

CAMB 6970: Biology of Stem Cells

Course Directors: Maria Basil

Link to Canvas Site: [CAMB 6970](#)

Syllabus Spring 2026:

Format: Class alternates between lectures from faculty and journal club presentations led by students. Each student will also be responsible for written assignments described below in the “grading” section.

SCHEDULE

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Date	Speaker	Day	Class Type	Topic
Jan 26	Orientation Class	MON		Orientation
February 2	A. Blanco	MON	Lecture	Epigenetics
Feb 9 th	A. Blanco	MON	JC	Epigenetics
Feb 16 th	P. Gadau	MON	Lecture	iPS cells
Feb 23 rd	P. Gadau	MON	JC	iPS cells
March 2 nd	A. Vaughan	MON	Lecture	Tissue stem cells – lung
March 9 th	Spring Break	MON	No class	
March 16 th	A. Vaughan	MON	JC	Tissue stem cells – lung
March 23 rd	W. Tong	MON	Lecture	Tissue stem cells – blood
March 30 th	W. Tong	MON	JC	Tissue stem cells – blood
April 6 th	P. Rompolas	MON	Lecture	Tissue stem cells – skin & eye
April 13 th	P. Rompolas	MON	JC	Tissue stem cells – skin & eye
April 20 th	K. Hamilton	MON	Lecture	Tissue stem cells – GI
April 27 th	K. Hamilton	MON	JC	Tissue stem cells – GI

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Description: The goal of this course is to introduce graduate students to the field of stem cell biology through lectures and reviews of important contributions from the primary literature. Topics include embryonic stem cells, epigenetics and reprogramming, tissue-specific stem cells such as hematopoietic, neuronal, and epithelial stem cells, and model systems such as iPS cells and primary organoids. The potential applications and current challenges in stem cell and regeneration biology will be discussed. Important aspects of stem cell identification and characterization utilizing multiple model systems will be a focus.

Grading: Course grades will be assigned based on contribution to each of the following components, with weights as indicated below

-Journal Club Presentation (presentation by 2 students per session) of a manuscript(s) chosen by the lecturer and the course directors, each student presents once per semester, 40%

-Submit 1-2 questions prior to each week's JC on Canvas (that session presenters exempt), 5 submissions, 10%

-“News and Views” of one JC paper (1 per student, assigned at beginning of course, must be from a different session than the JC presentation). ~1000 words and 1-2 figures, 40%

-Active participation 10%