

Table 1. Participating Faculty Members

Name/Degree	Rank	Primary (& Secondary) Appointment(s)	Research Interest	Role (% Effort only for PI)
DeLisser, Horace, MD	Associate Professor	Medicine	Endothelial cell adhesion and motility, angiogenesis leukocyte-endothelial interactions, lung injury and repair, tumor metastasis to the lung	Co-PI and Trainer, 10%
Sullivan, Kathleen, MD, PhD	Professor	Pediatrics	The etiopathogenesis of lupus and the regulation of genes involved in inflammation	Co-PI and Trainer, 10%
Brass, Lawrence, MD, PhD	Professor	Medicine, Pathology and Pharmacology	Platelets, vascular biology, mechanisms of hemostasis	Advisory Comm. and Trainer
Cines, Douglas, MD	Professor	Pathology and Laboratory Medicine	Thrombosis, fibrinolysis, vascular biology, immunohematology	Advisory Comm. and Trainer
Diaz Vazquez, Arnaldo, PhD	Adjunct Assistant Professor	Pharmacology		Advisory Comm.
Epstein, Jonathan, MD	Professor	Cell and Developmental Biology	Cardiovascular development, stem cells, heart failure, congenital heart disease	Advisory Comm. and Trainer
Field, Jeffrey, PhD	Associate Professor	Pharmacology	Oncogenes and signal transduction	Advisory Comm. and Trainer
Nusbaum, Michael, PhD	Professor	Neuroscience	Neural network modulation; motor pattern selection from multifunctional networks; local, presynaptic influences; neuropeptide function, cotransmission, sensory influence on central neuronal networks	Advisory Comm. and Trainer

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Poncz, Mortimer, MD	Professor	Pediatrics	Role of platelets in thrombus development	Advisory Comm. and Trainer
Robertson, Erle, PhD	Professor	Microbiology	Mechanisms of oncogenesis by gammaherpesvirus, Epstein Barr virus, Kaposi's Sarcoma virus	Advisory Comm. and Trainer
Ross, Susan, PhD	Professor	Microbiology	Genetic approaches to the study of host-virus interactions, genetics of susceptibility to virus infection, immune response to virus infection	Advisory Comm. and Trainer
Albelda, Steven, MD	Professor	Medicine	The implication of PECAM-1 in the regulation of leukocyte transmigration through endothelium and in angiogenesis	Trainer
Atchison, Michael, PhD	Professor	Biochemistry (VET)	Control of gene expression, development, immunoglobulins, and oncogenesis	Trainer
Beers, Michael, MD	Professor	Medicine	Lung epithelial cell biology; pulmonary fibrosis; host defense	Trainer
Binenbaum, Gil, MD	Assistant Professor	Ophthalmology	Retinopathy of prematurity, retinal hemorrhage, abusive head trauma, pediatric ophthalmology	Trainer
Blobel, Gerd, MD, PhD	Professor	Pediatrics	Transcription factors and chromatin remodeling complexes that regulate the development of erythroid cells and megakaryocytes	Trainer
Cantu, Edward, MD	Assistant Professor	Surgery	Prediction, mechanism and therapeutics for acute lung injury before, during and after lung transplantation.	Trainer
Carroll, Martin, PhD	Associate Professor	Medicine	Molecular biology of leukemia; BCR/ABL, signal transduction, PI3 kinase	Trainer

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Chen, Youhai, MD, PhD	Professor	Pathology and Laboratory Medicine	Gene therapy, genomics, autoimmune diseases, TLR, innate immunity, immunologic tolerance, apoptosis, and therapeutics	Trainer
Christofidou-Solomidou, Melpo, PhD	Research Assoc. Professor	Medicine	Novel antioxidant approaches to acute and chronic lung disease; chemoprevention of lung carcinogenesis and evaluation of anticarcinogenic effects of common botanicals and dietary alternative antioxidant agents	Trainer
Davies, Peter, PhD	Professor	Pathology and Laboratory Medicine, Bioengineering	Cell and molecular biomechanics in vascular biology/pathology, hemodynamics and atherosclerosis, stents, cytoskeletal and membrane biophysics; genomics and epigenetics	Trainer
Delikatny, Edward, PhD	Research Assoc. Professor	Radiology	MR imaging, MR spectroscopy, optical imaging, contrast agent development, breast cancer, chemotherapy, lipid metabolism, choline kinase, phospholipases	Trainer
DiNardo, Steve, PhD	Professor	Cell and Developmental Biology	Stem cell function; cell biology of developmental patterning	Trainer
FitzGerald, Garret, MD	Professor	Medicine, Pharmacology	Prostaglandins; molecular clocks	Trainer
Gee, James, PhD	Associate Professor	Radiology	Biomedical image analysis and computing	Trainer

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Goldman, Yale	Professor	Perelman School of Medicine -- Physiology Pennsylvania Muscle Institute, NanoBio Interface, Center Biochemistry and Molecular Biophysics	Molecular Motors High resolution fluorescence microscopy Ribosome based protein synthesis High Resolution Molecular Imaging Nano technology	Trainer
Greene, Mark, MD, PhD	Professor	Pathology and Laboratory Medicine	Receptor function, small molecules, centrosome and associated proteins	Trainer
Ischiropoulos, Harry, PhD	Research Professor	Pediatrics, Pharmacology	Biological chemistry of nitric oxide in cardiovascular diseases. Oxidative processes in protein aggregation and neurodegeneration. Mass spectrometry-based discovery and validation of disease biomarkers.	Trainer
Kahn, Mark, MD, BA	Associate Professor	Medicine	Signaling pathways in angiogenesis and hemostasis	Trainer
Katz, Jonathan, MD	Associate Professor	Medicine	Functional analyses of gastrointestinal epithelial proliferation, differentiation, and carcinogenesis	
Kelz, Max, MD, PhD, MS	Assistant Professor	Anesthesiology and Critical Care	Systems neuroscience of sleep and arousal, neuronal mechanisms of anesthetic-induced hypnosis, sleep-active neurons, electrophysiology	Trainer
Kirkpatrick, James, MD	Assistant Professor	Medicine	Echocardiography; cardioethics; clinical ethics; bioethics	Trainer
Klein, Peter, MD, PhD	Associate Professor	Medicine	Wnt signaling, lithium action, GSK-3, development, epigenetics, stem cell, hematopoiesis, neurogenesis, Xenopus	Trainer

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Lin, Alexander, MD	Assistant Professor	Radiation Oncology	Head and neck cancers, novel methods of radiation therapy delivery, tumor microenvironment	Trainer
Lopez, Carolina, PhD	Assistante Professor	Pathobiology	Antiviral immunity, innate immunity, virus-host interactions, respiratory viral infections, postviral asthma	Trainer
Lynch, Kristen, PhD	Professor	Biochemistry and Biophysics	Mechanisms of regulation of alternative splicing, antigen-induced splicing in T cells	Trainer
Margulies, Kenneth, MD	Professor	Medicine	Myocardial mechanics and remodeling, tissue engineering, Integrated Genomics, cardiac regeneration and stem cells	Trainer
Margulies, Susan, PhD	Professor	Bioengineering	Cell and tissue biomechanics, with emphasis on injury mechanisms and tolerances; pulmonary regional ventilation and ventilator-induced injury; spinal cord injury; pediatric and adult brain injury	Trainer
Marks, Michael, PhD	Associate Professor	Pathology and Laboratory Medicine	Membrane trafficking; organelle biogenesis; pigmentation; platelet function; innate immunity	Trainer
Muzykantov, Vladimir, MD, PhD	Associate Professor	Pharmacology and Medicine	Targeted delivery of therapeutic and diagnostic agents to the pulmonary circulation	Trainer
Otto, Cynthia, DVM, PhD	Associate Professor	Clinical Studies (VET)	Regulation of nitric oxide synthesis, intermittent hypoxia as an inflammatory stimulus, and acute lung injury	Trainer
Parmacek, Michael, MD	Professor	Medicine	Transcriptional programs that regulate cardiovascular development	Trainer
Pear, Warren, MD, PhD	Associate Professor	Pathology and Laboratory Medicine	Tumor biology, hematopoiesis, leukemia, lymphocyte development, hematopoietic stem cells	Trainer
Rader, Daniel, MD	Professor	Medicine	Genetic regulation of lipid and lipoprotein metabolism and molecular relationship to atherosclerosis	Trainer

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Riley, James, PhD	Research Assoc. Professor	Pathology and Laboratory Medicine	Regulation of T cell responses and developing adoptive T cell therapy for the treatment of HIV-1, cancer and autoimmune disease	Trainer
Russell, J. Eric, MD	Associate Professor	Medicine and Pediatrics	The molecular mechanisms which underlay the normal expression of globin genes	Trainer
Sehgal, Amita, PhD	Professor	Neuroscience	Sleep, circadian rhythms, clocks, behavior, <i>Drosophila</i> , genetics, molecular biology	
Song, Wenchao, PhD	Professor	Pharmacology	Pathogenesis and therapy of complement-mediated diseases	Trainer
Speicher, David W., PhD	Professor	Biochemistry and Biophysics	Systems biology of cancer progression and therapy resistance, biomarkers and biosignatures of ovarian cancer, biomarkers of therapy induced cardiac toxicity; ectopic pregnancy biomarkers, probing structures of biological complexes using structural mass spectrometry	Trainer
Stoffers, Doris, MD, PhD	Associate Professor	Medicine	Diabetes, insulin, beta cell, pancreas development, transcriptional regulation, signal transduction	Trainer
Sundaram, Meera, PhD	Associate Professor	Genetics	Tubular organ development in <i>C. elegans</i>	Trainer
Weiner, David, PhD	Professor	Pathology and Laboratory Medicine	DNA vaccines for infectious diseases or cancers, T cell immunity, active immunization	Trainer
Weiss, Susan, PhD	Professor	Microbiology	Murine coronavirus pathogenesis, central nervous system, liver and Lung; murine coronavirus antagonism of the OAS-RNase L pathway; organ specific virus-host Interactions; role of inflammasome related cytokines in murine coronavirus acute disease and chronic demyelination	Trainer
Wolfe, John, VMD, PhD	Professor	Pediatrics	Gene transfer and stem cell transplantation in the central nervous system, genetic diseases, animal models, mechanisms of pathology	Trainer