Graduate Studies

Department of Physiology
MICHIGAN STATE UNIVERSITY

The Faculty and Their Areas of Research Interest

Thomas Adams, Professor and Director of Undergraduate Education; Ph.D., Washington (Seattle). Neurophysiology; temperature regulation and environmental physiology.

Rudy Castellani, Associate Professor; M.D., Wayne State. Neuropathology; pathogenesis of neurodegenerative diseases; molecular determinants of phenotypic variability in prion disease; oxidative stress in Alzheimer's disease.

Jose B. Cibelli, Professor; D.V.M., LaPlata (Argentina); Ph.D., Massachusetts. Somatic cell nuclear transfer, its mechanism and its relationship with embryonic stem cells. (Joint appointment with the Department of Animal Science)

Elahé Crockett, Assistant Professor; Ph.D., Michigan State University. Molecular and cellular mechanisms of inflammatory tissue injury. (Joint appointment with Department of Surgery)

Patrick F. Dillon, Associate Professor; Ph.D., Virginia. Smooth-muscle physiology; protein-protein interactions; nonlinear dynamics; catastrophe theory.

Kathleen A. Gallo, Associate Professor; Ph.D., Harvard. Molecular physiology; mammalian signal transduction; apoptosis; protein kinases in breast cancer. (Joint appointment with the Department of Biochemistry & Molecular Biology).

Gerard L. Gebber, Professor; Ph.D., Michigan. Brain mechanisms involved in the generation and control of sympathetic nerve discharge; rhythm generators and circuit analysis. (Joint appointment with the Department of Pharmacology and Toxicology)

Sandra Z. Haslam, Professor; Ph.D., Berkeley. Endocrinology; mechanisms of ovarian hormone regulation of normal and cancerous mammary gland growth and development; role of epithelial and stromal cell interactions and extracellular matrix in mediating and/or modulating mammary-cell proliferation. Environmental influences on mammary gland development during puberty that impact breast cancer risk in adulthood.

Steven R. Heidemann, Professor; Ph.D., Princeton. Mechanical tension as a regular of neuronal development. (Joint appointment with the Department of Microbiology)

Seth R. Hootman, Professor; Ph.D., Rice. Cell membrane physiology; mechanisms of secretion; exocrine pancreas.

James J. Ireland, Professor and Director of Center for Animal Production Enhancement; Ph.D., Tennessee. Reproductive endocrinology; physiology; regulation of ovarian function. (Joint appointment with the Department of Animal Science)

Donald B. Jump, Professor; Ph.D., Georgetown. Molecular mechanisms of hormone/nutrient control of gene transcription. (Joint appointment with Department of Biochemistry)

Laryssa N. Kaufman, Associate Professor; M.D., Thomas Jefferson. Endocrine physiology, metabolism, and nutrition. (Joint appointment with the Department of Internal Medicine)

David L. Kreulen, Professor; Ph.D., Wayne State. Relationships between sympathetic neuron properties and the regulation of blood vessels; ion channels in sympathetic neurons; neuromuscular transmission in blood vessels; sympathetic sensory interactions. (Joint appointment with Department of Neurology and Ophthalmology)

Douglas B. Luckie, Associate Professor; Ph.D., Virginia. Membrane transport physiology, emphasis: molecular physiology of ABC transporters and in particular CFTR (cystic fibrosis) (Joint appointment with the Lyman Briggs School).

Laura R. McCabe, Associate Professor; Ph.D., Chicago. Molecular mechanisms regulating bone formation under conditions of stress.

Ronald Meyer, Professor; Ph.D., SUNY Upstate Medical Center. Comparative cellular energetics and metabolism; skeletal- and cardiac-muscle physiology; exercise physiology. (Joint appointment with the Department of Radiology)

Richard J. Miksicek, Associate Professor; Ph.D., Minnesota. Molecular endocrinology and gene expression; involvement of the estrogen and progesterone receptors in mammary development and breast cancer.

Raymond F. Nachreiner, Professor; D.V.M., Iowa State; Ph.D., Wisconsin, Clinical endocrinology and pharmacokinetics. (Joint appointments with the Department of Large Animal Clinical Sciences and the Diagnostic Center for Population and Animal Health)

L. Karl Olson, Associate Professor; Ph.D., Minnesota. Regulation of pancreatic B-cell cell growth, gene expression, and physiology; isolation and characterization of pancreatic precursor cells.

Gloria I. Perez, Associate Professor; D.V.M., Medellin (Colombia); Ph.D., Wisconsin-Madison. Mechanisms of ovarian failure and preservation: under physiological (menopause) as well as under pathological (chemo- and radio-therapy) conditions.

N. Edward Robinson, Professor, College of Veterinary Medicine and Matilda Wilson Endowed Chair; B.Vet.Med., London; Ph.D., California, Davis. Respiratory physiology: pathophysiology of airway disease. (Joint appointment with the Department of Large Animal Clinical Sciences)

Robert Root-Bernstein, Professor; Ph.D., Princeton. Peptide-neurotransmitter drug interactions; autoimmunity; evolution of physiological systems.

Stephen P. Schneider, Associate Professor; Ph.D., Emory. Neurobiology of sensory processing in spinal cord; central mechanisms of pain and hyperalgesia.

Harvey V. Sparks Jr., University Distinguished Professor; M.D., Michigan. Cardiovascular physiology.

William S. Spielman, Professor and Chairperson; Ph.D., Missouri. Cellular renal physiology, G-protein–coupled receptors.

Robert B. Stephenson, Associate Professor and Director of Curricular Affairs; Ph.D., Washington (Seattle). Neural control of the cardiovascular system; reflex regulation of blood pressure.

Bruce D. Uhal, Professor; Ph.D., Saint Louis. Cell biology of the pulmonary alveolar epithelium; lung injury/repair mechanisms; regulation of apoptosis and cell kinetics in the lung; roles of local angiotensin systems in lung fibrosis.

Chang-Yi Wang, Professor; Ph.D., MIT. Cardiovascular modeling. (Joint appointment with the Department of Mathematics)

Hongbing Wang, Assistant Professor, Ph.D., UCLA. Cyclic AMP Signaling and Neuroplasticity. (Joint appointment with the Neurosciences Training Program).

Arthur J. Weber, Associate Professor and Director of Research and Graduate Studies; Ph.D., Wisconsin–Madison. Structure-function relations and neuroprotection in the visual system in optic-nerve injury and glaucoma.

David Wenkert, Assistant Professor; Ph.D., Harvard; M.D., Miami. Molecular physiology; signal transduction; cancer research.

Robert W. Wiseman, Associate Professor; Ph.D., Florida State. Molecular imaging of the physiology and biochemistry of excitable cells; energetics and calcium homeostasis in muscle and myocardium; signal transduction in muscle during exercise and disease. (Joint appointment with the Department of Radiology).

Birgit Zipser, Professor; Ph.D., Yeshiva (Einstein). Glycobiology of neuronal development and pathogenesis.