Institut Pasteur Korea

Institut Pasteur Korea-UNESP Internship Program

Study Plan

I. Definition

Discipline: Host-Pathogen interactions in neglected diseases
Mandatory during the internship

Department: Center for Neglected Diseases Drug Discovery

Responsible teachers: Dr Carolina Borsoi Moraes and Dr D. John Cruz

Semesters: (X) First (X) Second

Total credits: 04 Total number of hours: 60 h

II. Content synopsis

Basic concepts in the multidisciplinar field of pathogen-host interactions studies, with emphasis on cellular and molecular biology of pathogens causing neglected diseases. Basic knowledge of cell and molecular biology and immunology are prerequisites for this course. Note: Classes and activities will be taught in English.

III. Objectives

This is a course directed at students seeking to be researchers and aims to introduce students to the cellular and molecular study of neglected diseases both in theory and in practice. At the end of the course the student is expected to have built solid basic knowledge of the diseases and the pathogens studied, as well as developed a sense of critical reading of the current scientific literature in this field.

IV. Program

- Introduction to Malaria
- Introduction to American and African trypanosomiasis
- Introduction to Leishmaniasis
- Introduction to Dengue
- Cell biology of protozoan parasites
- Routes of cell entry commonly used by intracellular pathogens
- Evasion of the immune system by protozoan parasites
- Laboratory practice: in vitro and in vivo systems for the study of protozoan parasites and the Dengue virus

V. Teaching techniques

Lectures, seminars based on scientific articles (presented by students), laboratory practice, guided reading.

VI. Evaluation criteria

The final grade will be made considering the student's attendance and active participation in the proposed activities (50% of final grade) and the grade on an exam that will be applied at the end of the course (50% of final grade).

VII. References

COX, F. E. G (Editor). Modern Parasitology: A Textbook of Parasitology. 2nd Edition, Blackwell Science, 1993.
ZIMMER, C. Parasite Rex: Inside the Bizarre World of Nature's Most Dangerous Creatures. Free Press, 2001.
FLINT, S. J., ENQUIST, L. W., RACANIELLO, V. R. Principles of Virology. 3rd Edition, ASM Press, 2009.
KNIPE, D. M. (Editor), HOWLEY, P. M. (Editor). Fields Virology. Lippincott Williams & Wilkins; 5th Edition, 2006.
Scientific articles selected during the course.