

BMS 506: Introduction to Immunology (3 credits)

Syllabus

Course Directors: Gary Winslow winslow@wadsworth.org; 473-2795.

Meeting time and location: Tuesday 3:30-5:00; DAI teaching laboratory

Participating Faculty:

Wadsworth Center: Drs. Gary Winslow, Jeff Kennedy

Albany Medical College: Drs. Constantine Bitsaktis, Eric Yager

Course Description: This is an introductory immunology course designed for non-majors, or individuals beginning their study in the field. Ten lectures on fundamental immunological processes will be presented and these will be followed by 3-4 weeks of discussion of historical and current literature. The goal of the formal lectures will be to provide students with the fundamental knowledge of the immune system. Quizzes on the formal lecture material and the required reading will be used to evaluate the students' learning, and will be given the week following each lecture.

Learning objectives:

- Develop a basic understanding of fundamental immunological processes.
- Identify the major cellular and tissue components which comprise the innate and adaptive immune system
- Demonstrate an understanding of how white blood cells, including lymphocytes, develop from undifferentiated precursors
- Learn how highly variable lymphocyte receptors are generated from a limited amount of genetic information.
- Acquire a basic understanding of the fundamental of the Major Histocompatibility Complex
- Understand how immune responses by CD4 and CD8 T cells, and B cells, are initiated and regulated

- Be able to discuss how the immune system distinguishes self from non-self
- Gain experience at reading and evaluating the scientific literature in immunology

Prerequisite: Introduction to Cell and Molecular Biology or permission from the instructor. Students should be familiar with basic principles of biomedical sciences.

Textbook: Immunology, by Kuby et al. 6th edition.

Grading: Weekly quizzes on lecture material (50%), final exam (50%).

2011 course organization and schedule:**BMS 506 Introduction to Immunology****Course organization Spring 2011****Tuesdays 3:30-5:30**

date	Lecture #	TOPIC	LECTURER
1/25/10	1	intro/cells and organs/hematopoiesis	Eric and Constanti
2/1/10	2	Innate immunity	Eric Yager
2/8/10	3	Antigens and antibodies	Constantine Bitsaki
2/15/10		Ig genes/diversity	Constantine Bitsaki
2/22/10		Winter Break	
3/1/10	4	Immunological techniques	Constantine Bitsaki
3/8/10	5	MHC and Ag processing	Gary Winslow
3/15/10	6	B cells/leukocytes	Rachael and Gar
3/22/10	7	T cells	Eric Yager
3/29/10	8	Immune cell functions	Eric Yager
4/5/10	9	Immunological diseases	Jeff
4/12/10	10	papers/discussion	Eric Yager
4/19/10	11	Spring Break	
4/26/10	12	papers/discussion	Constantine Bitsaki
5/3/10	13	papers/discussion	Gary Winslow
5/10/10	14	FINAL EXAM	
		Final exam	
		Grading	
		Quizzes (10-1)	50
		Final	50