#### Master Biology and Health Science - M2



Mài 16/04/2020



# **UE 2.2. Current concepts in Immunity, inflammation, infection**

12 ECTS

# "Parcours" Immunity - Inflammation - Infection

The purpose of this disciplinary teaching unit is to provide students with the conceptual and methodological bases as well as the experimental procedures allowing the study of microorganisms and of the immune system. Head topics related to specialization of the research units of the University of Lille are presented, in particular the molecular and cellular dynamics of the host-pathogen interactions, immune processes involved in infectious diseases, chronic inflammatory diseases, and the relationships between the immune system and its environment.

### Block of Skills and Knowledge - BCC2: Know the recent concepts in Biology and Health Science in a specialization area

### Skills acquired (direct / indirect):

- Design an experiment in Biology and Health Science in a specific area by defining a problem and formulating objectives (SB2): by producing a review of the international scientific literature related to the research project; by arguing the relevance of models and methods' choice (biological model, analysis techniques, statistical tests);
- Communicate scientific data (SB5): by synthesizing data from both the scientific literature and experimentally self-acquired; by presenting and discussing concepts or results from various supports (oral presentation, poster, written report, etc.); by communicating in a clear and structured manner while adapting the level of expression and specialization to the target audience.

# Elective teaching: 8 teaching subunits

Eight teaching subunits of 6 to 12 h are provided. Each subunit takes the form of a seminar on a specific topic, including conferences and mini-symposia. The students are actively associated. They have to choose the equivalent of 10 days from these eight seminars.

- ST1: Host-pathogen interactions.
- ST2: Virulence of infectious agents.
- o ST3: Resistance to anti-infectives and new therapies.
- o ST4: From clinic to models: contextualization of research on infections.
- ST5: Mucosal Immunity: from homeostasis to pathology.
- o ST6: T and B lymphocytes: ontogeny and homeostasis throughout life in the various parts of the organism.
- o ST7: Current and future vaccines: from basic research to its application in public health.
- ST8: Environmental influences on human health.

#### Test: continuous assessment

Knowledge is assessed by writing a literature review on one of the topics dealt with during the thematic seminars. This review is then presented orally to a committee of experts and the students are invited to answer questions related to the topic.