

# **UNIVERSITY OF SOUTHERN CALIFORNIA**

**Department of Biochemistry & Molecular Biology**

## **502 - SEMINAR COURSE FALL 2015**

**5PM to 7PM, WEDNESDAY, in McKibben 156**

**First meeting, Wednesday, September 9, 2015**

**INSTRUCTOR: GLORIA A. GREEN, PH.D.**

### **COURSE TITLE: RECENT ADVANCES IN RESEARCH ON SICKLE CELL DISEASE AND SICKLE HEMOGLOBINOPATHY**

**(Limited to 12-14 students)**

**COURSE DESCRIPTION:** This course is a seminar class designed to (1) introduce graduate students to recent biochemical research on sickle cell disease pathophysiology; (2) provide instruction on techniques useful in the critical analyses of research literature; and (3) provide each student with experience in scientific presentations.

#### **GENERAL TOPICS:**

1. The inhibition of HbS gelation.
2. Erythrocyte abnormalities (structure and function).
3. Regulation of Hb transcription.
4. The biochemistry of proposed Hb-switching agents.
5. Evaluation of proposed gene therapy. Evaluation of animal models.
6. Evaluation of proposed bone marrow transplantation therapy.

#### **MECHANISM OF INSTRUCTION:**

1. Students will be instructed in basic techniques for analyzing research literature (Class Meetings 1 and 2).
2. Each student will be required to present two papers with analyses during the semester. Student analyses are required to be both written and oral. The papers can be selected by the student with notification to the instructor to avoid duplications. All papers selected must have a publication date [[ May 2015-December 2015]] and must represent one of the general topics listed above. Each topic will be covered by two class meetings (e.g. two-four students per topic). The schedule for each topic will be issued at the first class meeting.
3. Student performance will be evaluated using the following criteria: 50% Oral Presentation, 25% Written analyses, 25% Participation in discussions of papers presented by classmates.

For registration and further information please contact **Jim Lee** - extension 442-0230.

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