# Immunology Lab (BIOL 4060) Fall 2009 Tuesday 2-4:50pm Room BO 2008

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## **Grading**

<u>Tentative</u>	e Grading Scale	Point Distribution	Point Distribution		
90-100%	A range	Lab Reports	40%		
		Quizzes	20%		
80 -89	B range	Oral Presentation	15%		
		Lab Practical	20%		
70-79	C range	Weekly performance	5%		
60-69	D range				

## **Instructions**

• All assignments have to be completed independently and plagiarism of any kind will not be tolerated. Please see the Academic Dishonesty policy.

# Lab Reports

- 1. Lab Reports are worth 30 points each.
- 2. Lab Reports will be worth 40% of your final grade.
- 3. All Lab Reports should be typed. Handwritten <u>reports</u> will not be accepted.
- 4. Each report should have <u>a labeled Introduction</u>, Materials and Methods, Results and Discussion/Conclusion<u>section</u>. If there is some change in this format, it will be discussed the previous week.
- 5. The Lab Report for each experiment(s) should not exceed 5 typed pages (Font size 12) and will-also be evaluated for organization, of content, and neatness.
- 6. All Assignments have to be turned in before the start of the lab the day they are due.

- 7. In case of Late Assignments, 3 points or 10% of the grade will be cut off from the final grade of that assignment for each late day.
- 8. Lab Reports sent in email attachments will not be accepted.

### Quizzes

There will be five quizzes given throughout the semester. These are worth 10 points each and 20% of your final Grade.

#### Performance

This is a lab-based course and points are allocated for conduct, enthusiasm, attendance, and cleanliness. Cleaning your work area before you leave is an absolute must.

### Attendance

The students are expected to attend all the labs. **There are no make-up labs!** Each student will be allowed one excused absence. Being absent in more than two labs will result in failure in the course.

#### • General Instructions

- 1. All experiments will be conducted in pairs or in case of some experiments groups of four. Please choose your partner for the semester. No changes will be made later.
- 2. Eachvery week an attendance sheet will be passed around. Be sure to sign it!
- 3. The first week an attendance sheet along with a column for email addresses will be passed around. Make sure to put in your most functional email addresses. If your addressthis does changes during the semester, you can make this change in the attendance sheet alongside your name. The results of certain experiments may have to be sent to you by email, and this which will probably will have to be in the lab report due the following week. "I haven't received the email" is unacceptable.
- 4. I will make a folder will all your email addresses and send you an email Tuesday, Week1 by 5pm. Please reply back immediately to confirm it.

Week	Date	Topics			
1	8.25.09	Introduction			
2	9.1.09	Hemocytometer/cell counting/ Blood smears and blood cells/ Set up oral and nasal cultures			
3	9.8.09	Lab report #1 Due Gram Staining of Oral and Nasal Cultures Antigen-Antibody Reaction in Diagnosis			
4	9.15.09	Quiz#1/Lab Report#2 Due Western Blot Analysis			
5	9.22.09	Western Blot Analysis, cont'd			
6	9.29.09	Quiz #2/Lab Report #3 ELISA (HIV diagnostic test) Intro to FACS			
Immunohistochemistry					
7	10.1.09	Immunohistochemistry, cont'd			
<u> 7</u> 8	10.6.09	Fall Break-NO LAB			
<u>89</u>	10.13.09	Quiz#3/Lab Report #4 Phagocytosis			
<u>910</u>	10.20.09	Phagocytosis, cont'd			
1 <u>0</u> 4	10.27.09	Quiz #4/Lab Report #5 ELISA (HIV diagnostic			
test)Immunohistochemistry	7	Intro to FACS			
1 <u>1</u> 2	11.3.09	<del>Quiz #5/Lab Report #6</del> <del>FACS</del>			
analysis Immunohistochemistry, cont'd					
123	11.10.09	Veterans Day (Weds)-NO LAB			
1 <u>3</u> 4 #6/Lab Report #7	11.17.09	Quiz #5/Lab Report #6Quiz			
"or Lab Report #1		Oral Presentations			

#### **Oral Presentations**

Select a topic either from the following listed topics or one of your choice. Remember to select a topic that emphasizes the role of the immune response in a clinical setting- the disease can be related to autoimmune, infection, allergy or cancer.

Emphasize on the role immunology plays on the topic-diagnostic, therapeutic or pathological.

The presentation should be preferably PowerPoint and should not exceed 15 minutes. Do not forget to add a slide for the references used.

Oral Presentations are worth 15% of your total grade. In order to receive full credit, you must attend all of the oral presentations.

## Suggested topics:

- 1. Hashimotos thyroiditis
- 2. Type 1 Diabetes
- 3. Myasthenia Gravis
- 4. Systemic Lupus Erythematosus
- 5. Crohns/Ulcerative Colitis
- 6. Rheumatoid Arthritis
- 7. Lyme disease
- 8. Acute Rheumatic Fever
- 9. Dilated Cardiomyopathy
- 10. Bullous Diseases
- 11. Toxic shock Syndrome
- 12. Immune Mediated Anemia
- 13. Multiple Sclerosis
- 14. Lymphoma
- 15. Tuberculosis
- 16. Chronic Granulomatous Disease
- 17. Asthma
- 18. Sarcoidosis
- 19. AIDS
- 20. Inflammatory Hepatobilary Cirrhosis
- 21. Monoclonal Gammopathies
- 22. Tetanus
- 23. Herpes
- 24. HPV vaccine
- 25. Leprosy