Nell'ambito dell' **ERASMUS+ MOBILITY PROGRAM**

la Prof. Dr. Liliana Foia

della Grigore T.Popa University of Medicine and Pharmacy in Iasi, Romania

terrà un ciclo di seminari intitolato

CLINICO-BIOLOGICAL SIGNIFICANCE OF SOME MICRONUTRIENTS AND INFLAMMATORY MEDIATORS IN PATHOLOGY

27 & 30 May 2022, ore 14:30-16:30, Aula 110, Blocco A

Seguono breve descrizione dei contenuti delle lezioni e Abstract del corso.

Per ulteriori informazioni e iscrizioni al corso contattare Prof. Francesca Mocci, fmocci@unica.it

27/05/2022 *14:30-16:30* *Aula 110,* *Blocco A*	***Lecture 1:*** *Biochemical foundation of the lipid soluble vitamins in pathology – an overview* *T Impact of micronutrients such as lipid soluble vitamins and some oligoelements upon nutritional status, neoplastic and immune-mediated impairments*
30/05/2022 *14:30-16:30* *Aula 110,* *Blocco A*	***Lecture 2:*** *Key role of inflammatory cells and mediators – biochemical foundation* *T Main cells and biochemical parameters with role in inflammatory diseases, focusing on preformed and newly generated molecules during inflammation* *T Specific immune response and role of inflammatory biomarkers in cancer and skin disease*

Abstract

Lipid-soluble vitamins, representing vitamins A, D, E and K, are required for ensuring a wide variety of physiological functions. Over the past two decades, deficiencies of these oligoelements have been associated with notable risk of cancer, type two diabetes mellitus and a number of immune mediated disorders. In addition, there is increasing evidence of interactions between these vitamins, especially between vitamins A and D, the last being lately either associated to the hormones group, as it mediates its actions through a specific receptor. As a result of this expanded clinical association with disease, translational clinical research and laboratory requests for vitamin measurements have significantly increased. These laboratory requests include measurement of 25-OH D_3, retinol and α-tocopherol, the most accepted serum indicators for the assessment of body lipid-soluble vitamin status. In present, significant restrictions such as incomplete standardisation of measurement and limitations in the techniques that are currently used for quantification, bring limitations on this lipid-soluble vitamin status measurement in blood. The aim of our lecture is to briefly outline the metabolism and interactions of the lipid-soluble vitamin status as a prelude to identifying the current challenges for the quantification of blood vitamins A, D and E especially. Nevertheless, it would be of great interest, to outline their tight link with some proinflammatory biomarkers (such as cytokines) expression in apoptosis of cancer cells or immune-mediated impairments, as inflammation is the immune system's natural response to injury and illness. Inflammatory chemicals in the bloodstream work to protect our body from foreign invaders like bacteria, viruses or other foreign substances. Subsequent to such injuries, a localized inflammatory response plays a critical role in the healing process. This complex response involves leukocytes cells also known as inflammatory cells. In response to the inflammatory process, these cells release specialized substances which include vasoactive amines and peptides, eicosanoids, proinflammatory cytokines, and acute-phase proteins. As a result of expanded clinical association with disease and the variety of chemical mediators from circulation system, inflammatory cells, and injured tissue that actively contribute to and adjust the inflammatory response, translational clinical research and laboratory requests for biochemical mediator measurements have significantly increased.

The aim of the lectures is to briefly outline the biochemical foundation as a prelude to identifying the current challenges for the interplay of main inflammatory cells and biological mediators.