

UNIVERSITÀ DEGLI STUDI DI TORINO

ID TIC02\_DIP\_BIOTEC

# 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