



**SAINT LOUIS
UNIVERSITY™**

— EST. 1818 —

**Summary Credentials of Mentors
Available to Trainees in
the M.D./Ph.D. Program**

2021 – 2022 Academic Year

Saint Louis University School of Medicine

Participating Faculty Mentors for the Saint Louis University M.D./Ph.D. Program			
Name, Degree(s)	Rank	Primary Appointment; Secondary Appointment	Research Interests
Abate, Getahun, M.D., Ph.D.	Assistant Professor	Internal Medicine; Molec. Micro. & Immunol.	Mycobacteriology; development of new therapeutics (drugs and immunotherapy) and vaccines for tuberculosis and nontuberculous mycobacteria.
Elisa Alspach, Ph.D.	Assistant Professor	Molec. Micro. & Immunol.	Tumor microenvironment, cancer immunoediting, tumor-specific T cell responses and immunotherapies
Antony, Edwin, Ph.D	Associate Professor	Biochem. & Molec. Biology	Molecular basis of DNA repair, recombination, and genomic instability. 2. Molecular mechanisms of electron transfer in large enzyme complexes.
Armbrecht, Eric S., Ph.D.	Associate Professor	Health & Clinical Outcomes Research	Effectiveness/efficiency of chronic disease services, programs and products; Areas of focus: asthma, diabetes, and heart failure.
Aurora, Rajeev, Ph.D.	Associate Professor	Molec. Micro. & Immunol.	1) Molecular mechanisms leading to chronic inflammation, including diet, microbiota and hormones. 2) Mechanisms that resolve inflammation. 3) Crosstalk between immune and skeletal systems.
Ayala, Yuna M., Ph.D.	Associate Professor	Biochem. & Molec. Biology	RNA binding protein function and link to neurodegeneration, including movement disorders and dementia
Baldán, Àngel, Ph.D.	Associate Professor	Biochem. & Molec. Biology	Control of sterol and lipoprotein homeostasis by non-coding RNAs. Control of hepatic and intestinal triglyceride metabolism
Bishop, Jeffrey, M.D., Ph.D.	Professor	Health Care Ethics	Historical, political, and philosophical underpinnings of various medical and scientific practices.
Brien, James D., PhD	Assistant Professor	Molec. Micro & Immunology	Emerging Viral Infectious Diseases; mechanisms of neutralizing antibody; virus selection by the adaptive immune response.
Buchanan, Paula M., Ph.D.	Associate Professor	Health & Clinical Outcomes Research	Clinical and economic health outcomes in transplantation, diabetes, and cancer.
Butler, Andrew A.,	Professor	Pharmacology & Physiology	Regulation of carbohydrate & lipid metabolism in relation to the diseases of obesity & aging.

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Chakraborty, Anutosh , Ph.D.	Associate Professor	Pharmacology and Physiology	Understand the mechanisms that cause metabolism diseases to identify and validate novel therapeutic target
Chen, Anping, Ph.D.	Associate Professor	Pathology	Elucidating mechanisms of liver fibrogenesis, and searching for anti-fibrotic agents for the prevention & treatment of this disease.
Dastvan, Reza, Ph.D.	Assistant Professor	Biochem& Molec. Biology	Mechanistic principles of membrane transport and kinase release in neoplastic and neurodegenerative diseases.
de Vera, Ian Michelle, Ph.D.	Assistant Professor	Pharmacology & Physiology	Research Interests: Molecular mechanisms of pluripotency; drug discovery targeting orphan nuclear receptors; biomolecular NMR; X-ray crystallography; HIV/AIDS and COVID-19 drug discovery
Di Cera, Enrico, M.D.	Professor & Chairman	Biochem. & Molec. Biology	Structural enzymology of coagulation factors
DiPaolo, Richard J., Ph.D.	Professor	Molec. Micro. & Immunol.	Project 1: Understanding how to regulate inflammation to prevent/treat autoimmunity and cancer Project 2: Understanding immune responses to infectious agents and vaccines to optimize responses
Farr, Susan, Ph.D.	Professor	Internal Med; Geriatrics; Pharmacology & Physiology	Age-related dementia. Investigating mechanisms, potential treatments, & risk factors such as TBI & diabetes
Fleming, Robert E., M.D.	Professor	Pediatrics, Biochem. & Molec. Biology	Processes regulating cellular iron transport
Ford, David A., Ph.D.	Professor	Biochem. & Molec. Biology	Biomolecule discovery of mediators and prognostic indicators of sepsis, inflammation and cardiovascular disease.
George, Sarah L., M.D.	Associate Professor	Internal Medicine; Mole. Micro. & Immunol.	Vaccine development and measurement of cellular (T and B cells) and innate immunity after vaccination, particularly flaviviruses (dengue, Zika yellow fever, etc). Human vaccine clinical trials.
Gonzalo-Hervas, Susana, Ph.D.	Associate Professor	Biochem. & Molec. Biology	Mechanisms contributing to genomic instability in cancer and aging: nuclear architecture, chromatin structure, and DNA repair.

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Grucza, Richard, Ph.D.	Professor	Family and Community Medicine ;SLU Center for Outcomes Research	"Epidemiology of substance use disorders (addiction) and policy influences: 1.) OUD treatment outcomes; 2.) Adolescent trends in substance use and conduct problems; 3.) Alcohol-related morbidity and mortality among older adults."
Hawiger, Daniel, M.D., Ph.D.	Associate Professor	Molec. Micro. & Immunol.	Regulation of T cell differentiation and functions by Dendritic cells to prevent autoimmune diseases and cancer.
Hinyard, Leslie J., Ph.D.	Associate Professor, Assoc. Dir. Academic Affairs - SLUCOR	Health & Clinical Outcomes Research	Outcomes of interprofessional/collaborative practice; quality of life in diabetes; clinical and quality of life outcomes in oropharyngeal cancer.
Hoft, Daniel F., M.D., Ph.D.	Professor & Division Director	Internal Medicine; Molec. Micro. & Immunol.	Molecular immunologic studies of mucosally invasive intracellular pathogens.
Kornbluth, Jacki, Ph.D.	Professor	Pathology	Innate immunity against tumors & pathogens, immunotherapy
Kimbell Kornu, MD, PhD.	Assistant Professor	Health Care Ethics; Internal Medicine	Historical, philosophical, and theological determinants that shape medical practices
Korolev, Sergey, Ph.D.	Associate Professor	Biochem. & Molec. Biology	Mechanism of tumor suppressors in cancer. Inhibition of 1) DNA repair pathways for cancer treatment and 2) membrane receptors in pain management.
Liu, Jianguo, M.D., Ph.D.	Professor	Internal Medicine; Molec. Micro. & Immunol.,	Molecular mechanisms of cytokine gene expression and their immunological activities in autoimmune, tumor and infectious diseases.
Nguyen, Andrew, Ph.D.	Assistant Professor	Internal Medicine; Pharmacology & Physiology	Frontotemporal dementia; lysosome biology; lipid metabolism; nucleic acid-based therapeutics
Macarthur, Heather, Ph.D.	Professor	Pharmacology & Physiology	Vascular Control and Dysfunction in Hypertension and other Disease States. Role of Oxidative Stress in Disease States. Neurodegeneration.
McCommis, Kyle, Ph.D.	Assistant Professor	Biochem & Molec. Biology	Importance of mitochondrial function in the pathogenesis & treatment of heart failure, diabetes, & nonalcoholic fatty liver disease.
	Professor	Pediatrics;	Newborn screening of mucopolysaccharidoses;

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Montano, Adriana, Ph.D.		Biochem. & Molec. Biology	Morquio A disease Treatments for Lysosomal Storage Disorders Cardiovascular effects of glycosaminoglycan accumulation Oral tolerance Molecular mechanisms of the disease
Peng, Guangyong, M.D., Ph.D.	Professor	Internal Medicine; Molec. Micro. & Immunol.,	Tumor suppressive microenvironment; and tumor infiltrating Tcells ; tumor vaccine development and immunotherapy.
Pinto, Amelia K., PhD	Assistant Professor	Molec. Micro. & Immunol	Viral Immunology; innate and adaptive immune correlates of protections, vaccine efficacy, and the impact of weight and age associated immune defects on protection from viral infections.
Pozzi, Nicola, Ph.D.	Assistant Professor	Biochem. & Molec. Biology	Mechanisms of thrombosis and immunothrombosis, thrombophilias, autoimmunity, Antiphospholipid Syndrome (APS).
Ray, Ranjit, Ph.D.	Professor	Internal Medicine; Molec. Micro. & Immunol.	Virology; immunology; pathogenesis of hepatitis; virus-host interaction; molecular mechanisms of disease.
Ray, Ratna B., Ph.D.	Professor	Pathology; Internal Medicine	Transcriptional regulation; tumor biology; microRNA regulation in cancer; epigenetic regulations in cancer; chemoprevention; HCV mediated pathogenesis.
Salter, Erica K., Ph.D.	Associate Professor	Health Care Ethics; Pediatrics	Clinical ethics consultation; pediatric clinical ethics; standards of medical decision-making.
Salvemini, Daniela, Ph.D.	Professor & Chair	Pharmacology & Physiology; Internal Medicine	Molecular mechanisms of chronic neuropathic pain and opioid-unwanted actions. Drug discovery and development of novel non-narcotic analgesics.
Skowrya, Dorota, Ph.D.	Associate Professor	Biochem. & Molec. Biology	1) DUX4 Proteolysis in FSHD muscular dystrophy – from Mechanism to Applications 2) The ubiquitin-proteasome system as a diagnostic target in alpha1 liver disease.
Sverdrup, Fran M., Ph.D.	Associate Professor	Biochem. & Molec. Biology	Drug discovery; transcriptional regulation, chemical biology, epigenetic regulation of gene expression in facioscapulohumeral muscular

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			dystrophy (FSHD)
Tavis, John E., Ph.D.	Professor	Molec. Micro. & Immunol.	Hepatitis B virus reverse transcription; Hepatitis B virus polymerase biochemistry; Hepatitis B virus drug discovery.
Teague, Ryan M., Ph.D.	Associate Professor	Molec. Micro. & Immunol.	T cell biology, tumor immunology & cancer immunotherapy.
Walker, John K., Ph.D.	Assistant Professor	Pharmacology & Physiology	Application of synthetic & medicinal chemistry to drug discovery and the development of new small molecule drug therapies.
Yosten, Gina L.C., Ph.D.	Associate Professor	Pharmacology & Physiology	Role of G protein-coupled receptors in diabetes- and obesity-associated cardiovascular disease; deorphanization of orphan GPCRs.
Zhang, Jinsong, Ph.D.	Associate Professor	Pharmacology & Physiology	Epigenetic, transcriptional and signaling regulation of gene expression; leukemia fusion proteins; nuclear receptors in diabetes & cancer.