

**Advances in Clinical Biochemistry and Molecular Pathology**

Code: 42886  
ECTS Credits: 9

Degree	Type	Year	Semester
4313794 Biochemistry, Molecular Biology and Biomedicine	OT	0	A

### Contact

Name: Francisco Blanco Vaca

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### Teachers

Francesca Canalias Reverter

Jorge Ordóñez Llanos

Josefina Mora Bruges

### Use of languages

Principal working language: catalan (cat)

### External teachers

Edgar Zapico Muñiz

Joan Carles Escolà Gil

José Luis Sánchez Quesada

José Manuel Soria Fernandez

Mireia Tondo Colomer

### Prerequisites

- 1) Having the Degree, preferably in Life Sciences and Health (Biomedicine, Biochemistry, Genetics, Medicine, Veterinary Medicine, Pharmacy, etc.)
- 2) Good level of Catalan or Spanish and English. Most classes will be in Catalan but Spanish will be used if a student does not understand Catalan. If necessary and for the same purpose, English will be used instead of Spanish. English will be used for sure for reading and analyzing scientific papers.

### Objectives and Contextualisation

The main objective of the module is reviewing the progress made recently in the area of Clinical Biochemistry and Molecular Pathology. It is intended, therefore, that students understand and visualize this using examples, that are not intended to be exhaustive, so they understand how what is the way in which the applications in the area of Laboratory Medicine (specialty Molecular Pathology and Clinical Biochemistry) are generated and applied. The contents will be selected among those advances which, although recent, have proven practical importance. The theoretical instruction is supplemented by expert seminars, discussion of articles and resolution of clinical cases.

## Content

CONTENT M 9	MÀSTER EN BIOQUÍMICA, BIOLOGIA MOLECULAR I BIOMEDICINA		Dia	Aula
Wednesday	Introduction. Academic and job opportunities in Clinical Biochemistry and Molecular Pathology	F. Blanco	07-nov	Unitat Docent Sant Pau
Friday	STANDARDIZATION AND QUALITY (tema I)	F. Canalias	09-nov	Unitat Docent Sant Pau
Monday	Standardization and quality	F. Canalias	12-nov	Unitat Docent Sant Pau
Wednesday	Standardization and quality	F. Canalias	14-nov	Unitat Docent Sant Pau
Friday	INVITED CONFERENCE: Molecular basis of complex diseases	J.M. Soria	16-nov	Unitat Docent Sant Pau
Monday	SEMINAR 1. Mass spectrometry: basis and clinical applications	E. Zapico	19-nov	Unitat Docent Sant Pau
Wednesday	LIPIDS, LIPOPROTEINS AND ARTERIOSCLEROSIS (topic II) Familial Hipercholesterolemia	F. Blanco	21-nov	Unitat Docent Sant Pau
Monday	SEMINARS 2-3. Animal models of arteriosclerosis. Cellular and molecular biology of arteriosclerosis	J.C. Escolà / J.L. Sánchez	26-nov	Unitat Docent Sant Pau
Wednesday	Discussion of papers related to seminar 1 (first part) and topic II and seminars 2 and 3 (second part)	E. Zapico / F Blanco	28-nov	Unitat Docent Sant Pau
Friday	DIABETES MELLITUS (topic III). Classification, diagnostic and pathophysiology - discussion clinical cases and/or papers	F. Blanco	30-nov	Unitat Docent Sant Pau
Monday		J. Ordóñez	3 des	

**BIOCHEMICAL MARKERS OF HEART DAMAGE (topic IV). Biochemical diagnosis of acute myocardial infarction. Biochemical diagnosis of heart failure**

Unitat Docent  
Sant Pau

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<b>Wednesday</b>	<b>CONGENITAL ERRORS OF METABOLISM (topic V)</b>	<b>M. Tondo</b>	5 des	Unitat Docent Sant Pau
<b>Monday</b>	<b>TUMOR MARKERS (topic VI). Discussion of clinical cases and/or papers</b>	<b>J. Mora</b>	10 des	Unitat Docent Sant Pau
<b>Wednesday</b>	<b>PRENATAL SCREENING (topic VII)</b>	<b>J. Mora</b>	12 des	Unitat Docent Sant Pau
<b>Friday</b>	<b>Discussion of papers and/or clinical cases related to topics III i IV</b>	<b>J. Ordoñez /F. Blanco</b>	14 des	Unitat Docent Sant Pau
<b>Monday</b>	<b>Presentation and defense of papers or clinical cases by the alumni</b>	<b>F. Blanco - J. Ordoñez</b>	17 des	Unitat Docent Sant Pau
<b>Wednesday</b>	<b>Presentation and defense of papers or clinical cases by the alumni</b>	<b>F. Blanco - J. Ordoñez</b>	19 des	Unitat Docent Sant Pau

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