

Curriculum for the Pharmacological Sciences Training Program (PSTP)

Co-Directors: Joan Heller Brown (jhbrown@health.ucsd.edu) and Tracy Handel (thandel@health.ucsd.edu)

Participating Training Grant Faculty:

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

Qtr	Course #	Course Title	Units
REQUIRED Coursework for all BMS Students			
F	BIOM 200A/B	From Molecule to Organism (Huang/Sunahara)	8
F	BIOM 201	Seminars in Biomedical Research (Chang/Daneman)	4
W	PHAR/BIOM 275	Seminars in Pharmacology– Cancer Biology: From Mechanism to Therapy (Reya and Yang - 2022) (This course is taken by all BMS students for credit in the first year of the program.)	2
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: (Sunahara/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– Cancer Biology: From Mechanism to Therapy (Reya and Yang - 2022) (Attendance at the course seminars is required in years during which a student is supported by the training grant, and encouraged in subsequent years.)	2
ELECTIVE Courses REQUIRED for Pharmacological Sciences Trainees (part of BMS 15 unit elective requirement)			
W	PHAR 240 (Lab Course)	Pharmacological Analysis/Physiological Systems Laboratory (Unassigned)	2
F, W, S	PHAR 295	Research Discussions (Formal registration is required only once. Weekly attendance is required in years during which a student is supported by the training grant, and encouraged in subsequent years.)	1
F, W, S	PHAR 294	Molecular Pharmacology Journal Club (Miyamoto and Trainees)	1
F, W, S	PHAR 231	Current Topics in Pharmacology (Rotating Mini Courses): Fall 2021: Intro to Python Programming (Schoeneberg)	1
S	PHAR 234 (Odd years)	Careers in Biomedical Science (Newton/Hamilton)	1
At least One ELECTIVE from this Group (Quantitative and Analytical)			
W	PHAR/BIOM 268/ SPPS 268	Systems-Wide Mass Spectrometry: Proteomics and Metabolomics (Dorrestein)	1
S	PHAR 237 (Odd years)	Fluorescence Spectroscopy for Studying Intracellular Signaling and Macromolecular Structure (Zhang/Taylor)	1
At least One ELECTIVE from this Group (Pharmacokinetics and Drug Metabolism)			
F or S	PHAR 236	Pharmacokinetics (Chen)	1
W	CHEM 118	Pharmacology and Toxicology (Amaro)	4
Suggested ELECTIVES – Pharmaceutics and Drug Discovery			
W	SPPS 263A	Principles of Pharmaceutical Sciences and Drug Development (O'Donoghue/Podust/Abagyan)	3
S	SPPS 263B	Principles of Pharmaceutical Sciences and Drug Development (Ballatore/Caffrey/Hook)	3
F	SPPS 224	Pharmaceutics I – Biopharmaceutics (Best)	3
F	PHAR 235/SPPS 219	Pharmacogenomics (Ma and Chang)	2
Suggested ELECTIVES – Cancer Biology			
W	PHAR 222/BIOM 256	Fundamentals of Cancer Biology (Yang)	3
S	PHAR 224 (Odd years)	Cancer as a Disease: Translation, Diagnosis, and Therapy (Reya)	3
Suggested ELECTIVES – Miscellaneous			
F	NEU 268 (Even years)	Molecular and Cellular Neurobiology (Hnasko)	4
W	MED/BENG 238	Molecular Biology of the Cardiovascular System (Evans/Chen)	4
S	BIOM 226	Hormone Action (A. Kauffman/Webster)	3