

UE Infectious diseases (part I)



ECTS
6 credits



Component
UFR Chimie-
Biologie

- > **Teaching language(s):** English
- > **Open to exchange students:** Yes
- > **Code d'export Apogée:** YAMB8U28

Presentation

Description

Course outline

Lectures:

- 1) Introduction to infectious diseases (1.5 h) CM
- 2) Parasites: bases of the pathogenicity and host / parasite interactions
 - Make yourself at home: remodeling of the host cell by *Plasmodium falciparum* (1.5 h) CM
 - Schistosoma spp (1.5 h) HP
 - Neglected tropical diseases, selected examples:
 - Leishmanioses (3 h) CM
 - Lymphatic filariasis or foodborne trematodiasis or cysticercosis (1.5 h) CM
- 3) Pathogenic bacteria: bases of the pathogenicity and host / bacteria interactions
 - *Borrelia burgdorferi*, the infectious agent of Lyme disease: evasion from the immune system (1.5 h) ASP
 - Pathogenicity of *Vibrio cholerae*, the infectious agent of cholera (1.5 h) ASP

- Gastric ulcer and gastric cancer: the role of *Helicobacter pylori* (1.5 h) ASP
 - Lung diseases: *Pseudomonas aeruginosa* or *Mycobacterium tuberculosis* (1.5 h) CV
 - *Pseudomonas aeruginosa*: model of experimental evolution (1.5 h) CV
 - Bacteria of the digestive tract: Enterohemorrhagic *Escherichia coli*, *Shigellae*, *Listeria monocytogenes* (3 h) TH
 - Life within a vacuole: *Francisella*, *Salmonella*, *Chlamydia* (3 h) CM
- 4) Viruses: bases of the pathogenicity and host cell / virus interactions
- Negative RNA viruses: Influenza virus, Rabies, Measles, Ebola (7.5 h) RR and MJ
 - Virus and cancers (1.5h) PM
 - HIV-1: life cycle, entry and budding, vaccine development (3 h) WW

Tutorials: 15h

Analysis of scientific publications to illustrate different aspects of the course

Training to the terminal exam: examples of previous exams

Course parts

UE Infectious diseases (part I) - TD	Tutorials (TD)	15h
UE Infectious diseases (part I) - CM	Lectures (CM)	34,5h

Recommended prerequisites

Pre-requisites:

- Basic knowledge in genetics, cell biology, microbiology and biochemistry.
- No specific knowledge is required in virology or in parasitology.

Period : Semester 8

Skills

Targeted skills:

- Knowledge in host-pathogen interactions (models of bacterial, parasitic and viral infections)

- Ability to analyze biological data from published scientific manuscripts.

Useful info

Contacts

Program director

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Place

› [Grenoble](#)

Campus

› [Grenoble - University campus](#)