USA College of Medicine

Department of Biochemistry & Molecular Biology — Research Expertise and Resource Map

Faculty

Cell Signaling

William Gerthoffer, Ph.D. – Myosin phosphorylation in smooth muscle contraction, MAP kinase regulation of inflammation and cell motility, Actin binding proteins in smooth muscle contraction and regulation of cell motility, Small heat shock proteins and stress response, Nanoparticle drug delivery in therapy of pulmonary hypertension and asthma, Noncoding RNAs as novel targets for therapy of lung diseases

Donna Cioffi, Ph.D. – Calcium signaling and autoantibodies in pulmonary endothelial barrier disruption

Steve Lim, Ph.D. – Integrin adhesion signaling in vascular inflammation and cancer, FAK, adhesion-mediated miRNA regulation

Cytoskeleton

Ronald Balczon, Ph.D. – Microtubule cytoskeleton in health and disease. Barrier disruption following infection with Pseudomonas aeruginosa. Long-term effects of Pseudomonas infection on patient health and survival

Translational Research

Lawrence LeClaire III, Ph.D. – Targeting fungal actins as a novel therapeutic approach to mycoses

Richard Honkanen, Ph.D. – CRISPR/CAS Gene editing in novel cell-based therapy of hypercholesterolemia

Wito Ritchter, Ph.D. – Phosphodiesterase inhibitors as novel therapy of CFTR and heart failure

Infectious Agents

MicroRNA

Pulmonary Endothelium

Collaborations/Resources Internal & External

UCUR

Center for Lung Biology

ASW 19Feb16