

BIOLOGY 178 SELECTED TOPICS IN IMMUNOLOGY
SPRING 2011 (To be held Thursdays from 1:30-4:00 in B207)

Office Hours Tu from 12-1 and Thursdays 4:30-5:30 and by appointment in
Barnum 105
Ext. 7-3187
Email- harry.bernheim@tufts.edu

Core Competencies Covered in Bio 178

Be able to interpret data presented in figures and tables, and to evaluate conclusions based on the data presented

Be able to understand techniques and methods from original literature described in lecture

Be able to understand how to pursue scientific inquiry through formulating hypotheses, designing controlled experiments or studies and analyzing and evaluating results

Be mindful of ethical considerations and societal outcomes in research and in technological advancement

Be able to research and write a term paper on an immunological topic related to host defense

Knowledge Base Competencies Covered in Bio 104

An understanding of the major paradigms in biology, including evolution, cell theory, genetic inheritance and the central dogma

An understanding of the relationship between genotype and phenotype

An understanding of the information flow between DNA, RNA, and proteins, and a basic knowledge of the processes that govern cellular function

Recognition that biological processes are based on chemical and physical principles, and that biology informs medicine and community health

Course Specific Competencies Covered in Bio 104

An understanding of the immunological principles involved with cancer, organ transplants, host response to infectious diseases and immune deficiencies.

Date	Topic
Jan 19	Introduction/Review of Innate and Adaptive Immunity
Jan 26	Cancer Immunotherapy
Feb 2	Cancer Immunotherapy
Feb 9	HIV- General
Feb 16	HIV-Vaccines
Feb 23	No Class-Tufts Monday
March 1	Transplantation
March 8	Transplantation
March 15	Autoimmunity- Multiple Sclerosis
March 22	No class- Vacation Week
March 29	Immune Response to Influenza
April 5	Hypersensitivity- Allergic Responses
April 12	Class Presentations
April 19	Class Presentations
April 26	Class Presentations

Each week we will be reading and discussing two papers about the assigned topics (see schedule above). Though individual students will be assigned papers to present to the class (during the term each student will present two papers) all students will be required to read all papers and participate in class discussion. For the last three classes each student will prepare a half hour presentation about a disease and how the immune system is involved with its pathogenesis and/or resolution. Students will also be required to write a ten-page paper about the topic they present in class. You must notify me about the topic of the paper by 2/24 and hand me an outline of the paper by 3/15 so I can give you feedback on your work.

Class attendance and participation are mandatory- each class missed will result in a half grade lowering. Lack of participation and failure to read the assigned papers will result in a lower final grade.