

Curriculum for the Pharmacological Sciences Training Program

Principal Investigators: Joan Heller Brown (jhbrown@ucsd.edu)

Participating Training Grant Faculty:

Abagyan, Ruben	Dorrestein, Pieter	Hook, Vivian	Newton, Alexandra	Tsien, Roger
Adams, Joseph	Evans, Ronald	Howell, Stephen	Nigam, Sanjay	Tukey, Robert
Almutairi, Adah	Evans, Sylvia	Insel, Paul	Nizet, Victor	Villarreal, Francisco
Bandeira, Nuno	Gerwick, William	Jain, Mohit	Patel, Hemal	Wang, Dong
Brown, Joan Heller	Gilson, Michael	Joiner, William	Rao, Anjana	Webster, Nicholas
Carson, Dennis	Gonzales, David	Karin, Michael	Reya, Tannishtha	Yang, Jing
Chang, Geoff	Guan, Kun-Liang	Linden, Joel	Sunahara, Roger	Zhang, Jin
Chun, Jerold	Gustafsson, Åsa		Taylor, Palmer	
Daneman, Richard	Gutkind, Silvio	Marsala, Martin	Taylor, Susan	
Dennis, Edward	Handel, Tracy	McCammon, James	Trejo, JoAnn	
Dixon, Jack	Hnasko, Tom	Murphy, Anne		

Qtr	Course #	Course Title	Units
REQUIRED Coursework for all BMS Students			
F	BIOM 200A/B	From Molecule to Organism	8
F	BIOM 201	Seminars in Biomedical Research	4
S	BIOM 285	Statistical Inference/Med Sci	2
F, W, S	BIOM/PHAR 219	Ethics in Scientific Research	1
REQUIRED Core Track Courses for Pharmacological Sciences Trainees (part of BMS core track requirement)			
W	BIOM/PHAR 255A	Molecular Basis of Drug Action and Disease Therapy I: (Insel/Vallon)	3
S	BIOM/PHAR 255B	Molecular Basis of Drug Action and Disease Therapy II: (Brown/Joiner)	3
W	BIOM/PHAR 275	Seminars in Pharmacology (Rotating – 2016: TBA)	2
REQUIRED ELECTIVE Courses for Trainees (part of BMS 15 unit elective requirement)			
W	PHAR 240 (Lab Course)	Pharmacological Analysis/Physiological Systems Laboratory (Roth/Villarreal)	2
F, W, S	PHAR 295	Research Discussions (every year; but register and sign in only while funded by TG)	1
F, W, S	PHAR 294	Journal Club: Signal Transduction and Cardiovascular (Miyamoto) or other weekly Journal Club (1 quarter minimum)	1
F, W, S	BIOM/PHAR 231	Current Topics in Pharmacology	1
At least One ELECTIVE from this Group (Quantitative and Analytical)			
W	BIOM/PHAR 231	Fluorescence Tools for Cellular and Molecular Events (<i>Cont Topics in Pharmacology</i>) (Tsien/Taylor)	1
S	BIOM/PHAR 206 (Course TBA)	Introduction to Bioinformatics: Data and Internet Resources (Looking for replacement)	2
S	BIOM/PHAR 268 /SPPS268/CMM264	Systems-Wide Mass Spectrometry: Proteomics and Metabolomics (Hook)	1
At least One ELECTIVE from this Group (Pharmacokinetics, Drug Metabolism and Pharmaceutics)			
W	BIOM/PHAR 231 (# will change)	Pharmacokinetics (Chen)	2
W	CHEM 118	Pharmacology and Toxicology (Tukey)	4
F	SPPS 224	Pharmaceutics I – Biopharmaceutics (Best)	3
S	SPPS 226	Pharmaceutics III	4
Other suggested ELECTIVES			
W	PHAR 210/BIOM 267	Drug Discovery, Development & Commercialization (Ettouati/Ma)	3
S	BIOM/PHAR/PATH 228	Modern Drug Discovery Techniques (Huang/Pellecchia)	2
W	PHAR209/BIOM209/CHEM210 (Even Years)	Lipid Cell Signaling Genomics, Proteomics and Metabolomics (Dennis)	2
W	CHEM 266	Environmental and Molecular Toxicology (Tukey)	4
W	CHEM 221/BGGN 230	Intracellular Signal Transduction: Molecular Mechanism, Network Function and Pharmacological Intervention (David/Hoffman)	4
W	BIOM256/PHAR222/PATH 221	Molecular Pathology of Cancer (Kamps)	4
F	[Cancer Center]	Principles of Cancer Drug Therapeutics Development (Howell)	
F	NEU 268 (Even Years Only)	Molecular and Cellular Neurobiology (Mellon)	4
W	MED/BENG 238	Molecular Biology of the Cardiovascular System (Evans/Chen)	4
W	BIOM/PHAR 275	Seminars in Pharmacology (additional years)	2
F	BIOM/PHAR 284	Scientific Writing (Pajor)	2
S	BIOM/PHAR 234	Careers in Biomedical Science (Evans)	1
S	BIOM 226	Hormone Action (A. Kauffman/Webster)	3