

Table 2. Participating Faculty Members

Name	Degree (s)	Rank	Primary Department or Program	Research Interest
Boom, W. Henry	MD	Prof.	Medicine- UH	Identifying molecules of M. tuberculosis that interfere with MHC-II antigen processing
Buck, Matthias	PhD	Prof.	Physiology & Biophysics	Protein-Protein Interactions in Cell Signaling of small GTPases, Plexin and Eph receptors
Chakrapani, Sudha	PhD	Assoc. Prof.	Physiology & Biophysics	Understanding the role of structure and dynamics in the functioning of ion channels
Dick, Thomas	PhD	Prof.	Medicine- UH	Control of Respiration and Sympathetic Activity
Drumm, Mitchell L.	PhD	Prof.	Genetics & Genome Sciences	Understanding how variants in the genome influence the course of disease for CF patients and how the CF genome adapts to the disease
Dubyak, George R	PhD	Prof.	Physiology & Biophysics	Signal transduction by extracellular nucleotides and inflammasomes in innate immunity and inflammation
Erzurum, Serpil	MD	Prof.	Medicine- CCLCM	Mechanisms of pulmonary hypertension and asthma
Fortenberry, Yolanda	PhD	Assoc. Prof.	Biology	Developing RNA-based therapeutic molecules for treating individuals with blood-related diseases
Gerson, Stanton	MD	Prof.	Medicine- UH	Mesenchymal stem cells as a therapeutic infusion for blood stem cell transplantation and for the correction of genetic disorders
Hodges, Craig A.	PhD	Assoc. Prof.	Genetics & Genome Sciences	The loss of CFTR leads to the intestinal dysfunction and reduced growth phenotypes associated with CF
Jain, Mukesh K.	MD	Prof.	Medicine- UH	Identifying key regulatory roles for KLFs in cardiovascular biology, systemic metabolic homeostasis, and innate immunity
Kelley, Thomas	PhD	Prof.	Genetics & Genome Sciences	Identifying a mechanistic link between the loss of CFTR function and altered cell-signaling control in CF airway epithelial cells
Levine, Alan	PhD	Prof.	Molecular Biology & Microbiology	Host Defense: Toggling between immune tolerance and immune protection

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Lewis, Stephen J.	PhD	Prof.	Pediatrics- UH	Molecular mechanisms underlying impaired biologic pathways such as respiratory control and pharmacologic interventions
Longenecker, Christopher	MD	Asst. Prof.	Medicine- UH	Cardiovascular Medicine focusing on the role of chronic immune activation and inflammation in mediating cardiometabolic risk
MacFarlane, Peter	PhD	Asst. Prof.	Pediatrics- UH	Understanding how the neurobiology of breathing is modified by early life experiences, particularly related to clinical scenarios commonly experienced by preterm infants
Maiseyeu, Andrei	PhD	Asst. Prof.	Medicine- UH	Developing nanotechnology tools to better understand cardiometabolic diseases such as atherosclerosis, type 2 diabetes and obesity
Martin, Richard J.	MD	Prof.	Pediatrics- UH	Developmental lung and airway maturation, lung and airway injury, apnea of prematurity, and nitric oxide, whose medical uses include treatment for neonatal and pediatric acute respiratory distress syndrome
Matsuyama, Shigemi	PhD	Assoc. Prof.	Medicine- UH	Cancer Cell Biology; Cell Death Regulation; Cell Penetrating Peptide
McCrae, Keith	MD	Prof.	Molecular Medicine	Vascular function in health and disease
Mehra, Reena	MD	Prof.	Medicine- CCLCM	Investigating the relationship between sleep-disordered breathing and abnormal cardiac electrophysiology
Montano, Monica	PhD	Prof.	Pharmacology	Targeting angiogenesis in hormone dependent cancers
Mu, Ting-Wei	PhD	Assoc. Prof.	Physiology & Biophysics	Proteostasis of membrane proteins in health and disease
Nayak, Lalitha	MD	Asst. Prof.	Medicine- UH	The anti-thrombotic effects of bortezomib are determined by KLF2, part of a family of Kruppel-like factors—master regulators of vascular health
Nieman, Marvin T.	PhD	Assoc. Prof.	Pharmacology	Role of the interaction between protease activated receptors 1 and 4 (PAR1 and PAR4) in the activation of platelets by alpha-thrombin and the subsequent signaling of G-proteins by second messenger signaling molecules
Ramirez-Bergeron, Diana L.	PhD	Assoc. Prof.	Medicine- UH	The environmental influence of hypoxia on the behavior of endothelial cells by examining how it directs the temporal activity of VEGF signals
Sekaly, Rafick-Pierre	PhD	Prof.	Pathology	Developing a better understanding of the human immune response to vaccines and to chronic viral infections with a specific focus on cancer and HIV infection

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Stamler, Jonathan S.	MD	Prof.	Medicine- UH	Developing new drugs for treatment of heart, lung and blood disorders and complications of blood transfusion
Stelzer, Julian E.	PhD	Assoc. Prof.	Physiology & Biophysics	Understanding the molecular mechanisms that govern the regulation of contractile function in the cardiac sarcomere
Van den Akker, Focco	PhD	Assoc. Prof.	Biochemistry	The molecular intricacies of enzyme mechanism and receptor activation and using that knowledge to develop inhibitors and activators for pharmaceutical purposes
Van Wagoner, David	PhD	Assoc. Prof.	Molecular Medicine	The expression and function of ion channels and other proteins that underlie atrial electrical activity, and evaluate the signaling pathways and genes that are altered in AF
Zhou, Lan	MD PhD	Assoc. Prof.	Pathology	Understanding how fucosylation affects Notch-dependent regulation of hematopoietic stem cell proliferation, early myeloid lineage specification and hematopoietic stem cell niche maintenance