Public Health and Infectious diseases

Organization: Université de Tours

Teaching unit coordinators (Part 1): Laurent MEREGHETTI - Daniel MARC-
Position: Professor (M.D-PhD) - INRAE Researcher (DVM-PhD)
Teaching unit coordinators (Part 2): Romuald PATIENT - Antoine TOUZE
Position: Assistant Professor (PhD) - Professor (PhD)

Teaching unit outline

This module will present the general concepts in infectiology and public health, and in epidemiology. Lectures and tutorials will give the student an understanding of the epidemiological tools currently used, including new tools of phylogenetics and molecular epidemiology. The module will introduce the One-Health concept. It will also give an overview of the impact of major infectious diseases affecting humans and animals as well as some recently emerged diseases. The role of pathogens in cancer induction will also be discussed (part 2)

Topics addressed

General concepts
. General methods in infectiology
. Basic concepts in epidemiology
. Big data and management of infections
. European networks (VetBioNet, EU-JAMRAI, One Health EJP)
. New tools of phylogenetics and molecular epidemiology
. Healthcare acquired infections
. Surveillance and emergency
. Viral contamination of the environment
. Emerging infections in animals

Specific infectious diseases
. Bacteria: Tuberculosis, Buruli ulcer, Legionellosis
. Viruses : Influenza, HIV, Measles
. Parasites : Malaria
. Pathogen-induced cancers (papillomavirus and polyomavirus, Helicobacter pylori, Herpesviridae, HCV, HBV, retroviruses)

One Health concept
. Introduction to the One Health concept
. World Health Organization (WHO)
. International organization in Animal health and welfare (OIE)
. International organizations in food safety (FAO)

ECTS	Lectures	Tutorials	Practical work	Digital learning	Personal work
7	60h	20h			95h

Assessment method

Written exams (68.75%)

Oral presentation (workgroup about One Health topic) (25%)

Review of a scientific paper (6.25%)