

**Table 2. Participating Faculty Members
(Alphabetically by Faculty Member)**

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

Name/Degree(s)	Rank	Primary (& Secondary) Appointment(s)	Role in Program	Research Interest
Anderson, Michael G., PhD	Associate Professor	Molecular Physiology and Biophysics (Ophthalmology and Visual Sciences) <ul style="list-style-type: none"> • Genetics • Medical Scientist Training Program • Neuroscience 	Trainer TG Executive Committee Chair, Genetics Admissions Committee	Pathophysiology of glaucoma's and other complex eye diseases
Anderson, Steven W., PhD	Associate Professor	Neurology <ul style="list-style-type: none"> • Neuroscience 	Trainer PhD Co-Mentor of past trainee (this TG)	Cognitive neuropsychology, with emphases in frontal lobe dysfunction, language processing, and cognitive/behavioral rehabilitation
Banfi, Botond, MD, PhD	Associate Professor	Anatomy and Cell Biology (Internal Medicine & Otolaryngology)	Trainer	Identification and characterization of deafness-causing gene defects
Bassuk, Alexander, MD, PhD	Associate Professor	Pediatrics <ul style="list-style-type: none"> • Genetics • Medical Scientist Training Program • Molecular and Cellular Biology • Neuroscience 	Trainer Member, MSTP Admissions Committee	Molecular and genetic mechanisms of epilepsy
Brenner, Charles, PhD	Professor and Chair	Biochemistry (Internal Medicine) <ul style="list-style-type: none"> • Genetics • Medical Scientist Training Program 	Trainer	Metabolic control of gene expression

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Chen, Songhai, MD, PhD	Associate Professor	Pharmacology (Internal Medicine) <ul style="list-style-type: none"> • Medical Scientist Training Program • Molecular and Cellular Biology 	Trainer PhD Mentor of past trainee (this TG) Member, Pharmacology Admissions Committee	G protein signaling in leukocyte migration and tumor metastasis
Colgan, John, PhD	Associate Professor	Internal Medicine (Anatomy and Cell Biology) <ul style="list-style-type: none"> • Immunology • Medical Scientist Training Program • Molecular and Cellular Biology 	Trainer Member, Immunology Admissions Committee & Executive Committee	Signal transduction pathways that control lymphocyte development and function
Cornell, Robert, PhD	Professor	Anatomy & Cell Biology <ul style="list-style-type: none"> • Genetics • Medical Scientist Training Program • Molecular and Cell Biology • Neuroscience 	Trainer Member, ACB Admissions Committee Member, Genetics Admissions Committee Member, MCB Admissions Committee	Molecular genetics and cellular signaling in neural crest development in zebrafish
DeMali, Kris, PhD	Associate Professor	Biochemistry (Dermatology) <ul style="list-style-type: none"> • Medical Scientist Training Program • Molecular and Cellular Biology 	Trainer PhD Mentor of current trainee (this TG) Member, MCB Executive Committee	Cellular mechanisms involved in assembly and maintenance of cell-cell adhesions

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Doorn, Jonathan, PhD	Associate Professor Division Head, MNPC	Medicinal and Natural Products Chemistry <ul style="list-style-type: none"> • Human Toxicology 	Trainer PhD Mentor of past trainees (this TG) Chair, MNPC Admissions Committee	Mechanism of pathogenesis for Parkinson's disease
Duffel, Michael, PhD	Professor Associate Dean for Research and Graduate Programs	Medicinal and Natural Products Chemistry <ul style="list-style-type: none"> • Human Toxicology 	Trainer PhD Mentor of past trainee (this TG) Member, MNPC Admissions Committee	Biochemistry of xenobiotics
Dupuy, Adam, PhD	Associate Professor	Anatomy and Cell Biology (Pathology) <ul style="list-style-type: none"> • Genetics • Medical Scientist Training Program • Molecular and Cellular Biology 	Trainer PhD Mentor of current and past trainees (this TG) Member, MSTP Admissions Committee Member, MCB Executive Committee	Genetic mechanisms of tumor formation and maintenance

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Engelhardt, John, PhD	Professor and Chair Roy J. Carver Chair in Molecular Medicine Director, Gene Therapy Center for Cystic Fibrosis	Anatomy and Cell Biology (Internal Medicine) <ul style="list-style-type: none"> • Free Radical & Radiation Biology • Informatics • Medical Scientist Training Program • Molecular and Cellular Biology 	Trainer	Molecular/cellular biology and gene therapy of inherited and environmental diseases
Fisher, Rory, PhD	Professor	Pharmacology (Internal Medicine) <ul style="list-style-type: none"> • Medical Scientist Training Program • Molecular and Cellular Biology 	Trainer Chair, Pharmacology Seminar Series Member, MCB Admissions Committee	Signal transduction of G protein-coupled receptors and RGS proteins
Frank, Carl Andrew, PhD	Assistant Professor	Anatomy and Cell Biology <ul style="list-style-type: none"> • Genetics • Medical Scientist Training Program • Molecular and Cellular Biology • Neuroscience 	Trainer Chair, Neuroscience Admissions Committee	Synaptic transmission and muscle to nerve retrograde signaling in Drosophila
Friestad, Gregory, PhD	Associate Professor	Chemistry	Trainer Chair, Chemistry Diversity Committee	Synthetic methodology development and strategic application to natural product synthesis, medicinal chemistry

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Fuentes, Ernesto, PhD	Associate Professor	Biochemistry <ul style="list-style-type: none"> Medical Scientist Training Program Molecular and Cellular Biology 	Trainer PhD Mentor of past trainee (this TG) TG Executive Committee Member, MSTP Admissions, Recruitment Committees	Molecular and structural mechanisms governing bacterial and mammalian signal transduction pathways
Giangrande, Paloma, PhD	Associate Professor	Internal Medicine (Radiation Oncology) <ul style="list-style-type: none"> Free Radical and Radiation Biology Medical Scientist Training Program Molecular and Cellular Biology 	Trainer Member, MSTP Admissions Committee	Cell-targeted therapies in the setting of cancer and cardiovascular disease
Grobe, Justin, PhD	Assistant Professor	Pharmacology <ul style="list-style-type: none"> Medical Scientist Training Program Molecular and Cellular Biology Neuroscience 	Trainer PhD Mentor of current trainee (this TG) Member, Pharmacology Admissions Committee Member, MSTP Admissions Committee	Neural control of cardiovascular and metabolic function
Hammond, Donna, PhD	Professor	Anesthesia (Pharmacology) <ul style="list-style-type: none"> Medical Scientist Training Program Neuroscience 	Trainer PhD Mentor of past trainee (this TG)	Central nervous system mechanisms mediating pain and analgesia
Heistad, Donald, MD	Zahn Professor of Cardiology	Internal Medicine (Pharmacology)	Trainer	Mechanisms of Aortic Valve Stenosis

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Henry, Michael, PhD	Associate Professor	Molecular Physiology and Biophysics (Pathology) <ul style="list-style-type: none"> Medical Scientist Training Program 	Trainer PhD Mentor of past trainees (this TG)	Molecular and cellular biology underlying cancer metastasis
Jin, Zhendong, PhD	Associate Professor	Medicinal and Natural Products Chemistry	Trainer Member, MNPC Admissions Committee	Total synthesis, natural products, organic synthesis, development of new synthetic methodology, and chemical biology
Kerns, Robert, PhD	Professor Department Chair of Pharmaceutical Sciences & Experimental Therapeutics	Medicinal and Natural Products Chemistry	Trainer PhD Mentor of past trainees (this TG) Member, MNPC Admissions Committee	Design, synthesis and evaluation of topoisomerase inhibitors; antimutant quinolone-class antibacterial agents, antibiotic lethality with non-replicating cells; design, synthesis and evaluation of compounds that modulate activity of glycosaminoglycan-binding proteins.
Kitamoto, Toshihiro, PhD	Associate Professor	Anesthesia (Pharmacology) <ul style="list-style-type: none"> Genetics Medical Scientist Training Program Neuroscience 	Trainer	Understanding the gene-environment interactions that control behaviors in <i>Drosophila</i>
Kohen, Amnon, DSc	Professor	Chemistry <ul style="list-style-type: none"> Medical Scientist Training Program Molecular and Cellular Biology 	Trainer PhD Mentor of past trainee (this TG) Member, MSTP Admissions Committee	Chemical catalysis with biological systems

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Kwitek, Anne, PhD	Associate Professor Associate Director, Iowa Institute of Human Genetics	Pharmacology (Internal Medicine) <ul style="list-style-type: none"> Genetics Medical Scientist Training Program 	Trainer	Genetics of complex disease, with an emphasis on hypertension, diabetes, and the metabolic syndrome
Lee, Amy, PhD	Professor Assistant Dean for Research	Molecular Physiology and Biophysics (Otolaryngology) <ul style="list-style-type: none"> Medical Scientist Training Program Neuroscience 	Trainer	Regulation of voltage-gated Ca ²⁺ channels and cellular excitability in the nervous and cardiovascular systems
Lentz, Steven, MD, PhD	Henry Hamilton Professor of Hematology	Internal Medicine <ul style="list-style-type: none"> Medical Scientist Training Program Molecular and Cellular Biology 	Trainer MSTP Program Director	Mechanisms of thrombosis and vascular dysfunction
Lin, Fang, PhD	Associate Professor	Anatomy and Cell Biology <ul style="list-style-type: none"> Genetics Medical Scientist Training Program Molecular and Cellular Biology 	Trainer	Mechanisms of endoderm and heart development
Musselman, Catherine PhD	Assistant Professor	Biochemistry <ul style="list-style-type: none"> Medical Scientist Training Program 	Trainer PhD mentor of current trainee (this TG) Member, Biochemistry Admissions Committee	Molecular mechanisms of chromatin regulation by histone post-translational modification
Narayanan, Nandakumar, MD, PhD	Assistant Professor	Neurology <ul style="list-style-type: none"> Medical Scientist Training Program Neuroscience 	Trainer PhD Co-Mentor of past trainee (this TG)	Mapping the neuronal circuitry for cognitive dysfunction in Parkinson's Disease

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O'Doriso, M. Sue, MD, PhD	Professor	Pediatrics - Hematology-Oncology <ul style="list-style-type: none"> • Medical Scientist Training Program • Neuroscience 	Trainer PhD Mentor of past trainee (this TG)	We develop new peptide agents for both imaging and therapy; this new field is called Theranostics
Potthoff, Matthew, PhD	Assistant Professor	Pharmacology <ul style="list-style-type: none"> • Genetics • Molecular and Cellular Biology 	Trainer PhD Mentor of current trainee (this TG) Member, Pharmacology Admissions Committee Member, MCB Admissions Committee	Nutrient Control of Metabolism and Cell Signaling
Quelle, Dawn E., PhD	Associate Professor	Pharmacology (Pathology) <ul style="list-style-type: none"> • Medical Scientist Training Program • Molecular and Cellular Biology 	Trainer PhD Mentor of past trainee (this TG) Member, MSTP Admissions Committee & Executive Committee Member, Pharmacology Admissions Committee	Signaling pathways activated by the ARF and p53 tumor suppressors; molecular control of tumor growth

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Rahmouni, Kamal, PhD	Associate Professor	Pharmacology (Internal Medicine) <ul style="list-style-type: none"> • Medical Scientist Training Program • Molecular and Cellular Biology • Neuroscience 	Trainer PhD Mentor of past trainee (this TG) Member, Pharmacology Admissions Committee Member, MCB Admissions Committee	Understand the fundamental biological events and pathways that control metabolic and cardiovascular functions
Rice, Kevin, PhD	Professor	Medicinal and Natural Products Chemistry	Trainer PhD Mentor of current and past trainees (this TG) Member, MNPC Admissions Committee	Gene delivery, peptide synthesis, bioconjugate chemistry, glycobiology, mRNA
Roman, David, PhD	Associate Professor	Medicinal and Natural Products Chemistry	Trainer PhD Mentor of past trainees (this TG) TG Co-Director TG Executive Committee Member, MNPC Admissions Committee	G protein signaling, oxidative stress, regulators of g protein signaling, Parkinson's disease, high throughput screening, prostate cancer, assay development, protein purification, enzyme mechanisms, high-field NMR for protein dynamics studies

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Russo, Andrew, PhD	Professor	Molecular Physiology and Biophysics <ul style="list-style-type: none"> Genetics Medical Scientist Training Program Molecular and Cellular Biology Neuroscience 	Trainer PhD Mentor of past trainees (this TG)	Molecular mechanisms of migraine
Rutkowski, D. Thomas, PhD	Associate Professor	Anatomy and Cell Biology <ul style="list-style-type: none"> Medical Scientist Training Program Molecular and Cellular Biology 	Trainer PhD Mentor of past trainee (this TG)	Mechanisms of adaptation to chronic cellular stress in physiology and disease
Schnieders, Michael, PhD	Assistant Professor	Biochemistry (Biomedical Engineering) <ul style="list-style-type: none"> Medical Scientist Training Program 	Trainer PhD Mentor of current trainee (this TG)	Understand protein phenotypes using computational molecular biophysics algorithms
Sigmund, Curt D., PhD	Professor and Chair Roy J. Carver Chair in Hypertension Research Director, UIHC Center for Hypertension Research	Pharmacology (Internal Medicine, Molecular Physiology and Biophysics) <ul style="list-style-type: none"> Genetics Medical Scientist Training Program Molecular and Cellular Biology Neuroscience 	Trainer PhD Mentor of past trainee (this TG)	Molecular mechanisms regulating transcription of the renin gene; Role of PPAR γ in vascular function and hypertension
Sluka, Kathleen, PhD	Professor	Physical Therapy and Rehabilitation Science <ul style="list-style-type: none"> Medical Scientist Training Program Molecular and Cellular Biology Neuroscience 	Trainer	Mechanisms of musculoskeletal pain and analgesia

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Spies, M. Ashley, PhD	Associate Professor	Medicinal and Natural Products Chemistry (Biochemistry) <ul style="list-style-type: none"> Medical Scientist Training Program 	Trainer PhD Mentor of current trainee (this TG) Member, MNPC Admissions Committee Member, Biochemistry Admissions Committee	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
Strack, Stefan, PhD	Professor	Pharmacology (Pathology) <ul style="list-style-type: none"> Medical Scientist Training Program Molecular and Cellular Biology Neuroscience 	Trainer PhD Mentor of past trainee (this TG) TG Director TG Executive Committee	Protein phosphatases and mitochondria in neuronal signal transduction and disease
Tootle, Tina, PhD	Assistant Professor	Anatomy and Cell Biology <ul style="list-style-type: none"> Genetics Medical Scientist Training Program Molecular and Cellular Biology 	Trainer PhD Mentor of past trainee (this TG) TG Executive Committee Chair, Basic Sciences Diversity Taskforce	Understanding the cellular actions of prostaglandin signaling using Drosophila model system
Usachev, Yuriy, PhD	Professor	Pharmacology (Anesthesia) <ul style="list-style-type: none"> Medical Scientist Training Program Neuroscience 	Trainer PhD Mentor of past trainees (this TG)	Ca ²⁺ signaling and plasticity of primary nociceptors in chronic pain; mitochondria, neuronal plasticity and neurodegeneration

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Washington, M. Todd, PhD	Professor	Biochemistry <ul style="list-style-type: none"> • Medical Scientist Training Program • Molecular and Cellular Biology 	Trainer PhD Mentor of current and past trainees (this TG) Member, MSTP Admissions Committee	Structure/function of translesion DNA polymerases
Welsh, Michael, MD	Professor Roy J. Carver Biomedical Chair Investigator, Howard Hughes Medical Institute Director, Pappajohn Biomedical Institute Director, Cystic Fibrosis Research Center	Internal Medicine (Molecular Physiology and Biophysics, Neurosurgery) <ul style="list-style-type: none"> • Genetics • Informatics • Medical Scientist Training Program • Molecular and Cellular Biology • Neuroscience 	Trainer	Biology of cystic fibrosis; biology of acid sensing ion channels in the CNS and PNS, and their role in neurological disorders; and pathophysiology of lung disease
Wiemer, David, PhD	F. Wendell Miller Professor	Chemistry (Pharmacology)	Trainer PhD Mentor of past trainees (this TG) TG Executive Committee	Synthesis of small molecule inhibitors of cellular enzymes as anti-cancer agents

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Wilson, Mary, MD	Kate Daum Professor	Internal Medicine (Microbiology, Epidemiology) <ul style="list-style-type: none"> Genetics Immunology Medical Scientist Training Program Molecular and Cellular Biology 	Trainer Member, Genetics Admissions Committee Member, MCB Executive Committee	Immunobiology, genetics, and molecular biology of visceral leishmaniasis in murine and human hosts
Wright, Michael, PhD	Assistant Professor	Molecular Physiology and Biophysics <ul style="list-style-type: none"> Medical Scientist Training Program 	Trainer	Proteomic profiling of androgen-signaling pathways in prostate cancers

We have listed membership on admissions committees for other departments/programs (i.e. Molecular and Cellular Biology) since this identifies trainers that influence the size and quality of our TG-eligible trainee pool.

Summary of Trainers:

	Male	Female	Total
Junior	6	2	8
Senior	34	10	44
Total	40	12	52

Primary Department

	Clinical	Basic Science	Total
Junior	1	7	8
Senior	11	33	44
Total	12	40	52