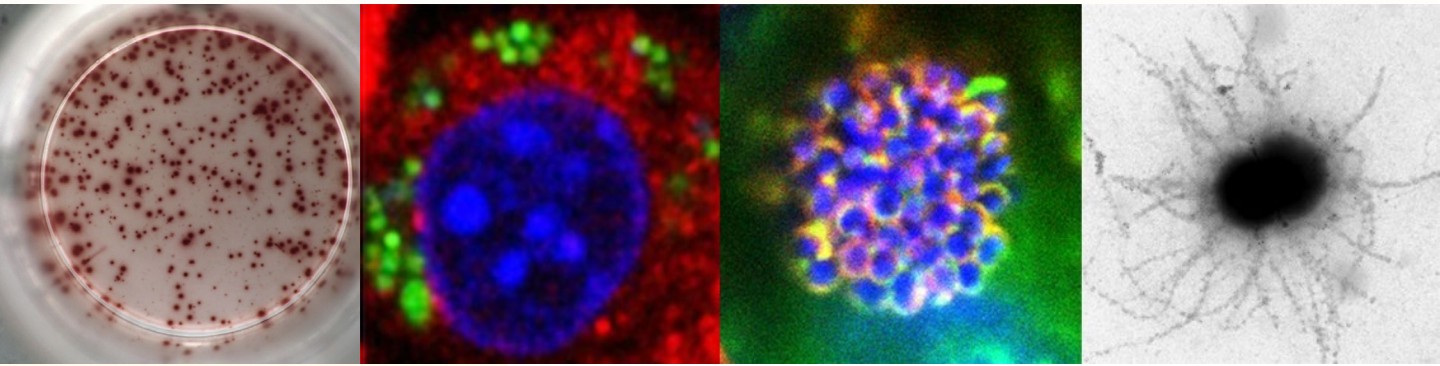


Bacterial Host-Pathogen Interaction Course

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Effectives: 25

Language: English

Prerequisites: Bachelor

Where?

INEM, 160 rue de Vaugirard
Paris 75015

When?

13th to 17th of October

Monday to Friday
morning and afternoon

Evaluation:

1 hour written test (Friday)
(English or French)

Questions:

M2moduleHPI@inserm.fr

Number ECTS: 3

Total numbers of hours:

28 hours

Teaching format:

Lectures

Teaching objectives

This course focuses on how bacterial pathogens have co-opted the host immune system to cause disease. Throughout their long co-evolution, pathogens have evolved sophisticated machineries and have learned to target key molecular pathways of the host to subvert host defences and facilitate their growth. This course touches on fundamental aspects of the host-pathogen interaction with an emphasis on the biological mechanisms that lead to infection and disease. Through a series of lectures by national and international experts in the field, students will gain a broad understanding of the pathogenic processes on a molecular, cellular and structural level.

Teaching outline

Students will be given 1.5 hour lectures on various aspects of the pathogenesis of a range of human bacterial pathogens on topics ranging from the modulation of the colonization and invasion of the host, the hijacking of the host metabolism and the host immune system, the use of high-throughput sequencing for the identification of virulence factors and antigens of interest, the assembly and use of nanoscale molecular machines to subvert host defences as well as general bacterial survival strategies.

Highlights of 2024

- **Marek BASLER**, Biozentrum, Basel, Switzerland
Structure, dynamics and function of the Type 6 Secretion system
- **Serge MOSTOWY**, London, UK
Autophagy and the cytoskeleton in host-pathogen interactions
- **Marc LECUIT**, Institut Pasteur, Paris
Pathogenesis of Listeria infection