Visiting Professor Program  
Academic year 2021/2022  

DEPARTMENT OF MOLECULAR BIOTECHNOLOGY AND HEALTH SCIENCES  
TEACHING COMMITMENT: 16 hours  

COURSE TITLE  
Genetics Models of Human Pathology  

TEACHING PERIOD  
2nd term  

SCIENTIFIC AREA  
Biology  

LANGUAGE USED TO TEACH  
English  
The Degree Course is entirely taught in English  

COURSE SUMMARY  
Sepsis is one of the leading causes of death worldwide. Cytokine storm is a key determinant of this pathology. The manifestation in COVID-19 of complex immune reactions similar to those occurring in sepsis, highlight the importance of the understanding of this phenomenon. In this course, the molecular basis of sepsis and its impact on cellular metabolism will be covered in depth.  

LEARNING OBJECTIVES  
This course will raise awareness of the complex immune reactions leading to systemic inflammation and sepsis, with particular emphasis on the similarities of these responses to that of severe COVID 19. Students will be exposed to the most recent advancement in the understanding of cytokine storms and of the mechanisms that span from airway distress to multiorgan failure.
TUTORSHIP ACTIVITIES
N/A

LAB ACTIVITIES
N/A

OTHER ACTIVITIES BESIDES THE COURSE
Seminars on recent scientific evidence of the involvement of sepsis mechanisms in reactions to Sars-COV2 infection will be thoroughly discussed.

VISITING PROFESSOR PROFILE
We require long standing experience in the mechanisms of sepsis and metabolic rewiring of the immune system as well as their involvement in COVID-19. We require documented previous experience in teaching and PhD tutorship.

CONTACT PERSON AT THE DEPARTMENT
Prof. Emilio Hirsch
emilio.hirsch@unito.it