

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

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Teachers

Francesca Canalias Reverter

Jorge Ordóñez Llanos

Josefina Mora Brugues

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

Prerequisites

- 1) Having the diploma and degree, preferably in Life Sciences and Health (Biomedicine, Biochemistry, Genetics, Medicine, Veterinary Medicine, Pharmacy, Biochemistry, etc.)
- 2) Good level of Catalan or Spanish and English. Most classes will be in Catalan but Spanish is used if a student does not understand Catalan. If necessary, we will use oral English and for sure it will be used to read scientific papers.

Objectives and Contextualisation

The main objective of the module is learning of 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, although recent, have proven practical importance. The theoretical instruction is supplemented by expert seminars, discussion of articles and resolution of clinical cases.

Content

Module 9	from 4 to 6.30 PM	MÀSTER EN BIOQUÍMICA, BIOLOGIA MOLECULAR I
Tuesday	Unitat Docent Sant Pau	INTRODUCTION. ACADEMIC AND JOB OPORTUNITIES
Wednesday	Unitat Docent Sant Pau	STANDARDIZATION AND QUALITY (I)
Friday	Unitat Docent Sant Pau	Standardization and quality
Monday	Unitat Docent Sant Pau	Standardization and quality
Tuesday	Unitat Docent Sant Pau	Invited conference: Molecular basis of complex diseases
Wednesday	Unitat Docent Sant Pau	SEMINAR 1. Mass Spectrometry: basis and clinical applications
Thursday	Unitat Docent Sant Pau	LIPIDS, LIPOPROTEINS AND ARTERIOSCLEROSIS (I)
Friday	Unitat Docent Sant Pau	SEMINARS 2-3 Animal models of arteriosclerosis. Molecular mechanisms
Monday	Unitat Docent Sant Pau	Discussion of papers on mass spectrometry, topics II and III
Tuesday	Unitat Docent Sant Pau	DIABETES (III). Classification, diagnosis and pathophysiology
Wednesday	Unitat Docent Sant Pau	BIOCHEMICAL MARKERS OF HEART DISEASE (IV). Echocardiography. Biochemical diagnosis of heartfailure
Thursday	Unitat Docent Sant Pau	Clinical cases of topics III and IV
Friday	Unitat Docent Sant Pau	MOLECULAR BIOLOGY OF CANCER AND TUMOR MARKERS
Monday	Unitat Docent Sant Pau	Diagnostic applications of oncogen K-Ras determination
Tuesday	Unitat Docent Sant Pau	PRENATAL SCREENING (VI)
Wednesday	Unitat Docent Sant Pau	Presentation and defense of papers or clinical cases by students
Thursday	Unitat Docent Sant Pau	Presentation and defense of papers or clinical cases by students