UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

COURSE SYLLABUS

Patologia Generale e Immunologia

1819-3-H4101D038

Aims

The course, on the whole, aims to provide tools necessary for comprehension of biological mechanisms of defense and pathological mechanisms of immune system, for comprehension of etiopathogenesis of human diseases. To acquire notions useful to face functional problems. In the present module these aspects are referred in particular to neoplastic pathology

Contents

In the present module acquisition of knowledge and competence on:

Aging. Alteration of the Cell Homeostasis. Tumors. Cancerogenesis. Genomic instability, Heredity and Tumors. Tumors and Hormones, Paraneoplastic Syndromes. Metastases. Tumor metabolism, cachexia. Solid and systemic tumors. Tumors Epidemiology. Immunity and tumor

Detailed program

AGING

Definition, features of aging, primary and secondary aging. Mechanisms of aging in cells and tissues. Morphological and functional modifications of organs. Theories of aging process.

PATHOLOGY OF CELLULAR GROWTH - GENERAL ONCOLOGY

- Precancerous lesions, metaplasia, leukoplakia, dysplasia. Tumor. Benign malignant tumor. Invasivity, metastasis. Histogenetic classification, TNM, Grading, Stadiation. Cancerogenesis. Chemical cancerogenesis and chemical cancerogens. Physical cancerogenesis, radiations. Cancerogenesis biological agents. DNA RNA oncogenic virus. Multistep cancerogenesis. Initiation Promotion. Tumor progression. Theories of cancerogenesis. Hereditary tumors. Natural history of tumors. Molecular events. Oncogenes, oncosuppressors and their role in cellular transformation. Alteration of proliferation and differentiation in tumors. Genomic instability. Hormones and tumors, paraneoplastic syndromes. Tumor metabolism, cachexia. Metastases. Multi drug resistance. Solid and systemic tumors. Epidemiology. Tumor and environment risk and work-related risk. Iatrogenic, dietary, luxury risk. Tumor and immunity. Immunosurveillance. Tumor antigens. Immonotherapy.

Prerequisites

knowledges concerning the previous preparatory courses

Teaching form

lessons, exercises

Textbook and teaching resource

- Patologia generale e fisiopatologia:

“Le basi patologiche delle Malattie" Robbins e Cotran IX ed. Elsevier;

“Patologia Generale” Pontieri, Russo, Frati. V ed. Piccin;

“Cellule, tessuti e malattia- Principi di Patologia Generale” Majno e Joris, ed. CEA.

- Immunologia e immunopatologia:

Roitt, Immunologia, Zanichelli;

Abbas, Immunologia cellulare e molecolare, Piccin;

Kuby, Immunologia, UTET.

- pertinent bibliographic references

Semester

First semester of 3rd year course (October-December)

Assessment method

Ooral examination to evaluate the knowledges on the entire program.

Office hours

By appointment