

Module: Public Health

Module coordinator: Laurent Mereghetti

Module outline :

This module will address 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. Lectures and tutorials will give the student an understanding of the epidemiological tools currently used, including the new tools of phylogenetics and molecular epidemiology. They will also learn about transcriptomic applied to public health. This overview of human infectious diseases will be followed by an introduction to the One-Health concept.

Topics :

Infectious diseases :

HIV, HCV, tuberculosis, West Nile virus, Legionellosis, Measles, Influenza viruses, Blue tongue disease, Schmallenberg virus

Virus typing, epidemiologic markers in bacteriology, transcriptomics, phylogenetics and molecular epidemiology

Pathogen-induced cancers (papillomavirus and polyomavirus, *Helicobacter pylori*, *Herpesviridae* (EBV), HCV, HBV, retroviruses)

One Health introduction :

Introduction to the One Health concept, Humans and Pets in One health

Official bodies: organization charts and assessment functions, risk communication and managing:

World Treat Organization: Sanitary and Phytosanitary agreement

World Health Organization (WHO)

International organization in Animal health and welfare: OIE

International Organizations in Food safety: CODEX- FAO/OMS and risk management / warning networks

International organisms in Plant Health: IPPC

Risk assessment of human diseases (ECDC)

Risk assessment in animal health (EFSA)

Risk assessment in the use of drugs (EMEA)

Public health and agriculture organisms in the EU

Basic legislation in health policy

Risk assessment in the American system (FDA)

Learning : 6 ECTS

Lectures: 60h

Tutorials: 10h

Independent work: 80h

Assessment :

50% Test (written exam)

50% Written analysis of a scientific paper