

SUBJECT TEACHING GUIDE

438 - Normal and Pathological Immune Response

University Master's Degree in Molecular Biology and Biomedicine

Academic year 2024-2025

1. IDENTIFYING DATA					
Degree	University Master's Degree in Molecular Biology and Biomedicine			Type and Year	Optional. Year 1
Faculty	Faculty of Medicine				
Discipline	Optional Subjects Module				
Course unit title and code	438 - Normal and Pathological Immune Response				
Number of ECTS credits allocated	5	Term	Semester based (1)		
Web	http://departamentos.unican.es/biomol/merino.html				
Language of instruction	Spanish	English Friendly	No	Mode of delivery	Face-to-face

Department	DPTO. BIOLOGIA MOLECULAR				
Name of lecturer	RAMON MERINO PEREZ				
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Office	Facultad de Medicina. Planta: + 1. SALA DE REUNIONES (1089)				
Other lecturers	MARCOS LOPEZ HOYOS ESTHER TAMAYO REVUELTA JUAN IRURE VENTURA LUIS GIL DE GOMEZ SESMA				

3.1 LEARNING OUTCOMES

- To acquire the capacity of reading and understanding scientific reports on Immunology

4. OBJECTIVES

To discuss the latest advances in a series of highly relevant current topics in basic and clinical Immunology . In the first session (Introduction), basic knowledge about the immune response will be summarized as a reminder. In the next five sessions of the course, topics of special relevance in immunology that have seen significant advances in recent years will be analyzed. The topics to be covered will be: 1) latest advances in tumor immunotherapy, 2) allergy/hypersensitivity and the development of new vaccines, 3) immunosenescence and inflammaging, 4) immunometabolism, gut microbiota, and the gut-brain-immune axis, and 5) autoimmunity and inborn errors of immunity. In the last four sessions of the course, students will present a series of recently published articles on the aforementioned topics. These sessions will serve for the final evaluation of the course. This structure aims for the student to be able to interpret a scientific work in the field of Immunology and to adequately understand the mechanisms involved in the production of diseases due to aberrant functioning of the immune response.

6. SUBJECT PROGRAM

CONTENTS

1	<p>Session 1. Summary of the immune response. Session 2. latest advances in tumor immunotherapy Session 3) allergy/hypersensitivity and development of new vaccines. Session c 4) immunosenescence and inflammaging. Session 5) immunometabolism, intestinal microbiota and the brain-gut-immune system axis. Topic 6) autoimmunity and inborn errors of immunity. Sessions 7-10) Oral presentations by students of relevant articles and evaluation. Groups for oral presentations will be established on the first day of the course. Likewise, on the first day students will be given the articles to be discussed in the oral sessions.</p>
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7. ASSESSMENT METHODS AND CRITERIA

Description	Type	Final Eval.	Reassessn	%
The final score will be established after taking into consideration the assistance to the course and the participation of the students in the discussion of the papers.	Others	No	Yes	60,00
Oral Presentation	Others	Yes	Yes	40,00
TOTAL				100,00
Observations				
Observations for part-time students				

8. BIBLIOGRAPHY AND TEACHING MATERIALS

BASIC

- RA Goldsby "Inmunología", Mc Graw Hill Eds, 5ª Edición, 2005.
- CH. Janeway "Immunobiology. The immune system in health and disease" Garland Eds, 5th Edition 2005.
- A.K. Abbas, A.H. Lichtman, "Inmunología Celular y Molecular", Elsevier Eds, 5ª Edición, 2004.