Table 2. Participating Faculty Members

OMB Number 0925-0001 and 0925-0002 (Rev. 06/15 Approved Through 10/31/2018)

Name	Degree(s)	Rank	Primary Department or Program	Research Interest	Training Role	Pre-doctorates in Training	Pre-doctorates Graduated	Predoctorates Continued in Research or Related Careers	Post-doctorates in Training	Post-doctorates Completed Training	Post-doctorates Continued in Research or Related Careers
Ahern, Christopher	PhD	Assoc. Professor	BioSciences Program	Ion Channel Biophysics, Bio-orthogonal Labeling, Organic Synthesis, Unnatural Amino Acid Mutagenesis, Single Molecule Fluorescence	Preceptor Exec. Comm.	1	3	3	1	3	3
An, Guohua	PhD	Asst. Professor	Pharmaceutical Sciences & Experimental Therapeutics	Pharmacokinetics and pharmacodynamics	Preceptor	1	1	1	0	0	0
Arnold, Mark	PhD	Professor	Associate Director, CBB (Chemistry)	Blood glucose sensing, noninvasive analysis, near infrared spectroscopy, real-time chemical monitoring, bioreactor optimization	Exec. Comm. Leadership Team (Not a Preceptor)	1	9	9	0	1	1
Brenner, Charles	PhD	Professor	Biochemistry	NAD metabolism, gene discovery, enzymology, metabolomics, ubiquitylation, tumor suppressor	Preceptor Exec. Comm.	1	6	6	3	9	9
Brogden, Nicole	PhD	Asst. Professor	Pharmaceutical Sciences & Experimental Therapeutics	Topical and transdermal drug delivery; skin biomarker analysis	Preceptor	2	0	0	1	0	0
DeMali, Kris	PhD	Assoc. Professor	Biochemistry	Signaling by adhesion receptors	Preceptor	3	4	4	0	1	1

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Dey, Mishtu	PhD	Asst. Professor	Chemistry	My research program is centered on understanding the molecular mechanisms of metalloenzymes important in human health and disease or environmentally valuable. We apply a combination of biochemical and structural tools to study enzyme structure-function relationship.	Preceptor	6	1	1	1	1	1
Duffel, Michael	PhD	Professor	Pharmaceutical Sciences & Experimental Therapeutics	Drug metabolism, enzymology, toxicology. sulfotransferase, catalytic mechanism, structure-activity relationships, and carcinogenesis	Preceptor	3	5	5	0	5	4
Elcock, Adrian	D.Phil.	Professor	Biochemistry	Development and application of molecular simulation methods aimed at modeling intracellular environments	Preceptor	4	4	0	1	2	1
Fuentes, Ernesto	PhD	Assoc. Professor	Biochemistry	Nuclear magnetic resonance; X-ray crystallo-graphy; protein dynamics; signal transduction; Ras-family GTPases; guanine exchange factor; bacterial chemosensory signaling	Preceptor	3	2	2	0	1	1

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Haes, Amanda	PhD	Assoc. Professor	Chemistry	Direct and real-time detection of anti-cancer drug metabolites, design and evaluation of nanoparticle inhibitors for drug metabolism	Preceptor	5	4	4	0	3	3
Horswill, Alexander	PhD	Asst. Professor	Microbiology	Staphylococcus aureus, MRSA, quorum-sensing, peptide signal biosynthesis, biofilms, two-component regulatory systems	Preceptor	2	7	6	3	5	5
Jin, Zhendong	PhD	Assoc. Professor	Pharmaceutical Sciences & Experimental Therapeutics	Total synthesis, natural products, organic synthesis, development of new synthetic methodology, and chemical biology	Preceptor	1	2	1	1	6	6
Just, Craig	PhD	Asst. Professor	Civil & Environmental Engineering	Anaerobic ammonium oxidation; aerobic transformations by fungus	Preceptor	2	10	0	0	1	1
Kerns, Robert J.	PhD	Professor	Pharmaceutical Sciences & Experimental Therapeutics	Design, Synthesis and Evaluation of Novel Therapeutics and Molecular Probes	Preceptor Exec. Comm. Leadership Team	5	10	10	0	0	0
Kohen, Amnon	PhD	Professor	Chemistry	Enzyme reaction mechanisms; isotope effects; thymine biosynthesis; quantum tunneling in enzymology; enzyme dynamics-catalysis relations; 11C in PET imaging of cancer	PD/PI Preceptor Exec. Comm. Leadership Team	12	26	26	3	4	4

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LeFevre, Gregory	PhD	Asst. Professor	Civil & Environmental Engineering	Biotransformation of Environmental Pollutants	Preceptor	2	0	0	0	0	0
MacGillivray, Len	PhD	Professor	Chemistry	Molecular recognition, hydrogen bonding, self-assembly, catalysis, solid-state chemistry, templation	Preceptor	6	14	14	0	0	0
Mattes, Timothy	PhD	Assoc. Professor	Civil & Environmental Engineering	Environmental engineering; microbiology; biochemistry; molecular biology, environmental biotechnology, oxidative biocatalysis, evolution of microbial biodegradation pathways, application of genomics and proteomics techniques in the study of environmentally relevant microbial communities	Preceptor Exec. Comm.	1	5	5	1	1	1
Musselman, Catherine	PhD	Asst. Professor	Biochemistry	Chromatin signaling, nucleosome structure,	Preceptor	2	0	0	1	1	1
Nguyen, Hien	PhD	Assoc. Professor	Chemistry	Oligosaccharides and glycoconjugates, heparin and GPI anchors, tumor-associated mucin antigens, allylic amines and phenols, transition-metals catalysis, biologically active natural products	Preceptor	10	5	5	2	3	3
Nuxoll, Eric	PhD	Asst. Professor	Chemical & Biochemical Engineering (Pharmaceutics)	Controlled release, drug delivery, and biofilm mitigation	Preceptor Exec. Comm.	3	1	1	0	0	0

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Okeoma, Chioma	PhD	Asst. Professor	Microbiology	Role of restriction factors in host protection and disease manifestation	Preceptor Other Comm.	1	1	1	1	2	2
Peeples, Tonya L	PhD	Professor	Chemical & Biochemical Engineering	Biofilms, green chemistry, extremophiles, oxidative biocatalysis, bioremediation	Preceptor Exec. Comm.	2	6	6	0	0	0
Quinn, Daniel	PhD	Professor	Chemistry	Enzyme reaction mechanisms; isotope effects; cholinesterase catalysis; design, synthesis and evaluation of cholinesterase inhibitors and reactivators	Exec. Comm. Leadership Team (Not a Preceptor)	1	3	3	0	2	2
Rice, Kevin	PhD	Professor	Pharmaceutical Sciences & Experimental Therapeutics	Gene delivery, peptide synthesis, bioconjugate chemistry, glycobiology.	Preceptor	3	9	9	0	5	5
Salem, Aliasger	PhD	Professor	Pharmaceutics (Chemical & Biochemical Engineering, Biomedical Engineering)	Cancer Vaccines, Drug Delivery, Biodegradable Polymers, Gene Therapy, Micro and Nanoparticle, Nanotechnology, Immunotherapy	Preceptor	10	11	11	3	0	0
Salgado-Pabon, Wilmara	PhD	Professor	Microbiology	Molecular mechanisms of *S. aureus* pathogenesis	Preceptor	3	2	2	2	0	0

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Schnieders, Michael	PhD	Asst. Professor	Biochemistry; Biomedical Engineering	Research is focused on molecular biophysics theory and high performance computational algorithms that are needed to reduce the time and cost of engineering drugs and organic biomaterials. A complementary goal is to help open the door to personalized medicine by developing tools to map genetic information onto molecular phenotypes.	Preceptor	3	0	0	0	0	0
Schultz, Michael	PhD	Assoc. Professor	Radiology	Research focuses on molecular biomarker target identification on cell surfaces and differences in mitochondria metabolism of cancer cells vs normal cells to develop new drugs and radiopharmaceuticals for imaging and treatment for cancer.	Preceptor Exec. Comm.	5	2	2	0	2	2
Spies, Maria	PhD	Assoc. Professor	Biochemistry	single-molecule biochemistry of DNA repair, recombination, and replication; drug discovery	Preceptor	3	3	3	1	3	2

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Spies, M. Ashley	PhD	Assoc. Professor	Pharmaceutical Sciences & Experimental Therapeutics	Drug lead discovery directed towards enzyme targets, novel approaches in computer aided drug design (CADD), including dealing with protein flexibility, the role of interstitial waters, and transition state pharmacophores in virtual screening.	Preceptor	4	1	1	0	0	0
Washington, Todd	PhD	Assoc. Professor	Biochemistry	Enzyme kinetics, X-ray crystallography, structural biology, DNA replication, DNA repair	Preceptor	4	5	3	0	0	0
Wiemer, David	PhD	Professor	Chemistry (& Pharmacology	Isoprenoid biosynthesis, design and synthesis of enzyme inhibitors, phosphonates, bisphosphonates, identification of potential drug targets	Preceptor	11	14	12	0	3	3
Yahr, Timothy	PhD	Professor	Microbiology	Microbial Genetics, Microbial Physiology, Protein Trafficking	Preceptor	2	7	7	0	1	1