



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

### **12 ECTS**

Parcours Immunity – Inflammation – Infection

# ST6: Mucosal Immunity: from homeostasis to pathology

Contact: <u>patricia.de-nadai@univ-lille.fr</u>

In this seminar, we will first present the role of mucosal surfaces and associated immune cells as well as the role of the microbiota in the maintenance of tissue homeostasis and the development of chronic inflammatory diseases in different organs, such as the skin, lungs and the digestive tract. In a second step, we will explain how the findings obtained in fundamental research are applied in the clinics, notably for the therapeutic management of patients.

#### Duration: 2 days

#### Program

Mucosal surfaces represent the first barrier against environmental aggressions. They are privileged sites, in which the immune system is particularly active to protect the body. Upon stimulation by danger agents, a dialogue established between the "aggressed" epithelium and the immune cells. This dialogue can be modulated by the microbiota and lead to tolerance towards numerous inert agents. However, dysregulation of these interactions can also lead to chronic inflammatory pathologies. During this two-day seminar, we will first present the role of mucosal surfaces and associated immune cells as well as the role of the microbiota in the maintenance of tissue homeostasis and the development of chronic inflammatory diseases in different organs, e.g. the skin, lungs and the digestive tract

In a second step, we will explain how the findings obtained in fundamental research are applied in the clinics, notably for the therapeutic management of patients, by reviewing several key pathologies (e.g. intestinal bowel diseases, inflammatory lung diseases, fibrosis...).

At the end of the session, an interactive workshop will lead the students towards the elaboration of a research project proposal aiming to identify and develop experimental procedures required to characterize potential therapeutic targets of the pathologies studied during the seminar.

#### **Educational team**

Cécile Vignal, Muriel Pichavant, Delphine Staumont-Sallé, Sylvain Dubucquoi, Stéphanie Lejeune-Gaudet, Christelle Faveeuw, Bertrand Meresse