

IMPORTANT: This syllabus form should be submitted to OAA (gsbs_academic_affairs@uth.tmc.edu) a week before the start of each semester.

NOTE to STUDENTS: If you need any accommodations related to attending/enrolling in this course, please contact one of the Graduate School's 504 Coordinators, Cheryl Spitzenberger or Natalie Sirisaengtaksin. We ask that you notify GSBS in advance (preferably at least 3 days before the start of the semester) so we can make appropriate arrangements.

<p>Term and Year: Fall 2023</p> <p>Course Number and Course Title: GS21 1232: Translational Sciences: From Bedside To Bench and Back</p> <p>Credit Hours: 2</p> <p>Meeting Location: MDACC/Basic Science Research Building (BSRB)</p> <p>Building/Room#: BSRB S3.8112</p> <p>WebEx/Zoom Link: N/A</p>	<p>Program Required Course: Yes</p> <p>Approval Code: No</p> <p>Audit Permitted: Yes</p> <p>Classes Begin: August 30, 2023</p> <p>Classes End: December 6, 2023</p> <p>Final Exam: Monday, Dec. 11, 2023</p>
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Class Meeting Schedule

Day	Time
Wednesdays	4:00-6:00 p.m.

<p>Course Director</p> <p>Name and Degree: E. Scott Kopetz, MD, PhD, FACP</p> <p>Title: Professor and Deputy Chair</p> <p>Department: GI Medical Oncology</p> <p>Institution: MDACC</p> <p>Email Address: skopetz@mdanderson.org</p> <p>Contact Number: 713-792-3617</p> <p>Course Co-Director/s: (if any)</p> <p>Name and Degree: N/A</p> <p>Title:</p> <p>Department:</p> <p>Institution:</p>	<p>Instructor/s</p> <p>See the attached Class Schedule</p>
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NOTE: Office hours are available by request. Please email me to arrange a time to meet.

Teaching Assistant:

Ms. Sujanitha Umamaheswaran
SUMamaheswaran@mdanderson.org

Course Description:

This is an integrated, multidisciplinary course designed to provide students with the necessary tools to devise, fund, implement, and publish exemplary research involving patients or materials obtained from a human source. Students participating in this course will gain an understanding of the depth, complexity, and limitations of integrating laboratory and clinical research into investigations of human disease.

Textbook/Supplemental Reading Materials

- None

Course Objective/s:

Upon successful completion of this course, students will

Understand the importance of translational research: using laboratory findings to benefit human patients (bench to bedside) and investigating clinical observations in the laboratory (bedside to bench). This course is distinct from Human Protocol Research (GS21 1132): This course focuses on the interrelationship between laboratory-based and clinical research. A culture that fosters translational research of the highest quality requires laboratory and clinical investigators to appreciate the scientific complexity of patient-oriented translational research.

Specific Learning Objectives:

1. Provide an overview of the necessary tools to devise, fund, implement and publish exemplary research involving patients or materials used from a human source.
2. Provide an introduction to the depth, complexity and limitations of integrating laboratory and clinical research into investigations of human disease.
3. To provide an overview of the importance of translational research: using laboratory findings to benefit human patients (bench to bedside) and investigating clinical observations in the laboratory (bedside to bench).
4. To provide a foundation of knowledge on the interrelationship between laboratory-based and clinical research.

Student Responsibilities and Expectations:

1. Review course material (lecture slides) prior to class every week.
2. Active participation in and contribution to course discussions during lecture is expected.
3. 85% attendance required (i.e., 2 absences allowed)
4. Students must complete written exam (multiple choice, true/false, essay take-home exam) based on lectures.

Students are expected to review course material prior to class. Plagiarism will not be tolerated and is grounds for dismissal from the course and further GSBS disciplinary action. Cheating or engaging in unethical behavior during examinations (quizzes and final) will be grounds for dismissal from the course without credit and further GSBS disciplinary action.

Grading System: **Letter Grade (A-F)**

Student Assessment and Grading Criteria : (May include the following:)

Percentage	Description
Final Exam (60 %)	Take-home exam (Multiple Choice, T/F, Essay)
Participation and/or Attendance (40 %)	Participation in the discussions, 85% attendance required

First Day of Class: August 30
 Classes Cancelled (Holiday): November 22
 Last Day of Class: December 6
 Final Exam Week: December 11-15, 2023

FALL 2023
GS21 1232 Translational Sciences:
From Bedside to Bench and Back
 Formal Registration through UT Graduate School of Biomedical Sciences (GSBS)
 4:00 p.m. – 6:00 p.m. Wednesday evenings
 MD Anderson Cancer Center – BSRB S3.8112

Course Requirements:

- **85% attendance required (i.e., 2 absences allowed)**
- **Students must complete written exam (multiple choice, true/false, essay take home exam).**
 - **Take home exam must be returned by Monday, 12/11/23.**
- **Grading:**
 - **40%: Participation in class discussion**
 - **60%: Final exam**

DATE	LECTURE	INSTRUCTOR	TITLE(S) ~ AFFILIATION
8/30/2023	Course Introduction: Bedside to Bench and Back	Scott Kopetz, MD, PhD skopetz@mdanderson.org	Professor , Department of GI Medical Oncology
9/6/2023	Why is Pancreatic Cancer Such a Deadly Disease and What Can We Do About It	Anirban Maitra, MBBS amaitra@mdanderson.org	Professor , Department of Pathology, Anatomical
9/13/2023	Genomic Landscape of Colorectal Pre-Cancers in Hereditary High-Risk Populations: The case of Lynch Syndrome	Eduardo Vilar-Sanchez, MD, PhD evilar@mdanderson.org	Chair Ad Interm , Department of Clinical Cancer Prevention
9/20/2023	Title: Single-cell and spatial analysis of lung cancer	Humam Kadara, PhD hkadara@mdanderson.org	Associate Professor, Translational Molecular Path
9/27/2023	How to build efficient translational pipelines for rare diseases: the renal medullary carcinoma paradigm	Pavlos Msaouel, MD, PhD pmsaouel@mdanderson.org	Assistant Professor, Genitourinary Medical Oncology
10/4/2023	From Bench to Bedside and Back: A Drug Combination Example.	Lawrence Kwong, PhD lkwong@mdanderson.org	Associate Professor , Department of Translational Molecular Path
10/11/2023	Translational Advances in Cellular Therapy into the Clinic	Cassian Yee, MD cyee@mdanderson.org	Professor , Department of Melanoma Medical Oncology
10/18/2023	Rational Design of Tumor-Specific Therapeutic and Biomarker Strategies through Reverse Translational Studies	Sangeeta Goswami, MD, PhD sgoswami@mdanderson.org	Assistant Professor , Department of Genitourinary Medical Oncology

10/25/2023	Translational Computational Oncology	John Paul Shen, MD jshen8@mdanderson.org	Assistant Professor , Department of GI Medical Oncology Anderson
11/1/2023	Epigenetics: Cancer Biology & Therapies	Joya Chandra, BS, PhD jchandra@mdanderson.org	Professor , Department of Pediatrics-Research
11/8/2023	Mechanisms of resistance and toxicity to immune checkpoint therapy	Jianjun (JJ) Gao, MD, PhD jgao1@mdanderson.org	Associate Professor , Department of Genitourinary Medical Oncology
11/15/2023	Translational Research in Leukemia	Tapan M. Kadia, MD tkadia@mdanderson.org	Professor , Department of Leukemia
11/22/2023		Holiday	
11/29/2023	Translational research in head and neck cancers	Faye Johnson, BS,MD, PhD fmjohns@mdanderson.org	Professor , Department of Thoracic-Head & Neck Med Onc
12/6/2023	DNA Repair Inhibitors: From Bedside to Bench and Back	Timothy Yap, PhD, MBBS tyap@mdanderson.org	Associate Professor , Department of Invest. Cancer Therapeutics
12/11-12/15		Final exam due	

Contact Information - MD Anderson

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 Del and Dennis MCarthy
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Contact Information - Graduate School of Biomedical Sciences (GSBS)

GSBS
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