

**CURRICULUM VITAE**  
of  
David Eugene Dostal, Professor

**Date of Birth:** 3 January 1955

**Birth Place:** Topeka, Kansas

**Spouse:** Barbara J. Dostal, married May 21, 1983

**Children:** Joseph Aaron (01/05/91) and Johnathan Alan (10/21/94)

**Parents:** Deward L. Dostal and Marie J. Dostal

**Home Address:** 206 Lakeview Rd  
Temple, TX 76502  
(254) 899-0985

**Work address:** Cardiovascular Research Institute  
Department of Molecular Cardiology  
Texas A&M University System-HSC  
1901 South 1st Street  
VA Building 205, CTVHSC  
Temple, TX 76504  
Tel: (254) 743-2464  
ddostal@medicine.tamhsc.edu

**Education:** 1969-73 Gregory High School, Gregory, SD

**Degrees Received:** B.S., 1976, Chemistry, University of SD, Vermillion  
M.A., 1978, Developmental Biology, University of SD, Vermillion  
Ph.D., 1986, Physiology, University of Missouri at Columbia, research performed  
at the Harry S Truman VA Memorial Hospital.  
Dissertation Title: *Vascular hyperresponsiveness in renal arterial rings produced  
by renal prehypertensive rabbit plasma.*  
Postdoctorate, 1986-1990, Pharmacology, Charlottesville, VA

**FELLOWSHIPS AND HONORS**

NIH Teaching Training Grant (1980-84), University Missouri-Columbia  
Award for Outstanding Teaching in the Medical Sciences (1984), University of Missouri-Columbia  
NIH Research Training Grant (1984-86), University of Missouri-Columbia  
NIH Postdoctoral Hypertension Training Grant (1986-87), NRSA Postdoctoral Training Grant  
(1987-1990)  
Sigma Xi (1988-92)  
Member of American Heart Association, High Blood Pressure Research, Basic Cardiovascular  
Sciences  
Member of the International Society for Heart Disease (ISHR)

**TEACHING EXPERIENCE**

1984-86 Elements of Physiology for Undergraduate/Graduate Students: Classroom lecture (15  
hrs/yr) on pituitary hormones and regulation of cardiovascular and renal systems. 250  
students per term (three terms/yr). University of Missouri, Columbia.

1980-84 Elements of Physiology Laboratory: Lab lectures (135 hrs/yr), demonstrations,  
coordinated and supervised junior teaching assistants for three terms each year.

- Coordinated and supervised catheterization of anesthetized dogs used for demonstration of cardiovascular and respiratory reflexes. 125 students per term (three terms/yr). University of Missouri, Columbia.
- 1983-84 Medical Student Cardiovascular Laboratory: Lab lectures and demonstrations (12 hrs/yr) involving cardiovascular respiratory experiments. Supervised arterial and venous catheterization of dogs, use of polygraphs and interpretation ECGs, respiratory and cardiovascular reflex data. 12 students per term (one term/yr). University of Missouri, Columbia.
- 1987-90 Pharmacology for Undergraduate Students: Classroom lectures (3 hrs/yr) on cardiovascular and lipid/cholesterol lowering drugs. 80 students per term (one term/yr). University of Virginia, Charlottesville.
- 1989-90 Pharmacology for Graduate Students: Classroom lectures (6 hrs/yr) on diuretics, antihypertensives, cardiac inotropes, antianginals, and antiarrhythmics. 12 students per term (one term/yr). University of Virginia, Charlottesville.
- 1998-99 Physiology 571 for Graduate Students: Classroom lectures (6 hrs/yr) on cardiac mechanics, vascular physiology, and cardiovascular regulation. Penn State University, State College.
- 2000 Cardiac Mechanics and Molecular Signaling for Cardiology Fellows: Classroom lectures (3 hrs) on molecular and biochemical regulation of cardiac function. Scott & White Hospital, College of Medicine, Temple, TX.
- 2001-02 Cardiac Mechanics, Molecular Signaling, Bioinformatics and Microarray Chip Technology for Cardiology Fellows: Classroom lectures (1.5 h). Scott & White Hospital, College of Medicine, Temple, TX.
- 2002-05 Cardiac Mechanics, Electrocardiography, Integrated Cardiovascular Regulation for Medical Students: Classroom lectures (7 hr). Texas A&M University System, College of Medicine, College Station, TX.
- 2003-05 Integrin and Cytoskeletal Signaling: Advanced Topics in Cell Signaling MSCI 689: Classroom lectures (6 hrs). Texas A&M University System, College of Medicine, College Station, TX.
- 2003 Clinical Aspects of Congestive Heart Failure: BMEN 689 Biomedical Case Studies: Classroom lectures (1 hr). Texas A&M University, Department of Biomedical Engineering, College Station, TX.
- 2004-05 Cardiac Hypertrophy and Heart Failure: MSCI 689 Cardiovascular Sciences: Classroom lectures (1 hr) Texas A&M University System, College of Medicine, College Station, TX.
- 2004 Dept. of Medicine Current Concepts of Cell Adhesion in Disease States: Subspecialty Fellows Course: Research in Health and Disease: Classroom lectures (2 hr) Scott & White Memorial Hospital, College of Medicine, Temple, TX.
- 2005 Excitation-Contraction Coupling, Cardiac Mechanics, Electrocardiography First year Medical Students: Classroom lectures (6 hr). Texas A&M University System, College of Medicine, College Station, TX.
- 2006-09 MEID 905: Structure and Function of Human Organ Systems, Cardiac Physiology, 8 credit-hour course, 83 medical students, classroom lectures (6 hr), College of Medicine, College Station, TX.
- 2005-11 MSCI 689: Advanced Topics in Cell Signaling, 3 credit-hour graduate student course, 3 students, classroom lectures on stress-activated kinases, cell cycle signaling pathways (6 hr), Temple, TX.
- 2009-10 SBTM 612 Techniques Course II. 3 credit-hour graduate student course, 7 students, classroom lectures (6 hr), laboratory (4 hr) on echocardiography and heart failure, Temple, TX.
- 2010-11 SBTM 615 Pathobiology and Therapeutics. 4 credit-hour graduate student course. Faculty facilitator for heart failure block. Temple, TX.
- 2010 MEID 905: Structure and Function of Human Organ Systems, Cardiac Physiology Block, 8 credit-hour course, 150 medical students (M2), classroom lectures (6 hr), College of Medicine, Temple, TX.

## **ACADEMIC APPOINTMENTS:**

1975-76 Teaching Assistant, Department of Chemistry  
University of South Dakota, Vermillion

1976-78 Graduate Teaching Assistant, Department of Biology  
University of South Dakota, Vermillion

1980-84 Graduate Teaching Assistant, Department of Physiology  
University of Missouri, Columbia

1984-86 Graduate Research Assistant, Department of Physiology  
University of Missouri, Columbia

1986-87 Postdoctoral Fellow, Department of Hypertension  
University of Virginia, Charlottesville

1987-90 Postdoctoral Fellow, Department of Pharmacology  
University of Virginia, Charlottesville

1990-96 Associate Scientist/Assistant Professor, The Henry Hood Center for Research  
Geisinger Clinic, Danville, PA

1996-97 Research Scientist II/Assistant Professor, The Henry Hood Research Program,  
Geisinger Clinic, Danville, PA

1997-98 Assistant Professor, The Henry Hood Research Research Program, Pennsylvania State  
University College of Medicine, Danville, PA

1998-99 Research Associate Professor, Department of Molecular and Cellular Physiology, Penn  
State University College of Medicine, Danville, PA.

1999-02 Research Associate Professor, Department of Molecular Cardiology, Cardiovascular  
Institute, Texas A&M Health Science System - CTVHCS, Temple, TX.

2003-09 Associate Professor, Department of Internal Medicine, Texas A&M Health Science  
System, Temple, TX.

2003-2007 Associate Professor, cross-appointment, Department of Medical Physiology, Texas A&M  
Health Science System, Temple, TX.

2009-Pres Professor, cross-appointment, Department of Systems Biology and Translational  
Medicine, Texas A&M Health Science System, Temple, TX.

2010-Pres Professor, Internal Medicine/College of Medicine, Texas A&M Health Science System,  
Temple, TX

## **SERVICE TO THE VETERANS ADMINISTRATION**

### VA Research Experience

1980-86 Basic hypertension research with Dr. J. Alan Johnson (Career Scientist) at the Harry S  
Truman VA Hospital in Columbia, Missouri

1999-11 Basic research in the Cardiovascular Research Institute (Division of Molecular Cardiology)  
at Central Texas Veterans Health Care System (CTVHCS) in Temple

### VA Research Grants

1993-04 Consultant/Reviewer for Veterans Administration (North Eastern and Western branches)

2002-11 Research member for Veterans Integrated Service Networks in Texas (VISN-17)

2009-11 Reviewer for the Department of Veterans Affairs Cardiovascular Studies A (CARA) Merit  
Review Subcommittee

### VA Committees for Central Texas Veterans Health Care System (CTVHCS)

1999 Planning committee for "A Star For Texas" fundraiser for the Cardiovascular Research  
Institute, Temple, TX

1999-11 Radiation Safety/Medical Radioisotope Committee

1999-02 Laboratory Safety Oversight Committee

1999-09 Research and Development (R&D) Committee

1998-01 Task Force for the Cardiovascular Research Institute (CVRI)  
 2000-03 Building and Design Committee for construction of new CVRI  
 2000-11 Research Liaison to Radiation Safety Officer  
 2001-02 Assistant Radiation Safety Officer for Research  
 2001-11 Chairman of Radiation Safety Protocol Review Committee (RPRC)  
 2001-03 Strategic Research Planning Committee for the Temple Texas VA Research Building  
 2001 Groundbreaking Committee for Cardiovascular Research Institute  
 2002-11 Research Committee VISN-17 (Texas Veterans Administration)  
 2005 Organizer for VISN-17 Annual Research Conference on *Current Concepts and Controversies in Hypertension*  
 2004-08 Alternate Radiation Safety Officer (RSO)  
 2009-11 Vice-chair of Subcommittee for Scientific Review (SSR)  
 2011 Research and Development (R&D) Committee

### **OTHER COMMITTEES AND GRANT REVIEW EXPERIENCE**

1989-91 Consultant/Reviewer for Tobacco and Health Research Institute grants, Lexington, KY  
 1992-96 Consultant/Reviewer for Whitaker Foundation grants  
 1994-97 Peer-Review Committee for the American Heart Association, PA Affiliate  
 1996-98 Chairman of Information Technology Committee for American Heart Association  
 1996-98 Board of Directors of the American Heart Association, PA Affiliate  
 1996-97 Animal Care and Use Committee at Geisinger Clinic  
 1997-99 Computer Committee at Weis Center for Research  
 1998 Ad hoc Consultant/Reviewer for National Institutes of Health (CV-B)  
 1999-07 Board of Directors of American Heart Association (Temple-Belton, TX)  
 1999-03 Peer Reviewer for American Heart Association grants (Western Review Consortium)  
 2000-08 Institutional Research Committee at Scott & White  
 2000-08 Member of Scott & White Research Advisor Committee  
 2000-11 Member and Co-chair of Internal Medicine Mentor's Committee at Scott & White  
 2000-08 Reviewer for Scott & White New Programs Research Initiative Applications  
 2000 Institutional Focus Group for Research, Scott & White  
 2001-08 Project Administrative Review Committee (PAR) for Scott & White  
 2001-03 Research and Education Planning Committee (REPC) for Scott & White  
 2001-03 Reviewer for National Institutes of Health (Special Review Committee)  
 2001 Vision Committee for Education and Research, Scott & White  
 2001-11 Graduate Faculty Member of the Texas A&M University-HSC-GSBS  
 2001-06 Institutional Animal Care and Use Committee (IACUC), TAMHSC  
 2001-07 Institutional Animal Care and Use Committee (IACUC), Scott & White  
 2000-04 Peer Reviewer for Small Business Innovation Research (SBIR) and Technology Transfer (STTR) Grants, National Institutes of Health (HEM-1)  
 2001-03 Reviewer/Chairman for Special Emphasis Review Panel for National Institutes of Health  
 2002-03 Reviewer for HLBP Workgroup for National Institutes of Health  
 2003-05 Confocal/multiphoton Microscope oversight committee for COM at College Station  
 2004-05 Chair of CVRI Core Facilities and Instrumentation Committee  
 2004-11 Representative of Research Lab Operations, Radiation Safety Committee, TAMU Health Science Center, Temple campus  
 2004-11 Chair of Cardiovascular Research Institute Scientific Program Committee  
 2004-08 Member of Internal Medicine Research Committee (IRC)  
 2004-11 Reviewer for CCHF NIH study section  
 2005 Member of the Space Review Task Force, College of Medicine, Texas A&M HSC  
 2005-11 AAS Advisory Committee for Temple College  
 2005-08 Member of Scott & White Tissue Bank Oversight Committee  
 2006-08 Member of Imaging Oversight Committee for COM at Temple  
 2006-08 Member of the Educational Technology Advisory Group (ETAG) for COM  
 2006-10 Member of Scott & White Data Safety and Monitoring Board for Cancer Research Inst.  
 2007 College of Medicine Educational Technology Curriculum Subcommittee (EdTechSubCom)

2007-08 Scott & White Research and Education Task Force Committee  
 2009-11 Member of the Texas A&M Health Science Center Research Advisory Committee  
 2008-11 Executive Committee of the Cardiovascular Research Institute  
 2009-11 Animal Research Ultrasound Committee, Chair (ARUC)  
 2009-11 Scott & White Institutional Biosafety Committee (IBC)  
 2010-11 Peer Reviewer for Basic Science Signaling Section-3 (National AHA)  
 2010-11 IACUC Chair for Texas A&M Health Science Center  
 2010-11 IACUC Chair for Scott & White Hospital  
 2010-11 Texas A&M Health Science Center Compliance Task force

### **MISCELLANEOUS SERVICE**

1. *Current Concepts and Controversies in Hypertension*, April 21, 2005, VA Building 205, Temple Texas, affiliations included VISN-17 (Research Divisions that consist of the Dallas, Temple, Waco, Austin and San Antonio Veterans Administrations) Annual Research Conference. 65 attendees, primary organizer.
2. *12<sup>th</sup> Annual Internal Medicine Research Day*, May 6, 2005, Scott & White Hospital, Rm 109, Temple Texas, ~80 attendees, co-organizer.
3. *2005 Flow Cytometry Workshop: Principals and Application*, Aug 19, 2005 VA Building 205, Temple Texas, affiliations include Central Texas VA, Texas A&M University College of Medicine, and Scott & White Hospital, 24 attendees, primary organizer.
4. *First Annual Cardiovascular Research Institute Retreat*, Oct 27-28, Scott & White Hospital, Rm 110, Temple Texas, affiliations include Central Texas VA, Texas A&M University College of Medicine, and Scott & White Hospital, IBT, 93 attendees, primary organizer.
5. *13<sup>th</sup> Annual South Texas ACP Associates Research Program*, May 3, 2006, Scott & White Hospital, Mayborn auditorium, Temple Texas, affiliations include Texas A&M University System-HSC, Scott & White, Temple; UTMB, Austin; UTHSC-San Antonio; UTHSC-Harlington; BAMC-Fort Sam Houston; WHMC-Lackland AFB, ~100 attendees, Scientific Director/Planning Committee member .
6. *12<sup>th</sup> Annual Internal Medicine Research Day*, May 5, 2006, Scott & White Hospital, Rm 109, Temple Texas, ~80 attendees, co-organizer.
7. *2nd Annual Cardiovascular Research Institute Retreat*, Oct 19-20, 2006, Hilton Hotel, Ballroom, College Station, Texas, affiliations include Texas A&M University System Components (IBT, Baylor College of Dentistry, College of Medicine, College of Veterinary Science, Department of Health and Kinesiology, Department of Bioengineering, Department of Internal Medicine at Scott & White Hospital), chair of organizing committee.
8. *Confocal Microscopy and Flow Cytometry Workshop: Principles and Applications*, Nov 8, 2006 VA Building 205, Temple Texas, affiliations include Central Texas VA, Texas A&M University Health Science System/College of Medicine, and Scott & White Hospital, 41 attendees, Presenter and Chair of Planning Committee.
9. *3rd Annual Cardiovascular Research Institute Retreat*, Oct 11-12, 2007, Scott & White Hospital, Rm 110, Temple Texas, affiliations include Texas A&M University System Components (Institute of Biosciences and Technology, Baylor College of Dentistry, Irma Lerma Rangel College of Pharmacy, School of Rural Public Health, College of Medicine), College of Veterinary Science, Department of Health and Kinesiology, Department of Bioengineering, Chair of Planning Committee.
10. *Texas A&M Health Science Center Research Symposium: Linking The Texas A&M Health Science Center from bench to bedside to community*. Nov 11-12, 2010, Henry D. Smith Building, College Station, TX. Affiliations included Texas A&M University System Components (Institute of Biosciences and Technology, Baylor College of Dentistry, Irma Lerma Rangel College of Pharmacy, School of Rural Public Health, College of Medicine), College of Veterinary Science, Department of Health and Kinesiology, Department of Bioengineering, Presenter and Chair of Planning Committee.

### **MANUSCRIPT REVIEW EXPERIENCE**

1986-Present American Journal of Physiology; Bentham Publishing; Biotechniques; Blood Vessels;

Cardiac Journal; Circulation; Circulation Research; Experimental Cell Research; Hypertension; Journal of Cardiovascular Pharmacology; Journal of Clinical Investigation; Journal of Molecular and Cellular Biochemistry; Journal of Molecular and Cellular Cardiology; Cardiology Journal of Pharmacology and Experimental Therapeutics; Life Sciences; Molecular and Cellular Biochemistry, The Canadian Journal of Physiology and Pharmacology

### **TRAINEES**

Chiencheng Lin, PhD, Post Doctoral Fellow, July 1993 - June 30, 1995  
Donald Hoover, PhD, Visiting Scientist, April 1994 - Aug 29, 1994  
Thomas Peeler, PhD, Visiting Scientist, June 1995 - Aug 1995  
Rachel M. Hunt, PhD, Post Doctoral Fellow, July 1995 - June 30, 1996  
Steven A. Leicht, Undergraduate student from Bucknell University, May 1996 - Aug 1996  
Masafumi Watanabe, MD, Post-doctoral fellow, Sept 1996 - Oct 1997  
Jun Fukuzawa, MD, PhD, Visiting Scientist from Japan, Sept 1997 - Oct 1998  
Jacey Hornecker, Undergraduate student from Texas A&M, May 2000 - Aug 2000  
Sumit Shah, Undergraduate student from Stanford, CA, May 2000 - Sept 2000  
Neeshant Hajira, Undergraduate student from Boston University, MA, June 2000 - Aug 2000  
Rajesh Kumar, PhD, Post-doctoral Fellow. Jan 2001 - Dec 2002.  
Sandhya Sanghi, PhD, Post-doctoral Fellow, Jan 2001- Aug June 2004  
Jason Lange, MD, Resident, Scott & White Memorial Hospital, May 2001.  
Robert Denyer, MD, Cardiology Fellow, Scott & White Hospital, July 2001 - June 2002.  
Elizabeth Ebert, MD, Internal Medicine Resident, Scott & White, Sept 2001 - June 30, 2003.  
Song Min Hong, MD, Internal Medicine Resident, Scott & White, Nov 2001-June 30, 2004.  
Ronald Kantola, DO, Internal Medicine Resident, Scott & White, Dec 2001 - June 30, 2003.  
Sheldon Chaffer, MD, Internal Medicine Resident, Scott & White, Feb 2002 - June 30, 2004.  
Milan Sheth, DO, Cardiology Fellow, July 1, 2002 - June 30, 2004.  
Shivani Desai, Summer Student from Temple High School, June - July 2002  
Coty Jewel, MD, Internal Medicine Resident/Research Fellow, Scott & White, July 2003 - June 2005  
Bethany Chaffin, Summer Student from Oklahoma University, May 15 2004 - Aug 20, 2004  
Daniel Levesque, MD, Internal Medicine Resident, Aug 2003 - May 2005  
Eric Walker, MD, Internal Medicine Resident Aug 2004 - May 2005  
Jonathan Mock, MD, Internal Medicine Resident, July 2005 - 2007  
Hind Lal, PhD., Postdoctoral Fellow, September 2005 - June 2009.  
Hui Yan, MD/PhD, Research Associate, Sept 2005 - April 2006  
Rakeshwar Guleria, PhD, Postdoctoral Fellow, April 2006 - July 2006  
Suresh Verma, PhD, Postdoctoral Fellow, January 2007 - Present  
John C. Reneau, MD/PhD, Medical Student (M1), May 2007 - June 2007  
Honey B. Golden, Graduate Student/COM/Tamhsc, Aug 20, 2007 - 2010  
Hitesh Singh, MD, Internal Medicine Resident, Scott & White, Sept 2007 - Present  
April Holt, BA, Summer Internship for Temple College Biosciences, June 2008 - Aug 2008  
Marcelo Medical Student (M1), summer research rotation, May 2009 - Aug 2009  
Swagoto Mukappaddahyah, Medical student (M1), summer research rotation, May 2009 - Aug 2009  
Nimrit Goraya MD, Nephrology Fellow, Scott and White, Texas A&M HSC, Jan 2010 - July 2010  
Suraj Sunder, Medical student, summer rotation May 2010 – Aug 2010  
Ricardo Cristales, Summer Internship for Temple College Biosciences, June 2010 - Aug 2010  
Hao Feng, PhD, Postdoctoral Fellow, Dec 2010 - Present  
Kumar Dasuri, PhD, Postdoctoral Fellow, Nov 2010 – Present  
Damir Nizmutdinov, MD/PhD, Postdoctoral Fellow, March 2011 - Present

### **HOBBIES, INTERESTS AND COMMUNITY ACTIVITIES**

Computer: software development for Windows/Linux; computer repair  
Home remodeling: carpentry, flooring, drywall  
Automotive: engine rebuild, body work, machine/fabricate small parts  
Music: choir, small vocal groups

## **PUBLICATIONS**

1. Bowers MA, III, Dostal DE, Heisinger JF. Failure of selenite to protect against mercuric chloride in early developmental stages of the Japanese ricefish (*Oryzias latipes*). *Comp Biochem Physiol* 66C:175-178, 1979.
2. Wells AM, Johnson JA, Zeigler DW, Fowler WL, Jr, Dostal DE, Payne CG. Pressor and vascular responsiveness in renal prehypertensive rabbits with a non-filtering kidney. *Proc Soc Exp Biol Med* 180:24-32, 1985.
3. Fowler WL, Jr, Johnson JA, Kurz KD, Zeigler DW, Dostal DE, Payne CG. Body fluid volumes in rats with mestranol-induced hypertension. *Am J Physiol* 250:H190-H195, 1986.
4. Zeigler DW, Johnson JA, Koivunen DG, Siripaisarnpipat S, Fowler WL, Jr, Dostal DE, Payne CG. Angiotensin receptors and pressor hyperresponsiveness in renal prehypertensive rabbits. *Am J Physiol* 251:H196-H204, 1986.
5. Johnson JA, Dostal DE. Effects of captopril and bradykinin on arterial pressure in rats with mestranol-induced hypertension. *Contraception* 34:303-310, 1986.
6. Dostal DE, Johnson JA, Langevin PB, Abas N. Hyperresponsiveness of arterial rings induced by renal prehypertensive rabbit plasma. *Am J Physiol* 255:H272-H279, 1988.
7. Johnson JA, Dostal DE, Elsberry-Gonder A. Angiotensin III and pressor hyperresponsiveness in 3-day renal artery stenosis rabbits. *Am J Physiol* 258:H540-H548, 1990.
8. Dostal DE, Murahashi T, Peach MJ. Regulation of Cytosolic calcium by angiotensins in vascular smooth muscle. *Hypertension* 15:815-822, 1990.
9. Peach MJ, Dostal DE. The angiotensin II receptor and the actions of angiotensin II. *J Cardiovas Pharmacol* 16:S25-S30, 1990.
10. Baker KM, Booz GW, Dostal DE. Cardiac actions of angiotensin II: role of an intracardiac renin-angiotensin system. *Annu Rev Physiol* 54:227-241, 1992.
11. Dostal DE, Baker KM, Peach MJ. Growth promoting effects of angiotensin II in the cardiovascular system. In *Horizons in Endocrinology*. Vol II, Raven Press, eds M Maggi, V. Greenen, 1991, 76:265-272.13.
12. Dostal DE, Baker KM. Angiotensin II stimulation of left ventricular hypertrophy in adult rat heart: mediation by the AT<sub>1</sub> receptor. *Am J Hypertens* 5:276-280, 1992.
13. Dostal DE, Rothblum KC, Chernin MI, Cooper GR, Baker KM. Intracardiac detection of angiotensinogen and renin: a localized renin-angiotensin system in neonatal rat heart. *Am J Physiol (Cell Physiol)* 32:C838-C850, 1992.
14. Dostal DE, Rothblum KC, Conrad KM, Cooper GR, Baker KM. Detection of angiotensin I and II in cultured rat cardiac myocytes and fibroblasts. *Am J Physiol (Cell Physiol)* 32:C851-C863, 1992.
15. Anderson KM, Murahashi T, Dostal DE, Peach MJ. Morphological and biochemical analysis of angiotensin II internalization in cultured rat aortic smooth muscle cells. *Am J Physiol* 264:C179-C188, 1993.
16. Dostal DE, Baker KM. Evidence for a role of the cardiac renin-angiotensin system in the normal and failing heart. *Trends in Cardiovas Med*. 3:67-74, 1993.
17. Schorb W, Booz GW, Dostal DE, Conrad KM, Chang KC, Baker KM. Angiotensin II is mitogenic in neonatal rat cardiac fibroblasts. *Circ Res* 72:1245-1254, 1993.
18. Dostal DE, Booz GW, Baker KM. The cardiac renin-angiotensin system: an overview. In: *The Cardiac Renin Angiotensin System*. 1st Edition (K. Lindpaintner and D. Ganten, eds) Futura Medical Publishers, New York, 1-21, 1994.
19. Booz GW, Dostal DE, Baker KM. Regulation of cardiac second messengers by angiotensins. In *The Cardiac Renin Angiotensin System*. 1st Edition (K. Lindpaintner and D. Ganten, eds) Futura Medical Publishers, New York, 101-124, 1994.
20. Booz GW, Dostal DE, Singer HA, Baker KM. Angiotensin II-induced mitogenesis in cardiac fibroblasts: assessment of the roles played by protein kinase C and calcium. *Am J Physiol* 267:C1308-1318, 1994.
21. Dostal DE, Rothblum KC, Baker KM. An improved method for absolute quantitation of mRNA using multiplex polymerase chain reaction: Determination of renin and angiotensinogen mRNA levels in various tissues. *Anal Biochem* 223:239-250, 1994.
22. Thekkumkara TJ, Du J, Dostal DE, Booz GW, Motel TJ, Baker KM. Characterization of permanently

- transfected AT<sub>1A</sub> receptors in CHO-K1 cells: desensitization by angiotensin II. *Mol Cell Biochem* 146:79-89, 1995.
23. Schorb W, Conrad KM, Singer HA, Dostal DE, Baker KM. Angiotensin II is a potent stimulator of MAP-kinase activity in neonatal rat cardiac fibroblasts. *J Mol Cell Cardiol* 27:1151-1160, 1995.
  24. Lin CL, Baker KM, Thekumkarra TJ, Dostal DE. A novel biological assay for the rapid detection and quantification of angiotensin II in tissue culture medium. *Biotechniques* 18:1014-1018, 1995.
  25. Dostal DE, Baker KM. Biochemistry, molecular biology and potential roles of the cardiac renin-angiotensin system. In: *The failing heart*, eds. NS Dhalla, RE Beamish, N Takeda, M Nagaro, Raven Press Ltd, New York, pp 275-294, 1995.
  26. Zhang X, Dostal DE, Reiss K, Cheng W, Kajstura J, Li P, Huang H, Sonnenblick EH, Meggs LG, Baker KM, Anversa P. Identification and activation of the autocrine renin-angiotensin system in adult ventricular myocytes *in vivo*. *Am J Physiol* 269:H1791-H1802, 1995.
  27. Dostal DE, Booz GW, Baker KM. Angiotensin II signaling pathways in cardiac fibroblasts: Conventional versus novel mechanisms in mediating cardiac growth and function. *Mol Cell Biochem*. 157:15-21, 1996.
  28. McWhinney CE, Hunt RA, Conrad KM, Dostal DE, Baker KM. The type I angiotensin II receptor couples to Stat1 and Stat3 activation through Jak2 kinase in neonatal rat cardiac myocytes. *J Mol Cell Cardiol* 29:2513-2524, 1997.
  29. Brooks WW, Bing OHL, Conrad CH, O'Neill L, Crow MT, Lakatta EG, Dostal DE, Baker KM, Boluyt MO. Left ventricular gene expression during regression of hypertrophy with angiotensin converting enzyme inhibition in hypertrophied and failing myocardium from aged spontaneously hypertensive rats. *Hypertension* 30:1362-1368, 1997.
  30. Dostal DE, Hunt RA, Kule CE, Bhat GJ, Karoor VJ, McWhinney CD, Baker KM. Molecular mechanisms of angiotensin II in modulating cardiac function: Intracardiac effects and signal transduction pathways. *J Mol Cell Cardiol* 29:2893-2902, 1997.
  31. McWhinney CM, Dostal DE, Kempinski AM, Baker KM. Angiotensin II activates Stat5 through Jak2 kinase in cardiac myocytes. *J Mol Cell Cardiol* 30:751-761, 1998
  32. Dostal DE, Baker KM. Pathophysiology of the renin-angiotensin system in Heart Failure: Molecular control through endocrine, paracrine, and autocrine pathways, In: Heart Metabolism in Failure, 1st Edition (R.A. Altschuld and R.A. Haworth, Eds) in the series: *Advances in Organ Biology*, vol. 4B (E.E. Bittar, Ed.) Jai Press, Connecticut, 1998, 305-322.
  33. Dostal DE, Baker KM. Angiotensin and Endothelin: Messengers that couple ventricular stretch to the Na<sup>+</sup>/H<sup>+</sup> exchanger and cardiac hypertrophy. *Circ Res* 83:870-873, 1998.
  34. Dostal DE, Hunt RA, Kule CE, Baker KM. Developmental regulation of the cardiac renin-angiotensin system: Expression and association with growth and apoptosis. In: Angiotensin II Receptor Blockade: Physiological and Clinical Implications. (NS Dhalla, RE Beamish, EDs) Kluwer Academic Publishers, 1998, 403-414.
  35. Dostal DE, Kempinski AM, Motel TJ, Baker K. Absolute quantification of messenger RNA using multiplex reverse-transcriptase polymerase reaction. In: RT-PCT Methods for Gene Cloning and Analysis, eds. PD Siebert and C McAndrews, Eaton Publishing, 1998, 71-90.
  36. Booz GE, Dostal DE Baker KM. Conditioned medium from cardiac fibroblasts rapidly stimulates signal transduction events, and increases protein synthesis and angiotensinogen mRNA of cardiac myocytes. *Amer J Cardiol* 83:44H-47H, 1999.
  37. Dostal DE, Baker KM. The cardiac renin-angiotensin system: Conceptual, or a regulator of cardiac function? *Circ Res* 85:643-650, 1999.
  38. Fukuzawa J, Booz GW, Hunt RA, Shimizu N, Karoor V, Baker KM, Dostal DE. Cardiotrophin-1 increases angiotensinogen mRNA levels in rat cardiac myocytes through STAT3: an autocrine loop for hypertrophy. *Hypertension* 35:1191-1196, 2000.
  39. Dostal DE. The cardiac renin-angiotensin system: Novel signaling mechanisms and role in mediating cardiac growth. *Regul Peptides* 91:1-11, 2000.
  40. Dostal DE, Booz GW, Baker KM. Regulation of angiotensinogen gene expression and protein in

- neonatal rat cardiac fibroblasts by glucocorticoid and  $\beta$ -adrenergic Stimulation. *Basic Research in Cardiology* 95:485-491, 2000.
41. Dostal DE. Regulation of Cardiac Collagen: Angiotensin and cross-talk with local growth factors. *Hypertension* 37:841-844, 2001.
  42. Booz, GW, Fukuzawa J, Dostal DE, Baker. Angiotensin and cytokine receptor crosstalk in modulation of cardiomyocyte hypertrophy. *Heart* 33 (02) 174-179, 2001.
  43. Barlucchi L, Leri A, Dostal DE, Fiordaliso F, Tada H, Hintze TH, Kajstura J, Nadal-Ginard B, Anversa P. Canine ventricular myocytes possess a renin-angiotensin system that is upregulated with heart failure. *Circ Res* 88:298-304, 2001
  44. Dostal, DE, Tak T. Mechanoreceptors: elusive and important activators of cardiac growth. *Netherlands Journal* 9:65-67, 2001
  45. Denyer R, Sanghi S, Kumar R, Dostal DE. Novel aspects of mechanical signaling in cardiac tissue. In *Signal Transduction and Cardiac Hypertrophy*. ed. NS Dhalla, Kluwer Academic Publishers (Boston), 2003, pp 181-198.
  46. Shivakumar K, Dostal DE, Boheler K, Baker KM, Edward G. Lakatta. Differential response of cardiac fibroblasts from young adult and senescent rats to angiotensin II. *AJP*, 284:H1454-459, 2003.
  47. Watson LE, Sheth M, Lange J, Denyer RF, Dostal DE. Baseline echocardiographic values for adult male rats. *J Amer Soc Echocardiography* 17:161-167, 2004.
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61. Lal H, Guleria R, Foster DM, Lu G, Watson LE, Sanghi S, Dostal DE. Integrins: Novel Therapeutic Targets for Cardiovascular Diseases. *Cardiovasc Hematol Agents Med Chem*. 2007 5(2):109-32, 2007.
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64. Lal H, Guleria R, Lu G, Foster DM, Smith M, Dostal DE. Stretch-Induced MAP Kinase Activation in Cardiac Myocytes: Differential Roles of  $\beta$ 1-Integrin and Focal Adhesion Kinase. *J Mol Cell Cardiol*. 43:137-47, 2007.
65. Francis H, Glaser S, DeMorrow S, Gaudio E, Ueno Y, Venter J, Dostal DE, Franchitto A, Marzioni M, Vaculin S, Katki K, Stutes M, Savage J, Alpini F. Small Mouse Cholangiocytes Proliferate in Response to H1 Histamine Receptor Stimulation by Activation of the IP<sub>3</sub>/CaMK I/CREB Pathway, *AJP(Cell Physiol)*, 295(2):C499-513, 2008.
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75. Verma SK, Lal H, Golden HB, Foster DM, Dostal DE. Stretch Induced Regulation of Angiotensinogen gene expression in Cardiac Fibroblasts: Differential Regulation by Rac1 and RhoA *Cardiovas Res*. (In Press, PMID: 21131638).
76. Golden, HB, Verma SK, Lal H, Ribeiro M, Mukpadhyaya S, Foster DM, Dostal DE. Mechanical Regulation of Stress-Activated MAP Kinases. In: The Cardiac Fibroblast, N. Turner (editor), Research Signpost (Accepted for publication in 2011).
77. Golden HB, Sunder S, Liu Y, Peng X, Dostal DE. *In Utero Assessment of Cardiovascular Function in the Embryonic Mouse Heart using High Resolution Ultrasound Biomicroscopy*. Humana Press. Book series "Cardiovascular Development: Methods and Protocols" edited by Xu Peng (Accepted for publication in 2011).

78. Golden HB, Gollapudi D, Gerilechaogetu F, Li J, Cristales R, Peng X, Dostal DE. *Isolation of Cardiac Myocytes and Fibroblasts from Neonatal Rat Pups*. Humana Press. Book series "Cardiovascular Development: Methods and Protocols" edited by Xu Peng (Accepted for publication in 2011).
79. Miller T, Yang F, Wise CE, Meng F, Priester S, Munshi MK, Guerrier M, Dostal DE, Glaser SS. Simvastatin stimulates apoptosis in cholangiocarcinoma by inhibition of Rac1 activity. *Dig Liver Dis*. 2011 Feb 18. (Epub ahead of print, PMID: 21334995).
80. Lal H, Verma SK, Golden HB, Foster DM, Smith M, Dostal DE. Stretch-Induced MAP Kinase Activation in Cardiac Myocytes: Importance of  $\beta$ 1 integrin in caveolae microdomain signaling. *Reg Peptides* (In Revision).
81. Golden HB, Watson LE, Lal H, Verma SK, Lu G, Foster DM, Frankel A, Dostal DE. Dysregulation of Cardiac Akt in Anthrax Lethal Toxin-Induced Systolic Heart Failure. (In Preparation for JCI).
82. Lal H, Verma SK, Golden HB, Foster DM, Dostal DE. Mechanical Stretch Induced Cross-Regulation between Akt and Stress-Activated Protein Kinases in Cardiac Myocytes: (In Preparation).

## **ABSTRACTS**

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5. Dostal DE, Murahashi T, Peach MJ. 1989. Evidence for angiotensin isoreceptors in vascular smooth muscle. *Hypertension* 14:348, 70A, 1989.
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- pathway in neonatal rat cardiomyocytes. *Hypertension* 28:511, 1996.
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  23. Tak T, Baker KM, Dostal DE. Mechanical stretch-induced activation of paxillin in cultured neonatal rat cardiac myocytes: Roles of small G proteins. Submitted to the 73rd Scientific Sessions for the American Heart Association at New Orleans, Louisiana, November 2000.
  24. Tak T, Baker KM, Dostal DE. Mechanical stretch-induced activation of paxillin in cultured neonatal rat cardiac myocytes: Roles of small G proteins. Presented at the 50th Scientific meeting for the College of Cardiology meeting at Orlando, Florida, March 18-21 2001.
  25. Kumar R, Sanghi S, Baker KM, Dostal DE. Angiotensin receptor type 1 independent growth effects of intracellular angiotensin II (Ang II) in cardiac myocytes. Presented at American College of Cardiology 52<sup>nd</sup> Annual Scientific Session, Chicago, March 30- April 2, 2003.
  26. Hong SM, Dostal, DE. Profiling of gene expression in pulmonary hypertension induced by left ventricular failure. *Chest* 126:885Sb, 2004.
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  28. Sanghi S, Smith MS, Dostal DE. Regulation of Angiotensinogen by  $\beta$ 1D Integrin in Cardiac Myocytes. Accepted for presentation at American Heart Association Meeting Keystone, Co in July , 2005.
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  33. Golden HB, Watson LE, Lal H, Verma SK, Lu G, Foster DM, Frankel A, Dostal DE. Akt is Dysregulated in Anthrax Lethal Toxin-Induced Systolic Heart Failure. *Circ Res* 103(5):e45, 2008.
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  35. Wise, C, Dostal DE, Glaser SS. Mechanical Stretch Stimulates Cholangiocyte Proliferation via the Angiotensin type I Receptor: A Novel Mechanism for Ductal Proliferation During Obstructive Cholestasis. Submitted to the Single Topic Conference: Pathobiology of Biliary Epithelia and Cholangiocarcinoma, by American Association for the Study of Liver Diseases.
  36. Sethi R, Dostal D: Enhanced Death Signal in ischemic reperfused hearts from ozone exposed sprague dawley rats. AACP, Abstract # 29 (p70). Boston, USA, July 18-22, 2009

37. Sethi R, Dostal D: Ozone effects on cardiac function prior to myocardial ischemia reperfusion injury. AACP, Abstract # 30 (p70). Boston, USA, July 18-22, 2009
38. Chopra M, Das P, Golden HB, Watson LE, David E. Dostal DE, Sharma AC. Norepinephrine induces systolic failure and inhibits anti-apoptotic genes in myocytes in a hyperdynamic rat model of polymicrobial sepsis. Abstract submitted to the 3<sup>rd</sup> National Meeting of Association of Scientists of Indian Origin in America, at University of North Texas, Jan 17-19, 2009, Denton, TX.
39. Verma SK, Lal H, Golden HB, Foster DM, Dostal DE, Rho GTPases Regulate Stretch-Induced FAK and Akt Activation in Rat Cardiac Fibroblasts. *Circ Res.* 105(7):e34, 2009
40. Golden HB, Watson LE, Hind Lal H, Verma SK, Foster, DM, Dostal DE. Anthrax Lethal Toxin Induces Diastolic Dysfunction Associated with Diminished JNK Activity. *Circ Res.* 105(7):e42, 2009
41. Lal H, Verma SK, Golden HB, Foster DM, Dostal DE.  $\beta_1$  Integrin and MAP Kinases Regulate Cardiac Myocyte Angiotensinogen Gene Expression Through Caveolae. *Circ Res.* 105(7):e47, 2009
42. Miller T, Wise C, Dostal D, Glaser S. Simvastatin stimulates apoptosis of cholangiocarcinoma cells through disruption of lipid rafts: potential involvement of the small GTPase RhoA. American Association of Cancer Research Annual Proceedings, Abstract #5100, April 2009.
43. Honey B. Golden, Linley Watson, Deepika Gollapudi, Nimrit Goraya, Swagato Mukhopadhyay, Marcelo Ribeiro, Donald Foster and David E. Dostal. Unraveling the Phospholamban Signaling Network in Anthrax-Induced Cardiac Dysfunction. *Circ Res.* 2009

### **SEMINARS AND INVITED PRESENTATIONS**

1. *Mechanisms of vascular hyperresponsiveness in renal arteries from 2-kidney, 1-clip prehypertensive rabbits.* Department of Pharmacology, University of Virginia, Charlottesville, VA February 1986.
2. *Evidence for isoreceptors for angiotensin II in cultured rat aortic smooth muscle.* Council for High Blood Pressure, Cleveland OH, September 1988.
3. *Internalization of angiotensin receptors in cultured rat aortic vascular smooth muscle cells.* Department of Pharmacology, University of Virginia, Charlottesville, April 1989.
4. *Mechanisms of intracellular calcium mobilization by angiotensin II in cultured vascular smooth muscle.* Department of Physiology, University of Virginia, Charlottesville, July 1989.
5. *Angiotensin receptor internalization mechanisms in vascular smooth muscle.* Department of Pharmacology, University of Alabama, Birmingham, AL, October 1989.
6. *Internalization of angiotensin receptors:* Schering and Plough, Newark, NJ, February 1990.
7. *Growth Promoting effects of angiotensin II in the cardiovascular system.* Endocrinology under 35, Sienna, Italy, October, 1990.
8. *Determinants of angiotensin receptor internalization in cultured rat aortic smooth muscle.* Council for High Blood Pressure. Baltimore MD, October, 1990.
9. *Determinants of angiotensin II receptor internalization in vascular smooth muscle.* Department of Biology, Bucknell University, Lewisburg, PA. April 1991.
10. *Evidence for a local renin-angiotensin system in cardiomyocytes and fibroblasts cultured from neonatal rat hearts.* Weis Center for Research, Geisinger Clinic, Danville, PA. June 1992.
11. *Development of quantitative RT-PCR: Regulation of angiotensinogen mRNA in cardiac fibroblasts.* Weis Center for Research, Geisinger Clinic, Danville, PA. June 1992.
12. *Molecular and biochemical evidence for a cardiac renin-angiotensin system.* Women and Cardiovascular Disease, Bloomsburg University, Bloomsburg, PA. April 1993.
13. *Biochemistry and potential roles of the cardiac renin-angiotensin system.* Department of Surgery, Duke University, Durham, NC. August 22, 1993.
14. *Localization and regulation of the cardiac renin-angiotensin system.* International Society for Heart Research: North American Section, XVI Annual Meeting, The University of Western Ontario, London, Ontario Canada. July 23, 1994.
15. *Regulation of the cardiac renin-angiotensin system.* Weis Center for Research at Geisinger Clinic. Danville, PA, February 10, 1995.
16. *Growth related mechanisms in cardiac fibroblasts.* Invited speaker and co-chairman for "Pathophysiological Responses" session. Satellite Symposium of the XV World Congress of the ISHR on Signal Transduction in Normal and Diseased Myocardium, Rotterdam, The Netherlands, June 30- July 1, 1995.

17. *Angiotensin and the heart*. Discussant for the "Angiotensin" Gordon Conference, Ventura, CA, February, 1996.
18. *Regulation of renin and angiotensinogen expression in cardiac fibroblasts*. Department of Gerontology, Veterans Administration, Baltimore Maryland, May 14, 1996.
19. *Localization and expression of the intracardiac renin angiotensin system*. Invited speaker for the International Carl-Ludwig-Symposium "Growth Factors and Cardiac Hypertrophy" at Leipzig, Germany. September 26-28, 1996.
20. *Molecular and biochemical regulation of the cardiac renin-angiotensin system*. Manitoba Cardiovascular Forum. "Angiotensin II Receptor Blockade, Physiological and Clinical Implications" at Winnipeg, Canada, October 18-20, 1996.
21. *Mechanistic role of angiotensin II in cardiac fibroblast growth*. Invited speaker for the "Young Investigator's Conference-Angiotensin II" sponsored by Merck, West Point, PA. December 11-12, 1996.
22. *In vitro regulation of hypertrophy and JAK-STAT activation by angiotensin II receptor subtypes in cardiac myocytes*. "2nd International Workshop on: Cardiac Cells in Culture: Molecular Mechanisms of Hypertrophy." Monte Verita, Ascona, Switzerland, March 5-9, 1997.
23. *Blocking effects of the renin-angiotensin system: impact on growth and remodeling*. Invited presentation at the "70th Scientific Sessions", American Heart Association at Orlando, FL. October 9-12, 1997.
24. *Molecular aspects of renin and angiotensinogen expression in cardiac fibroblasts*. Invited speaker at the Department of Medicine at the New York College of Medicine, Valhalla, NY. February 9, 1998.
25. *Molecular and biochemical regulation of the cardiac renin-angiotensin system*. Bucknell University Biology Seminar Series at Lewisburg, PA. February 20, 1998.
26. *Regulation of the local renin-angiotensin system in cardiac cells*. Invited speaker for the Gordon Research Conference on Angiotensins. Oxford England. August 8-12, 1999.
27. *Angiotensin Signaling*. Moderator for 72nd Scientific Sessions of the American Heart Association at Atlanta, GA. November 10, 1999.
28. *Advances in regulation of the cardiac renin-angiotensin system: role of mechanical stretch*. Presentation for the Health Science Center Retreat. Del Lago at Montgomery, TX. May 28 - 30, 2000.
29. *Mechanical and humoral regulation of the cardiac renin-angiotensin system*. Invited speaker and chairman for Growth Factor Symposium. The British Society For Cardiovascular Research. The Queen's University of Belfast at Ireland. September 4 - 5, 2000.
30. *Mechanical stretch-induced activation of paxillin in cultured neonatal rat cardiac myocytes: Roles of small G proteins*. Oral presentation at the 50th Scientific meeting for the College of Cardiology meeting at Orlando, Florida, March 18-21 2001.
31. *Crosstalk between AT receptors and stretch-induced signaling*. Invited presentation for International Society of Heart Research at Winnipeg, Canada July 6 - 11, 2001.
32. *Regulation of Angiotensinogen Gene Expression in the Myocardium*. Invited presentation for the International Workshop at Ochsner, New Orleans, April 18-19, 2002.
33. *The Physician and Research in the New Millenium*. Invited presentation for Grand Rounds at Scott & White. May 7, 2002.
34. *Research Opportunities at the Cardiovascular Research Institute*. Invited presentation at Grand Rounds for Internal Medicine Residents, Scott & White, Temple. January 14, 2003.
35. *Signaling Mechanisms in the Pressure-Overloaded Myocardium*. Invited presentation for Pulmonary Medicine, Scott & White Hospital, Temple. August 26, 2003.
36. *Mechanical Regulation of the Cardiac Renin-Angiotensin System*. Invited seminar speaker for the Department of Pathology, Texas A&M University System, College of Medicine, College Station, TX.
37. *Clinical Aspects of Congestive Heart Failure*. Invited lecturer for Biomedical Engineering. Texas A&M University, College Station. September 24, 2003.
38. *Humoral and Mechanical Regulation of the Cardiac Renin-Angiotensin System*. Cornell University, New York, NY. March 30, 2004.
39. *Cardiac Stress and the Local Renin-Angiotensin System*. Invited presentation for the Second International Workshop at Ochsner, New Orleans, November 4-6, 2004.
40. *Getting a Grip on Disease Mechanisms: Role of Matrix and its Receptors*. Invited presentation for

- the Texas Club of Internists, Temple Texas, March 4, 2005.
41. *The Multifaceted Role of Angiotensin in the Cardiovascular System*, Renal Physiology Conference Scott & White Renal Fellows, July 13, 2005.
  42. *Regulation of the Cardiovascular System by Local Renin-Angiotensin Systems*, Renal Physiology Conference, Scott & White, Aug 10, 2005.
  43. *Cell Adhesion and its Role in Disease*. Grand Rounds, Department of Anesthesiology at Scott & White, Sept 12, 2005.
  44. *Cutting-Edge Discoveries in Medicine and Basic Science Research*, Grand Rounds, CTVHCS, Temple, TX, April 12, 2007.
  45. *The Truth about Heart Disease in Women*. Magnolia Tea, College Station, May 3, 2007.
  46. *Extracellular Matrix Receptor Signaling & Cross-Talk with the Renin-Angiotensin System*. Renal Physiology Conference, Scott & White, Aug 8, 2007.
  47. *Heart Disease in Women: Diagnosis and Care that Require New Approaches*. College of Medicine 2008 Mini-Med School, College Station, Jan 24, 2008.
  48. *Key Signal Transduction Pathways involved in Mechanical Overload and Anthrax Toxin-Induced Heart Failure*. Department of Surgery Research Conference, Scott & White, Jan 30, 2008.
  49. *Mechanical Signaling and Regulation of the Cardiac Renin-Angiotensin System*. Division of Biomedical Sciences, Sanford School of Medicine, University of South Dakota Vermillion, South Dakota, Nov 14, 2008.
  50. *Key Signal Transduction Pathways involved in Mechanical Overload and Anthrax Toxin-Induced Heart Failure*. Department of Surgery Research Conference, Scott & White, Jan 30, 2008.
  51. *Mechanical Regulation of Stress-Activated MAP Kinases in Cardiac Myocytes and Fibroblasts*. Texas A&M Health Science Center, Irma Lerma Rangel College of Pharmacy, Department of Pharmaceutical Sciences. Kingsville, Texas, Feb 26, 2009.
  52. *Cardiac Signaling Effects of Mechanical Stress and Anthrax Toxin*. Division of Pulmonary-Critical Care Medicine, Grand Rounds for Fellows Seminar, Scott & White, March 5, 2009.
  53. *Measuring Developmental Changes in Cardiac Function in the Mouse Fetus: Preclinical Micro-Ultrasound Imaging Workshop*, Texas Children's Hospital, Houston, Texas, Oct. 27, 2010
  54. *Unraveling the Signaling Pathways Associated with Anthrax Lethal Toxin-Induced Heart Failure*. Department of Cell and Molecular Physiology, Loyola University, Chicago, IL, Nov. 17, 2010.

## **RESEARCH SUPPORT**

- |                |   |
|----------------|---|
| 7/1/91-6/30/93 | Pennsylvania Affiliate of American Heart Association<br><i>Regulation of a local renin-angiotensin system in cardiomyocytes</i><br>PI, David E. Dostal<br>Direct Costs: \$70,000 for total of 2 years   |
| 7/1/92-6/30/93 | Geisinger Clinic<br><i>Regulation of cardiac fibroblast growth by angiotensins</i><br>PI, David E. Dostal<br>Direct Costs: \$10,000 for 1-year  |
| 7/1/93-6/30/96 | National American Heart Association<br><i>Regulation of a local renin-angiotensin system in cardiomyocytes and fibroblasts</i><br>PI, David E. Dostal<br>Direct Costs: \$120,000 for a total of 3 years |
| 7/1/93-6/30/94 | Geisinger Clinic<br><i>Developmental regulation of the cardiac renin angiotensin system</i><br>PI, David E. Dostal<br>Direct Costs: \$10,000 for a year   |
| 7/1/94-6/30/95 | Geisinger Clinic  |

*Processing, transport, and secretory mechanisms of renin-angiotensin system components in cardiac myocytes and fibroblasts.*

PI, David E. Dostal

Direct Costs: \$10,000 for 1-year

7/1/94-6/30/96

Pennsylvania Affiliate of American Heart Association

*Developmental Regulation of the cardiac renin-angiotensin system*

PI, David E. Dostal

Direct Costs: \$70,000 for a total of 2 years

7/1/95-06/30/99

National Institutes of Health (HL44883)

*Regulation of cardiac hypertrophy by angiotensins.*

PI, Kenneth M. Baker

CI, David E. Dostal

Direct Costs: \$1,014,095 for a total of 5 years

7/1/97-12/30/99

Pennsylvania Affiliate of American Heart Association

*Regulation of renin and angiotensinogen gene expression in cardiac fibroblasts*

PI, David E. Dostal

Direct Costs: \$70,000

7/1/99-12/30/02

National Institutes of Health (HL44883) -Competitive Renewal

*Regulation of cardiac hypertrophy by angiotensins.*

PI: Kenneth M. Baker; CI: David E. Dostal

Direct Costs: \$200,000 per year for a total of 5 years

1/1/00-12/30/02

National American Heart Association

*Mechanical stretch-induced release of angiotensin II from cardiac myocytes*

PI: David E. Dostal

Direct Costs: \$71,500 per year for a total of 3 years

8/01/02 - 6/30/03

Scott and White Memorial Hospital

Cardiology Fellow Project

*Profiling of cardiac gene expression in pressure-overloaded hearts using microarray analysis*

PI: Robert Denyer, Co-I: David E. Dostal, Mentor

Direct Costs: \$50,000 total amount

1/1/00-12/30/03

Scott and White/TAMU College of Medicine New Programs Initiative Program,

Intramural support for clinical-basic science interface associated with

*Mechanical regulation of the cardiac renin-angiotensin system*

PI: David E. Dostal

Direct Costs: \$397,630 total amount

9/22/01 - 12/30/03

Scott and White Memorial Hospital

Resident Project

*Role of the cytoskeleton in regulation of the cardiac renin-angiotensin system*

PI: Elizabeth Ebert, Co-I: David E. Dostal, Mentor

Direct Costs: \$10,420 total amount

1/10/03 - 12/30/04

Scott and White Memorial Hospital

Resident project (Nathan Miller, M.D. General Surgery)

*In vivo regulation of the cardiac RAS by ANP*

PI: David Dostal  
Direct Costs: \$21,676 total amount

7/1/03 - 6/30/04 American Heart Association, Texas Affiliate, Fellowship Application  
*Role of beta-integrin in alpha-1-adrenergic mediated angiotensinogen gene expression in cardiac myocytes*  
PI: Sandhya Sanghi, Ph.D., Mentor: David E. Dostal  
Direct Costs:\$43,000/yr

12/12/01- 6/30/07 Scott and White Memorial Hospital  
Pulmonary Fellow project  
*Profiling pulmonary gene expression in pressure overloaded rat hearts*  
PI: David E. Dostal  
Direct Costs: \$26,913 total amount

7/1/03 - 6/30/07 National Institutes of Health (R01 HL067472-01)  
*Calcitonin Gene Regulated Peptide in Hypertension*  
PI: Donald DiPette, M.D.; Co-I: David Dostal  
Direct Costs: \$225,000/yr

6/1/05 - 5/29/07 Scott and White Memorial Hospital  
Pulmonary Fellow project  
*Head to Head Comparison of Eplerenone and Spironolactone in the Treatment of Diastolic Dysfunction in Spontaneously Hypertensive Rats*  
PI: David E. Dostal  
Direct Costs: \$38,913 total amount

7/1/05 - 6/30/07 American Heart Association - Texas Affiliate  
PI: Rajesh Kumar  
*Intracrine Mechanisms of Angiotensin II Induced Cell Growth*  
Direct Costs: \$122,000 total

4/1/04 - 3/30/08 National Institutes of Health (R01 HL68838-01, NHLBI)  
*Mechanical Signaling in Cardiac Tissue*  
PI: David E. Dostal  
Direct Costs: \$200,000/yr for 5 years

7/1/08 - 6/30/09 Texas A&M Health Science Center  
PI: Avadhesh Sharma, Col: Dostal  
Direct Costs: \$15,000 total amount

12/1/07 - 11/30/09 Scott & White Hospital  
*Cardiac Effects of Anthrax Toxin (LeTx) in Rats*  
PI: Linley E. Watson, Col: Dostal  
Direct Costs: \$38,998 total amount

10/1/08 to 9/30/09 Scott & White Hospital  
*Mechanical Load Induced Regulation of Angiotensinogen in Cardiac Tissue: Role of Stress-Activated Protein Kinases*  
PI: Dostal  
Direct Costs: \$40,000 total amount

**Active**

08/1/09 - 07/30/11 National Institutes of Health (R01 DK081442-01)

*Role of the Renin-Angiotensin System in the Regulation of Biliary Proliferation*

PI: S. Glaser, Col: Dostal

Direct Costs: \$250,000/yr for 2 years

02/01/10 - 01/30/14 National Institutes of Health (R01 HL68838-06, NHLBI)

*Mechanical Signaling in Cardiac Tissue*

PI: David E. Dostal

Direct Costs: \$250,000/yr for 4 years

10/01/10 - 09/30/13 VA Merit Award

*Anthrax Lethal Toxin-Induced Heart Failure: Role of PP2A and MAP Kinases*

PI: David E. Dostal

Direct Costs: \$500,000 for 3 years

12/01/10 - 11/30/11 Scott and White Research Grant Program (RGP 100457)

*Cardiac Effects of Anthrax Lethal Toxin: Unraveling the Mechanisms for Sodium and Calcium Dysregulation*

PI: David E. Dostal

Direct Costs: \$50,000 for 2 years