

UE Infectious Diseases (part I)

 ECTS
6 crédits

 Composante
UFR de Chimie
et de biologie

 Période de
l'année
Printemps (janv.
à avril/mai)

Diplômes intégrant cet élément

- Master Biologie - Santé

- Langue(s) d'enseignement: Anglais
- Ouvert aux étudiants en échange: Oui
- Code d'export Apogée: YAMB8U28

Présentation

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

Heures d'enseignement

CM	CM	34,5h
TD	TD	15h

Pré-requis recommandés

Pre-requisites:

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

Période : Semestre 8

Compétences visées

Targeted skills:

- Knowledge in host-pathogen interactions (models of bacterial, parasitic and viral infections)
- Ability to analyze biological data from published scientific manuscripts.

Infos pratiques

Contacts

Responsable pédagogique

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