Medical Entomology
Mini-Elective
Spring 2015

Course Dates: February 3, 10, 17, 24
Tuesdays, 6:00-8:00 PM

Maximum Students: 10

Class Year: MS1

Course Director: Daniel R. Lattanzi, M.D.
Co-Director Global Health
Magee Womens Hospital and
Medical Director, LaCroix-Perisse Health Center
LaCroix, Haiti

Contact Information: Daniel R. Lattanzi, M.D.
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Description:
This four lecture course will focus on medical entomology as it applies to the understanding, prevention, and control of many infectious diseases. Students will learn identification and physiology of important arthropod vectors along with medically important parasites. We will identify non-medical strategies to improve disease outcome. Lectures will be divided into the following categories:
- Ticks
- Mosquitoes
- Flies
- Insect Envenomation

This highly interactive mini-elective will include a hands-on laboratory component for each session. After a brief overview, students will be able to view gross specimens and will examine slides and organisms under the microscope. Students will learn how to visually identify distinct organisms and will learn techniques of how to distinguish various species. Class discussion will be interactive and will include problem solving topics such as how to identify the most likely vector for an unknown febrile illness.

Course Objectives:
1. Understand the role of vector borne disease and global health.
2. Understand the role of common parasites in human disease.

Requirements:
- Actively participate in course sessions.
- Read brief assignment for each lecture.
- Course evaluation.
Course Outline

Medical Entomology and Parasitology

Course Director:
Daniel R. Lattanzi, M.D.
Co-Director Global Health
Magee Womens Hospital and
Medical Director, LaCroix-Perisse Health Center
LaCroix, Haiti

Instructors:
Daniel R. Lattanzi, M.D.

Locations:
Scaife Hall—3rd Floor Teaching Lab

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Session 1—February 3, 2015
Mosquitoes. "Understanding the role of mosquitoes as a vector in human and animal disease"
We will investigate the physiology and anatomy of the mosquito that allows it to be such an efficient carrier of disease. Malaria, Dengue, West Nile, and other mosquito borne diseases will be studied from the mosquitoes perspective.

Session 2—February 10, 2015
Ticks and Fleas "Common arthropods involved in human disease"
The anatomy and physiology of ticks will be studied as it relates to human and animal disease. Lyme disease and Rocky Mountain Spotted Fever will be discussed.

Session 3—February 17, 2015
Tropical Entomology "Important fly borne illness as neglected tropical diseases"
Tsetse flies and black flies, reduviid bugs and others will be studied. Public health approaches to these diseases will be investigated.

Session 4—February 24, 2015
Insect Envenomation
Will include spiders, bees and beetles.