Cover Photo Credits: Peter Mohler, PhD
Dear Colleagues and Guests,

On behalf of all of the trainees, staff, and faculty of the Dorothy M. Davis Heart and Lung Research Institute (DHLRI) at the Ohio State University, I welcome you to our 9th Annual Research Day. The DHLRI Education Committee, led by Drs. Noah Weisleder (Department of Physiology & Cell Biology) and Thomas Hund (Biomedical Engineering), have put together a great day of poster presentations and talks from our team that includes faculty, fellows, and students from all disciplines of the Institute. You will have the opportunity to hear from two new faculty members; Dr. Willa Hsueh, an international leader in endocrinology that recently joined the Division of Endocrinology from Houston, and Dr. John Hollingsworth who is joined the Division of Pulmonary, Allergy, Critical Care, and Sleep Medicine from Duke University.

I am extremely pleased to welcome Dr. Michael A. Matthay M.D. as our named Charles and Barbara Webb Keynote Speaker this year. Dr. Matthay is a Professor of Medicine and Anesthesia, Director of Critical Care Medicine Training, Associate Director of the Intensive Care Unit, and Senior Associate at the Cardiovascular Research Institute at the University of California at San Francisco. Dr. Matthay received his AB from Harvard University and his medical degree from University of Pennsylvania School of Medicine. He received an American Thoracic Society award for Scientific Achievement in 2002 and the UCSF Award for Outstanding Clinical Research in 2006, as well as the Lifetime Achievement Award in Mentoring at UCSF in 2013. He is a member of the American Association of Physicians. He is widely known as an international leader in the treatment of acute lung injury.

Please take the opportunity to attend the sessions today and engage our trainees. My special thanks to Charles and Barbara Webb for their generous philanthropic support of research within the Dorothy M. Davis Heart and Lung Research Institute, the DHLRI Education Committee, as well as the DHLRI Administrative Staff for their tireless efforts in pulling together all logistical aspects of the day.

Enjoy the day,

Peter J. Mohler, Ph.D.
Director, Dorothy M. Davis Heart & Lung Research Institute
Chair, Department of Physiology and Cell Biology
William D. and Jacquelyn L. Wells Chair in Cardiovascular Research
Professor, Departments of Internal Medicine and Physiology & Cell Biology
Associate Dean for Basic Sciences
The Ohio State University College of Medicine
The Ohio State University Wexner Medical Center
Michael A. Matthay, M.D.

Michael A. Matthay, MD is a Professor of Medicine and Anesthesia at the University of California at San Francisco and a Senior Associate at the Cardiovascular Research Institute. He is Associate Director of the Intensive Care Unit. He received his AB from Harvard University in 1969 and his MD from the University of Pennsylvania School of Medicine in 1973. He received an American Thoracic Society award for Scientific Achievement in 2002 and the UCSF Award for Outstanding Clinical Research in 2006, as well as the Lifetime Achievement Award in Mentoring at UCSF in 2013. He is a member of the American Association of Physicians.

Research Interests: Dr. Matthay’s basic research has focused on mechanisms of salt, water, and protein transport across the alveolar epithelium that account for the resolution of pulmonary edema. He has also studied the pathogenesis and resolution of pulmonary edema and acute lung injury and the clinical counterpart, the acute respiratory distress syndrome (ARDS). His recent research has also focused on the biology and potential clinical use of allogeneic bone marrow derived mesenchymal stromal (stem) cells for ARDS.
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<td>11:00-11:15 am</td>
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<td>Thomas Ryan, MD</td>
<td>Director, Ohio State University Heart and Vascular Center</td>
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<td>John G. and Jeanne Bonnet McCoy Chair in Cardiovascular Medicine</td>
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<td>David B. Williams, PhD, ScD</td>
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<td>11:15-12:30 pm</td>
<td>Mesenchymal Stem (Stromal) Cells: Biology and Potential Therapeutic Value for ARDS - BRT 115</td>
<td>BRT 115</td>
<td>Michael A. Matthay, MD</td>
<td>Professor, Medicine and Anesthesia</td>
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<td>Senior Associate Cardiovascular Research Institute</td>
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<td>Associate Director, Intensive Care Unit</td>
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Atomic Force Microscopy (AFM) Core Lab
Davis Heart and Lung Research Institute, The Ohio State University
Manager: Mingzhai Sun, PhD

Atomic Force Microscopy (AFM) is a high-resolution microscopy and nanoscale force measurement technique. AFM produces precise topographic images of a sample by scanning the surface with a nanometer-scale probe (lateral resolution ~ 1 nm, vertical ~ 0.1 nm). A unique advantage of AFM is that it enables imaging in air or liquid environment with minimal sample preparation. In the biomedical field, AFM is used to visualize single biomolecules and live or fixed cells or tissues at nanoscale resolution without drying or coating them. The AFM is also used to study biomolecule interaction forces and to map stiffness of cells and tissues under various environmental conditions.

The DHLRI AFM Core Laboratory is equipped with a high resolution Veeco Multimode AFM for topographical sample analysis. We also house the Bioscope II AFM with Nanoscope V controller (Digital Instruments, Santa Barbara, CA); this state-of-the-art instrument can perform simultaneous AFM and light/fluorescence microscopy on biological samples, force sensing at nanonewton scales, magnetic force imaging, nanoindentations - to name just a few applications. The newest addition to the AFM core is the Force Robot from JPK instruments. Here we demonstrate the powerful applications of AFM by highlighting a sample of work performed by recent DHLRI AFM Core lab users.

The DHLRI AFM Core trains and assists users in AFM as applicable to their research, consults and advises users on experimental design, offers equipment time and/or performs AFM experiments and data analysis for researchers.

Atomic Force Microscopy Core Lab
480 Davis Heart and Lung Research Institute (DHLRI)
473 West 12th Avenue
Columbus, Ohio 43210
Phone: 614-247-4619
The Analytical Cytometry Shared Resource (ACSR) is a critical resource for research at OSUCCC-James and is used extensively by all scientific programs in OSUCCC-James and the surrounding community. The Shared Resource assists investigators with experimental design, assay development, education and instrument training while offering cutting edge flow cytometry analysis and cell sorting on a fee for service basis. Cell sorters include a 7 color, 2 laser BDFACSAria IIu and a 12 color, 4 laser Aria III located within a Baker BioProtect IV safety Cabinet. Analyzers include a 2 laser, 4 color FAS Calibur, a 12 color 3 laser LSR II and, for small particle analysis, a Malvern NanoSight NS300.

Flow Cytometry is a quantitative analytical method that can measure physical and chemical properties of cells and particles. A flow cytometer is comprised of electrical, digital, and optical components. As cells in suspension travel through a core stream a series of scattered and emitted light is collected and specific bands of fluorescence can be measured. Flow Cytometry capabilities include but are not limited to DNA analysis, phenotypic analysis, apoptotic studies, cell cycle and functional studies.

Cell Sorting allows for the separation from a complex mixture of cells into a defined single cell fraction that can then be analyzed. Optics, lasers and electronic processors, automate the task of identifying and quantitatively analyzing individual cells. By measuring the physical and chemical properties of cells, such as fluorescence, then by physically separating cells while still alive, the cell sorter has become an important tool for biomedical research and clinical medicine.

Flow Cytometry and Cell Sorting Analysis Core Lab
1055/1063 Biomedical Research Tower (BRT)
460 West 12th Avenue
Columbus, Ohio 43210
Phone: 614-292-3569 (FLOW)
Interventional Cardiology Cath Core Lab
Davis Heart and Lung Research Institute, The Ohio State University
Director: Vince Pompili, MD, FACC
Manager: Matthew Joseph, BS

The DHLRI Interventional Cath Core is dedicated to providing quality animal based research and development studies in addition to training labs and workshops. With the support of The Ohio State University Medical Center physicians, it is the goal of this laboratory to take new technology through the early R&D phases and ultimately to clinical trial.

The Core is equipped with a GE OEC 9800 Plus cardiac fluoroscopy unit with digital imaging system. In addition to the cath lab, two additional ULAR surgical suites are available for procedures not requiring fluoroscopy. Conference rooms are also available.

The Core works with several species. Although the majority of studies are performed in pigs (domestic Yorkshire as well as Yucatan and Sinclair mini-swine) dogs, sheep, and rabbits have also been utilized for vascular and cardiac studies.

Anyone with questions regarding the DHLRI Interventional Cath Core or who would like to tour the facility should contact Matthew Joseph at 614-688-3752.
The Small Animal Imaging Core (SAIC) is a state-of-the-art imaging core facility capable of imaging rodents and small animals for research purposes. It includes high-resolution small animal imaging equipment, image post-processing hardware and software, technical support personnel, and a direct interface with the Ohio Supercomputer (OSC). The objective and mission of the SAIC is to:

- Provide high quality micro-imaging data to OSU investigators in an efficient and cost effective manner.
- Provide accurate qualitative image interpretation and quantitative image data analysis.
- Develop and implement novel imaging protocols for cardiac, cancer, and neuroscience.
- Educate and train OSU investigators on available imaging technologies that will enhance their research programs.
- Identify new and emerging small animal imaging technologies that will benefit OSU investigators.

The following equipment is available within the facility:

1. An AVANCE™ 500 WB NMR Spectrometer and Imaging system (11.7T NMR and MRI)
2. A BioSpec 94/30 imaging system (9.4T MRI)
3. A Vevo 2100 high frequency ultrasound system
4. A PerklinElmer IVIS LUMINA II Bioluminescent Optical Imaging system
5. SAIC server and Graphics Workstations

Small Animal Imaging Core Lab (SAIC)
0020 Biomedical Research Tower (BRT)
460 West 12th Avenue
Columbus, Ohio 43210-1252
Phone: 614-688-8068 or 614-292-7271
Effect of Collagen Fiber Structure on Cell Matrix Interactions.

Abstract # 122
Benjamin Albert
Biomedical Engineering
PI: Gunjan Agarwal

Human Atrial Fibrillation Terminated by Targeted Ablation of Localized Reentrant Drivers Guided by Dual-Sided Simultaneous Epicardial and Endocardial Optical Mapping.

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Thomas Csepe
Physiology & Cell Biology
PI: Vadim Fedorov

Role of Oligomerization of Discoidin Domain Receptor 2 in Collagen Binding

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Chanhee Ha
Biomedical Engineering
PI: Gunjan Agarwal

Hyperglycemia-Induced Endothelial Dysfunction in Bovine Aortic Endothelial Cells

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Colwyn Headley
Pharmacology
PI: Frederick Villamena

Quantification of Aortic Stenosis using Phase Contrast MRI

Abstract # 126
Matthew Smyke
Davis Heart & Lung Research Institute
PI: Orlando Simonetti

ANK2 variants cause cardiac arrhythmia in ‘humanized’ mouse disease models

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Tyler Webb
Davis Heart & Lung Research Institute
PI: Peter Mohler
Pre-Doctoral Graduate Students
A Factor Graph Approach for Accelerated Phase-Contrast MRI

Abstract # 50
Adam Richard
Davis Heart & Lung Research Institute

PI: Orlando Simonetti

Exercise-mediated upregulation of follistatin-like 3 expression may not influence muscle force in response to treadmill walking

Abstract #51
Alisa Blazek
Davis Heart & Lung Research Institute

PI: Noah Weisleder

Does oral supplementation of a fermented papaya preparation correct respiratory burst function of innate immune cells in type 2 diabetes mellitus patients?

Abstract # 52
Ryan Dickerson
Surgery

PI: Sashwati Roy

Adaptations Following Maximal Exercise Test Utilizing an MRI-compatible Treadmill with Cine Imaging and Phase-contrast Magnetic Resonance Angiography (PCMRA)

Abstract # 53
Richard Lafoundtain
Davis Heart & Lung Research Institute

PI: Orlando Simonetti

Ankyrin-G coordinates intercalated disc signaling platform to regulate cardiac excitability in vivo

Abstract #54
Michael Makara
Davis Heart & Lung Research Institute

PI: Peter Mohler

Validating an Agent-Based Model of Collagen Network Remodeling

Abstract # 55
James Reinhardt
Biomedical Engineering

PI: Keith Gooch
Phosphorylation of cardiac troponin I at tyrosine 26 alters thin filament regulation

Abstract # 56
**Hussan Salhi**
Physiology & Cell Biology

PI: Brandon Biesiadecki

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Self-assembly of Cyclic Peptide Nanotubes (CPNs) for In Vivo Sensing

Abstract # 57
**Leming Sun**
Biomedical Engineering

PI: Mingjun Zhang

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From Project to Product – Development of ImmunoHFET Sensors for Clinical and Environmental Applications

Abstract # 58
**Andrew Theiss**
Biomedical Engineering

PI: Stephen C. Lee

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MG53-Mediated Protection in Heart Valve Biology

Abstract # 59
**T.M. Adyodele**
Davis Heart & Lung Research Institute

PI: Jianjie Ma

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Immune-Modulatory and Anti-Proliferative Activities of Dietary Apigenin Act in Concert to Delay Breast Cancer Progression

Abstract # 60
**Daniel Arrango**
Pulmonary, Allergy, Critical Care & Sleep Medicine

PI: Andrea Doseff

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Mycoplasma pneumoniae, A Rare Cause of Encephalitis

Abstract # 61
**Tariq Azam**
Pulmonary, Allergy, Critical Care & Sleep Medicine

PI: Jessica Kynyk
The Effects of Aging on Pulmonary Inflammation and Macrophage Function

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Cynthia Canan
Center for Microbial Interface Biology
PI: Joanna Turner

Elucidating the Role of Mineralocorticoid Receptors in Skeletal Muscle as a Potential Therapeutic Target for Duchenne Muscular Dystrophy

Abstract # 63
Jessica Chadwick
Center for Microbial Interface Biology
PI: Jill Rafael-Fortney

Baseline Myocardium At-Risk Predicts Subsequent Myocardial Injury in Non ST-Segment Elevation Acute Coronary Syndrome

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Henry Chang
Cardiovascular Medicine
PI: Subha V. Raman

Macrophagemfg-E8 Resolves Wound Inflammation and Drives Wound Angiogenesis

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Amitava Das
Surgery
PI: Sashwati Roy

Systemic Matrix Metalloproteinase Changes in a Cachectic Mouse Model

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Raymond Devine
College of Nursing
PI: Loren Wold

Anti-Inflammatory Mechanisms of Dietary Apigenin: Alternative Approaches for Clinical Interventions

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Silvia Duarte
Pulmonary, Allergy, Critical Care & Sleep Medicine
PI: Andrea Doseff
Francisella suppression of inflammasome is independent of priming

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Mohammed Ghonim
Pulmonary, Allergy, Critical Care & Sleep Medicine

PI: Mark D. Wewers

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Cycle length restitution and spontaneous action potential dynamics in sinoatrial node disease.

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Patric Glynn
Biomedical Engineering

PI: Thomas J. Hund

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Voltage-gated sodium channel phosphorylation by CaMKII at Ser571 regulates late current, arrhythmia susceptibility, and heart function in vivo.

Abstract # 70
Patric Glynn
Biomedical Engineering

PI: Thomas J. Hund

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Exposure to air pollution in utero causes cardiovascular dysfunction in adulthood

Abstract # 71
Matthew Gorr
College of Nursing

PI: Loren Wold

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Optimization of Magnetic Resonance Thermometry near Metallic Medical Devices

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Davis Gross
Davis Heart & Lung Research Institute

PI: Orlando Simonetti
TRIM50 Interacts with Microtubules to Facilitate Vesicle Trafficking in Gastric Parietal Cells

Abstract # 73

Kristyn Gumpper
Davis Heart & Lung Research Institute

PI: Jianjie Ma

Human Atrial Fibrillation Terminated by Targeted Ablation of Localized Reentrant Drivers Guided by Dual-Sided Simultaneous EpiComputational Simulation of Eustachian Tube Sonotubometry TESTicardial and Endocardial Optical Mapping

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Brian Hansen
Physiology & Cell Biology

PI: Vadim Fedorov

Matrix Stiffness and Culture Dimensionality Guide Human Mesenchymal Stem Cell Differentiation

Abstract # 75

Nathaniel Hogrebe
Biomedical Engineering

PI: Keith Gooch

Naturally Occurring Pressure-sensitive Adhesive for Tissue Engineering

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Yujian Huang
Physiology & Cell Biology

PI: Mingjun Zhang

Hydrogen Peroxide Inhibits Proliferation and Endothelial Differentiation of Bone Marrow Stem Cells Partially Through Reactive Oxygen Species Generation

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Melissa Kander
Davis Heart & Lung Research Institute

PI: Zhenguo Liu

Adhesion Modeling of Eustachian Tube Opening during Inflammatory Otitis Media in Children with Cleft Palate

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Jennifer Malik
Pulmonary, Allergy, Critical Care & Sleep Medicine

PI: Samir Ghadiali
Waveguide Magnetic Resonance Elastography of the Left Ventricle in a Pressure Varying Model

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Ria Mazumder
Electrical and Computer Engineering

PI: Arnuark Kolipaka

Characterization of Tripartite Motif-Containing Protein 38 (TRIM38) in Myocardial Hypertrophy

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Kevin McElhanon
Physiology & Cell Biology

PI: Noah Weisleder

Modifications on the Mycobacterium tuberculosis Cell Wall Surface by Human Lung Hydrolases Alters the Immunological Response in vivo

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Juan Moliva
Center for Microbial Interface Biology

PI: Jordi B. Torrelles

The Role of MicroRNAs in Ventilator Induced Lung Injury (VILI) and Inflammation

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Kevin Nelson
Pulmonary, Allergy, Critical Care & Sleep Medicine

PI: Samir Ghadiali

TRIM2 transfection of DRG neurons leads to increased membrane repair following multiphoton laser injury

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Brian Paleo
Davis Heart & Lung Research Institute

PI: Noah Weisleder

Zinc Modulates Macrophage Inflammation through ZIP8

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Charlie Pyle
College of Pharmacy

PI: Darren L. Knoell/Larry Schlesinger
Neutrophil Response to M. tuberculosis Modifications by Human Lung Mucosa

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Julia Scordo  
Center for Microbial Interface Biology  
PI: Jordi Torrelles

miRNA-378 as a Novel Diagnostic Biomarker in Acute Myocardial Infarction

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Muhammad Shareef  
Cardiac Surgery  
PI: Ahmet Kilic

Iron Quantification in Carotid Artery Atherosclerosis Predicts Downstream Ischemia by Magnetic Resonance Imaging

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Travis Sharkey-Toppen  
Cardiovascular Medicine  
PI: Subha V. Raman

Engineering cardiac Troponin C: Potential therapeutic for heart failure

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Vikram Shettigar  
Physiology & Cell Biology  
PI: Jonathan Davis

Modeling the Response of Cardiac Troponin C to Calcium on the Thin Filament: Effects of Disease-Related and Post-translational Modifications

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Jalal Siddiqui  
Physiology & Cell Biology  
PI: Jonathan Davis

IκBζ Regulates Human Lung Epithelial Cell Responses To House Dust Mite Antigens

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Kruthika Sundaram  
Pulmonary, Allergy, Critical Care & Sleep Medicine  
PI: Mark D. Wewers
An intricate link between autophagy, microRNAs, and Burkholderia cenocepacia in cystic fibrosis

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Mia Tazi
Center for Microbial Interface Biology

PI: Amal Amer

Computational Simulation of Eustachian Tube Sonotubometry Test

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Justo Terres-Rodriguez
Pulmonary, Allergy, Critical Care & Sleep Medicine

PI: Samir Ghadiali

Modification of collagen ultrastructure by DDR1 impacts matrix mineralization

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Jeff Tonniges
Biomedical Engineering

PI: Gunjan Agarwal

T2 Prepared SSFP Quantitative T2 Mapping for Determining Blood O2 Saturation in the Heart Chambers

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Juliet Varghese
Davis Heart & Lung Research Institute

PI: Orlando Simonetti

Mechanics of Epithelial to Mesenchymal Transition in Cancer and Non-Cancer Models

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Leonithas Volakis
Pulmonary, Allergy, Critical Care & Sleep Medicine

PI: Samir Ghadiali

Characterization of the Calcium-binding and Peptide-binding Properties of Arrhythmogenic Calmodulin Mutants

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Shane Walton
Physiology & Cell Biology

PI: Jonathan Davis
Alternatively Activated Macrophages Attenuate Influenza-induced Acute Lung Injury in Mice Heterozygous for the F508del mutation in CFTR.

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Parker Woods
Veterinary Bio Sciences

PI: Ian C. Davis

TRIC-A Prevents Store-overload Induced Calcium Release Through Interaction With The Cardiac Ryanodine Receptor

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Xinyu Zhou
Davis Heart & Lung Research Institute

PI: Jianjie Ma

Finite Element Modeling of Cell Migration through a Fibrous Matrix

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Rachel Zielinski
Pulmonary, Allergy, Critical Care & Sleep Medicine

PI: Samir Ghadiali

Phospholipase A2 Upregulates Inflammatory Cytokine Expression in Respiratory Epithelial Cells through Eicosanoids: Mechanism of Airborne Organic Particulate Matter (PM)-induced

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Hemalatha Roa
Pulmonary, Allergy, Critical Care & Sleep Medicine

PI: Narashimham Parinandi

Genetic Features of Key Genes at the Intersection Between Lipid Metabolism and Immunity

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Katherine Hartmann
Biomedical Sciences

PI: Wolfgang Saddee

Regulation of macro and micro mechanics of collagen type 1 gels by DDRs

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David Yeung
Biomedical Engineering

PI: Gunjan Agarwal
Sub-30ms real-time, free-breathing cardiac cine with VISTA sampling and SPIRiT reconstruction: A comparison with conventional segmented cine

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Samuel Ting
Biomedical Engineering

PI: Orlando Simonetti
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Pulmonary, Allergy, Critical Care, & Sleep Medicine

PI: Patrick Nana-Sinkam

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Jerry Curran
Davis Heart & Lung Research Institute

PI: Peter Mohler

Nanomanufacturing of the Self-propulsed Cyclic Peptide-based Nanorobot

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Zhan Fan
Davis Heart & Lung Research Institute

PI: Mingjun Zhang

New therapeutic target for diabetes by MicroRNA 181 that post-transcriptionally regulates the expression of Mitsugumin-29

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Feng Jin
Davis Heart & Lung Research Institute

PI: Jianjie Ma

Expression of tripartite motif protein 58 (TRIM58), a novel negative regulator of membrane repair in failing cardiac muscle

Abstract # 23
Karthikeyan Krishnamurthy
Davis Heart & Lung Research Institute

PI: Noah Weisleder

Comparison of Purification Techniques for Shotgun Proteomic Analyses of Extracellular Serum Vesicles in Lung

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Mohammad Rahman
Surgery

PI: Chandan Sen
βIV-spectrin coordinates a CaMKII/STAT3 complex in heart for regulation of gene transcription

Abstract # 25
Sathyadev Unudurthi
Biomedical Engineering

PI: Thomas J. Hund

Macrophage Trafficking in Human and Mouse Experimental Allergic Lung Inflammation

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Lee Yonggyu
Pulmonary, Allergy, Critical Care & Sleep Medicine

PI: John Christman

Characterization of Cardiomyocyte Nano-mechanics for Studying the Doxorubicin-Induced Cardiotoxicity

Abstract # 27
Tao Yue
Davis Heart & Lung Research Institute

PI: Mingjun Zhang

Identification of novel PPAR gamma effectors that regulate the host response to Mycobacterium tuberculosis in human macrophages

Abstract #28
Eusondia Arnett
Center for Microbial Interface Biology

PI: Larry Schlesinger

Modulation of the p38 Pathway by DUSP4 Protects against Ischemia/Reperfusion or Hypoxia/Re-oxygenation Induced Oxidative Stress

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Alma Barajas-Espinosa
Emergency Medicine

PI: Chun-An Chen

TRIM72/MG53: An emerging role in intracellular vesicular trafficking

Abstract # 30
Sayak Bhattacharya
Davis Heart & Lung Research Institute

PI: Noah Weisleder
Apex-1 promotes c-jun DNA binding in Nox-4 mediated HE tumor progression

Abstract # 31
Ayan Biswas
Surgery
PI: Gayle Gordillo

Differential role of ROS in alterations of EPCs in bone marrow and peripheral circulation in hyperlipidemia

Abstract # 32
Yuqi Cui
Davis Heart & Lung Research Institute
PI: Zhenguo Liu

Antioxidant NAC prevent the atherosclerosis

Abstract # 33
Yuqi Cui
Davis Heart & Lung Research Institute
PI: Zhenguo Liu

Nanoparticle-based therapeutic approach of silencing hypoxia inducible microRNA 210 accelerates wound closure in a murine model of ischemic wounds

Abstract #34
Subhadip Ghatak
Surgery
PI: Chandan Sen

Therapeutic Effect of Modulating Membrane Repair in a Mouse Model of Limb-Girdle Muscular Dystrophy Type 2B

Abstract # 35
Liubov Gushchina
Davis Heart & Lung Research Institute
PI: Noah Weisleder

Adhesive Properties of Ultra-Low Volume Mucus Samples during Otitis Media

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Natalia Higuita-Castro
Biomedical Engineering
PI: Samir Ghadiali
Tuning of Cardiac EC Coupling by the Parasympathetic System

Abstract # 37
Hisiang-Ting Ho
Physiology & Cell Biology
PI: Sandor Gyorke

Genome-wide Architecture of Transcriptional Start Sites Defined by Cap Analysis of Gene Expression (CAGE) Reveals Distinct Features and Evolutionary Conservations of Genomes

Abstract # 38
Wei Li
Pulmonary, Allergy, Critical Care & Sleep Medicine
PI: Andrea Doseff

Functional and Molecular Arrhythmogenic Substrates of Atrial Fibrillation Drivers (reentrant rotors) in Explanted Human Hearts

Abstract #39
Ning Li
Physiology & Cell Biology
PI: Vadim Fedorov

Protein Phosphatase 2A Regulatory Subunit B56α is an Inhibitor of Cardiac Phosphatase Signaling

Abstract #40
Sean Little
Davis Heart & Lung Research Institute
PI: Peter Mohler

Alternating Vm/Ca interplay underlies repetitive focal activity in a genetic model of calcium-dependent atrial arrhythmias

Abstract #41
Qing Luo
Physiology & Cell Biology
PI: Sandor Gyorke

Role of Tripartite motif family of E3 ubiquitin ligases in muscle atrophy

Abstract #42
Heather Manring
Davis Heart & Lung Research Institute
PI: Zhenguo Liu
Pneumolysin from Streptococcus pneumoniae is responsible for the inflammasome activation step of the two component model of caspase-1 activation in human monocytes

Abstract # 43
Mohd Rahman
Pulmonary, Allergy, Critical Care & Sleep Medicine

PI: Mark D. Wewers

Development of a Novel Chronic Wound Model in Pigs with Metabolic Syndrome

Abstract # 44
Matthew Shomita
Surgery

PI: Chandan Sen

Fibroblast Mediated Matrix Remodeling and Cancer Metastasis

Abstract #45
Vasuda Shukla
Biomedical Engineering

PI: Samir Ghadiali

Knockout of microRNA-21 leads to increased inflammatory response during wound healing

Abstract #46
Mithun Sinha
Surgery

PI: Chandan Sen

Knockout of microRNA-21 leads to increased inflammatory response during wound healing

Abstract #46
Mithun Sinha
Surgery

PI: Chandan Sen

Immunogenicity of Biologically Derived Nanoparticles

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Yongzhong Wang
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PI: Mingjun Zhang

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Zhaobin Xu
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PI: Ian Davis

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Center for Microbial Interface Biology

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Faith Kline
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Jenna Alloush
Davis Heart & Lung Research Institute
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Jesus Arcos
Center for Microbial Interface Biology
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Kaivon Assani
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Bimei Jiang
Davis Heart & Lung Research Institute

PI: Bimei Jiang/Pengfei Lian

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Bimei Jiang
Davis Heart & Lung Research Institute

PI: Bimei Jiang/Pengfei Lian

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Smitha Sasindran
Center for Microbial Interface Biology

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Seth Teplitsky
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Adam Pleister
Pulmonary, Allergy, Critical Care, & Sleep Medicine

PI: Garrie Haas

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Adam Pleister
Pulmonary, Allergy, Critical Care, & Sleep Medicine

PI: Garrie Haas

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Mohamed Ali
Pulmonary, Allergy, Critical Care, & Sleep Medicine

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Mohamed Ali
Pulmonary, Allergy, Critical Care, & Sleep Medicine

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Jackson Edwin
Pulmonary, Allergy, Critical Care, & Sleep Medicine

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Daniel Gorbett
Pulmonary, Allergy, Critical Care, and Sleep Medicine

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PI: Carleen Risaliti

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Douglas Closser
Pulmonary, Allergy, Critical Care, & Sleep Medicine

PI: Nitin Bhatt

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Adam Manko
Pulmonary, Allergy, Critical Care, & Sleep Medicine

PI: Beth Besecker
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Megan Ballinger
Pulmonary, Allergy, Critical Care, & Sleep Medicine

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Ulysses Magalang
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Nicanor Moldovan
Cardiovascular Medicine
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