

CAMB 610: Gene Therapy and Genome Editing - Fall 2020

Monday / Wednesday / Friday 1:00-2:00 PM, unless otherwise indicated

Director: Kiran Musunuru, MD, PhD, MPH, ML (email: kiranmusunuru@gmail.com)

	Day	Date	Time	Room	Format	Instructor	Topic
UNIT 1: Genome Editing, Gene Therapy, and Vector Platforms	W	2-Sep	1:00 - 2:00 pm	Virtual		Musunuru	Introduction / Overview of Course
	F	4-Sep	1:00 - 2:00 pm	Virtual	Lecture	Musunuru	History, foundations, and principles of genome editing
	M	7-Sep					NO CLASS - Labor Day
	W	9-Sep	1:00 - 2:00 pm	Virtual	Lecture	Musunuru	Zinc finger nucleases and TALENs
	F	11-Sep	1:00 - 2:00 pm	Virtual	Lecture	Musunuru	CRISPR-Cas9 and other RNA-guided endonucleases
	M	14-Sep	1:00 - 2:00 pm	Virtual	Lecture	Musunuru	Defining, improving, and altering the specificities of genome-editing tools
	W	16-Sep					NO CLASS
	F	18-Sep	1:00 - 2:00 pm	Virtual	Lecture	Musunuru	Research applications of genome editing, part 1
	M	21-Sep	1:00 - 2:00 pm	Virtual	Lecture	Musunuru	Research applications of genome editing, part 2
	W	23-Sep	1:00 - 2:00 pm	Virtual	Lecture	Musunuru	Therapeutic applications of genome editing, part 1
	F	25-Sep	1:00 - 2:00 pm	Virtual	Lecture	Musunuru	Therapeutic applications of genome editing, part 2
	M	28-Sep	1:00 - 2:00 pm	Virtual	Lecture	Musunuru	Basics of Immunology Part 1
	W	30-Sep	1:00 - 2:00 pm	Virtual	Lecture	Musunuru	Basics of Immunology Part 2
	F	2-Oct	1:00 - 2:00 pm	Virtual	Lecture	Musunuru	Immunology Assays
	M	5-Oct					NO CLASS
	W	7-Oct					NO CLASS
	F	9-Oct	1:00 - 3:00 pm	Virtual	Lecture	Wilson	Adenovirus, parts 1 and 2
	M	12-Oct					NO CLASS
	W	14-Oct	1:00 - 3:00 pm	Virtual	Lecture	Wilson	AAV, parts 1 and 2
	F	16-Oct	1:00 - 2:00 pm	Virtual	Lecture	Wilson	AAV, part 3
	M	19-Oct	1:00 - 2:00 pm	Virtual	Lecture	Weissman	mRNA
	W	21-Oct	1:00 - 2:00 pm	Virtual	Lecture	Bushman	Characterizing integration events
	F	23-Oct	1:00 - 2:00 pm	Virtual	Lecture	Musunuru	Ethics of human germline genome editing
	M	26-Oct	1:00 - 2:00 pm	Virtual	Lecture	Musunuru	Hands-on workshop with CRISPR-Cas9 (computer-based)
	W	28-Oct	1:00 - 2:00 pm	Virtual	Lecture	Rivella	Retrovirus
	F	30-Oct	1:00 - 2:00 pm	Virtual	Lecture	Rivella	Lentivirus
M	2-Nov					NO CLASS	
W	4-Nov	1:00 - 4:00 pm	Virtual			EXAM, UNIT 1	
F	6-Nov					NO CLASS	
UNIT 2: Clinical Applications	M	9-Nov	1:00 - 2:00 pm	Virtual			EXAM REVIEW
	W	11-Nov	1:00 - 2:00 pm	Virtual			INTRO TO RESEARCH PROPOSALS
	F	13-Nov	1:00 - 3:00 pm	Virtual	Lecture	Bennett	Retinal disorders, parts 1 and 2
	M	16-Nov	1:00 - 2:00 pm	Virtual	Lecture	Gill	CAR T cells for hematologic malignancies
	W	18-Nov	1:00 - 2:00 pm	Virtual	Lecture	Marrazzo	Taking gene therapies to the clinic
	F	20-Nov	1:00 - 2:00 pm	Virtual	Lecture	Arruda	Hemophilia
	M	23-Nov					NO CLASS - Thanksgiving
	W	25-Nov					NO CLASS - Thanksgiving
	F	27-Nov					NO CLASS - Thanksgiving
	M	30-Nov	1:00 - 2:00 pm	Virtual	Lecture	Posey	Cancer immunotherapy
	W	2-Dec	1:00 - 2:00 pm	Virtual	Lecture	Kleinstiver	Improving the range of genome-editing tools
	F	4-Dec	1:00 - 2:00 pm	Virtual	Lecture	Peranteau	In utero therapies
	M	7-Dec	1:00 - 2:00 pm	Virtual	Lecture	Milone	Engineering T cells for therapy of cancer and B-cell mediated diseases
	W	9-Dec	1:00 - 2:00 pm	Virtual		TBA	STUDENT PRESENTATIONS
F	11-Dec	1:00 - 2:00 pm	Virtual		TBA	STUDENT PRESENTATIONS	