

SYLLABUS: BICD194/BGGN281 - Active Genetics

Professor: Ethan Bier

Th: 11:00 AM - 12:20 PM

Bonner Hall 2130

SPRING 2022

<u>DATE</u>	<u>LECTURE</u>	<u>TOPIC</u>	<u>READING</u>
Mar. 31 (Th)	1 – EB	Introduction: Mendel to McClintock	Week 1
Apr. 7 (Th)	2 – EB	Selfish genetic elements: transposons, homing endonucleases, meiotic drives	Week 2
Apr. 14 (Tu)	3 – EB	CRISPR and DNA Repair	Week 3
Apr. 21 (Th)	4 – EB	Gene-drives: gene-drives, allelic-drives, neutralization drives	Week 4
Apr. 28 (Th)	5 – EB/KC	Active genetics and genome engineering in insects and mammals	Week 5
May 5 (Th)	6 – AK	<i>In vivo</i> gene editing and somatic interhomolog repair	Week 6
May 12 (Th)	7 – VN	Antibiotic resistance and Pro-active genetics	Week 7
May 19 (Th)	8 – JE	Ethical considerations of new genetic technologies	Week 8
May 26 (Th)	9 – EB	Student Debate and Discussion-1	Weeks 1-8
June 2 (Th)	10 – EB	Student Debate and Discussion-2	Weeks 1-8

COURSE WEBSITE: <https://canvas.ucsd.edu/courses/35285>