

BIOMG 7940/7800: Stem Cells and Cancer

Instructor:

Gerlinde Van de Walle, DVM, PhD
Associate Professor
Baker Institute for Animal Health,
Department of Microbiology and Immunology
College of Veterinary Medicine
grv23@cornell.edu

Description:

The overall purpose of the course is to provide discussion-based instruction on stem cells and cancer using recent and cutting-edge scientific articles. The course is organized as a journal club. Presentations of primary research papers will be given by enrolled students and faculty moderators will be on hand for each session to guide the discussion. This journal club will feature five sessions (each 1.5 hours) that deal with basic stem cell biology (across diverse organ systems), and the connection of stem cells to injury, aging, and regeneration; but also cancer.

The Spring 2021 offering will focus on the following topics:

- 1) Introduction to Stem Cells (Facilitator: Gerlinde Van de Walle)
- 2) Adult Stem Cells in the Gastrointestinal Tract (Facilitator: Amy Hung)
- 3) Stem cells in Regenerative Medicine (Facilitator: Michelle Delco)
- 4) Cancer Stem Cells (Facilitator: Andrew White)
- 5) Stem Cell Regulation during Injury and Aging (Facilitator: Ben Cosgrove)

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:

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. Grading is S/U.

The class will meet virtually via Zoom from 12:55 to 2:25 pm on the following Thursday dates:

February 18
March 18
April 15
April 29
May 13

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 must be the student's own work.