

Stem Cells and Regenerative Medicine CSAT 6059

Spring 2023

CLASS DAYS and TIME: MWF 8:30-9:50AM

CLASSROOM: ALTC 2.211

COURSE FACULTY: Dr. Erzsebet Kokovay

OFFICE LOCATION and HOURS: 2.054V, after class or by appointment

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TELEPHONE: (210) 567-5811

READ THIS DOCUMENT CAREFULLY - YOU ARE RESPONSIBLE FOR ITS CONTENTS.

COURSE DESCRIPTION AND OBJECTIVES

The fields of stem cells and regenerative medicine are rapidly evolving and have great potential to change the way medicine is practiced. This course will encompass topics from basics of tissue specific stem cell biology to pre-clinical animal models, strategies and progress in regenerative medicine.

Pre-requisites – none

Semester credit hours – 1

After this class, the students should have a solid foundation on stem cell biology and uses for stem cells from therapeutics to disease modeling. Students will understand some of the challenges to utilizing regenerative medicine in the clinic. Students will appreciate the broad potential of stem cells and regenerative medicine.

Computer Access – PowerPoint required

Reading Assignments: Journal Articles for each lecture will be e-mailed a week before the lecture

Course materials and/or textbooks: The course will go through recent seminal papers on stem cell biology or regenerative medicine that will be available via e-mail.

Course requirements, examinations and grading: Attendance is required. Students will participate in class discussions during a one hour lecture and drive the discussion on a paper chosen by the faculty instructors or ethical questions posed by the lecturer following each lecture for 20 minutes. To help guide paper discussions, each student should fill out the article discussion form and either turn in before lecture or e-mail to the instructor before class. There will be two student presentation days. Each Presentation should last about 20 minutes. It should be in the style of a lecture with an introduction to the problem or subject, a review of the highlights from the literature/clinical trials etc. Followed by what the next steps should be in your opinion. The topic of the presentations will be related to animal models for stem cells or regenerative medicine (i.e. drosophila for neuroblasts research or the newt for limb regeneration as examples) and the second can be any subject directly related to stem cells or regenerative medicine that hasn't been covered in class (i.e. gene therapy, biomaterials, skin stem cells). **Each student will need the course director's approval for the topics they choose to present.**

50% participation, discussions on the papers and answers on the article discussion form.

50% Student Presentations

A = 90-100% B = 80-89% C = 70-79% F = < 69%

REQUESTS FOR ACCOMODATIONS FOR DISABILITIES

In accordance with policy 4.2.3, **Request for Accommodation Under the ADA and the ADA Amendments Act of 2008 (ADAAA)**, any student requesting accommodation must submit the appropriate request for accommodation under the American with Disabilities Act (ADA, form 100). to his/her appropriate Associate Dean of their School and a copy to the ADA Coordinator. Additional information may be obtained at <http://uthscsa.edu/eeo/request.asp>.

ACADEMIC INTEGRITY AND PROFESSIONALISM

Any student who commits an act of academic dishonesty is subject to discipline as prescribed by the UT System Rules and Regulations of the Board of Regents. Academic dishonesty includes, but is not limited to, cheating, plagiarism, collusion, the submission for credit of any work or materials that are attributable in whole or in part to another person, taking an exam for another person, signing attendance sheets for another student, and any act designed to give unfair advantage to a student or the attempt to commit such an act. Additional information may be obtained at <http://catalog.uthscsa.edu/generalinformation/generalacademicpolicies/academicdishonestypolicy/>

TITLE IX AT UTHSCSA

Title IX Defined:

Title of the Education Amendments of 1972 is a federal law that prohibits sex discrimination in education. It reads “no person in the United States shall, on the basis of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any education program or activity receiving Federal financial assistance.”

University of Texas Health Science Center San Antonio’s Commitment:

University of Texas Health Science Center San Antonio (UTHSCSA) is committed to maintaining a learning environment that is free from discriminatory conduct based on gender. As required by Title IX, UTHSCSA does not discriminate on the basis of sex in its education programs and activities, and it encourages any student, faculty, or staff member who thinks that he or she has been subjected to sex discrimination, sexual harassment (including sexual violence) or sexual misconduct to immediately report the incident to the Title IX Director.

In an emergency, victims of sexual abuse should call 911. For non-emergencies, they may contact UPD at 210-567-2800. Additional information may be obtained at <http://students.uthscsa.edu/titleix/>

EMAIL POLICY

You may communicate via direct e-mail.

USE OF RECORDING DEVICES

Recording devices are permitted

ELECTRONIC DEVICES

Laptops are welcome as long as they are being used to take notes. No cell phones during class

Date	Day	Room #	Activity	Topic	Instructors
Feb 8	Wed	AL&TC 2.211	Introduction Lecture	Course Overview and basics of stem cell biology	Dr. Erzsi Kokovay kokovaye@uthscsa.edu
Feb 10	Fri	AL&TC 2.211	Lecture 1 hr Paper/Ethics Discussion 20 min	Embryonic Stem Cells for Endoderm Derivative and Therapeutics	Dr. Pei Wang Wangp3@uthscsa.edu
Feb 13	Mon	AL&TC 2.211	Lecture 1 hr Paper/Ethics Discussion 20 min	Neurogenesis	Dr. Kokovay kokovaye@uthscsa.edu
Feb 15	Wed	AL&TC 2.211	Lecture 1 hr Paper/Ethics Discussion 20 min	Germ Stem Cells	Dr. Brian Hermann Brian.Hermann@utsa.edu
Feb 17	Fri	AL&TC 2.211	Lecture 1 hr Paper/Ethics Discussion 20 min	Mesenchymal Stem Cells	Dr. Xiao-Dong Chen Chenx4@uthscsa.edu
Feb 20				President's day	
Feb 22	Wed	AL&TC 2.211	Lecture 1 hr Paper/Ethics Discussion 20 min	Induced Pluripotent Stem Cells	Dr. Donna Lehman lehman@uthscsa.edu
Feb 24	Fri	AL&TC 2.211	Regenerative research animal models	Student Presentations	Dr. Kokovay
Feb 27	Mon	AL&TC 2.211	Lecture 1 hr Paper/Ethics Discussion 20 min	Nerve Regeneration	Dr. Lizhen Chen ChenL7@uthscsa.edu
Mar 1	Wed	AL&TC 2.211	Lecture 1 hour Paper/Ethics Discussion 20 min	Hematopoietic Stem Cells	Dr. Fen-Chun Yang Yangf1@uthscsa.edu
Mar 3	Fri	AL&TC 2.211	Lecture 1 hour Paper/Ethics Discussion 20 min	Stroke Recovery	Dr. Naomi Sayre Sayre@uthscsa.edu
Mar 6	Mon	AL&TC 2.211	Lecture 1 hour Paper/Ethics Discussion 30 min	Ethical Discussion on Stem Cell Uses	Dr. Kokovay
Mar 8	Wed	AL&TC 2.211	Any related subject	Student Presentations	Dr. Kokovay