

DEPARTMENT OF MEDICAL PHYSIOLOGY

FACULTY/STAFF ACTIVITIES

1999

Arrivals and Appointments

Bayless KJ (MPHY) was appointed to the position of postdoctoral research associate on March 25, 1999. She will be working in Dr. George Davis' lab in Medical Pathology.

Davis MJ (MPHY) was appointed as a regular member of the NIH Experimental Cardiovascular Sciences Study Center for September 1, 1999 to August 31, 2003.

Davis MJ (MPHY) was appointed as a regular member of the NIH Experimental Cardiovascular Sciences Study Center for September 1, 1999 to August 31, 2003.

Fogarty J (MPHY) was selected to receive a \$500 Travel Grant Award for her research, to attend the Fourth International Shock Congress in Philadelphia, Pennsylvania.

Gui P (MPHY) Dept. of Physiology, Peking Medical College, Beijing, PRC, joined the laboratory of Michael J. Davis as a Postdoctoral Research Associate.

Hood J (MPHY) departed on July 31, 1998 to pursue a postdoctoral research position in the Scripps Clinic with Dr. David Cherish in San Diego, California.

Kawasaki J, Dept. of Cardiology, Fukuoka University, Japan, joined the laboratory of Michael J. Davis as a Postdoctoral Research Associate.

Meininger GA (MPHY) was appointed as the US Co-Editor of the Journal of Vascular Research. This international journal also serves as the official journal of the European Society for Microcirculation. The appointment is for August 1, 1999 to July 31, 2005.

Meininger GA (MPHY) received the prestigious Regents Professor Service Award on September 24, 1999.

Nurkiewicz T (MPHY) Dept. of Physiology, University of West Virginia, joined the laboratory of Michael J. Davis as a Postdoctoral Research Associate.

Peterson TV (MPHY) has been selected to serve as Chair of the Awards Committee of the American Physiological Society for a two-year term beginning January 2000.

Taylor MA (MPHY) was selected as one of 3 staff members to receive the 1999 Outstanding Staff Recognition award.

Wu, X (MPHY) received a \$250 Travel Award from the North American Vascular Biology Organization to attend the Spring 1999 meeting.

Yuan SY (MPHY) was selected as the 1999-2000 Montague-Center for Teaching Excellence Scholar for the College of Medicine.

Yuan SY (MPHY) was selected for the 1999 Excellence in Research Awards: Junior Investigator for the College of Medicine.

Yuan SY (MPHY) was selected as the 1999-2000 Montague-Center for Teaching Excellence Scholar for the College of Medicine.

Zawieja DC (MPHY) was appointed to Lymphatic Research Foundation Advisory Committee and NIH sponsored “Think-Tank” Conference entitled “Conquering Lymphatic Disease: Setting the Research Agenda.”

Grants and Contracts

Forough MR and Meyer E (MPHY) received a \$25,000 TAMU Interdisciplinary grant “Bacterial Expression and Determination of 3-D Structure of MMP-2” for the period of May 1, 1999 – August 31, 2000.

Granger HJ (MPHY) received a grant “Regulation of Coronary Angiogenesis” from the National Institutes of Health, for the period of 12/01/98-11/30/03, \$1,457,587.

Hawker JR, Jr (MPHY) received an \$88,000 Department of Veterans Affairs grant “Role of Fibroblast Growth Factor in Coronary Angiogenesis” for the period August 1999 - July 2001.

Hawker JR Jr. (MPHY) received an \$80,000 Department of Veterans Affairs grant “Role of Fibroblast Growth Factor in Coronary Angiogenesis” for the period August 1999 - July 2001.

Huang X (MPHY) received a \$165,000 American Heart Association – National grant entitled “Role of Troponin I in cardiac function” for the period 07/01/99-06/30/02.

Kuo L (MPHY) received a grant “Regulation of Coronary Microvascular Tone“ from the National Institutes of Health for the period of 12/15/98-11/30/02, \$890,539.

Kuo L (MPHY) received a \$165,000 American Heart Association Grant-in-Aid entitled “Regulation of coronary vascular tone” for the period 01/01/99-12/31/01.

Meininger CJ (MPHY) received a \$252,900 Juvenile Diabetes Foundation International grant “Endothelial Cell Dysfunction in Type I Diabetes” for the period March 2000-February 2002.

Meininger GA (MPHY) received a \$1,147,600 NIH grant “Hypertension and Arterial Injury: A Role for Integrins” for the period of 1999 – 2003.

Muthuchamy M (MPHY) received a \$120,000 Texas AHA grant “Functional and Molecular Analysis of Coronary Arterioles in the Transgenic Cardiomyopathy Mice” for the period of July 1, 1999 – June 30, 2001.

Noriatsu K (MPHY) received a \$20,000 Scott and White Hospital grant “Bile Acid Regulation of Cholangiocarcinoma Growth” for the period April 1999-April 2000.

Parker JL (MPHY) received a \$30,000 Alcon Laboratories grant “Pharmacological Responsiveness of Porcine Ciliary Arteries “ for the period May 1999-April 2000.

Wilson E (MPHY) received a Grant-in-Aid from American Heart Association entitled “Integrin Expression in Angiogenesis” for the period of 1/1/99-12/31/01, \$165,000.

Wilson E (MPHY) received a \$800 Texas A&M University Office of International Coordinator grant “Regulation of Extracellular Matrix and Integrin Expression by Pulse Pressure Changes in Arteries” for the period of 1999.

Yuan SY (MPHY, Assistant Professor, Surgery and Medical Physiology) was awarded a grant “Neutrophil-dependent Regulation of Vascular Permeability” from the National Institutes of Health for the period of 01/01/99-12/30/02, \$790,927.

Publications

Alpini G, Glaser S, Ueno U, Phinizy J, Rodgers R, Francis H, **Baiocchi L** (MPHY), Holcomb L, Caligiuri A and LeSage G (MPHY) Bile acid feeding induces cholangiocyte proliferation and secretion: evidence for bile acid-regulated ductal secretion. *Gastroenterology* 116:179-186, 1999.

Baiocchi L, LeSage G, Glaser S, **Alpini G** (MPHY) Regulation of cholangiocyte bile secretion *J of Hepatol* 31, 179-191, 1999.

Bhatia R, Dube DK, Gaur A, Robertson DR, **Lemanski SL**, McLean MD, **Lemanski LF** (MPHY) Expression of axolotl RNA-binding protein during development of the Mexican axolotl. *Cell and Tissue Res* 297: 283-290, 1999.

Bhatia R, Gaur A, **Lemanski LF** and Dube DK (MPHY) Cloning and sequencing of the cDNA for an RNA-binding protein from the Mexican axolotl: Binding affinity of the in vitro synthesized protein. *Biochem Biophys Acta* 1398(3):265-274, 1998.

Davis MJ and Hill MA (MPHY) Signaling mechanisms underlying the vascular myogenic response. *Physiol Rev* 79(2): 387-423.

Gaur A, Bhatia R, Spring-Mills E, **Lemanski LF** and Dube DK (MPHY) The hearts of the metamorphosing axolotl but not those of the cardiac mutant are associated with the upregulation of HoxA5. *Biochem Biophys Res Comm* 39:918-927, 1998.

Gaur A, Dube DK and **Lemanski LF** (MPHY) Cloning, sequencing and expression of a novel homeobox gene (AxNox-1) from the Mexican axolotl. *Gene* 216:179-188, 1998.

Granger HJ (MPHY) Cardiovascular physiology in the twentieth century: great strides and missed opportunities. *Am J Physiol* 275:H1925-H1936, 1998.

Granger HJ, **Meininger C**, Ziche M, Hood J (MPHY) Roles of adenosine in angiogenesis. In: *Cardiovascular Biology of Purines*, edited by G Burnstock, JG Dobson, Jr. BT Liang and J Linden. Norwell, Kluwer Academic Publishers pp 49-63, 1998.

Grappone C, Pinzani M, Parola M, Pellegrini G, Caligiuri A, DeFranco R, Marra F, Herbst H, **Alpini G**, Milani S (MPHY). Expression of platelet-derived growth factor in newly formed cholangiocytes during experimental biliary fibrosis in rats. *J Hepatol* 31(1): 100-9, 1999.

Hein TW and **Kuo L**. (MPHY) Cyclic AMP-independent dilation of coronary arterioles to adenosine: Role of nitric oxide, G-proteins, and K_{ATP} channels. *Circ Res* 85: 634-642, 1999.

Hein TW, Belardinelli L and **Kuo L** (MPHY). Adenosine A_{2A} receptors mediate coronary microvascular dilation to adenosine: Role of nitric oxide and K_{ATP} channels. *J Pharmacol Exp Ther.* 291: 655-664, 1999

Huang X, Pi Y, Lee KJ, Henkel A, Gregg RG, Powers PA and Walker JW. (MPHY) Cardiac troponin I gene knockout, a mouse model of myocardial troponin I deficiency. *Circ Res* 84:1-8, 1999.

Ishizaka H, Gudi SR, Frangos JA and **Kuo L** (MPHY) Coronary arteriolar dilation to acidosis: role of ATP-sensitive potassium channels and pertussis toxin-sensitive G proteins. *Circulation* 99:558-563, 1999.

Jones JJ, Rapps JA, Sturek M, Mattox ML, Adams HR, **Parker JL** (MPHY) Contractile function and myoplasmic free Ca^{2+} (Ca_m) in coronary and mesenteric arteries of endotoxemic animals. *Shock* 11(1): 64-71, 1999.

LeSage GD, Benedetti A, Glaser S, Marucci L, Tretjak Z, Caligiuri A, Rodgers R, Phinizy JL, **Baiocchi L**, Francis H, Lasater J, Ugili L, **Alpini G** (MPHY) Acute carbon tetrachloride feeding selectively damages large, but not small, cholangiocytes from normal rat liver. *Hepatology* 29: 307-319, 1999.

LeSage G, Alvaro D, Benedetti A, Glaser S, Marucci L, Baiocchi L, Eisel W, Caligiuri A, Phinizy JL, Rodgers R, Francis H, **Alpini G** (MPHY) Cholinergic system modulates growth, apoptosis, and secretion of cholangiocytes from bile duct-ligated rats. *Gastroenterol* 117(1): 191-199, 1999.

LeSage G, Glaser S, Marucci L, Benedetti A, Rodgers R, Phinizy JL, Holcomb L, Caligiuri A, Papa E, Tretjak Z and **Alpini G** (MPHY) Acute carbon tetrachloride feeding induces damage of large but not small cholangiocytes from bile duct ligated rat liver. *Am J Physiol* 276: G1289-G1301, 1999.

Liao JC, **Hein TW**, Vaughn MW, **Huang K-T** and **Kuo L** (MPHY) Intravascular flow decreases erythrocyte consumption of nitric oxide. *Proc Natl Acad Sci USA* 96: 8757-8761, 1999.

Meininger GA, **Davis MJ** and Davis GE (MPHY) What are the implications of talk between the extracellular matrix and the microvasculature? In *Progress in Microcirculation Research* Proceedings of the Tenth Australian and New Zealand Microcirculation Society Symposium, Adelaide, Australia, Ed: TV Neild and CJ Curati, Flinders University Press, p. 40-42, 1999.

Muller JM, **Davis MJ**, **Kuo L** and Chilian WM (MPHY) Changes in coronary endothelial cell Ca^{2+} concentration during shear stress- and agonist-induced vasodilation. *Am J Physiol* 276: H1706-H1714, 1999.

Muthuchamy M, Peiples K, Rethinasamy P, Hoit B, Grupp I, Boivin G, Wolska B, Evans C, Solaro RJ and Wiczorek DF (MPHY) Mouse model of a familial hypertrophic cardiomyopathy mutation in α -tropomyosin manifests cardiac dysfunction. *Circ Res* 85: 47-56, 1999.

Myers TP, Myers PR, Adams HR and **Parker JL** (MPHY) Enhanced postanoid-mediated vasodilation during experimental endotoxemia. *Shock* 11: 436-442, 1999.

Ott M, Rajvanshi P, Sokhi RP, **Alpini G**, Aragona E, Dabeva M, Shafritz D and Gupta S (MPHY) Differentiation-specific regulation of transgene expression in a diploid cell line derived from the normal F344 rat liver. *J Pathol* 187: 365-373, 1999.

Partridge C, Sampson HW and **Forough R** (MPHY). Long-term alcohol consumption increases matrix metalloproteinase-2 activity in rat aorta. *Life Sci* 65: 1395-1402, 1999.

Wolska BM, Keller RS, Evans CC, Palmiter KA, Phillips RM, **Muthuchamy M**, Oehlenschläger J, Wieczorek DF, de Tombe PP and Solaro RJ (MPHY) Correlation between myofilament response to Ca^{2+} and altered dynamics of contraction and relaxation in transgenic cardiac cells that express B-tropomyosin. *Circ Res* 84(7): 745-751, 1999.

Wu HM, Yuan Y, Zawieja DC, Tinsley JH and Granger HJ (MPHY) Role of phospholipase C, protein kinase C and calcium in VEGF-induced venular hyperpermeability. *Am J Physiol* 276 (Heart Circ. Physiol. 45): H535-H542, 1999.

Wu X, Davis GE, Meininger GA and Davis MJ (MPHY). Role of tyrosine kinases in modulation of smooth muscle cell calcium channels by $\alpha_5\beta_1$ integrin ligands. *FASEB J* 13(4): A45, 1999.

Zajdel RW, McLean MD, **Lemanski SL, Muthuchamy M, Wieczorek DF, Lemanski LF** and Dube DK (MPHY) Ectopic expression of tropomyosin promotes myofibrillogenesis in mutant axolotl hearts. *Dev Dynamics* 213: 412-420, 1998.

Zajdel RW, Dube DK and **Lemanski LF** (MPHY) The cardiac mutant axolotl is a unique animal model for evaluation of cardiac myofibrillogenesis. *Exp Cell Res* 248(2): 557-566, 1999.

Zawieja DC, Kossman B and Pullin (MPHY) Dynamics of the microlymphatic system. *Prog Appl Microcirc* 23: 100-109, 1999.

Zawieja DC, Kossman E and Pullin J (MPHY) Dynamics of the microlymphatic system. Messmer K (ed). *Microcirculation in Chronic Venous Insufficiency*. Prog. Appl. Microcirculation. Basel, Karger, vol. 23, pp. 33-41, 1999.

Presentations

Alpini GD (MPHY) Regulation of growth of rat intrahepatic bile duct epithelial cells. Presented at the Department of Pathology, Immunology and Laboratory Medicine, University of Florida, Gainesville, Florida, July 1999.

Alpini G, Benedetti A, Marucci L, Glaser S, LeSage G. (MPHY) Taurocholate (TC) but not taurolithocholate (TLC) abrogates carbon tetrachloride (CCL_4)-induced cholangiocyte apoptosis by a phosphatidylinositol 3-kinase (PI_3K)-dependent pathway. Presented at the American Association for the Study of Liver Disease, Dallas, Texas, November 1999. (*Hepatology* 30:A897, 1999)

Alpini G, Glaser S, Chowdury U, Francis H, Kanno N, Phinizy JL, Eisel W, and LeSage G (MPHY) cAMP-dependent translocation of the apical bile acid transporter (ABAT) to the cholangiocyte apical membrane regulates ductal absorption of conjugated bile acids. Presented at the American Association for the Study of Liver Disease, Dallas, Texas, November 1999. (*Hepatology* 30:A1029, 1999)

Alpini G, Glaser S, Ueno Y, Baiocchi L, Kanno N, Francis H, Eisel W, Chowdury U, Phinizy JL, LeSage G (MPHY) Bile acid depletion and repletion regulate bile duct proliferation and secretion in bile duct ligated (BDL) rats through a phosphatidylinositol 3-kinase (PI_3K)-dependent pathway. Presented at the American Association for the Study of Liver Disease, Dallas, Texas, November 1999. (*Hepatology* 30:A1082, 1999)

Alvaro A, Svegliati-Baroni G, **Alpini G**, Di Cosimo E, Papa E, Onori P, Franchitto A, **Baiocchi L**, and Gaudio E (MPHY) Rat cholangiocytes express β -estrogen receptors. Their inhibition by amoxifen induces apoptosis of fas positive cholangiocytes in bile duct ligated (BDL) rats. Presented at the American Gastroenterological Association (DDW) meeting in Orlando, Florida, May 1999.

Baiocchi L, Alpini G, Glaser S, Eisel W, Francis H, Phinizy JL and LeSage G (MPHY) The inhibitory effect of ursodeoxycholate (UDCA) on cholangiocyte growth and secretion in bile duct ligated (BDL) rats is not affected by its conjugation with taurine. Presented at the American Gastroenterological Association (DDW) meeting in Orlando, Florida, May 1999.

Baiocchi L, Alpini G, Glaser S, Angelico M, Francis H, Wendy W, Phinizy JL and LeSage G (MPHY) Taurohyodeoxycholic acid (THDC) and tauroursodeoxycholic acid (TUDC) have different mechanisms for bile acid-independent hypercholeresis. Presented at the American Gastroenterological Association (DDW) meeting in Orlando, Florida. May 1999.

Davis MJ (MPHY)

- Regulation of vascular smooth muscle calcium channels by integrins. Presented to the Department of Physiology, University of South Alabama, Mobile, Alabama, February 1999.
- Regulation of vascular smooth muscle calcium channels by integrins. Presented to the Department of Cell Biology and Physiology, University of New Mexico, Albuquerque, New Mexico, March 1999.
- Regulation of vascular smooth muscle calcium channels by integrins. Presented seminars to the Department of Physiology, Louisiana State University Medical Center, Shreveport, 1999.
- Regulation of vascular smooth muscle calcium channels by integrins. Presented to the Department of Physiology and Biophysics, University of Nebraska Medical Center, Omaha, Nebraska, 1999.
- Integrin regulation of calcium channels in smooth muscle. Presented at the Young Investigator's Vascular Meeting, San Antonio, Texas, October 1999.
- Integrin regulation of calcium channels in vascular smooth muscle. Presented to the Department of Physiology, Medical College of Wisconsin, Milwaukee, Wisconsin, October/November 1999.
- Integrin Regulation of calcium channels in smooth muscle. Presented to the Department of Anesthesiology, Baylor College of Medicine, Houston, Texas, November 1999.

Dawson NS (MPHY) Careers in Science. Presented two lectures at Career Day, Magnolia High School in Magnolia, Texas, February 1999.

Fogarty JA, Price LA, Jones JJ, Sturek M, **Mattox ML, Becker EJ**, Adams HR and **Parker JL** (MPHY) Effects of endotoxemia on sustained endothelium-dependent relaxation, underlying mediators, and agonist-stimulated cytosolic Ca^{2+} responses. Presented at the 1999 Shock Society Conference in Philadelphia, Pennsylvania, June 1999.

Fogarty JA, Myers TP, **Mattox ML**, Myers PR, Adams HR and **Parker JL** (MPHY) Differential effects of endotoxemia on endothelium-mediated relaxation (EDR) and endothelin contractions of coronary, mesenteric and pulmonary arteries. Presented at the 1999 Shock Society Conference in Philadelphia, Pennsylvania, June 1999.

Fogarty J (MPHY) Creating Artificial Blood Vessels Using Cultured Vascular Cells. Presented during MPHY 604 mini-symposium on "Biology of the Cardiovascular System", The Texas A&M University System Health Science Center, College Station, Texas, December 1999.

Forough R (MPHY) Endothelial-Derived Factors Promote Tumor Progression. Presented at the Young Vascular Scientist meeting, San Antonio, Texas, October 1999.

Foster DA, **Leach J**, **Meng FY**, **Lemanski SL**, and **Lemanski LF** (MPHY) Isolation of intracellular protein ligands of a bioactive RNA (CI-4) which promotes myofibrillogenesis in mutant *Ambystoma mexicanum* axolotl hearts. Presented at the Experimental Biology '99 meeting in Washington, D.C., April 1999.

Gashev A (MPHY). Lymphatic contractions: The role of distension mechanisms. Presented at the Experimental Biology '99 meeting in Washington, D.C., April 1999.

Glaser S, Eisel W, **Baiocchi L**, Francis H, Phinizy JL, **Kanno N** and LeSage, G. (MPHY) Gastrin inhibits cholangiocyte growth and secretion in bile duct ligated (BDL) rats by interaction with CCK-B/gastrin receptors via a PKC-, Ca^{2+} -dependent. Presented at the American Gastroenterological Association (DDW) meeting in Orlando, Florida, May 1999.

Glaser S, LeSage G, Alvaro D, **Chowdury U**, **Kanno N**, Francis H, Eisel W, and **Alpini G** (MPHY). Ablation of the D_2 dopaminergic innervation by intraportal injection of 6-hydroxidopamine (6-OHDA) reduces cholangiocyte proliferative and secretory activity in bile duct ligated (BLD) rats. Presented at the American Association for the Study of Liver Disease, Dallas, Texas, 1999. (*Hepatology* 30: A1088, 1999)

Granger HJ (MPHY)

- Role of nitric oxide in regulation of angiogenesis and vascular permeability. Presented at the University of Munich, Germany, September/October 1999.
- Integration of microhemodynamics, permeability and angiogenesis in postcapillary venules. Presented at the First European Meeting on Vascular Biology and Medicine, Nurnberg, Germany, September/October 1999.

Hayes H (MPHY) Role of growth factors in cardiac development and myocardial differentiation. Presented during MPHY 604 mini-symposium on "Biology of the Cardiovascular System", The Texas A&M University System Health Science Center, College Station, Texas, December 1999.

Hein T (MPHY)

- Mechanism of coronary arteriolar dilation to adenosine. Presented at the Experimental Biology '99 meeting in Washington, DC, April 1999.
- Reduction in luminal pressure and extravascular pH potentiate coronary arteriolar dilation to adenosine: role of K_{ATP} channels and A_2A receptors. Presented at 1999 American Heart Association meeting, Atlanta, Georgia, November 1999.

Huang X (MPHY)

- Cardiac troponin I gene knockout. Presented at the 43rd Annual Meeting of Biophysical Society in Baltimore, Maryland, February 1999.
- Embryonic heart development in cardiac mutant axolotls and developmental regulation of troponin I in mouse heart. Presented two papers at the Weinstein Cardiovascular Development Conference in Tucson, Arizona, May 1999.

Huang XP, Lee KJ, Powers PA, Walker JW, **Lemanski LF** (MPHY) Developmental regulation of troponin I in mouse heart. Presented at the Weinstein Cardiovascular Development Conference in Tucson, Arizona, May 1999.

Kanno N, Glaser S, Phinizy JL, **Baiocchi L**, LeSage G and **Alpini G** (MPHY) CCK-B/gastrin receptor signaling inhibits the growth of Mz-Cha-1 cholangiocarcinoma cell lines by a PKC-, calcium-dependent mechanism. Presented at the American Gastroenterological Association (DDW) meeting in Orlando, Florida, May 1999.

Kanno, N, LeSage G, Glaser S, **Chowdury U**, Phinizy JL, Eisel W, Francis H, Baiocchi L, and **Alpini G** (MPHY) Gastrin Inhibits Growth and Induces Apoptosis of Cholangiocarcinoma Mz-ChA-1 Cells Associated with Membrane Translocation of PKCa. *Hepatology* 30:A1084, 1999. Presented at the American Association for the Study of Liver Disease, Dallas, Texas, November 1999.

Kuo L (MPHY)

- Mechanism of coronary arteriolar dilation to adenosine. Presented at the Experimental Biology '99 meeting in Washington, DC, April 1999.
- Role of arginase in heat shock protein induction. Presented at the International Congress on Amino Acids in Bonn, Germany. July/August 1999.
- The role of arginine in heart shock protein induction. Presented at the 6th International Congress on Amino Acids in Bonn, Germany, August 1999.

Kuo L and **Hein T** (MPHY) Reductions in luminal pressure and extravascular pH potentiate coronary arteriolar dilation to adenosine: Role of K_{ATP} channels and AZA receptors. Presented at the 1999 American Heart Association meeting in Atlanta, Georgia, November 1999.

Lemanski LF, **Huang X**, Bhatia R, Zajdel R, **Meng F**, **Foster D**, McLean M, **Lemanski S**, Dube DK (MPHY) Embryonic heart development in cardiac mutant axolotls, *Ambystoma mexicanum*. Presented at the Weinstein Cardiovascular Development Conference in Tucson, Arizona, May 1999.

Lemanski LF, **Meng F**, **Huang X**, **Lemanski SL**, Nakatsugawa M, Dube DK (MPHY). 100% c/c Offspring from chimeric axolotls: A model to study early embryonic heart development in mutant Mexican axolotls. Presented at the 39th American Society for Cell Biology meeting, Washington, DC, December 1999.

Meininger CJ (MPHY)

- Coronary angiogenesis. Presented at the meeting of the Mended Hearts Organization, Bryan, Texas, January 1999.
- Angiogenesis and health. Presented as a weekly segment of the Doctor's Housecall Radio Show, WTAW, College Station, Texas, February 1999.

Meininger CJ (MPHY) Tetrahydrobiopterin Deficiency and Vascular Endothelial Cell Dysfunction in Diabetes. Presented at the University of Western Ontario, London, Ontario, Canada, September 1999.

Meininger CJ (MPHY) Nitric oxide: A homeostatic regulator of endothelial cell growth? Presented to the Vascular Biology Group, London, Ontario, Canada, September 1999.

Meininger GA (MPHY)

- What are the implications of talk between the extracellular matrix and the microvasculature? Keynote lecture presented at the meeting for the Australian and New Zealand Microcirculation Society, Adelaide, Australia, February 1999.
- Integrins as novel receptors involved in vasoregulation. Presented at the Fourth U.S. Japan Workshop on Molecular and Cellular Aspects of Vascular Smooth Muscle Function in Honolulu, Hawaii, May 1999.
- Integrins-A novel signaling mechanism underlying local vascular control. Presented to the Department of Human Biology and Movement Science, RMIT University in Bundoora, Victoria, Australia, May 1999.
- Mechanisms of microvascular dysfunction. Presented at the International Symposium on Changing Concepts for the Coronary Circulation – Perspectives Beyond the Usual in Munich, Germany, June 1999.
- Integrin-matrix regulation of ion channels and control of vascular tone. Presented at the High Blood Pressure Research Council of the American Heart Association, Orlando, Florida, September 1999.
- Cell signaling in vascular smooth muscle mediated by integrins. Presented to the Department of Physiology, Ludwig-Maximilians University, Munich, Germany, September 1999.
- Integrins: Novel receptors for microvascular control. Presented at the Vascular Smooth Structure and Function Mini-Symposium, Department of Pharmacology, Aarhus, Denmark, October 1999.
- Novel pathways for the cytoskeleton to interact with production of vascular tone. Presented at the Rostock Workshop on Small Vessel Function-Smooth Muscle and Signal Transduction, Institute of Physiology, University of Rostock, Germany. December 1999.

Meininger GA, Platts SH, Wu X, Davis MJ and Davis GE (MPHY) Integrins and ion channels in vascular smooth muscle. Presented at the International Symposium on Developments in Smooth Muscle and Endothelial Cell Signaling in Nagoya, Japan, May 1999.

Meininger, GA (MPHY)

- Integrin-matrix regulation of ion channels and control of vascular tone. Presented at the High Blood Pressure Research Council of the American Heart Association, Orlando, Florida, September 1999.
- Cell signaling in vascular smooth muscle mediated by integrins. Presented to the Department of Physiology, Ludwig-Maximilians University, Munich, Germany, September 1999.
- Integrins: Novel receptors for microvascular control. Presented at the Vascular Smooth Structure and Function Mini-Symposium, Department of Pharmacology, Aarhus, Denmark, October 1999.
- Novel pathways for the cytoskeleton to interact with production of vascular tone. Presented at the Rostock Workshop on Small Vessel Function – Smooth Muscle and Signal Transduction, Institute of Physiology, University of Rostock, Rostock, Germany, December 1999.

Meng FY, Foster D, Tong C, Lemanski SL, Muthuchamy M, Huang XP, Lemanski LF (MPHY) Reduced expression of a novel protein associated with heart development in embryos of cardiac mutant axolotls, *Ambystoma mexicanum*. Presented at the Experimental Biology '99 meeting in Washington, D.C, April 1999.

Meng FY, Dawson N, Lemanski SL, Foster D, Huang XP and Lemanski LF (MPHY) Immunofluorescent confocal analysis of protein tyrosine phosphorylation during cardiac myofibrillogenesis in the Mexican axolotl, *Ambystoma mexicanum*.. Presented at the Experimental Biology '99 meeting in Washington, D.C, April 1999.

Muthuchamy M (MPHY). Regulation of cardiac muscle contractility – A transgenic approach. Presented to the Department of Biophysics and Physiology, University of Illinois at Chicago, Chicago, Illinois, November 1999.

Platts S (MPHY)

- Cellular mechanisms of integrin mediated vasodilation in skeletal muscle arterioles. Presented at the Department of Physiology, University of Virginia in Charlottesville, Virginia, February 1999.
- Skeletal muscle arterioles from diabetic (BBD) rats show increased responsiveness to acetylcholine. Presented at the Experimental Biology '99 meeting in Washington D.C, April 1999

Sheng J (MPHY) Adenosine hypothesis in coronary flow regulation. Presented during MPHY 604 mini-symposium on “Biology of the Cardiovascular System”, The Texas A&M University System Health Science Center, College Station, Texas, December 1999.

Tinsley J (MPHY) Activated neutrophils induce hyperpermeability and tyrosine phosphorylation of junctional proteins in venular endothelial monolayers. Presented poster at the Experimental Biology '99 meeting in Washington DC, April 1999.

Tong C, Granger HJ, Muthuchamy M (MPHY) Functional interaction between troponin-I and myosin binding protein-C. Presented at the American Heart Association meeting, Snowbird, Utah, August 1999.

Tong C, Krishnamoorthy G, Granger HJ, Muthuchamy M (MPHY) Phosphorylation status of cardiac myosin binding protein C impacts acto-myosin ATPase activity. Presented at the 72nd American Heart Association Scientific Sessions, Atlanta, Georgia, November 1999.

Wilson E (MPHY) Modulation of vascular smooth muscle response to mechanical strain by extracellular matrix-integrin interactions. Presented at the 2nd Workshop on Vascular Biology and Mechanical Factors, Paris, France, January 1999.

Woo K (MPHY) Control of tumor growth by anti-angiogenesis therapy. Presented during MPHY 604 mini-symposium on "Biology of the Cardiovascular System", The Texas A&M University System Health Science Center, College Station, Texas, December 1999.

Wu X (MPHY) Role of tyrosine kinase in modulation of smooth muscle cell calcium channel by $\alpha_5\beta_1$ integrin ligands. Presented poster at the Experimental Biology '99 meeting in Washington DC, April 1999

Yuan S (MPHY)

- Activated neutrophils induce hyperpermeability and tyrosine phosphorylation of junctional proteins in venular endothelial monolayers. Presented poster at the Experimental Biology '99 meeting in Washington D.C, April 1999.
- Signal transduction of vascular endothelial cell response to inflammatory stimulation. Presented at the University of West Ontario in London, Canada, May 1999.
- Molecular control of endothelial barrier function. Presented at the First Military Medical University, Guangzhou, P.R. China, December 1999.

Zawieja DC (MPHY)

- GI lymph circulation. Presented to the GI Fellows of the Gastroenterology Division at Scott and White Hospital, Temple, Texas, February 1999.
- Lymphatic contractions: Role of distension mechanisms and The molecular basis of lymphatic contraction. Presented at the Experimental Biology '99 meeting in Washington D.C, April 1999.

Zhang C, Huang X, Lemanski, Bhatia R, Gaur A, Meng F, Dube DK, Lemanski LF (MPHY). Molecular basis of the cardiac mutation in Mexican axolotls. Presented at the 39th American Society for Cell Biology meeting, Washington, DC, December 1999

Professional Activities

The Texas A&M University System Health Science Center College of Medicine and its affiliated partners, Scott and White Memorial Hospital and the Central Texas Veterans Health Care System announced on February 11, 1999, at a press conference in Austin at the Capitol, the creation of the **Cardiovascular Research Institute (CVRI)**. The CVRI's director is Physiology Department Head and Texas A&M Distinguished Professor Harris J. Granger, Ph.D. The institute's Division

of Molecular Cardiology (Heart Center) will be under the leadership of Kenneth M. Baker, M.D., the first holder of the Frank W. Mayborn Chair in Cardiovascular Research.

Alpini G (MPHY)

- attended the meeting of the Biliary Club in Sabaudia, Italy on Sept. 10-11, 1999.
- attended the American Association for the Study of Liver Disease, Dallas, Texas, November 6-9, 1999. Chaired a session on Biliary Pathology.
- was invited to become a member of the Editorial Board for the *Journal of Hepatology*, the official journal of the European Association for the Study of the Liver.
- was one of two moderators of a parallel oral session on biliary biology at the American Association for the Study of Liver Disease, Dallas, Texas, November 1999.

Davis MJ (MPHY)

- reviewed grants for the NHLBI Experimental Cardiovascular Sciences Study Section (ad hoc), March 1999.
- reviewed grants for the Arizona Disease Control Commission, March 1999.
- served as a reviewer for an NIH review panel: Program Project in Bethesda, Maryland, September 1999.
- served as a regular member of the Experimental Cardiovascular Sciences Study Section (NIH) in Washington, DC, October 1999.

Granger HJ (MPHY)

- reviewed cardiovascular program grants for the Reynolds Foundation under the auspices of the American Heart Association, National Center in Las Vegas, Nevada, January 1999.
- served on a program project special review committee meeting for the National Heart, Lung and Blood Institute, National Institutes of Health in Arlington, Virginia, May 1999.
- reviewed cardiovascular center applications for the Reynolds Foundation under the auspices of the American Heart Association, National Center in Las Vegas, Nevada, June 1999.
- served as an ad hoc member of the Faculty Tenure and Promotion Committee, Harvard Medical School, Boston, Massachusetts, Fall 1999.

Hawker JR (MPHY) reviewed a VA Merit Review Grant Application, January 1999.

Kuo L (MPHY) chaired the scientific section for “Physiological Regulation of the Coronary Circulation,” 72nd Scientific Sessions of the American Heart Association, Atlanta, Georgia, November 1999.

Lemanski LF (MPHY)

- reviewed grants for the Arizona Disease Control Commission, March 1999.
- reviewed grants for the Nebraska Cancer and Smoking Disease Program for the Office of the Nebraska Governor in Omaha, Nebraska, April 1999.
- was appointed to the Nominating Committee of the American Association of Anatomists.
- was appointed to the position of Councilor by the Oak Ridge National Laboratory Associated Universities, Oak Ridge, Tennessee.
- was elected to a three year term as Councilor, American Association of Anatomists.

Muthuchamy M (MPHY)

- participated in the Peer Review Committee of the American Heart Association, Texas and Western States Affiliates grant review, San Francisco, California, March 1999.
- was invited to serve a two year term on the review panel for the *Interdisciplinary Research Initiatives Program*, administered through the Office of the Vice President for Research and Association Provost for Graduate Studies at Texas A&M University.

Wilson E (MPHY) served as a reviewer for an NIH review panel: Program Project “Mechanical Forces in Cardiovascular Cells,” in Chevy Chase, Maryland, September 1999.

Yuan SY (MPHY)

- reviewed grants for VA VISN 17, February 1999.
- was invited to join the Editorial Board of Microvascular Research.

Zawieja DC (MPHY) participated in the Peer Review Committee of the American Heart Association, Texas and Western States Affiliates grant review, San Francisco, California, March 1999.