

3RD ANNUAL COLLEGE OF MEDICINE RESEARCH FORUM
UNIVERSITY LIBRARY
NOVEMBER 20, 2009

- 9:00 **OPENING REMARKS – Library Auditorium**
 Dr. Samuel Strada, Dean of the College of Medicine
- 9:00-11:45 **ORAL PRESENTATIONS – Library Auditorium**
 Moderators: Paul Brett, Mary Burtnick
- 9:15-9:30 01 **S. Sayner**, B. Rutledge, S. Shrestha. Dept. of Cell Biology & Neuroscience Pulmonary microvascular endothelial cells expresses an endogenous bicarbonate-sensitive adenylyl cyclase that controls endothelial barrier integrity
- 9:30-9:45 02 **X. Wang**, J.E. Buhlmann, B. Lim, R.A. Barrington. Dept. of Microbiology & Immunology Dysfunction of regulatory T cells in RASGRP1-deficient mouse model of systemic lupus erythematosus
- 9:45-10:00 03 **C.D. Ochoa**, M.F. Alexeyev, T. Stevens. Dept. of Pharmacology and Center for Lung Biology Conditional expression of a prokaryotic gene in lung endothelium
- 10:00-10:15 04 **H. Liu**, C. Teckle, Y-W. Chen, Y. Zhao, M. Zhao, Z. Liu, Y. Ding, O. Fodstad, M. Tan. Mitchell Cancer Institute B7H3 induces chemotherapeutic resistance by activating JAK2/STAT3-mediated prosurvival pathways in human breast cancer
- 10:15-10:30 05 **A.M. Lackey**, D.O. Wood. Dept. of Microbiology & Immunology Elucidation of the interactions between the host autophagic response and the intracellular pathogen, *Rickettsia prowazekii*
- 10:30-10:45 **BREAK – Library Room 181**
- 10:45-11:00 06 **M. Toba**, K. Abe, A. Alzoubi, K.A. Fagan, I.F. McMurtry, M. Oka. Dept. of Pharmacology and Center for Lung Biology Cell-targeted drug delivery for the treatment of pulmonary arterial hypertension
- 11:00-11:15 07 **M.H. Bell**, A.K. Das, Y. Xie, M. Peyton, L. Girard, M.D. Story, C.S. Nirodi, A.F. Gazdar, J.D. Minna. USA College of Medicine and Harmon Center for Therapeutic Oncology Research, UT Southwestern Medical Center Defining tumor mRNA expression signatures predicting response of lung cancers to radiation to radiation therapy
- 11:15-11:30 08 **Y.H. Zhao**, M. Zhou, H. Liu, Y. Ding, H.T. Khong, D.H. Yu, O. Fodstad, M. Tan. Mitchell Cancer Institute Upregulation of lactate dehydrogenase A by ErbB2 through heat shock factor 1 promotes breast cancer cell glycolysis
- 11:30-11:45 09 **X-M. Zha**. Dept. of Cell Biology & Neuroscience Brain acidosis, acid-sensing ion channels, and neuron function
- 12:00-12:30 **LUNCH**
- 12:30-3:00 **POSTER PRESENTATIONS – Library Room 181**
- 01 **A. Alzoubi**, M. Toba, K. Abe, K.A. Fagan, I.F. McMurtry, M. Oka. Depts. of Pharmacology and Medicine and Center for Lung Biology Dehydroepiandrosterone attenuates established severe pulmonary arterial hypertension in rats
- 02 **K. Abe.**, M. Ito., W.T. Gerthoffer, K.A. Fagan, I.F. McMurtry, M. Oka. Depts. of Pharmacology, Biochemistry & Molecular Biology and Center for Lung Biology Tyrosine kinase inhibitors are potent pulmonary vasodilators in rats

03	M. Al-Ali , T. Tran, P. Franklin, J. Haynes Jr., M.M. Mughal. Dept. of Internal Medicine and Division of Pulmonary & Critical Care Medicine	Assessment of pulmonary hypertension in patients with sickle cell disease with tricuspid regurgitant jet velocity of ≥ 2.5 M/S on routine echocardiogram
04	A. Byrd and J.W. Brewer. Dept. of Microbiology & Immunology	Short non-coding RNA and the unfolded protein response transcription factor XBP1
05	S. Chettimada , D. Rawat, S. Gupte Dept. of Biochemistry & Molecular Biology	Role of G6PD in hypoxia-induced pulmonary hypertension
06	E.A. Cioffi and D.L. Cioffi. Depts. of Pharmacology and Biochemistry & Molecular Biology and Center for Lung Biology	Glycomorphology of the pulmonary vasculature: endothelial cell glycocalyx and endothelial barrier function
07	B.S. Comer and W.T. Gerthoffer. Dept. of Biochemistry & Molecular Biology	Modulation of airway smooth muscle phenotype by microRNAs and the P38MAPK pathway
08	L. Pannell and K. Coughlin . Proteomics Facility, Mitchell Cancer Institute	Optimizing protein enrichment of prostate-specific antigen in human urine samples using high-performance liquid chromatography and immunoprecipitation
09	J.T. Dunn and R.A. Barrington. Dept. of Microbiology & Immunology	Responses of immature B cells lacking RASGRP1 and contributions to murine lupus
10	D. Devine . Mitchell Cancer Institute	N-Myc interactor (NMI) and the epithelial-mesenchymal transition
11	Y. Ding , M. Zhou, Y. Zhao, H. Liu, O. Fodstad. A.I. Riker, S Kamarajugadda, J. Lu, L.B. Owen, S. LeDoux, M. Tan. Mitchell Cancer Institute and Dept. of Cell Biology & Neuroscience	Inhibition of lactate dehydrogenase-A resensitizes taxol-resistant cancer cells to taxol
12	T. Dodd , R. Jadhav, E. Smith, P. Rocic. Dept. of Biochemistry & Molecular Biology	P38 MAPK-dependent regulation of MMPS during coronary collateral growth
13	W.P. Feinstein and T.C. Rich. Dept. of Pharmacology	Development of a mathematical model to study the mechanisms underlying cyclic AMP localization
14	M. Francis and M.S. Taylor. Dept. of Physiology	Automated analysis of fluorescent calcium indicator activity
15	S. Gairhe , R. Torres, D. Reed, I.F. McMurtry. Dept of Pharmacology and Center for Lung Biology	Development of cell co-culture model of neointima formation
16	L.G. Harris and L.S. Shevde. Mitchell Cancer Institute	The role of hedgehog signaling in cancer vascularity
17	L.Z. Hasoun , S.W. Bailey, J.E. Ayling. Dept. of Pharmacology	Protection by 5-Methyl tetrahydro-folate (5MTHF) against UV-induced DNA damage

- 18 **M-Y. Jian**, K. Thorneloe, M.I. Townsley. Depts. of Physiology and Medicine and Center for Lung Biology, GlaxoSmithKline Effect of GSK1016790A, a potent TRPV4 agonist, on lung endothelial permeability
- 19 **P. Kadeba**, S. Rasool, D.L. Cioffi. Dept. of Biochemistry & Molecular Biology and Center for Lung Biology Role of immunophilin FKBP51 and FKBP52 in store operated calcium entry
- 20 **W. Lin** and Y. Lin. Dept. of Cell Biology & Neuroscience IFN- γ inhibits central nervous system myelination through both STAT1-dependent and STAT1-independent pathways
- 21 M. Zhou, **Z. Liu**, , Y. Zhao, Y. Ding, H. Liu, Y. Xi, W. Xiong, G. Li, J. Lu, O. Fodstad, A.I. Riker, M. Tan. Mitchell Cancer Institute MIR-125b confers the resistance of cancer cells to taxol through suppression of BAK1
- 22 **M.E. Menezes**, A. Mitra, R.S. Samant. Mitchell Cancer Institute Role of DNAJB6 in restricting breast tumor progression
- 23 **K. Morrison** and T. Rich. Dept. of Pharmacology ANP induced testosterone production in MA-10 mouse Leydig tumor cells
- 24 **K.A. Morrow** and L.A. Shevde. Mitchell Cancer Institute Role of merlin in breast cancer
- 25 **R. Morrow**, P. Rocic, K. Abe, M. Oka, D.L. Cioffi. Depts. of Biochemistry & Molecular Biology and Pharmacology and Center for Lung Biology Autoantibodies in pulmonary hypertension and metabolic syndrome
- 26 **A. Mott** and L.K. Pannell. Proteomics Facility, Mitchell Cancer Institute Predicting secreted biomarkers for early detection cancer using LC-MS/MS
- 27 **C.D. Ochoa**, T. Stevens, R. Balczon. Center for Lung Biology and Depts. of Pharmacology, Medicine and Cell Biology & Neuroscience Freezing temperatures do not disassemble endothelial cell microtubules
- 28 **G. Parra-Bonilla**, M. Alexeyev, T. Stevens. Depts. of Pharmacology, Medicine and Cell Biology & Neuroscience and Center for Lung Biology Essential role of lactate dehydrogenase-A in pulmonary microvascular endothelial cell proliferation
- 29 **T.A. Platt** and I.F. McMurtry. Dept. of Pharmacology and Center for Lung Biology Upregulation of pHSP27 in hypoxic pulmonary hypertension
- 30 R.S. Gupte, **D.K. Rawat**, S. Chettimada. M.S. Wolin, D.L. Cioffi, I.F. McMurtry, S.A. Gupte. Depts. of Biochemistry & Molecular Biology and Pharmacology and Dept. of Physiology, New York Medical College Activation of glucose-6-phosphate dehydrogenase promotes acute hypoxic pulmonary artery contraction

- 31 **D. Reed** and A.B. Al-Mehdi. Dept. of Pharmacology Nuclear oxidant stress induction by hypoxia and estrogen
- 32 **J. Rocker** and J. Lotz. Univ. of Southern Mississippi Gulf Coast Research Laboratory Comparison of the intra-host quasispecies of Taura Syndrome virus in acute and chronic infections in *Litopenaeus vannamei*
- 33 **J.W. Snyder**, S.P. LeDoux, G.L. Wilson. Dept. of Cell Biology & Neuroscience Enhancement of beta cell viability through the use of a fusion protein
- 34 **D. Spadafora**, E. Hawkins, S. T. Ballard. Dept. of Physiology Progress in the search for CF-causing mutations in dogs
- 35 **S.F. Swedan** and S. Barik. Dept. of Biochemistry & Molecular Biology NS1 and NS2 of respiratory syncytial virus target multiple components of the interferon induction and response pathways of the innate immune system
- 36 **R.A. Torres**, D.A. Drake. V. Solodushko, R. Jadhav, E. Smith, P. Rocic, D.S. Weber. Depts. of Physiology and Biochemistry & Molecular Biology The role of slingshot phosphatase and cofilin as mediators of VSMC migration and neointima formation
- 37 **A.M. Tucker**, L.O. Driskell, L.K. Pannell, D.O. Wood. Dept. of Microbiology & Immunology Differential proteomic analysis of *Rickettsia prowazekii* propagated in diverse host backgrounds
- 38 **A.A. Vasauskas** and J.G. Scammell. Dept. of Comparative Medicine Secretogranin II is costored with chorionic gonadotrophin in squirrel monkey pituitary gonadotrophs
- 39 **R.J. Viator** and B.W. Fouty. Center for Lung Biology and Dept. of Pharmacology Aortic endothelial cells transport more glucose than pulmonary endothelial cells *in vitro*
- 40 **P.C. Villalta**, P. Rocic. M.I. Townsley. Depts. of Physiology and Biochemistry & Molecular Biology and Center for Lung Biology Impact of cyclic strain on integrin expression in rat pulmonary microvascular endothelial cells
- 41 **A. Waggoner**, A. DeCoux. J. Chaplain. G. Wilson, M. Gillespie, S. Gebb. Depts. of Cell Biology & Neuroscience and Pharmacology and Center for Lung Biology Hyperoxia-induced mitochondrial DNA damage in alveolar type II epithelial cells