

MCB150 Fall 2019: MOLECULAR IMMUNOLOGY (prereq: MCB C100A or 102)

DATE	Lect	TOPIC	INSTR.	Prob Set due in class	Janeway's reading
Thu	29-Aug	1	Overview: Components of the immune system. Innate versus adaptive immunity	Winoto	Chapter 1
Tue	3-Sep	2	Antigens and antibodies, tools	Winoto	Appendix I, A1-A21, chapter 16-4 to 16-6
Thu	5-Sep	3	Innate immunity. First line of defense	Winoto	Chapter 3-1, 3-4 to 3-7, Appendix I, A34-36
Tue	10-Sep	4	Innate immunity. Pattern recognition and response to infection	Winoto	Chapter 3-10 to 3-13
Thu	12-Sep	5	V(D)J Recombination	Winoto	1st Chapter 4-1 to 4-10, Chapter 5-1 to 5-8.
Tue	17-Sep	6	Enzymes mediating V(D)J Recombination	Winoto	Chapter 5-11 to 5-22.
Thu	19-Sep	7	Class switch recombination and somatic hypermutation	Winoto	2nd Chapter 10-1 to 10-15
Tue	24-Sep	8	B cell Development	Winoto	Chapter 8-1 to 8-9
Thu	26-Sep	9	MHC and MHC function	Winoto	3rd Chapter 4-11 to 4-20, Chapter 6
Tue	1-Oct		MIDTERM 1 (L1-8) 7-9 pm	145 Dwinelle	
Thu	3-Oct	10	Antigen presentation to T lymphocytes	Winoto	Chapter 6
Tue	8-Oct	11	T-cell signaling	Winoto	Chapter 4-11 to 4-20, 5-9 to 5-11, Chapter 7, 16-3, 16-16
Thu	10-Oct	12	T cell development 1	Winoto	Chapter 8-10 to 8-28, Appendix I, A22-A33
Tue	15-Oct	13	T cell development 2	Winoto	4th
Thu	17-Oct	14	T cell tolerance/AIRE	Winoto	Chapter 15-1 to 15-3.
Tue	22-Oct	15	Peripheral tolerance/Treg	Winoto	5th Chapter 9-14 to 9-28
Thu	24-Oct	16	Cytotoxic T cells, apoptosis	Winoto	Chapter 9-29 to 9-33
Tue	29-Oct	17	T helper subsets: Th1/2/17	Winoto	6th Chapter 3-15, 3-16, 11-1 to 11-16
Thu	31-Oct		No lecture, review session by GSIs		
Monday	4-Nov		MIDTERM II (L9-17), 7-9pm	10 Evans	
Tue	5-Nov	18	Inflammation and lymphocyte recirculation	Raulet	Chapter 2, 3-3 to 3-7, 3-17 to 3-21
Thu	7-Nov	19	Synthesis: Immune response 1	Raulet	Chapter 3-2, 3-3, 3-15 to 3-27, 9-14 to 9-23, 11-1 to 11-16
Tue	12-Nov	20	Synthesis: Immune response 2: including memory	Raulet	Chapter 9-29 to 9-33, 11-17 to 11-24, start Chapter 12
Thu	14-Nov	21	Mucosal Immunity	Raulet	7th Chapter 12, 16-20 to 16-31
Tue	19-Nov	22	Vaccines / HIV AIDS	Raulet	Chapter 13-25 to 13-28. Start Chapter 14
Thu	21-Nov	23	Allergy and hypersensitivity	Raulet	8th Chapter 14
Tue	26-Nov	24	Autoimmunity	Raulet	Chapter 15-1 to 15-28
Thu	28-Nov		Thanksgiving		
Tue	3-Dec	25	Transplantation	Raulet	9th Chapter 15-29-15-38
Thu	5-Dec	26	Tumor immunology	Raulet	Chapter 16-13 to 16-19
Tue	Dec 9-13, 2019		RRR		
Fri	20-Dec-19		MIDTERM III (L18-26), 9-11 am, location TBA	Group 17	
Sections	Date	topics			
	29-Aug	30-Aug	Overview		
	5-Sep	6-Sep	antibodies and tools		
	12-Sep	13-Sep	Molecular biology techniques/transgenic/knockout		
	19-Sep	20-Sep	review		
	26-Sep	27-Sep	review midterm 1		
	3-Oct	4-Oct	After midterm 1: Inbred mouse strains, MHC nomenclature		
	10-Oct	11-Oct	Journal Club: Burdette et al (2011) STING is a direct innate immune sensor of cyclic di-GMP. Nature 478:515-518.		
	17-Oct	18-Oct	Review T cell development, especially the transgenic experiments.		
	24-Oct	25-Oct	Review for midterm 2		
	31-Oct	1-Nov	Review for midterm 2		
	7-Nov	8-Nov	Journal Club: Barber, DL et al (2006) Restoring function in exhausted CD8 T cells during chronic viral infection. Nature 439: 682-687		
	14-Nov	15-Nov	Review		

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21-Nov	22-Nov	Review -- Vaccines Hypersensitivities			
28-Nov	29-Nov	Thanksgiving			
5-Dec	6-Dec	Review			
Instructors	Office hours	location	email address		
Prof Winoto	Tue 4-5	447 LSA	winoto@berkeley.edu		
	Wed 10-11	448 LSA	(starting Sept 11)		
Prof Raulet	Tue 4-5	447 LSA	raulet@berkeley.edu		
	Wed 10-11	448 LSA			
GSIs					
Bridget Luckie	Friday 9-10	231 Hildebrand	bluckie@berkeley.edu	Sections 101/103: Thurs 2-3 / Fri 10-11	
Shaina Carroll	Tue 10-11	448 LSA	shaina_carroll@berkeley.edu	Sections 102/104: Thurs 3-4 / Fri 12-1	
Course text (recommended)		Janeway's Immunobiology 9th edition			
	Grading				
	Midterm 1			150	
	Midterm 2			150	
	Midterm 3			150	
	Miscellaneous (journal clubs,, problem sets, section attendance)			40	
	total			<hr/> 490	