Principles of Pharmacology

Spring 2021

MWF 10:30-11:30 AM ~~Room 229 B (Pharmacology Conference Room)~~

Virtual - Zoom

William P. Clarke, Ph.D. - course director
Office: Rm 2.532.2U DTL, phone: 567-4171
Email: clarkew@uthscsa.edu

Text: Kenakin, T., A Pharmacology Primer 5th edition. Elsevier Academic Press 2018*

*(*not required, but recommended for students focusing on pharmacology)*

#	Date	Day	Subject	Instructor	Verified?
1	11-Jan	Mon	Course Intro -The Development of the Discipline of Pharmacology	Frazer	X
2	13-Jan	Wed	Drug Disposition 1	Lam	X
3	15-Jan	Fri	Drug Disposition 2	Lam	X
	18-Jan	Mon	Martin Luther King day - no class		
4	20-Jan	Wed	Pharmacogenetics and Pharmacogenomics 1	Lam	X
5	22-Jan	Fri	Pharmacogenetics and Pharmacogenomics 2	Lam	X
6	25-Jan	Mon	Pharmacogenetics and Pharmacogenomics 3	Lam	X
7	27-Jan	Wed	Toxicology I	Lam	X
8	29-Jan	Fri	Toxicology II	Lam	X
9	1-Feb	Mon	Toxicology III	Lam	X
	3-Feb	Wed	**Exam 1**		
10	5-Feb	Fri	Ligand-receptor interactions, Clark's occupancy equation	Clarke	
11	8-Feb	Mon	Saturation and Competition Binding	Clarke	
12	10-Feb	Wed	Agonist binding curves	Clarke	
13	12-Feb	Fri	occupancy vs response - Clark, Ariëns, Stephenson models	Clarke	
14	15-Feb	Mon	occupancy vs response - Furchgott, Black and Leff	Clarke	
15	17-Feb	Wed	Agonism - affinity, Furchgot method; efficacy	Clarke	
16	19-Feb	Fri	Agonism - efficacy - full vs partial agonists	Clarke	
17	22-Feb	Mon	Antagonism - competitive, Schild analysis, partial agonists	Clarke	
18	24-Feb	Wed	Antagonism - non competitive	Clarke	
	26-Feb	Fri	No class		
19	1-Mar	Mon	Allosteric modulators 1	Clarke	
20	3-Mar	Wed	Allosteric modulators 2	Clarke	
21	5-Mar	Fri	Allosteric modulators 3	Clarke	
	8-Mar	Mon	**Spring Break - no class!**		
	10-Mar	Wed			
	12-Mar	Fri			
	15-Mar	Mon	**Exam 2**		
22	17-Mar	Wed	Inverse agonism - constitutive activity, 2-state model 1	Clarke	
23	19-Mar	Fri	Inverse agonism - constitutive activity, 2-state model 2	Clarke	
24	22-Mar	Mon	Multi-active state models and functional selectivity of ligands 1	Clarke	
25	24-Mar	Wed	Multi-active state models and functional selectivity of ligands 2	Clarke	
26	26-Mar	Fri	7-TMS receptors & signaling molecules (G-proteins, Arrestins, Adenylyl cyclase) 1	Clarke	
27	29-Mar	Mon	7-TMS receptors & signaling molecules (G-proteins, Arrestins, Adenylyl cyclase) 2	Clarke	
28	31-Mar	Wed	7-TMS receptors & signaling molecules (G-proteins, Arrestins, Adenylyl cyclase) 3	Clarke	
29	2-Apr	Fri	Designer Receptors Exclusivelty Activated by Designer Drugs (DREADDs) 1	Carreno	X
30	5-Apr	Mon	DREADDs 2	Carreno	X
31	7-Apr	Wed	phospholipid signalling I	Paukert	X
32	9-Apr	Fri	phospholipid signalling II	Paukert	X
33	12-Apr	Mon	Receptor tyrosine kinases I	Girotti	X
34	14-Apr	Wed	Receptor tyrosine kinases II	Girotti	X
35	16-Apr	Fri	Nuclear Receptors: Steroids, retinoids, thyroid hormones 1	Morilak	X
36	19-Apr	Mon	Nuclear Receptors: Steroids, retinoids, thyroid hormones 2	Morilak	X
37	21-Apr	Wed	Non-classical Steroid Actions	Roberts	X
	23-Apr	Fri	Holiday - no class!		
	26-Apr	Mon	**Exam 3**		
	28-Apr	Wed	**Experimental Biology Meeting - no class!**		
	30-Apr	Fri			
38	3-May	Mon	Receptor Modulation I	Clarke	
39	5-May	Wed	Receptor Modulation II	Clarke	
	7-May	Fri	CBN Retreat (likely) - no class		
40	10-May	Mon	Receptor Modulation III	Clarke	
41	12-May	Wed	Neuropeptides 1	Roberts	X
42	14-May	Fri	Neuropeptides 2	Roberts	X
43	17-May	Mon	Ion channels	Lodge	X
44	19-May	Wed	Ligand-gated ion channels 1	Lodge	X
45	21-May	Fri	Ligand-gated ion channels 2	Lodge	X
46	24-May	Mon	Alzheimer's Pharmacology 1	Hopp	X
47	26-May	Wed	Alzheimer's Pharmacology 2	Hopp	X
48	28-May	Fri	Transporters 1	Daws	x
	31-May	Mon	Holiday - no class!		
49	2-Jun	Wed	Transporters 2	Daws	x
50	4-Jun	Fri	Cancer Pharmacology 1	Risinger	X
51	7-Jun	Mon	Cancer Pharmacology 2	Risinger	X
52	9-Jun	Wed	Chronic Drug Treatment 1	Collins	X
53	11-Jun	Fri	Chronic Drug Treatment 2	Collins	X
54	14-Jun	Mon	Immunopharmacology 1	O'Connor	X
55	16-Jun	Wed	Immunopharmacology 2	O'Connor	X
	18-Jun	Fri	**Exam 4**		