

INTRODUCTION TO THE MOLECULAR MEDICINE OF CANCER

1.- General information

Code	303002	Plan		ECTS	3
Type	Mandatoy	Course	2025/2026	Periodicity	1 st Semester
Language	Spanish				
Department	Cancer Research Center				
Virtual Platform	https://cicloud.dep.usal.es/				

1.1.- Faculty

Professor Coordinator	Dr. Rogelio González Sarmiento				
Research area	Hereditary cancer				
Center	Cancer Research Center				
Office	Laboratory 14				
URL Web	https://www.cicancer.org/grupo?id=29				
E-mail	gonzalez@usal.es	Phone	+34 923294814		

2.- Previous recommendations

Not applicable.

3.- Aims of the subject

The objective of the subject is to describe and correlate the clinical and molecular findings that allow defining the different general types of cancers and their current application in the diagnosis, prognosis and treatment of patients. In addition, the different hereditary cancer syndromes and the genetic alterations that characterize them together with the criteria and conditions of the genetic counseling in hereditary cancer will be studied.

- Understand the clinical aspects and molecular causes that explain the different diagnostic and therapeutic approach to the different types of cancers.
- To know the different types of cancer grouped by location, their characteristics molecular and the basic criteria of diagnosis, prognosis and treatment.

4.- Skills to be acquired / Learning outcomes

Skills

4.1: Basic skills:

4.2: Specific skills:

-Recognize the specific clinical and molecular characteristics of different types of cancers, diagnostic methods and therapeutic approaches.

- To know what methods are used in the diagnosis and treatment of different types of cancers.
- Know how to interpret a molecular study, a family tree.

4.3: Transferable skills:

5.- Contents (Syllabus)

Theory

1. Cancer epidemiology.
2. Primary and secondary prevention.
3. Diagnostic methods.
4. Molecular bases of cancer treatment.
5. Molecular medicine of nervous system tumors
6. Molecular medicine for head and neck cancer
7. Molecular medicine of lung cancer
8. Molecular medicine of esophageal and stomach cancer
9. Molecular medicine of hepatobiliary cancers
10. Molecular medicine of pancreatic cancer
11. Molecular Medicine for colon cancer
12. Molecular medicine of breast cancer
13. Molecular medicine of ovarian cancer
14. Molecular medicine of endometrial cancer
15. Molecular medicine of kidney, bladder and urinary tract cancer
16. Molecular medicine of prostate cancer
17. Molecular medicine of skin tumors
18. Hereditary cancer
19. Clinical trials in medical oncology

Seminars:

Discussion articles.

6.- Teaching methodology

The student must attend the assessable theoretical sessions of the course having previously read and understood the recommended bibliography; The first session will focus on the approach of the sessions and their organization, discussion of the doubts and comments of the students.

6.1.- Estimated learning time					
		Hours tutored by the teacher		Individual work (hours)	TOTAL HOURS
		Attendance required (hours)	Distance learning (hours)		
Lectures					
Practices	- In classroom	20			20
	- In laboratory	15		10	25
	- In computer classroom				
	- Countryside				
	- Others (specify)				
Seminars					
Work presentations and debates		20			20
Tutorials		8			8
Online activities					
Work preparation					
Other activities					
Exams - evaluation		2			2
TOTAL		65		10	75

7.- Materials, other bibliographical, electronic references or any other type of resource

8.- Assessment
<p>8.1: Assessment Criteria: Continuous evaluation of participation in theoretical sessions and seminars (50% of the final grade). Completion of the written course evaluation (50% of the final grade).</p> <p>8.2: Assessment Systems:</p> <p>8.3: General Considerations and Recommendations for Assessment and Resits:</p>

9.- Weekly Teaching Schedule