

Curriculum for the Pharmacological Sciences Training Program

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

Participating Training Grant Faculty:

Abagyan, Ruben	Evans, Sylvia	Hook, Vivian	Murphy, Anne	Taylor, Palmer
Adams, Joseph	Field, Seth	Howell, Stephen	Newton, Alexandra	Taylor, Susan
Brown, Joan Heller	Gerwick, William	Huang, Wendy	Nigam, Sanjay	Trejo, JoAnn
Chang, Geoff	Gilson, Michael	Hunter, Tony	Nizet, Victor	Tukey, Robert
Chun, Jerold	Gonzalez, David	Insel, Paul	Patel, Hemal	Villarreal, Francisco
Daneman, Richard	Guan, Kun-Liang	Jain, Mohit	Rao, Anjana	Wang, Dong
Dennis, Edward	Gustafsson, Åsa	Joiner, William	Reya, Tannishtha	Webster, Nicholas
Dixon, Jack	Gutkind, Silvio	Karin, Michael	Saltiel, Alan	Yang, Jing
Dorrestein, Pieter	Handel, Tracy	Linden, Joel	Sen, George	Zhang, Jin
Evans, Ronald	Hnasko, Tom	McCammon, J. A.	Sunahara, Roger	

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
S	PHAR/BIOM 219	Ethics in Scientific Research	1
REQUIRED Core Track Courses for Pharmacological Sciences Trainees (part of BMS core track requirement)			
W	PHAR/BIOM 255A	Molecular Basis of Drug Action and Disease Therapy I: (Handel/Vallon/Gutkind)	3
S	PHAR/BIOM 255B	Molecular Basis of Drug Action and Disease Therapy II: (Brown/Joiner)	3
W	PHAR/BIOM 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/Villareal)	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	Molecular Pharmacology Journal Club (Miyamoto) or other weekly Journal Club (1 quarter minimum)	1
F, W, S	PHAR/BIOM 231	Current Topics in Pharmacology	1
At least One ELECTIVE from this Group (Quantitative and Analytical)			
F	PHAR/BIOM 268 /SPPS268/CMM264	Systems-Wide Mass Spectrometry: Proteomics and Metabolomics (Hook)	1
W	PHAR 237 (Even years)	Fluorescence Spectroscopy for Studying Intracellular Signaling and Macromolecular Structure (Zhang)	1
At least One ELECTIVE from this Group (Pharmacokinetics, Drug Metabolism and Pharmaceutics)			
F or S	PHAR 236	Pharmacokinetics (Chen)	1
F	SPPS 224	Pharmaceutics I – Biopharmaceutics (Best)	3
W	PHAR/BIOM 235	Pharmacogenomics (Ma and Chang)	2
W	CHEM 118	Pharmacology and Toxicology (Amaro)	4
Other suggested ELECTIVES			
F	[Cancer Center]	Principles of Cancer Drug Therapeutics Development (Howell)	
F	NEU 268 (Even years only)	Molecular and Cellular Neurobiology (Mellon)	4
F	PHAR 284/BIOM	Scientific Writing (Pajor)	2
W	PHAR209/BIOM209/CHEM210 (Even Years)	Lipid Cell Signaling Genomics, Proteomics and Metabolomics (Dennis)	2
W	*PHAR 210/BIOM 267	Drug Discovery, Development & Commercialization (Ettouati/Ma)	
W	PHAR222/BIOM256/PATH 221	Fundamentals of Cancer Biology (Yang)	3
S	PHAR 224	Cancer as a Disease: Translation, Diagnosis, and Therapy (Reya)	3
W	MED/BENG 238	Molecular Biology of the Cardiovascular System (Evans/Chen)	4
W	PHAR 275/BIOM	Seminars in Pharmacology (additional years)	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
S	PHAR 234/BIOM (Even years)	Careers in Biomedical Science (Evans)	1
S	BIOM 226	Hormone Action (A. Kauffman/Webster)	3

*Course could become required course for next year.

Updated September 21, 2017