## Molecular Bases for Human Disease, BIMM110, Spring 2014

Lecture: Peterson 110 Time: Tuesday and Thursday 12:30 pm-1:50 pm

Instructor: Professor Maho Niwa, <u>mniwarosen@ucsd.edu</u> Course Website: <u>http://classes.biology.ucsd.edu/bimm110.SP14</u> Username: bimm110sp14

Password: 2014SPDiseases (Case Sensitive!)

**Exams:** Midterm Exam: 5/6/2014 @12:30-1:50 pm in Class Final Exam: 6/9/2014 @11:30-2:30 pm

**Textbook:** No Assigned Textbook All the lectures will be podcasted (<u>Ted</u>).

**Office hours:** Monday 4:00-4:50 am @NSB#1 Scholarly Activity Room (Lunch Room)

Project Assistant: Ria Vanessa O. del Rosario (NSB#1, Rm4119) Tel: 822-0815 (8:00 am-4:00 pm)

\*Midterm and Final Exams will be picked up from Ria.

#### **Teaching Assistant:**

Duran, Michael Anthonym2duran@ucsd.eduEmge, Jacob Raymondjemge@ucsd.eduDey, Aritraadey@ucsd.eduPhung, Larry Hanglhangphu@ucsd.edu

#### **Description of the course:**

This course presents 1) genetic, biochemical, and molecular biological approaches used to identify the molecular basis of human diseases; 2) current understanding of selected major human diseases at the molecular and cellular levels; 3) successful and possible therapeutic treatments of these diseases. It is expected that students who take BIMM 110 already have a good background in molecular biology, metabolic biochemistry, and genetics.

# Schedule:

Week 1 April 1, Lecture 1: April 3, Lecture 2:	Human Disease Today Down Syndrome
Week 2 April 8, Lecture 3: April 10, Lecture 4:	Down Syndrome Hemophilia
Week 3 April 15, Lecture 5: April 17, Lecture 6:	Sickle Cell Anemia, Thalassemia Genomic Imprinting, X-chromosome inactivation, Epigenetics
Week 4 April 22, Lecture 7: April 24, Lecture 8:	Molecular Cell Biology of Cyctic Fibrosis Cholera
Week 5 April 29, Lecture 9: May 1, Lecture 10:	Metabolic Disease (Guest lecture by Professor Jim Wilhelm) Anthrax
Week 6 May 6, Lecture 11: May 8, Lecture 12:	Midterm exam (in class) Tools to Study Human Diseases Neurodegenerative Disease, Parkinson
Week 7 May 13, Lecture 13: May 15, Lecture 14:	Neurodegenerative Disease, Alzheimer Eye disease (Guest lecture by Professor Jonathan Li)
Week 8 May 20, Lecture 15: May 22, Lecture 16:	Diabetes Brain Tumor (Guest lecture by Professor Clark C. Chen)
Week 9 May 27, Lecture 17: May 29, Lecture 18:	HIV Special Topic: Chron's Disease
Week 10 June 3, Lecture 19: June 5, Lecuture 20	Stem Cell Special Topic

## The learning Environment:

In lectures and sections, refrain from eating, newspaper reading and conversation. Turn off cell telephones and messaging devices.

### **REQUIRED MATERIALS:**

iClicker - a small handheld radio frequency device that you will use to answer questions posed in class each day. Only the iClicker brand will work. New or used iClickers can be purchased at the bookstore. If purchasing iClicker imposes significant financial burden, another option is to sit close to one of the TA's and submit your answers to him or her on a piece of paper with your name on it, <u>at the same time</u> as the class is voting via clickers. Clicker participation will contribute to 2% of your final grade. You will be graded based on your participation, regardless whether your answer was right or wrong. To get full credit, you will need to answer (=click) to the questions in 75% of the lectures, starting in week 3, April 15 (you can start earning clicker credits earlier, starting in the first class). There is no need to notify the instructor or the TA's if you forgot your clicker or ran out of battery - as long as you've participated in 75% of the lectures, you are fine.

# **GRADING:**

1 Midterm	39% of the final grade
Final exam	59% of the final grade
Clicker participation	2% of the final grade

All exams will be closed book/closed computer. Questions will be derived from the lectures, and questions discussed in class.

Overall course letter grades will be assigned using the following scheme:

A (A-, A, A+)
B (B-, B, B+)
C (C-, C, C+)
D
F

**STUDENTS WITH DISABILITIES**: Reasonable accommodations will be provided for qualified students with disabilities. If you have any disability that may impair your ability to complete the course successfully, please contact me during the first week of the course.

# ACADEMIC INTEGRITY

Absolutely no cheating will be tolerated. UCSD Policies on Academic integrity will be enforced

# For further information:

http://blink.ucsd.edu/Blink/External/Topics/Policy/0,1162,19400,00.html

All work must be done by the student to whom it is assigned, without any unauthorized aid of any kind.