BIOL-GA 2006 Current Topics in Biology II: Malaria

Instructor:
Jane Carlton

Course Description:
This course aims to provide students with the skills to critically read and evaluate primary literature articles in a small class setting. The course will guide students through papers by starting with a brief overview of the weekly topic and an introduction to the terminology used. In addition, it provides students with an in-depth look into a current area of biology including recent discoveries relevant to human health. The course is designed to improve the ability of students to critically evaluate scientific discoveries and ultimately to design experiments of their own.

Pre-requisite:
N/A

Textbook and Required Materials:
Weekly readings as assigned

Grading:
Class participation 100%

Topics:
Introduction to malaria
Origin and evolution of human malaria species
Malaria has shaped the human genome: sickle cell anemia and Duffy negativity
How the malaria parasite evades the human immune system: antigenic variation
Antimalarial drugs: identification and molecular mechanisms of resistance
Anopheles mosquito - Plasmodium parasite interactions
New methods of controlling malaria: gene editing and Wolbachia