohealth-computing.eu/>

**Partners:**

JOSEPH FOURIER UNIVERSITY - GRENOBLE I, France (Co-ordinating Institution)  
UNIVERSITY OF BARCELONA, Spain  
UNIVERSITY OF TORINO, Italy  
UNIVERSITY OF MAASTRICHT, Netherlands  
UNIVERSITY OF AGRICULTURAL SCIENCES AND VETERINARY MEDICINE, Romania

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**Maximum grant:**

374 000 € (30 000 € consortium + 344 000 € scholarships), 2011  
426 000 € (30 000 € consortium + 396 000 € scholarships), 2012  
363 200 € (30 000 € consortium + 333 200 € scholarships), 2013