

Target Students:

The Master and its Respiratory Research Track is addressed to students who wish to do a Ph.D. in the field of respiratory diseases, and to those with an interest in acquiring advanced knowledge in such disorders.

Therefore, students in possession of a Bachelor's degree (Graduates) in Medicine (MD), Biology, Human Biology, Biomedicine, Biotechnology, Biochemistry, Bioengineering, Physiotherapy and other experimental or health sciences will be eligible.

Objectives:

The main objective of the Master's studies including the Respiratory Research Track is to acquire advanced conceptual and experimental knowledge and skills on cellular and molecular mechanisms, advanced diagnostics tools, monitoring and treatment strategies, and computer modeling, which will be specifically applied to respiratory disorders (Asthma, COPD, Lung Cancer, Interstitial Diseases, Lung Infections). The student will also be able to work with animal models related to these conditions.

Requirements

To be admitted to the Master, the student must submit the CV including English competences, a letter of motivation and two letters of recommendation.

Timetable & Classes

Common Subjects: Always on Fridays

Optional Subjects: Wednesdays & Thursdays (4-8 p.m.)

Information & Secretary:

Ms Támara Monrás & Ms Vanessa Mesquida

masters.dcexs@upf.edu

Tel. (+34) 93 316 3512 / 93 316 3517

Director:

Prof. Esther Barreiro. IMIM & Hospital del Mar. Dpt. of Experimental & Health Sciences. *Universitat Pompeu Fabra*
ebarreiro@imim.es

Faculty Members

Prof. Alvar Agustí. Hospital Clínic. Dpt. of Medicine, *Universitat de Barcelona*

Prof. Carlos Ascaso. Dpt. of Public Health, *Universitat de Barcelona*

Prof. Joan Albert Barberà. Hospital Clínic, IDIBAPS. Dpt. of Medicine, *Universitat de Barcelona*

Prof. Esther Barreiro. IMIM & Hospital del Mar. Dpt. of Experimental & Health Sciences, *Universitat Pompeu Fabra*

Prof. Felip Burgos. Hospital Clínic, *Universitat de Barcelona*

Prof. Albert Cobos. Dpt. of Public Health, *Universitat de Barcelona*

Prof. Juana Díez. Dpt. of Experimental & Health Sciences, *Universitat Pompeu Fabra*

Prof. Antoni Ferrer. Hospital del Mar. Dpt. of Experimental & Health Sciences, *Universitat Pompeu Fabra*

Prof. Joaquim Gea. Hospital del Mar. Dpt. of Experimental & Health Sciences, *Universitat Pompeu Fabra*

Prof. Miguel Angel González. Dpt. of Information and Communication Technologies, *Universitat Pompeu Fabra*

Prof. Santiago Grau. Dpt. of Pharmacology, *Universitat Autònoma de Barcelona*

Prof. Itziar de Lecuona. Dpt. of Public Health, *Universitat de Barcelona*

Prof. Javier Macías. Dpt. of Experimental & Health Sciences, *Universitat Pompeu Fabra*

Prof. Josep M^a Montserrat. Hospital Clínic. Dpt. of Medicine, *Universitat de Barcelona*

Prof. José M^a Nicolás. Hospital Clínic. Dpt. of Medicine, *Universitat de Barcelona*

Prof. Josep Roca. Hospital Clínic. Dpt. of Medicine, *Universitat de Barcelona*.

Prof. Antoni Rosell. Hospital de Bellvitge, IDIBELL.



MASTER in BIOMEDICAL & CLINICAL RESEARCH

Respiratory Research Track

Academic Year 2015-16

**Universitat de Barcelona
Universitat Pompeu Fabra
Universitat Autònoma de Barcelona**

Common Subjects

- **Systems Medicine (571527)**
Medicina de Sistemes
Medicina de Sistemas
Coordinator: Prof. Josep Roca
- **Design & Analysis in Research (571528)**
Instruments de Disseny i Anàlisi en la Recerca
Instrumentos de Diseño y Análisis en la Investigación
Coordinator: Prof. Carlos Ascaso
Prof. Albert Cobos
- **Methodology & Tools in Research (571529)**
Eines i Metodologia de la Investigació
Herramientas y Metodología en Investigación
Coordinator: Prof. José M^a Nicolás
- **Bioethics & Legal Framework in Biomedical Research (571526)**
Bioètica i Marc Legal a la Recerca Biomèdica
Bioètica y Marco legal en la Investigación Biomédica
Coordinator: Prof. Itziar de Lecuona

Optional Subjects

- **Animal & Cell Models (568492)**
Models Animals i Cel.lulars
Modelos Animales y Celulares
Coordinator: Prof. Joaquim Gea

- **Chronic Diseases (571567)**
Malalties Cròniques
Enfermedades Crónicas
Coordinators: Prof. Josep Roca
Prof. Alvar Agustí
- **Advanced Microbiology (571568)**
Microbiologia Avançada
Microbiología Avanzada
Coordinator: Prof. Juana Díez
- **Cell and Molecular Biology (571569)**
Biologia Cel.lular i Molecular
Biología Celular y Molecular
Coordinator: Prof. Esther Barreiro
- **Smart Drugs (571570)**
Fàrmacs intel.ligents
Fármacos inteligentes
Coordinator: Prof. Santiago Grau
- **Assessment & Monitoring (571571)**
Avaluació i Monitorització
Evaluación y Monitorización
Coordinators: Prof. Ramón Farré, Prof. Felip Burgos
Prof. Josep M^a Montserrat
- **Imaging & Interventional Pulmonology (571572)**
Tècniques d'imatge i Pneumologia intervencionista
Técnicas de imagen y Neumología intervencionista
Coordinator: Prof. Antoni Rossell
- **Complex Disorders & Lung Transplantation (571574)**
Patologia d'Alta Complexitat i Transplantament
Patología de Alta Complejidad y Trasplante
Coordinator: Prof. Joan Albert Barberà

- **Structural and Functional Analyses of the Respiratory System (571576)**
Estructura i Funció del Sistema Respiratori
Estructura y Función del Sistema Respiratorio
Mandatory for non-Health related students
Coordinator: Prof. Antoni Ferrer
- **Computational models of Respiratory Diseases (ref. pend.)**
Models computacionals de Malalties Respiratòries
Modelos computacionales de Enfermedades Respiratorias
Coordinator: Prof. Miguel Angel González
- **Lung Cancer (ref. pend.)**
Càncer de Pulmó
Cáncer de Pulmón
Coordinator: Prof. Esther Barreiro

Master Research Project

The Master will include a research training period. This will have to be carried out in any research institution, University or teaching hospital, after a previous agreement with the Director of the Master's Respiratory Track. The training period will be supervised by researchers holding a PhD in either experimental or health sciences. The results of such a training will be defended as a Master of Science thesis at the end of the academic year (July). The amount of scientific knowledge, practical skills, and intellectual maturity acquired by the students (both theoretical courses and research training) will be assessed and graded at the end of the year. This evaluation will be required in order to attain the Master's degree.