

BIO 553 Advanced Topics in Immunology

(Spring, 2014)

Instructor: Yuntao Wu (Phone: 703-993-4299; email: ywu8@gmu.edu)
Office: PWII, Room 306

Text book: Cellular and Molecular Immunology
By Abul K. Abbas and Andrew H. Lichtman

Thursday, 7:20 pm – 10:00 pm. Bull Run Hall Room 248
(Spring break: March 10-16; Reading days: May 6; Exam: May 8)

January 23rd:

I. Introduction to Immunology:

- 1). General properties of Immune response
- 2). Cells and tissues of the immune system

January 30th:

3). Basics of Flow-cytometry:

February 6th:

I. Recognition of Antigens:

- 1). Antibodies and Antigens
- 2). The major histocompatibility complex

February 13th:

II. Recognition of Antigens:

- 3). Antigen presentation
- 4). Antigen receptors and accessory molecules

February 20th:

III. Maturation, activation of regulation of lymphocytes

- 1). Lymphocytes maturation

February 27th:

III. Maturation, activation and regulation of lymphocytes

- 1). T cell activation

March 6th:

III. Maturation, activation of regulation of lymphocytes

- 2). B cell activation

March 13th: March Break (No class)

March 20th:

III. Maturation, activation of regulation of lymphocytes

- 3). Immunologic Tolerance

April 3rd:

IV. Effector Mechanism of Immune Response

- 1). Cytokines
- 2). Innate Immunity

April 10th:

IV. Effector Mechanism of Immune Response

- 3). Cell mediated Immunity

April 17th:

IV. Effector Mechanism of Immune Response

4). Humoral Immunity

April 24th:

V. Immune system in Disease

1) Immunity to Tumors

May 1st:

V. Immune system in Disease

2) Hypersensitivity and autoimmunity and transplantation immunology

3) Acquired immunodeficiencies

May 8th: Final Exam

Grading:

Paper Presentation (20%)

***Class participation (31%)**

Final Exam: multiple choice and short questions (49%)

Bonus for class activity: 6%

***Class participation (7%+ 24% = 31%)**

- For each class attendance: 0.5%. Total: 14 classes x 0.5% = 7%

(Grade will be deducted for late (0.1% deduction) and half class (0.25% deduction))

- Activity in class: 2% for each class. Total: 12 classes x 2% = 24%

(excluding the first two class. Each student is required to ask at least 2 questions to the presenter to earn 2%. If good questions are asked, a bonus 0.5% will be awarded)

A+: 97-100%

A : 93-96 %

A-: 90-92%

B+: 87-89%

B: 83-86%

B-: 80-82%

C+ 77-79%

C: 70-76%

D-: 60-69%

F: < 60%