

Robert Wayne Barbee

Curriculum Vita

PERSONAL INFORMATION:

Born: Greensboro, North Carolina; February 6, 1956
Citizenship: USA

Office Address: Emergency Medicine
MCV Main Hospital
Virginia Commonwealth University
401 North 12th Street
P.O. Box 980401
Richmond, VA 23298-0401

Office Telephone: 804-225-4598
Office Fax/Modem: 804-628-0436
Email Address: rwbarbee@hsc.vcu.edu

EDUCATION:

Postdoctoral 1986 - 1988 Alton Ochsner Medical Foundation
New Orleans, Louisiana
Division of Research
Advisor: Nick C. Trippodo, Ph.D.

Doctorate 1986 Louisiana State University
New Orleans, Louisiana
Department of Physiology
Advisor: Alastair H. Burns, Ph.D.

Master of Science 1981 University of Florida
Gainesville, Florida
Department of Physiology
Advisor: Wendell N. Stainsby, Ph.D.

Bachelor of Science - 1977
Bachelor of Arts - 1978 University of North Carolina at Wilmington
Wilmington, North Carolina
Biology and Chemistry

EMPLOYMENT HISTORY:

1979 - 1980	University of Florida Research Assistant, Department of Physiology
1980 - 1981	University of Florida Teaching Assistant, Department of Physiology
1982 - 1986	Louisiana State University Pre-Doctoral Fellow, Department of Physiology
05/86 - 08/88	Alton Ochsner Medical Foundation Post-Doctoral Fellow, Department of Hypertension Research
09/88 - 08/90	Alton Ochsner Medical Foundation Staff Research Scientist, Department of Hypertension Research
09/90 - 4/97	Alton Ochsner Medical Institutions Staff Research Scientist; Cardiology Section, Department of Medicine
10/88 - 4/97	Louisiana State University Medical School Assistant Professor (part-time); Department of Physiology
11/88 - 4/97	Tulane School of Medicine Adjunct Assistant Professor; Department of Physiology
04/97 - 12/99	Carolinas Medical Center Senior Scientist, Emergency Medicine Research
8/98 - 12/99	University of North Carolina at Charlotte Adjunct Assistant Professor; Department of Biology
1/2000 - Present	Medical College of Virginia/Virginia Commonwealth University Assistant Professor and Associate Research Director, Emergency Medicine

HONORS AND AWARDS:

1973	American Chemical Society Student Award
1976, 1977	Who's Who in American Colleges and Universities
1977	University of North Carolina Honors Research Program
1978	Graduated magna cum laude
1982 - 1986	NIH Pre-Doctoral Trainee
1987	LSU Research Day Award (Sponsored by Sigma Xi)
1992 - Present	Who's Who Among Scientists

PROFESSIONAL SOCIETIES:

American Federation for Clinical Research
American Heart Association
Council on Circulation
Research Peer Review Committee (Local AHA-LA; 1989 - 1992)
American Physiological Society (APS Fellow; 1994)
American Association for Advancement of Science
American Association for Laboratory Animal Science (LA branch - President; 1994 - 1995)
International Society for Heart Research
Sigma Xi
Society for Academic Emergency Medicine (SAEM; 1997 - Present)
SAEM Research Committee - (1998 - Present); Chair of Scholarly Sabbatical Subcommittee - 1999
Shock Society - 1998 - Present

EXTRAMURAL FUNDING:

1985 - 1986 Sigma-Xi Research Award
“Diabetic Cardiomyopathy”
\$400

1985 - 1986 Innovative Research of America Grant Award
“Triiodothyronine Treatment of Diabetic Cardiomyopathy”
\$1000

07/87 - 06/88 Louisiana Heart Association Fellowship
“The role of ANF in Volume Natriuresis”
\$15,000

07/89 - 06/90 American Heart Association - Louisiana, Inc.
“Total Body and Isolated Organ Albumin Escape Rate During Physiologic and Pathologic ANF Infusion in Rats” (Collaborating Investigator; P.I.- R.S. Zimmerman)
\$15,000

09/89 - 12/90 NHLBI R01 HL29952
“Atrial Natriuretic Factor”
\$111,000

07/91 - 06/92 American Heart Association - Louisiana, Inc.
“Hemodynamics in Transgenic Mice with Overexpression of Atrial Natriuretic Factor”
\$18,500

07/92 - 06/93 American Heart Association - Louisiana, Inc.
“Strategies for Gene Transfer Into Porcine Arterial Cells” (Collaborating Investigator; P.I.- Julia L. Cook)
\$19,725

07/92 - 06/93 American Heart Association - Louisiana, Inc.
“Chronic Microcirculatory Effects of Atrial Natriuretic Peptide”
\$19,995

07/94 - 06/95 American Heart Association - Louisiana, Inc.
“Gene Therapy for the Modification of Vascular Smooth Muscle Cell Accumulation in a Porcine Injury Model” (Collaborating Investigator; P.I.- Julia L. Cook)
\$19,900

07/96 - 06/97 American Heart Association - Louisiana, Inc.
“Prevention of the No-Reflow Phenomenon by Pharmacologic Intervention: a MCE assessment”. (Collaborating Investigator; P.I. - Jorge Cheirif, M.D.)
\$20,000

1998 - 1999 Charlotte-Mecklenburg Health Services Foundation, Inc.
“Effect of Shock on Tissue Expression and Plasma Levels of Natriuretic Peptides”
\$31,251

2001 – 2003 U.S. Army Medical Research Acquisition Activity
“Biohemostat – Acute Treatment Modality for High Pressure Hemorrhage”
(Collaborating Investigator; P.I. – Marcus E. Carr, Jr., M.D., Ph.D.)
\$299,807

2001 – 2003 U.S. Army Medical Research Acquisition Activity
“Consequences of Prolonged Hemorrhage on Oxygen Delivery to Skeletal Muscle Microcirculation” (Collaborating Investigator; P.I. – Roland N. Pittman, Ph.D.)
\$299,886

2001 - Defense University Research Instrumentation Program/Office of Naval Research
“Imaging of the Microcirculation in Shock with the Cytoscan™ Video Microscope”
(Collaborating Investigator; P.I. – Roland N. Pittman, Ph.D.)
\$54,426

TEACHING EXPERIENCE:

Presented lectures and/or taught laboratories in the following courses:

- Allied Health Physiology
- Dental Physiology
- Graduate Student Cardiovascular Physiology, Endocrinology
- Graduate Student Cardiovascular Pharmacology
- Medical Physiology
- Nursing Physiology
- Summer Science Physiology (NSF sponsored program for gifted students)

CURRENT RESEARCH INTERESTS:

- Hemorrhagic, Septic Shock
- Peptidergic control of the circulation
- Transgenic cardiovascular physiology
- Gene therapy for the treatment of shock

COMMITTEES:

- Animal Care and Use Committee
Alton Ochsner Medical Foundation
1988 - 1996 (Chairman 1989 - 1993)
- Safety Committee
Alton Ochsner Medical Foundation
1988 - 1997
- Basic Research Advisory Committee
Alton Ochsner Medical Foundation
1990 - 1997
- Medical Library and Learning Center Facility Committee
Alton Ochsner Medical Foundation
1993 - 1997
- Special Study Section - 2 (Technology and Applied Sciences)
Dept. HHS, NIH
1995
- Transplant Research Committee
Alton Ochsner Medical Foundation
1996 - 1997

- Animal Care and Use Committee
Carolinas Medical Center
1998 - 1999

- Emergency Department Action Council (EDAC)
February 2000 - Present
- Emergency Department Action Council (EDAC)
Chair, Research sub-committee
March 2000 - Present
- Vice Chair
Institutional Animal Care and Use Committee
Virginia Commonwealth University
April, 2001 - Present

REFEREE FOR JOURNALS:

American Journal of Physiology
Circulation Research
Hypertension
Journal of Applied Physiology
Journal of Cardiovascular Physiology
Journal of Physiology (London)
Kidney International
Laboratory Animal Science
Peptides
Regulatory Peptides
Resuscitation

INVITED RESEARCH SEMINARS (Extramural):

Indiana University

"A Perspective on the Biological Actions of Atrial Natriuretic Factor," January, 1989.

Tulane University

"Physiology and Pharmacology of Atrial Natriuretic Factor," 1990 (Pharmacology Department).

"Physiology of Atrial Natriuretic Factor," 1989 (Physiology Department).

AAAS Meeting

"Atrial Natriuretic Peptide and Cardiovascular Homeostasis" (New Orleans); February, 1990.

Louisiana State University

"Determination of Hemodynamics and Intravascular Volume in the Mouse," February, 1991
(Physiology Department).

Louisiana State University

Application of Medical Research to Clinical Practice; October, 1991 (Occupational Therapy
Department).

Tulane University

"Effect of Lifelong Atrial Natriuretic Peptide Elevation on Hemodynamics and Blood Volumes in
Conscious Mice," 1992 (Physiology Department).

Tulane University

"Gene Therapy for the Treatment of Cardiovascular Disease," July, 1992 (Cardiology Section,
Department of Medicine).

Abbott Laboratories

"Gene Therapy for the Treatment of Cardiovascular Disease," September, 1992 (Division of
Cardiovascular Research).

Louisiana State University

"Gene Therapy for the Treatment of Cardiovascular Disease," January, 1993 (Physiology Department).

Tulane University

"A Perspective on the Biological Actions of Atrial Natriuretic Factor," February, 1993 (Pharmacology
Department).

S.E. Clin. Club

"Gene Therapy for the Treatment of Cardiovascular Disease," February, 1993.

Tulane University

"Gene Therapy for the Treatment of Cardiovascular Disease," September, 1993 (Pharmacology
Department).

Boston, MA

"Time Course of Gene Expression Following Direct Gene Transfer in a Porcine Model of Restenosis"
(Poster presenter: Scientific Conference on the Molecular & Cellular Biology of the Vascular Wall;
AHA Conference Proceedings); September, 1993.

USCI Bard, Inc.

"Gene Therapy for the Treatment of Cardiovascular Disease," October, 1993.

Louisiana State University

"Ischemia, Restenosis, and Thrombosis - Vascular Pathology Revisited," August, 1994 (Pathology Department).

University of Louisville

"A Perspective on the Biological Actions of Atrial Natriuretic Peptide," April, 1995 (Physiology Department).

Tulane University

"Cardiovascular Gene Therapy", November, 1995 (Cardiology Section, Department of Medicine).

Tulane University

"Pathophysiology of natriuretic peptides: a decade of discovery", September 9, 1996 (Physiology Department).

Carolinas Medical Center

"From whole animal to genes & back again: my odyssey as a cardiovascular physiologist", September 23, 1996 (Emergency Medicine Research Department).

University of North Carolina at Charlotte

"A Perspective on the Biological Actions of Atrial Natriuretic Factor", April 10, 1998

TRAINEES:

Served as Major Professor for:

Lisa Harrison-Bernard

Pre-doctoral Trainee

September, 1988 - July, 1990

Diane E. Madras

Pre-doctoral Trainee

January, 1992 - June, 1995

Served on Research or Graduate Advisory Committees for:

Ashraf Ramzy Youssef

LSU Department of Anatomy

1993

Ed Hyndman

Tulane Biomedical Engineering Undergraduate

October, 1993 - January, 1994

Ali Agili

Tulane Mechanical Engineering Undergraduate

December, 1993 - July, 1995

Asim Haque

Tulane Mechanical Engineering Undergraduate

September, 1994 – August, 1997

Tricia Punsalan

Tulane Biomedical Engineering Undergraduate

September, 1995 - May 1996

Merrick Turpin

LSU Occupational Therapy Master's Student

July 1992 - July 1996

Lane Smith

VCU MD/PhD Program (Physiology/Emergency Medicine)

June 2000 – Present

COMMUNITY ACTIVITIES:

Virginia Academy of Science Visiting Scientist Program – 9/2000 - Present
American Physiology Society Frontiers in Physiology Program – 9/2000 – Present
Member, Unitarian Universalist Community Church of Glen Allen

JOURNAL ARTICLES:

1. Stainsby WN, Peterson Jr CV, **Barbee RW**. O₂ uptake and work by in situ muscle performing contractions with constant shortening. *Med Sci Sports Exerc* 13(1):27-30, 1981.
2. **Barbee RW**, Stainsby WN, Chirtel SJ. Dynamics of O₂, CO₂, lactate, and acid exchange during contractions and recovery. *J Appl Physiol (Respirat. Environ. Exercise Physiol.)* 54(6):1687-1692, 1983.
3. Chirtel SJ, **Barbee RW**, Stainsby WN. Net O₂, CO₂, lactate, and acid exchange by muscle during progressive working contractions. *J Appl Physiol (Respirat. Environ. Exercise Physiol.)* 56(1):161-165, 1984.
4. McDonough KH, **Barbee RW**, Dobrescu C, Lang CH, Spitzer JJ. Enhanced myocardial depression in diabetic rats during E. coli sepsis. *Am J Physiol (Heart Circ. Physiol. 22)* 253:H276-H282, 1987.
5. **Barbee RW**, Trippodo NC. The contribution of atrial natriuretic factor to acute volume natriuresis in rats. *Am J Physiol (Renal Fluid Elec. Physiol. 22)* 253:F1129-F1135, 1987.
6. Trippodo NC, **Barbee RW**. Atrial natriuretic factor decreases whole-body capillary absorption in rats. *Am J Physiol (Regulatory Integ. Comp. Physiol. 21)* 252:R915-R920, 1987.
7. **Barbee RW**, Shepherd RE, Burns AH. T₃ treatment does not prevent myocardial dysfunction in chronically diabetic rats. *Am J Physiol (Heart Circ. Physiol. 23)* 254:H265-H273, 1988.
8. Chien YW, **Barbee RW**, MacPhee AA, Frohlich ED, Trippodo NC. Increased ANF secretion after volume expansion is preserved in rats with heart failure. *Am J Physiol (Regulatory Integrative Comp. Physiol. 23)* 254:R185-R191, 1988.
9. DeBlieux PMC, McDonough KH, **Barbee RW**, Shepherd, RE. Exercise training attenuates the myocardial dysfunction induced by endotoxin. *J Appl Physiol* 66(6):2805-2810, 1989.
10. Zimmerman RS, **Barbee RW**, Martinez A, MacPhee AA, Trippodo NC. Atrial appendectomy reduces ANF but not sodium excretion in acute vasopressin hypertension. *Am J Physiol (Regulatory Integrative Comp. Physiol. 27)* 258:R77-R81, 1990.
11. **Barbee RW**, Harrison-Bernard LM, Zimmerman RS, Trippodo NC, Frohlich, ED. Sympathectomy fails to reveal prominent vasodilation by atrial natriuretic factor. *Hypertension* 15(2):888-893, 1990.
12. Zimmerman, RS, Trippodo NC, MacPhee AA, Martinez AJ, **Barbee RW**. High dose ANF enhances albumin escape from the systemic but not the pulmonary circulation. *Circ Res* 67:461-468, 1990.
13. Zimmerman RS, Martinez AJ, MacPhee AA, **Barbee RW**. Atrial natriuretic factor blocks the pressor action of endothelin. *J Cardiovas Pharmacol* 16:865-870, 1990.

14. Zimmerman RS, Martinez AJ, MacPhee AA, **Barbee RW**. Cardio-renal effects of endothelin-3 in the rat. *Life Sci* 47:2323-2332,1990.
15. Harrison-Bernard LM, Vari RC, Holleman WH, Trippodo NC, **Barbee RW**. Chronic vs. acute hemodynamic effects of atrial natriuretic factor in conscious rats. *Am J Physiol (Reg. Integ. Comp. Physiol. 29)* 260:R247-R254,1991.
16. Zimmerman RS, Martinez AJ, Maymind M, **Barbee RW**. Effect of endothelin on plasma volume and albumin escape. *Circ Res* 70(5):1027-1034,1992.
17. **Barbee RW**, Perry BD, Ré RN, Murgo JP. Microsphere and dilution techniques for the determination of blood flows and volumes in conscious mice. *Am J Physiol (Reg. Integ. Comp. Physiol. 32)* 263:R728-R733,1992.
18. **Barbee RW**, Harrison-Bernard LM, Carmines PK. Microvascular effects of atrial natriuretic peptide in rat cremaster. *Peptides* 13(6):1181-1185,1992.
19. **Barbee RW**, Stapleton DD, Perry BD, Ré RN, Murgo JP, Valentino VA, Cook JL. Prior arterial injury enhances luciferase expression following in vivo gene transfer. *Biochem Biophys Res Commun* 190(1):70-78,1993.
20. DeBlieux PMC, **Barbee RW**, McDonough KH, Shepherd RE. Exercise training improves cardiac function in diabetic rats. *Proc Exp Biol Med* 203(2):209-213,1993.
21. Kreisman NR, DeBose MG, Conklin SG, Voss NF, **Barbee RW**. Cardiac output and regional hemodynamics during recurrent seizures in rats. *Brain Res* 626:295-302,1993.
22. Zimmerman RS, Maymind M, **Barbee RW**. Endothelin blockade lowers total peripheral resistance in hemorrhagic shock recovery. *Hypertension* 23(2):205-210,1994.
23. **Barbee RW**, Perry BD, Ré RN, Murgo JP, Field LJ. Hemodynamics in transgenic mice with overexpression of atrial natriuretic peptide. *Circ Res* 74:747-751,1993.
24. Conrad K, **Barbee RW**, Maymind M, Zimmerman RS. Effect of Verapamil and Captopril on endothelial injury in the diabetic-hypertensive rat. *Am J Hypertens* 7:629-636,1994.
25. **Barbee RW**, Stapleton DD, Madras DE, Ré RN, Murgo JP, White CJ, Davenport, WD, Giardina J, Cook JL. Retroviral suicide vector does not inhibit neointimal growth in a porcine coronary model of restenosis. *Biochem Biophys Res Commun* 207(1):89-98,1995.
26. Milani RV, Lavie CJ, **Barbee RW**, Littman AB. Lack of effect of exercise training on dehydroepiandrosterone sulfate. *Am J Med Sci* 310(6):242-246, 1995.
27. Mehra MR, Stapleton DD, Cook JL, Zhang T, Ventura HO, Huang C, Maldonado BR, Smart FW, Ré RN, Murgo JP, **Barbee RW**. Adenovirus-mediated in vivo gene transfer in a rabbit model of allograft vasculopathy. *J Heart Lung Transplant* 15:51-57, 1996.
28. Kates MA, Meza MF, **Barbee RW**, Revall S, Moreno, CA, Perry B, Murgo JP, Cheirif J. Potential clinical implications of abnormal myocardial perfusion patterns immediately following reperfusion in a canine model: a myocardial contrast echocardiography study. *Am Heart J* 132(2 Pt 1):303-313, 1996.

29. Meza MF, Greener Y, Hunt R, Perry B, Revall S, **Barbee W**, Murgu JP, Cheirif J. Myocardial Contrast Echocardiography: Reliable, Safe and Efficacious Myocardial Perfusion Assessment Following Intravenous Injections of a New Echocardiographic Contrast Agent. *Am Heart J*. 132(4):871-881, 1996.
30. Silva JA, Khuri B, **Barbee W**, Fontenot D, Cheirif J. Systolic excursion of the mitral annulus to assess septal function in paradoxical septal motion. *Am Heart J* 131(1):138-145, 1996.
31. Meza, M.F., Kates, M.A., **Barbee, R.W.**, Revall, S., Perry, B., Murgu, J.P., and Cheirif, J. Combination of dobutamine and myocardial contrast echocardiography to differentiate postischemic from infarcted myocardium. *J. Am. Coll. Cardiol* 29(5):974-984, 1997.
32. St. John, J., **Barbee, R.W.**, Sonin, N., Clemens, M.G., and Watts, J.A. Inhibition of poly (ADP-ribose) synthetase improves vascular contractile responses following trauma-hemorrhage and resuscitation. *Shock* 12(3):188-195, 1999.
33. Blumenthal, S.R., Williams, T.C., **Barbee, R.W.**, Watts, J.A., and Gordon, B.E. Effects of citrated whole blood transfusion in response to hemorrhage. *Lab. Anim. Sci.* 49(4):411-417, 1999.
34. **Barbee RW**, Kline, J.A., Watts, J.A. A comparison of resuscitation with packed red blood cells and whole blood following hemorrhagic shock in canines. *Shock* 12(6):449-453, 1999.
35. Kline, J.A., Thornton, L.R., Lopaschuk, G.D., **Barbee, R.W.**, and Watts, J.A. Heart function after severe hemorrhagic shock. *Shock* 12(6):454-461, 1999.
36. **Barbee, R.W.**, Kline, J.A and Watts, J.A. Depletion of lactate by dichloroacetate reduces cardiac efficiency after hemorrhagic shock. *Shock* 14(2):208-214, 2000.
37. Kline, J.A., Thornton, L.R., Lopaschuk, G.D., **Barbee, R.W.**, and Watts, J.A. Lactate improves cardiac efficiency after hemorrhagic shock. *Shock* 14(2):215-221, 2000.
38. Custalow, C.B., Watts, J.A., Thornton, L., O'Malley, P., **Barbee, R.W.**, Grattan, R.M., Lopaschuk, G.D. and Kline, J.A. Role of fatty acids in the recovery of cardiac function during resuscitation from hemorrhagic shock. *Shock* 15(3):231-238, 2001.

ABSTRACTS:

1. **Barbee RW**. Variation in three species in the Chiropteran genus Carollia of northwestern Amazonia. *J Elisha Mitchell Soc* 93(2):101,1977.
2. **Barbee RW**, Roye DB. Distribution of nerve fibers in the antennular nerve of Callinectes sapidus as revealed by light microscopy. *J Elisha Mitchell Soc* 94(2):107,1978.
3. Peterson CB, Stainsby WN, **Barbee RW**. Efficiency of mammalian skeletal muscles performing work in isotonic contractions with constant shortening. *Med Sci Sports Exerc* 12(2):132, #10,1980.
4. Stainsby WN, Chirtel SJ, **Barbee RW**. O₂ uptake and lactate output by in situ skeletal muscle during progressive isotonic tetanic contractions. Fifth International Symposium on the Biochemistry of Exercise. University Park Press, 1983.
5. **Barbee RW**, Burns AH. The effect of triiodothyronine on cardiac function in the chronically diabetic rat. *Fed Proc* 44(4):1101,1985.

6. **Barbee RW**, Burns AH. The effect of triiodothyronine on myocardial function and metabolism in the chronically diabetic rat. *Fed Proc* 45(4):1041,1986.
7. DeBlieux PMC, McDonough KH, **Barbee RW**, Shepherd RE. Exercise training and the resistance of the heart to shock. *Med Sci Sports Exerc* 18(Supp. 2):529,1986.
8. Chien YW, **Barbee RW**, MacPhee AA, Frohlich ED, Trippodo NC. Atrial natriuretic factor (ANF) and other predictors of heart failure in rats. *Fed Proc* 46(4):1121,1987.
9. **Barbee RW**, Kardon MB, Trippodo NC. Acute natriuresis following volume expansion is largely determined by plasma ANF levels in rats. *Fed Proc* 46(4):1075,1987.
10. Trippodo NC, Chien YW, **Barbee RW**. Immediate and prolonged hemodynamic actions of atrial natriuretic factor. *J Cell Biochem* 1988;12A(Suppl):12,1987.
11. **Barbee RW**, Trippodo NC. Sympathectomy paradoxically attenuates the hemodynamics and blood volume changes caused by atrial natriuretic factor (ANF) infusion in conscious rats. *Faseb J* 2(4):A522,1988.
12. Harrison-Bernard L, Vari RC, Holleman WH, Trippodo NC, **Barbee RW**. Methods for studying long-term infusions of peptides in rats. *Faseb J* 3(4):A1004,1989.
13. Zimmerman RS., Martinez AJ, MacPhee AA, **BarbeeRW**, Trippodo NC. Atrial natriuretic factor (ANF) protects the lung from albumin escape at pharmacologic but not pathophysiologic doses. *Am J Hypertens* 2(5, Part 2):36A,1989.
14. Zimmerman RS, Martinez AJ, MacPhee AA, **Barbee RW**. Low doses of endothelin reduce cardiac output by decreasing venous return. *Program and Abstracts of the Endocrine Society* 71:465,1989.
15. Harrison-Bernard LM, Vari RC, Holleman WH, **Barbee RW**. Chronic infusion of atrial natriuretic factor (ANF) exerts a sustained hypotensive effect, but only transient reductions in cardiac output. *Hypertension* 14(3):3476,1989.
16. **Barbee RW**, Zimmerman RS, Trippodo NC, Harrison-Bernard LM, Frohlich ED. Atrial natriuretic factor (ANF) lowers cardiac output without reflex vasoconstriction in the absence of increased sympathetic tone. *Hypertension* 14(3):353,1989.
17. Zimmerman RS, Martinez AH, **Barbee RW**. Atrial natriuretic factor blocks the pressor action of endothelin. *Circulation* 80(4):II-360, #1439,1989.
18. Harrison-Bernard LM, Vari RC, Holleman WH, **Barbee RW**. Acute vs chronic hemodynamic effects of pathophysiological elevations of atrial natriuretic factor (ANF) in conscious rats. *Faseb J* 4(3):A694,1990.
19. Zimmerman RS, Martinez AJ, MacPhee AA, **Barbee RW**. ANF blocks the pressor action of endothelin by decreasing cardiac output. *Program and Abstracts, Ottawa Symposium on Atrial Natriuretic Factor*:p. 11, 1990.
20. Hunter JM, Pegram BL, Kardon MB, **Barbee RW**. Endothelin induced contractile responses are not altered in mesenteric arteries from four week diabetic rats. *Blood Vessels* 27(1):40,1990.
21. **Barbee RW**, Perry BD, Murgu JP, Ré RN. Determination of hemodynamics and blood volume in conscious mice. *Faseb J* 5(4):A736,1991.

22. Harrison-Bernard LM, Carmines PK, **Barbee RW**. Effects of intravenous atrial natriuretic factor (ANF) infusion on rat cremaster microcirculation. *Faseb J* 5(4):A672,1991.
23. Hunter JM, Kardon MB, **Barbee RW**, Pegram BL. Contractile responses induced by endothelin in mesenteric arteries from ten week diabetic rats are altered only in the presence of high calcium. *Blood Vessels* 28(4):296,1991.
24. Hunter JM, Kardon MB, **Barbee RW**, Pegram BL. Contractile responses induced by endothelin are not altered in aortic rings from diabetic rats. *Faseb J* 5(4):A781,1991.
25. Kreisman NR, DeBose MG, **Barbee RW**. Attenuation of brain blood flow during status epilepticus is related to changes in regional systemic hemodynamics. *J Cereb Blood Flow Metab* 11(2):S398,1991.
26. Zimmerman RS, Martinez AJ, **Barbee RW**. Endothelin increases hematocrit independent of splenic contraction by enhancing plasma loss from the vascular space. *Am J Hypertens* 4(2):65A,1991.
27. **Barbee RW**, Valentino VA, Ré RN, Murgo JP, Cook JL. Time course of gene expression after *in vivo* transfection of canine arterial walls. *Circulation* 84(4):II-406,1991.
28. **Barbee RW**, Perry BD, Murgo JP, Ré RN, Field LJ. Effect of lifelong atrial natriuretic peptide (ANP) elevation on hemodynamics and blood volumes in conscious mice. *Faseb J* 6(4):A1234,1992.
29. Kreisman NR, Conklin SG, Voss NF, **Barbee RW**. Cardiac output falls during experimental status epilepticus in rats. *Faseb J* 6(4):A1879,1992.
30. Stapleton DD, **Barbee RW**, Perry BD, Murgo JP, Ré RN, Cook JL. Influence of vascular proliferation on *in vivo* gene transfection of canine arterial walls. *J Amer Coll Cardiol* 19(3):103A,1992.
31. Zimmerman RS, Maymind M, **Barbee RW**. The role of endothelin in hemorrhagic shock. *Am J Hypertens* 5(2):102A,1992.
32. **Barbee RW**, Harrison-Bernard LM, Taylor NR, Ré RN, Murgo JP. Construction and calibration of economical pulsed Doppler transducers for measuring blood flow changes in chronically instrumented rats. *Content Top Lab Anim Sci* 31(4):42,1992.
33. Madras D, **Barbee RW**. The response to vascular injury in C3H/HeJ mice. *Faseb J* 7 (3, pt.1): A315, 1993.
34. Stapleton DD, **Barbee RW**, Perry BD, Murgo JP, Ré RN, Cook JL. Promoter influence on *in vivo* gene transfection following vascular proliferation. *J Heart Failure* 1: #662,1993.
35. Delcarpio, JB, **Barbee RW**, Perry BD, Claycomb WC. Cardiomyocyte transfer into the rat and mouse heart. *J Cell Biochem* 17:210,1993.
36. Stapleton, DD, **Barbee RW**, Perry BD, Murgo JP, Ré RN, Cook JL. Promoter influence on *in vivo* gene transfection following vascular proliferation. *Clin Res* 41(2):146A,1993.
37. Conrad K, **Barbee RW**, Maymind M, Zimmerman RS. Verapamil decreases early signs of atherosclerosis more than Captopril in the diabetic hypertensive rat. *Am J Hyper* 6(2):41A,1993.

38. Cheirif J, **Barbee RW**, Perry B, Revall S, Gilliland YE, Murgu JP. Combination dobutamine-myocardial contrast echocardiography for the diagnosis of myocardial stunning. *Circulation* 88(4, Pt.2):I-302,#1617,1993.
39. Milani RV, Lavie CJ, **Barbee RW**, Pomes M, Speirer D, Littman AD. Effects of cardiac rehabilitation and exercise training on plasma levels of Dehydroepiandrosterone Sulfate (DHEA-S). *Circulation* 88(4, Pt.2):I-260,#1393,1993.
40. Delcarpio JB., **Barbee RW**, PerryBD, Claycomb WC. Cardiomyocyte transfer into the rodent heart: host cell interactions and angiogenesis. *Circulation* 88(4, Pt.2):I-139,#738,1993.
41. Madras DE, Delcarpio JB, **Barbee RW**. Time course of DNA synthesis in injured mouse carotid arteries. *Faseb J* 8(4, Pt. 1):A318,1994.
42. Milani RV, Endres S, Ventura HO, Daul CB, Weber PC, Smart F, Stapleton D, Lavie CJ, **Barbee RW**, Murgu JP. Suppression of tumor necrosis factor synthesis by n-3 fatty acids in end-stage congestive heart failure. *J Am Coll Cardiol*. 23:435A,1994.
43. Zimmerman RS, Conrad K, Madras D, Maymind M, **Barbee RW**. Cardiac fibrosis is decreased by Verapamil but not Captopril in the diabetic-hypertensive rat. *Hypertension* 24(3):407, p123,1994.
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