

BIOMG 7940/7800: Stem Cells and Cancer

Instructors: Robert Weiss and Andrew White

Description:

This course is organized as a journal club involving multiple stem cell laboratories on campus. Presentations of primary research papers will be done by members of these and other laboratories, while faculty from these laboratories and all other participants, including enrolled students, will contribute to critique and discussion. This journal club will feature 5 x 1.5 hrs sessions that deal with basic cell and developmental stem cell biology (using all model organisms), cancer, and the connection of stem cells with cancer and aging.

The Spring 2017 offering will focus on the following topics:

- 1) Adult Stem Cells
- 2) Cancer Cells of Origin
- 3) Cancer Stem Cells
- 4) Modeling Cancer with Pluripotent Stem Cells
- 5) Cellular Reprogramming during injury and aging

The specific paper to be presented at each session is chosen in conjunction with the faculty moderator and circulated to all participants at least one week in advance.

Expectations for enrolled students:

Presenting a paper is not required. Students will be required to attend the presentations and actively participate in the discussion. Students that miss a discussion session must submit a perspective article (one page, single spaced; approximately 500 words) on the paper that was discussed, to be submitted prior to the next class meeting. The first half of the essay should summarize the rationale, hypothesis, and results of the study. The second half of the essay should describe limitations of the work and ideas for future experiments. At the end of the course, all students will have a take-home written assignment in which they will be asked to answer a series of questions related to a paper provided by the course instructors. This writing assignment is due on May 18th. Grading is S/U.

The class will meet in the Centennial room (S2-120 Schurman Hall) from noon to 1:30 pm on the following Thursday dates:

January 26 - organizational meeting and 1st session

February 16

March 16

April 13

May 4

Each student in this course is expected to abide by the Cornell University Code of Academic Integrity. Any work submitted by a student in this course for academic credit will be the student's own work.