GRADUATE SCHOOL

ONE HEALTH-EMERGING INFECTIOUS DISEASES

1H-EID

WHY A GRADUATE SCHOOL DEDICATED TO EMERGING INFECTIOUS DISEASES?

Education of excellence is paramount to prepare the next generation of scientists, health-care professionals and policy-makers to major challenges of (re)-emerging infectious diseases (EIDs).
Current educational programs on EIDs are highly fragmented within disciplines, preventing implementation of a "*One Health*" approach. Recent crises have shown that researchers from different disciplines and health-care professionals have difficulty carrying out cross-cutting research projects and sharing their results with policy-makers.

THE SCHOOL AND ITS MISSION

The Graduate School of One Health-Emerging Infectious Diseases provides **high-level research-based multidisciplinary training** to build a community of scientists, health-care professionals and policy-makers sharing the same vocabulary, network and understanding of health, societal, economic and communication challenges represented by EIDs.

A GRADUATE SCHOOL STRUCTURED AROUND 5 COMPLEMENTARY OBJECTIVES TO BETTER PREVENT AND MANAGE EMERGING INFECTIOUS DISEASES

1. MASTER

- M1 and M2 levels
- International and multidisciplinary (biology of emerging pathogens, epidemiology, veterinary sciences, evolutive biology and socio-anthropology)
- Students in sciences and health, and from veterinary and engineering schools
- Personalized internships in a unique, multidisciplinary and internationally renowned research environment

2. PhD

- Wide range of training in the disciplines covered by the Graduate School
- Partnership with 5 Doctoral Schools (*BioSPC, MTCI, Pierre Louis de Santé Publique, Science des sociétés, ABIES*)
- Funding of targeted, inter-partner and interdisciplinary or international doctoral contracts
- Funding of thesis end, mobility grants and participation to congress

3. CONTINUING EDUCATION

- Professionals, researchers, policy-makers (*public and private sectors*)
- MOOCs, DUs (UPCité and Institut Pasteur)
- Validation of professional experience (VAP) or validation of acquired experience (VAE)
- Training of non-scientific audiences (*MOOCs and crisis management exercises*)

4. INNOVATIVE EDUCATIONAL TOOLS

- MOOCs, virtual reality tools, "serious games", iGEM challenge
- Summer Schools
- "*Career Workshops*"

5. SUPPORT TOOLS FOR STUDENTS

- Incoming (Master) and outgoing (internship in the laboratory) mobility grants
- Mobility grants for PhD students
- Partnership with international networks: *Institut Pasteur Network, CircleU, ERASMUS, IDEAL+*

CONTACTS

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AN EMERGING INFECTIOUS DISEASES (EID) TRACK OF THE MOLECULAR AND CELLULAR BIOLOGY MASTER (BMC)

Master 1
A new EID track is open in the **Molecular and Cellular Biology Master** at Université Paris Cité. This track **includes new courses:** computational biology, One Health, biostatistics, ecology, and **promotes internships** on EID research subjects in Graduate School-associated laboratories.

Master 2
A multidisciplinary M2 course with options in the following disciplines:

BIOLOGY OF EMERGING PATHOGENS
- Emerging pathogens
- Basic aspects in pathogen control
- Host-emerging pathogen interactions
- Antiviral immunity

EPIDEMIOLOGY AND BIOSTATISTICS
From the field
- Initiation to epidemiology and to R
- Epidemiology and biostatistics
- Introduction to R and statistical reminders

ANIMAL, ENVIRONMENT AND HUMAN INTERFACES
- Environment, Ecosystems and Biodiversity
- One health-one planet
- Emerging infectious diseases and zoonoses
- Risk analysis training
- Natural and induced microbiological threats

HUMANITIES & SOCIAL SCIENCES
- Global health security, risks and memories
- Socio-anthropology of health
- Political socio-anthropology, humanitarian aid and development
- Sociology of health: health, diseases and societies
- Ecological challenges from a multidisciplinary perspective

EVOLUTIONARY DYNAMICS
- Genomics and evolutionary dynamics
- Population genetics
- Comparative phylogenetic approaches
- Biodiversity and functional ecology of microorganisms

MASTER 2

1 COURSE (9 ECTS)
Among 2 options

1 COURSE (9 ECTS)
Among 5 options

OPTIONAL COURSES (12 ECTS)
Complementary courses in 5 disciplines

PERSONALIZED INTERNSHIP IN RESEARCH LABORATORIES
(30 ECTS)

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