

## MCB 64. Cell Biology in the World

### Syllabus - Spring 2022

Date	Meeting	Subject	Notes
Tu Jan 25 <i>Jessica Liu</i>	L1	Welcome / course introduction Guide to approaching PIEs How do we want to learn? Growth mindset, what do you value in a learning community?	<b>Confirm Poll Everywhere registration</b>
Th Jan 27 <i>Sam Kunes</i>	L2	What happens in the womb: inheritance and environment	
Tu Feb 1 <i>Sam Kunes</i>	L3	Epigenetics and molecular mechanisms of inheritance	
Th Feb 3 <i>Jessica Liu</i>	L4	Paper discussion: <i>Weaver et al.</i>	
Tu Feb 8 <i>Sam Kunes</i>	L5	Paper discussion: <i>Benito et al.</i> 2018	<b>Announce student teams</b>
Th Feb 10 <i>Sam Kunes</i>	L6	Life cycle of mitochondria (short lecture after PIE 1)	<b>PIE 1 (covers L2-L4)</b>
Tu Feb 15 <i>Sam Kunes</i>	L7	Mitochondria	
Th Feb 17 <i>Jessica Liu</i>	L8	Paper discussion: <i>Fan et al.</i> 2008	
Tu Feb 22 <i>Sam Kunes</i>	L9	Neuromuscular junction / muscular dystrophy	
Th Feb 24 <i>Sam Kunes</i>	L10	Gene editing / muscular dystrophy (short lecture after PIE 2)	<b>PIE 2 (covers L5-L8)</b>

Tu Mar 1 <i>Sam Kunes</i> <i>Jessica Liu</i>	L11	Paper discussion: Nelson <i>et al.</i> 2016 (research article) Isasi <i>et al.</i> 2016 (commentary)	
Th Mar 3 <i>Jessica Liu</i>	L12	Your immune system: an overview	
Tu Mar 8 <i>Jessica Liu</i>	L13	Viruses: HIV and COVID-19	
Th Mar 10 <i>Jessica Liu</i>	L14	CRISPR/Cas9-HIV Case Study (short lecture after PIE 3)	<b>PIE 3 (covers L9-L11)</b>
Tu Mar 15	-	No Class – Spring Break	
Th Mar 17	-	No Class – Spring Break	
Tu Mar 22 <i>Jessica Liu</i>	L15	HIV and COVID-19 denialism Global Impact of HIV and COVID-19	
Th Mar 24 <i>Jessica Liu</i>	L16	Time to work on case development	<b>PIE 4 (covers L12-L14)</b>
Tu Mar 29 <i>Jessica Liu</i>		<b>Case development session 1: Present character backstories</b>	<b>Character backstory slides due Team narrative outline due</b>
Th Mar 31 <i>Jessica Liu</i>		<b>Case development session 1: Present character backstories</b>	
Tu Apr 5 <i>Sam Kunes</i>	L17	Aging and pathology	
Th Apr 7 <i>Sam Kunes</i>	L18	Alzheimer's disease	<b>Research summary and personal reflection 1 due</b>

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Tu Apr 12 <i>Sam Kunes</i>	L19	Molecular mechanisms of aging	
Th Apr 14 <i>Sam Kunes</i>	L20	Paper discussion: <i>Sahu et al.</i> 2021	
Tu Apr 19 <i>Jessica Liu</i>	L21	Aging and society	
Th Apr 21 <i>Jessica Liu</i>		Character closing narratives	<b>PIE 5 (covers L17-L19)</b>
Tu Apr 26 <i>Jessica Liu</i>		<b>Case development session 2: The Pilots</b>	Last day of classes <b>Presentation slides due</b>
Th Apr 28 <i>Jessica Liu</i>		<b>Case development session 2: The Pilots</b>	Reading period begins
Tu May 3 <i>Jessica Liu</i>		<b>Case development session 2: The Pilots</b>	During reading period <b>Personal Reflection 2 due</b>