

## **CURRICULUM VITAE**

**Michael J. Katovich**

### **PERSONAL**

Birthdate: July 16, 1948  
Place of birth: San Jose, California

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### **EDUCATION**

1970 B.S. University of California, Davis - Zoology  
1973 M.S. University of California, Davis – Physiology –  
“Effects Of Season, Pregnancy And Lactation On Thyroxine Turnover In  
The Mare”  
1976 Ph.D. University of California, Davis – Physiology—  
“Response and Physiological Adaptation to Chronic Acceleration”

### **MEMBERSHIP IN NATIONAL/INTERNATIONAL PROFESSIONAL SOCIETIES**

Sigma Xi - Since 1974; Treasurer 1995-97; President-elect 1997-8, President 1998-9  
Aerospace Medical Association - 1975 to 1980  
American Association for the Advancement of Science - 1976 to 1990  
American Physiological Society - Since 1979  
Endocrine Society - Since 1983  
Phi Lambda Sigma (Pharmacy Leadership Society) - Since 1985  
American Diabetes Association - Since 1989  
American Association of Colleges of Pharmacy - Since 1988  
Council on Complications, American Diabetes Association - Since 1990  
Association for Supervision and Curriculum Development- Since 1993  
American Society of Hypertension-Since 1996  
International Society for Gravitational Physiology – since 1996, President 1999-200

## **RESEARCH AND/OR PROFESSIONAL EXPERIENCE**

- 1972-1973 Teaching Assistant (Department of Physiology, University of California)  
1973-1974 Associate in Physiology (Department of Physiology, University of California)  
1974-1975 Research Associate (Department of Physiology, University of California)  
1975-1976 Post Graduate Research Physiologist (University of California)  
1976-1977 Associate in Physiology (College of Medicine, University of Florida)  
1977-1979 American Heart Fellow (College of Medicine, University of Florida)  
1979-1984 Assistant Professor, Department of Pharmaceutical Biology, College of Pharmacy (University of Florida)  
1984-1988 Associate Professor, Department of Pharmacodynamics, College of Pharmacy (University of Florida).  
1988-1993 Chairman, Department of Pharmacodynamics, College of Pharmacy (University of Florida)  
1989- Professor, Department of Pharmacodynamics, College of Pharmacy (University of Florida)  
2000 Adjunct Professor, Department of Physiology and Functional Genomics, College of Medicine, University of Florida

## **AWARDS AND HONORS**

- 1976- Irving I. Hertzendorf Memorial Award in Physiology  
1977-1979 American Heart Fellowship Recipient  
1993- Research Achievement Award (top 100 researchers at UF for FY1991-2)  
1995- Recipient of 1995 Losartan Travel Award  
1995- Member of special emphasis panel for review of NIH program project grants dealing with the Etiology of Excess Cardiovascular Disease in Diabetes Mellitus  
1995-1998 Research Peer Review Committee for the American Heart Association, Florida Affiliate  
1996- Member of Bion Task Force Appointed by NASA  
1996- Member of Inter-Committee Working Group on early Space Utilization of the NASA Advisory Council  
1996- Recipient of a Teaching Incentive Program (TIP) Award at the University of Florida  
1997- Recipient of the 1998 Losartan Travel Award  
2000 Member of a site review team for the National Space Biomedical Research Institute  
2001 Recipient of professorial award (UF)  
2002 Member of a site review team for NASA Ames Research Center Science Peer Review.  
2004 Chair of OBPR Life Sciences Advisory Sub-committee to Design a Path for Rodent Habitat for the International Space Station.  
2005 Merck/AAAS Visiting Scientist at Hope College

## **MEMBERSHIP IN UNIVERSITY OF FLORIDA PROFESSIONAL GROUPS**

Member of the Brain Research Institute  
Member of the University Institute of Gerontology  
Affiliate Member of the Division of Comparative Medicine  
Doctoral and Graduate Faculty member  
Member of the Hypertension Center  
Member of the Interdisciplinary Reproductive Biology Group  
Member of the Women's Health Research Center  
Member of the Alcohol Training Grant  
Member of the graduate faculty in the MPH Program  
Phi Lambda Sigma in the college of Pharmacy  
Kappa Psi in the college of Pharmacy

## **UNIVERSITY OF FLORIDA COMMITTEES**

1987-1988	Member of University Faculty Senate (elected)
1990-1991	Member of University Faculty Senate (elected)
1992-1995	Member of the University Faculty and Staff Benefits Committee
1995-1997	Member of University Faculty Senate (elected)
1997-1999	Member of the Institutional Animal Care and Use Committee
1999-2002	Member of the University Academic Freedom, Tenure, Professional Relations & Standards Committee
1997- 2006	Member of the University Faculty Senate (elected)
2004	Member of University Faculty Compensation Committee (appointed)
2003-2008	Council on Academic Freedom, Faculty Quality and Faculty Welfare (elected). Chair from 2003-2006
2003-present	Member of the Animal Care Services Advisory Committee
2004-2006	Member of the Ad Hoc Committee on Tenure (appointed)
2004-present	Member of the Parking and Transportation Committee (elected), chair 2006
2004-present	Member of the Senate Nominating Committee (elected), chair 2008
2004-2006	Member of the Faculty Senate Steering Committee (appointed)
2005-present	Member of Faculty Development Consortium (appointed)
2005-present	Member of the Institutional Animal Care and Use Committee (appointed),
2007-present	Vice chair of the Institutional Animal Care and Use Committee
2005	University of Florida Faculty Career Accelerator Plan Committee (appointed)
2005-2009	Intercollegiate Athletic Committee (appointed)
2006-2008	Land Use and Facilities Planning Committee (appointed)
2006-2008	Transportation Access Fee Committee (appointed)
2008-2011	Recreational Sports Board (appointed)
2009-	Facutly Senator (elected)

**UNIVERSITY OF FLORIDA HEALTH CENTER COMMITTEES**

1979-1984	Health Center Animal Advisory Board
1981-1984	Institutional Review Board for Health Center
1993-2001	Health Center Student Conduct Standards Committee, Chair 1995
2004-present	Member of the Animal Care Services Faculty Advisory Committee (appointed)

**COLLEGE OF PHARMACY COMMITTEES (Standing)**

1981-1986	Admissions and Academic Performance
1985-1991	Tenure and Promotion (Chair 1990-91) (elected)
1985-1988	Graduate Studies Committee (Graduate Coordinator of Department)
1988-1993	Executive Committee
1992-1996	Admissions Committee
1995-1996	Leadership Council (elected)
1995-1999	Tenure and Promotion, Chair (elected)
1996-1998	Financial Aids and Awards Committee
1998-2000	Admissions Committee
1998-2000	Academic Performance Committee
1999-2002	Graduate Studies Committee (Graduate Coordinator for the Department of Pharmacodynamics)
2000-present	Executive Council
2001-2005	Tenure and Promotion, Chair (elected)
2003-	Space Committee
2007-	Admissions Committee
2007-present	Tenure and Promotion, Co-Chair (elected)
2008-present	Graduate Studies Committee (Graduate Coordinator for the Department of Pharmacodynamics)
2008-present	Member of the Faculty Governance Council (elected)

**COLLEGE OF PHARMACY COMMITTEES (Ad Hoc)**

1985-1986	Curriculum Committee for External Pharm D.
1985-1987	Chairman, Faculty Committee for Administrative Review
1984-1985	1985 Retreat Committee
1986-1987	B.S. Task Force
1985-1986	Search Committee, New Faculty in Pharmaceutics
1984-1985	Chairman, 2 Search Committees, New Faculty in Pharmacodynamics
1989-1990	Chairman, Search Committee for Chairman in the Department of Pharmacy Practice
1989-1995	External Pharm D
1996-1997	Member of Working Team for Coordination and Integration of the Curriculum for the 1st Professional Year
1997-1999	Member of the Task Force on Microbiology/Immunology
1997-2000	Administrative Review Committee
1998	Chair, Search Committee, Research Assistant Professor Position in Dept of

Physiology.  
1998-1999 Committee member for selection of faculty for the Teaching Incentive Program  
1997-1999 Chair, Professional Excellence Program selection committee  
2003-present College Space Committee  
2005-present Faculty mentor committees, member of one, chair of another  
2008- Alternate Building Emergency Coordinator

### **NATIONAL COMMITTEES**

1994 Life and Biomedical Sciences and Applications Division of the Centrifuge Facility Program at NASA (ad hoc review panel - 1994)  
1994-2004 Division Subcommittee of the Life and Microgravity Sciences and Applications Advisory Committee  
1995-2002 Member of the Science Working Group (SWG) of the Space Station Biological Research Project (SSBRP) for NASA.  
1996 Member of Independent Task Force Assembled by NASA to review the Bion Mission.(ad hoc)  
1996-1998 Member of Recruiting and Membership Services Committee of the AAPC section of Teachers of Biological Sciences  
1996-1997 Member of the Intra-Committee Working Group on Early Space Utilization of the NASA Advisory Council (ad hoc)  
1997 Member of Metrics Working Group on Space Utilization (NASA)  
1998-2001 Hyper G Project Steering Committee (NASA)  
1999-2000 Task Group on Institutional Arrangements for Facilitating Research on the International Space Station (IASSR) - appointment is through the Space Policy Board of the National Research Council  
1999-2001 Member of AMES Management Review of Space Station Biological Research Project team.  
2000 Task group for the International Space Station Operations Architecture Study, contracted to Computer Science Corporation by NASA  
2000 Site Review Team for the National Space Biomedical Research Institute  
2003-2005 Member of the Investigator Working Group (IWG) for the Space Station Biological Research Project at NASA AMES

**GRANT SUPPORT - EXTRAMURAL**

- American Heart Association, Florida Affiliate 1/1/79 - 12/31/81, PI, Beta-Adrenergic Responsiveness in Hypertensive Rats. Total \$34,651.
- National Institute of Child Health and Human Development (R01 HD18133), 7/1/83 - 12/30/86, PI, Animal Model for Mechanisms of the Menopausal Hot Flush, Total (direct costs) \$252,359.
- American Heart Association, Florida Affiliate, 7/1/84 - 6/30/85, PI, Role of the Adrenergic System in Salt-Induced Hypertension, Total \$16,993.
- National Institute of Child Health and Human Development (R01 HD19742), 1/1/85 - 12/31/88, PI, Effects of Hyperprolactinemia on Testicular Function, Total (direct costs) \$245,222.
- American Heart Association, Florida Affiliate, 7/1/85 - 6/30/86, PI, Alterations in beta-adrenoceptor subtypes in DOCA/NaCl hypertension. Total \$12,015.
- American Heart Association, Florida Affiliate, 7/1/86 - 12/31/87, PI, Alterations in beta-adrenergic subtypes in Dahl rats, Total \$26,647.
- National Institute of Child Health and Human Development (R01 HD18133), 7/1/87 - 6/30/89, PI, Animal Model for Mechanisms of the Menopausal Hot Flush, Total (direct costs) \$296,507.
- American Heart Association, Florida Affiliate 7/1/88 - 6/30/90, PI, Role of sex steroids on vascular responses in hypertension, Total \$52,000
- NIH (NSS 2 S02 RR03452-03), 3/1/89 - 2/28/90, PI, Minority High School Student Apprentice Program, Total \$3,000.
- American Heart Association, Florida Affiliate, (90G1A/634) 7/1/90 - 6/30/92. PI, Role of Sex Steroids in the development of hypertension in the Dahl rat. Total \$58,593
- NIH (NSS 2 S02 RR03452-03), 3/1/90 - 2/28/91, PI, Minority High School Student Apprentice Program, Total \$7,500.
- National Institute of Child Health and Human Development (R01 HD18133), 7/1/91 - 6/30/96, PI, Animal Model for Mechanisms of the Menopausal Hot Flush, Total (direct costs) \$416,692.
- NIH (NSS 2 S02 RR03452-03), 3/1/91 - 2/28/92, PI, Minority High School Student Apprentice Program, Total \$12,512.
- NIH (2 S03RR03452-06), 3/1/92-2/28/93, PI, Minority High School Research Apprentice Program, Total \$8,000.
- American Heart Association, Florida Affiliate, (#92G1A/841) 7/1/92 - 12/31/94, Does Hyperinsulinemia Play a Role in the Development of Hypertension in Diabetes. Total direct costs \$79,373.
- NIH (2S03RR03452-07), 3/12/93-2/28/94, PI, Minority High School Research Apprentice Program, Total \$8,000.
- NIH (2S03RR03452-08), 0/05/94-2/28/95, PI, Minority High School Research Apprentice Program, Total \$6,000.
- NIH (2S03RR03452-09), 4/1/95-2/29/96, PI, Minority High School Research Apprentice Program, Total \$6,000.
- American Heart Association, Florida Affiliate, (#9501319) 7/1/95-6/30/97, Possible mechanism of fructose induced hypertension, Total direct costs \$79,998.
- NIH (R01 HL56921) 09/01/96-08/31/00, Co-PI, AT<sub>1</sub> receptor control in chronic hypertension attenuation. Total 1,376,883. First yr direct costs 227,500.

## **GRANT SUPPORT – EXTRAMURAL(cont)**

- American Association Colleges of Pharmacy 7/1/96-6/30/97 An evaluation of the central renin angiotension system in fructose-induced hypertension and insulin resistance. Total costs \$7,000.
- International Anesthesia Research Society, 1/1/98 -12/31/99, Co-PI, Vascular Responsiveness in pregnancy and pre-eclampsia. Total Cost \$70,336.
- NIH (1PO1 DC02641) 07/01/96-06/30/00, Co-investigator, Early Salt Diet and Taste and Blood Pressure. Yearly direct cost for project #3- “Physiologic mechanisms affect by perinatal NaCl level. \$150,749, yearly direct for entire award of \$423,638.
- American Heart Association, Florida Affiliate (#9810034FL) 7/1/98-6/30/01. Role of Sex Steroids in an Insulin Resistant Model of Hypertension. Total direct costs \$109,875.
- Merck and Co. 12/10/98-12/09/00. Co-investigator. Regulation of AT<sub>2</sub> receptor expression and function by virally-mediated delivery of AT<sub>2</sub> receptor antisense. Total direct costs \$25,000.
- American Heart Association, Florida Affiliate (#9910051V) 7/1/99-6/30/01. Viral vector mediated AT<sub>1</sub> receptor antisense delivery to attenuate hypertension in renin transgenic rats. Total direct costs \$29,000.
- NIH (RO1 HL 52189) 07/01/00-6/30/04. Co-Investigator (10%). Regulation of Renal Vascular cells in Hypertension. Total direct costs. \$1,250,000.
- NIH (R01 HL56921) 09/01/00-08/31/05, Co-PI (25%), AT<sub>1</sub> receptor control in chronic hypertension attenuation. Total direct costs \$1,623,828. First yr direct costs \$319,677.
- NIH (R01 HL56921) 09/29/00-08/31/03, Co-I, Minority Investigator:AT<sub>1</sub> receptor control in chronic hypertension attenuation. Total award \$90,889.
- American Heart Association, Florida/Puerto Rico Affilliate. (#6102). 7/01/01-6/30/04. PI (10%). Role of the angiotensin Type 2 receptor (AT<sub>2</sub>R) in normal physiology, cardiovascular disease and therapy. Direct costs \$119,949.
- American Heart Association, Florida/Puerto Rico Affilliate. 7/01/03-6/30/05. PI Attenuation of experimental hypertension by lentiviral delivery of tetracycline-regulated angiotensinogen antisense”7/01/04-7/01/06. Direct for 1<sup>st</sup> year \$19,000 (predoctoral fellowship).
- NIH (R01 HL68085) 09/1/01-08/31/06. Co-I (20%), AT<sub>2</sub> receptors in cardiovascular control. Total direct costs \$1,575,270. First yr direct costs \$308,897
- American Heart Association, Florida/Puerto Rico Affilliate. 7/01/05-6/30/06. PI Sex steroid modulation of the renin-angiotensin system: Implications for blood pressure control in pregnancy. Direct -\$20,000 (predoctoral fellowship).
- American Foundation for Pharmaceutical Education 06/01/05- 05/31/06  
“Possible mechanism by which estrogen can increase the risk of cardiovascular diseases”. \$5,000.
- Endocrine Society 2005 Summer Research Fellowship. 6/1/05-8/30/05. Role of estrogenic compounds in the regulation of the formation of Angiotensin 1-7 and its binding site. (\$5000).
- NIH R01 HL 56921 NIH/NHLBI. AT<sub>1</sub> Receptor Control in Chronic Hypertension Attenuation” – (Co-I, 20% effort) 9/1/2006-8/31/2011. Total grant \$3,008,499.
- NIH F30 NS060335-01. Cerebroprotection via viral-mediated gene delivery of

angiotensin AT2 receptors. (Co-PI with Dr. Colin Summers). NRSA fellowship for Adam Mecca.

American Heart Association, Greater Southeast Affiliate (0855924E). PI., 10% effort. 7/01/2008-6/30/2010. Cardioprotective effects of AT2 receptor overexpression. Total grant \$165,000.

### **INTRAMURAL**

Division of Sponsored Research, Seed Money Program, 3/17/80 - 3/16/82. PI, Adrenergic Blockade and Hypertension, \$2,000.

Division of Sponsored Research, Research Support Program for New Faculty Members, 9/2/81 - 9/2/83, PI, Environment Controlled Experimentation Facility, \$8,975.

Biomedical Research Support Grant from the College of Pharmacy, 12/82 -3/83, PI, Development of an Animal Model for the Study of Postmenopausal "Hot Flashes" in Women, \$2,960.

Biomedical Research Support Grant from the College of Pharmacy, 5/1/83 -4/30/84, PI, Role of Prolactin in Age-Related Alterations of the Adrenergic System, \$3,000.

Division of Sponsored Research, Research Development Award, 3/27/91 - 3/26/92, PI, Animal Model for the Hot Flush, \$20,000.

Equipment Grant from the College of Pharmacy, 2/97; PI; \$15,000.

2006-2007 University Scholar's Program (for Juline Machado - \$3000.

Medical Science Research Program (MSRP) Fellowship (for Adam Mecca) 5/1/06-8/30/06. AT2R modulation of cardiac remodeling through ACE2. (\$4785 – sponsored from NIH T35-HL07489).

Medical Science Research Program (MSRP) Fellowship (for Jillian Stewart) 5/1/06-8/30/06. Estrogenic modulation of cardiac ACE2. (\$4785 – sponsored from NIH T35-HL07489).

2008 Univ. of Florida Research Opportunity Incentive Seed Grant. Genetic mechanisms underlying the development of hypertension following prenatal nicotine exposure. PI - Linda Haywood \$83,000 (31,000 to MJK) 7/1/08-6/30/09

### **INDUSTRY CONTRACTS**

Miles Laboratories Inc., Institute for Metabolic Disorders	1/87	\$ 8,750.
Miles Laboratories Inc., Institute for Metabolic Disorders	7/89	\$10,000.
Miles Laboratories Inc., Institute for Metabolic Disorders	7/89	\$ 460.
Miles Laboratories Inc., Institute for Metabolic Disorders	7/89	\$15,850.
Miles Laboratories Inc., Institute for Metabolic Disorders	1/90	\$10,000.
Miles Laboratories Inc., Institute for Metabolic Disorders	2/90	\$ 1,200.
Wyeth-Ayerst, Women's Health Research Institute	12/92	\$24,952.
Wyeth-Ayerst, Women's Health Research Institute	10/95	\$ 8,000.
Wyeth-Ayerst, Women's Health Research Institute	02/96	\$ 1,010.
Novo Nordisk Pharmaceuticals	06/97	\$ 9,468
Park-Davis Pharmaceutical, Warner-Lambert Division	06/00	\$ 49,000

(\$29,000 in UFRF and \$20,000 in Florida Foundation)

### **COURSES TAUGHT**

PHA 4560 .... Pathophysiology 4 credit hours/Fall semester  
100% of course 1979-1987  
50% . of course 1988-1997  
PHA 5560..... Physiological Basis of Disease. 5 credit hours/Fall semester  
20% of course 1997-present  
PHA 5561..... Physiological Basis of Disease. 5 credit hours/Spring semester  
25% of course 1998-present  
GMS 6409 ... Body Temperature Regulation (spring 1996)

**(Remaining Courses Are Team Taught)**

PHA 4933..... Endocrinology 3 credit hours/Summer 1982  
PHA 3501..... Human Anatomy and Physiology 7 credits/semester 1987-1997  
PHA 6935/GMS 5403.. Advanced Endocrinology (4 credits, alternate years) since 1990  
PHA 4905..... Problems in Pharmacodynamics (var credit) since 1983  
PHA 6935..... Selective Topics in Pharmacodynamics (2 credits) since 1983  
PHA 6936..... Advanced Topics in Pharmacodynamics (2 credit) since 1983  
PHA 6938..... Seminar in Pharmacodynamics (1 credit/term) since 1983  
PHA 6905L..... Research Methods in Pharmacodynamics (var) yearly since 1984  
PHA 7939..... Journal Colloquy in Pharmacodynamics (1 credit/term) since 1992  
PHA 6512L..... Experimental Research Training (3 credits/fall term) since 1992  
PHA 3931..... Honors Seminar Course (1 credit/Fall term) since 1998  
PHA 6521C..... Research Techniques in Pharmacodynamics, since 1998  
MCB 4905 ... Undergraduate Research, (variable credit), since 1998

**Continuing Education**

"Physiology and Pathophysiology of the Cardiovascular system." Two day course (3 times) 1981-82.  
"Physiology and Pathophysiology of the Renal System." Two day course taught 3 times 1981-82.  
"Physiology and Pathophysiology of the Gastrointestinal System." Two day course 3 times 1984-1985.

**Miscellaneous teaching**

Coordinated a course entitled "The New Medicines" for the Institute for Learning in Retirement (ILR) at Oak Hammock my lecture was entitled "Diabetes; What is it? Can it be prevented?" in April of 2006

**STUDENTS/FELLOWS SUPERVISED**

**Graduate Students Supervised or Co-Supervised**

<u>Name</u>	<u>Degree</u>	<u>Year</u> <u>Awarded</u>
Eme Iloeje	M.S.	1982
I.C. Song	Ph.D.	1983
Li Fen Yeh	M.S.	1985
Kelly Marks	M.S.	1987
Cathy Smith	Ph.D.	1988
Pam Patton	M.S.	1993
Trina Stokes	M.S.	1993
Shridhar Iyer	Ph.D.	1995
Alok Pachori	Ph.D.	2001
Neal Alcalay. ....	M.S.	2001
Caren Beck	Ph.D.	2005
Justin Grobe .....	Ph.D.	2006
Vinayak Shenoy.....	Ph.D.	current
Yanfei Qi..... .....	Ph.D.	current
Adam Mecca	MD/Ph.D	current
Erin Bruce.... .....	PhD	current

**STUDENTS/FELLOWS SUPERVISED****Graduate Student Committees Served On:**

<u>Name</u>	<u>Degree</u>	<u>Year Awarded</u>
Rudy Ress	Ph.D.	1981
Betsy Bryar	M.S.	1981
Carol Nelson	Ph.D.	1984
Ed Soltis	Ph.D.	1984
Steve Gabriel	Ph.D.	1984
V. Ravichandran	Ph.D.	1986
Lee Ann Bergland	Ph.D.	1989
John Getz	Ph.D.	1993
Jaimini Patel	Ph.D.	1993
Melanie Pecins	Ph.D.	1993
Eun-Kyung Lee	Ph.D.	1996
Darren Roesch	Ph.D.	1998
Amy Simon	M.S.	1996
Ningya Shi	Ph.D.	1999
Ken Morian	Ph.D.	
Tana Nicholson	Ph.D.	1998
Kevin Zipple	Ph.D.	2000
Monica Gardon	Ph.D.	2003
Matt Huentelman	Ph.D.	2003
Beverly Metcalfe	Ph.D.	2004
Katie Sellers	Ph.D.	2004
Zuan Yan	M.S.	2002
Feng Li	Ph.D.	2003
Bradley Goldstein	M.S.	2004

Amanda Crews	Ph.D.	2004
Vladimir Oge	M.S.	2003
John van Nguyen	Ph.D.	2004
Anaya Mitra	MS	2005
Haoyu Mao	Ph.D.	2008
Hua Yao	Ph.D.	2007
Anaya Mitra	Ph.D.	2008
Mike Dismuke	Ph.D.	current
Heera Sharma	Ph.D.	current
Garima Dutta	Ph.D.	current
Jay Schaub	Ph.D.	current
Joo Yun Jun	Ph.D.	current
Xiaodi Feng	Ph.D.	current

### **Post-Doctoral Fellows Supervised or Co-supervised**

<u>Name</u>	<u>Year</u>
Dr. Assar Husain	1981-1982
Dr. David Pitman	1987-1989
Dr. Orit Shechtman	1989-1991
Dr. Bruce Wright	1993-1995
Dr. Shridhar Iyer	1995-1996
Dr. Phyllis Reaves	1996- 2001
Dr. Sharon Francis	1999- 2002
Dr. Matt Huentelman	2003- 2004
Dr. Anderson Ferreira	2007- 2009
Dr. Jose Hernandez Prada	2007-2008
Dr. Chastity Bradford	2008-
Dr. R. Fraga-Silva	2008-

### **MAJOR RESEARCH INTERESTS**

Hypertension with emphasis on the renin-angiotensin system; gene therapy approach to Hypertension; Diabetes; Menopause; Environmental Physiology with emphasis on temperature regulation; Metabolic phenomena; Endocrinology, with special emphasis on the adrenergic, renin-angiotensin systems; Thirst control mechanisms; Morphine-dependency/withdrawal and Acceleration Biology.

### **REER REVIEW ACTIVITIES**

1995-1996	Member of special emphasis panel for review of NIH program project grants dealing with the Etiology of Excess Cardiovascular Disease in Diabetes Mellitus
1996-1999	Research Peer Review Committee for the American Heart Association, Florida Affiliate
1996	Independent Task Force Assembled by NASA To Provide Scientific And Ethical Review Of The International Bion Space Mission
1996	National Science Foundation
2000	National Science Foundation

- 2001 NASA (Peer Review Services) Reviewed the National Space Biomedical Research Institute
- 2002 Review NASA grants from AMES Research Center (ARC)
- 2002 Member of a site review team for the National Space Biomedical Research Institute
- 2003 Member of a site review team for NASA Ames Research Center Science Peer Review.
- 2003 VA Merit Review Grant for the Department of Veterans Affairs
- 2004-05 Research Peer Review Committee for the American Heart Association, Florida Affiliate
- 2006-2007 National Science Foundation (via fastlane.nsf.gov)

**Manuscript reviewer for the following journals:**

Acta Pharmacologica Sinica  
Alcohol and Alcoholism  
American Journal of Hypertension  
Aviation, Space Environmental Medicine  
American Journal of Physiology (AJP);Regulatory, Integrative and Comparative Physiology  
AJP: Heart and Circulatory Physiology  
Cardiovascular Research  
Cardiovascular Drugs and Therapy  
Circulation Research  
Chronobiology International  
Clinical and Experimental Hypertension  
Experimental Physiology  
FASEB J  
Gene Therapy  
Hypertension  
Journal of Applied Physiology  
Journal of Cardiovascular Pharmacology  
Journal of Endocrinology  
Journal of Gravitational Physiology  
Journal of the Renin Angiotensin System (JRAAS)  
Journal of Neuroendocrinology  
Life Sciences  
Molecular Endocrinology  
Metabolism  
Neuroendocrinology  
Peptides  
Pharmacological Research  
Physiology and Behavior  
Regulatory Peptides

**JOURNAL PUBLICATIONS**

1. Katovich, M.J., J.W. Evans and O. Sanchez. Effects of season, pregnancy and lactation on thyroxine turnover in the mare. *J. of An. Sci.* 38:811-818, 1974.
2. Fregly, M.J., M.J. Katovich, P.E. Taylor and R. Dasler. Inhibition of thermogenic drinking by beta-adrenergic antagonists. *Aviat. Space Environ. Med.* 49:861-867, 1978.
3. Katovich, M.J. and A.H. Smith. Body mass, composition and food intake in rabbits during altered acceleration fields. *J. Appl. Physiol.: Respirat. Environ. Exer. Physiol.* 45:51-55, 1978.
4. Katovich, M.J. and M.J. Fregly. Mediation of isoproterenol-induced thirst in rats by beta<sub>2</sub>-adrenergic receptors. *Can. J. Physiol. Pharm.* 56:465-470, 1978.
5. Katovich, M.J., M.J. Fregly and C.C. Barney. Reduced responsiveness to  $\beta$ -adrenergic stimulation in renal hypertensive rats. *Proc. Soc. Exp. Biol. Med.* 158:363-369, 1978.
6. Miller, E.A., M.J. Fregly, M.J. Katovich and C.C. Barney. Time for loss of increased cardiac responsiveness to isoproterenol in cold-acclimated rats after removal from cold. *Aviat. Space. Environ. Med.* 50:159-162, 1979.
7. Fregly, M.J., F.P. Field, M.J. Katovich and C.C. Barney. Catecholamine-thyroid hormone interaction in cold-acclimated rats. *Federation Proc.* 38:2162-2169, 1979.
8. Fregly, M.J., C.C. Barney, M.J. Katovich and E.A. Miller. Effect of water temperature on isoproterenol-induced water intake. *Proc. Soc. Exp. Biol. Med.* 160:259-362, 1979.
9. Katovich, M.J., C.C. Barney, M.J. Fregly and R.E. McCaa. Effect of an angiotensin converting enzyme inhibitor (SQ 14,225) on  $\beta$ -adrenergic and angiotensin-induced thirsts. *European J. Pharmacol.* 56:123-130, 1979.
10. Barney, C.C., M.J. Katovich, M.J. Fregly, R. Dasler and P.E. Tyler. The effects of ambient temperature on  $\beta$ -adrenergic responsiveness in rats. *Can. J. Physiol. Pharm.* 57:751-755, 1979.
11. Fregly, M.J., M.J. Katovich and C.C. Barney. Effect of chronic treatment with desoxycorticosterone on the dipsogenic response of rats to isoproterenol and angiotensin. *Pharmacol.* 19:165-172, 1979.
12. Barney, C.C., M.J. Katovich and M.J. Fregly. The effects of cycloheximide on temperature regulation in rats. *Brain Res. Bull.* 4:355-358, 1979.
13. Katovich, M.J., C.C. Barney, M.J. Fregly, P.E. Tyler and R. Dasler. Relationship between thermogenic drinking and plasma renin activity in the rat. *Aviat. Space Environ. Med.* 50:721-724, 1979.
14. Barney, C.C., M.J. Katovich and M.J. Fregly. The effect of acute administration of an angiotensin converting enzyme inhibitor SQ 14,255, on experimentally-induced thirst in rats. *J. Pharmacol. Exp. Ther.* 212:53-57, 1980.
15. Barney, C.C., M.J. Katovich, M.J. Fregly and P.E. Tyler. Changes in  $\beta$ -adrenergic responsiveness of rats during chronic cold exposure. *J. Appl. Physiol. Respirat. Environ. Exercise Physiol.* 49:923-929, 1980.
16. Katovich, M.J., C.C. Barney and M.J. Fregly. Metabolic responsiveness of the spontaneously hypertensive (SH) rat to isoproterenol. *Am. J. Physiol. Heart Circ. Physiol.* 241:H497-H504, 1981.

### **JOURNAL PUBLICATIONS (cont)**

17. Baker, S.P. and M.J. Katovich. Chronic propranolol treatment reduces cardiac beta-adrenoreceptors in the spontaneously hypertensive rat. *European J. Pharmacol.* 78:479-482, 1982.
18. Katovich, M.J. Chronic hyperprolactinemia reduces peripheral  $\beta$ -adrenergic responsiveness in male rats. *Life Sci.* 32:1213-1221, 1983.
19. Katovich, M.J. and M.J. Fregly. Altered peripheral responsiveness to  $\beta$ -adrenergic stimulation in experimental renal hypertension. *Clin. Exp. Hypertension* 5(3): 367-382, 1983.
20. Fregly, M.J., R.M. Threatte, C.C. Barney and M.J. Katovich. Effect of acute administration of isoproterenol and angiotensin II, separately and in combination, on water intake and blood pressure of rats. *Brain Res. Bull.* 10:327-332, 1983.
21. Simpkins, J.W., M.J. Katovich and I-C Song. Similarities between morphine withdrawal in the rat and the menopausal hot flush. *Life Sci.* 32:157-166, 1983.
22. Katovich, M.J. and J.W. Simpkins. Effects of chronic hyperprolactinemia on experimentally induced thirsts of male rats. *J. Physiol.* 341:75-83, 1983.
23. Katovich, M.J. and C.C. Barney. Alteration of peripheral beta-adrenergic responsiveness in fasted rats. *Life Sci.* 33:1385-1393, 1983.
24. Barney, C.C., D.A. Rutt and M.J. Katovich. The effects of food deprivation on  $\beta$ -adrenergic responsiveness in male rats. *Can. J. Physiol. and Pharmacol.* 61:1101-1108, 1983.
25. Katovich, M.J., S.P. Baker and C. Nelson. Effects of elevated prolactin and its normalization on thyroid hormone, cardiac  $\beta$ -adrenoreceptor number and  $\beta$ -adrenergic responsiveness. *Life Sci.* 34:889-898, 1984.
26. Katovich, M.J., E.E. Soltis and F.P. Field. Effects of NaCl on vascular responsiveness in male rats. *Comp. Bioch. Physiol.* 78c:369-372, 1984.
27. Katovich, M.J., J.W. Simpkins, I-Cheng Song, N. Bodor and R. Tuttle. A rapid, quantitative in vivo assay for narcotic antagonists. *Substance and Alcohol Actions/Misuse* 5:87-95, 1984.
28. Katovich, M.J., E.E. Soltis, E. Iloeje and F.P. Field. Time course alterations in vascular adrenergic responsiveness in the DOCA/NaCl-treated rat. *Pharmacology* 29:173-180, 1984.
29. Bodor, N., Y. Oshira, T. Loftsson, M. Katovich and W. Caldwell. Soft Drugs IV. The application of the inactive metabolite approach for design of soft  $\beta$ -blockers. *Pharmaceut. Res.* 3:120-125, 1984.
30. Simpkins, J.W., S.T. Taylor, S.M. Gabriel, M.J. Katovich and W.J. Millard. Evidence that chronic hyperprolactinemia produces dependence on endogenously released opioids. *Neuroendocrinol.* 39:321-329, 1984.
31. Katovich, M.J. and C.C. Barney. Effect of  $\beta$ -adrenergic antagonists on experimentally-induced drinking in female rats. *Pharmacol. Biochem. Behav.* 22:553-558, 1985.
32. Iloeje, E.I., M.J. Katovich, E.E. Soltis and F.P. Field. Role of peripheral adrenergic responsiveness in the development of DOCA/NaCl hypertension in rats. *Pharmaceut. Res.* 6:298-301, 1985.
33. Soltis, E.E. and M.J. Katovich. Phentolamine and rat aortic smooth muscle responsiveness to potassium chloride, isoproterenol and norepinephrine. *Pharmacology* 31:67-71, 1985.

**JOURNAL PUBLICATIONS** (Continued)

34. Murray, F.T., D.F. Cameron, J.M. Orth and M.J. Katovich. Gonadal dysfunction in the spontaneously diabetic BB rat: Alterations of testes morphology, serum testosterone and LH. *Hormone and Metab. Res.* 17:495-501, 1985.
35. Katovich, M.J., D.F. Cameron, F.T. Murray, and G. Gunsales. Alterations of testicular function induced by hyperprolactinemia in the rat. *Journal of Androl.* 6:179-189, 1985.
36. Katovich, M.J., Simpkins, J.W., Berglund, L.A. and J. O'Meara. Regional skin temperature changes in a rat model for the menopausal hot flush. *Maturitas*, 8:67-76, 1986.
37. Soltis, E.E. and M.J. Katovich. Alterations in vascular  $\alpha$ - and  $\beta$ -adrenergic responsiveness in the Dahl rat: A preliminary report. *Res. Comm. Chem. Pathol. Pharmacol.* 51:3-10, 1986.
38. Barney, C.C., K.E. Wuertz and M.J. Katovich. Effects of thyroid hormone replacement on the  $\beta$ -adrenergic responsiveness of food-deprived rats. *Amer. J. Physiol.*, 250 (Regulatory Integrative Comp. Physiol.19): R861-R867, 1986.
39. Soltis, E.E., T.D. Soltis, M.J. Katovich and F.P. Field. Differential effects of phentolamine on the responsiveness of aortic and femoral smooth muscle from normotensive and DOCA/NaCl hypertensive rats. *Artery* 13:325-339, 1986.
40. Yeh, Li-Fen, S.P. Baker and M.J. Katovich. Possible mechanism for the increased  $\alpha$ -adrenergic dipsogenic response in food-deprived rats. *Amer. J. Physiol.* 251 (Regulatory Integrative Comp. Physiol. 20):R1170-R1176, 1986.
41. Katovich, M.J., J.W. Simpkins and J. O'Meara. Effects of opioid antagonists and their quaternary analogues on temperature changes in morphine dependent rats. *Life Sci.* 39:1845-1854, 1986.
42. Nelson, C.A., M.J. Katovich and S.P. Baker. Beta-adrenergic responsiveness and cardiac autonomic receptors after implantation of the MtTW15 Pituitary adenoma in the rat. *Biochem. Pharmacol.* 36:1297-1302, 1987.
43. Katovich, M.J. and J. O'Meara. Effect of chronic estrogen on the skin temperature response to naloxone in morphine-dependent rats. *Can. J. Physiol. Pharmacol.* 65:563-567, 1987.
44. Simpkins, J.W. and M.J. Katovich. Role of hypothermia in the pentobarbital-induced blockade of LH secretion in female rats. *Neuroendocrinology* 46:217-221, 1987.
45. Katovich, M.J., J.W. Simpkins and C.C. Barney. Alpha-adrenergic mediation of the tail skin temperature response to naloxone in morphine-dependent rats. *Brain Research* 426:55-61, 1987.
46. Katovich, M.J., J.W. Simpkins, I.C. Song and J. O'Meara. Effects of central application of naloxone on the skin temperature response in morphine-dependent rats. *Brain Res. Bull.* 19:81-85, 1987.
47. Katovich, M.J. and C.A. Sninsky. Altered tail-skin temperature responsiveness in streptozotocin-induced diabetic rats. *Life Sci.* 41:1529-1537, 1987.
48. Yeh, LiFen, S.P. Baker and M.J. Katovich. Thyroxine, renal beta-adrenergic receptors and dipsogenesis in food-deprived rats. *Amer. J. Physiol.* 254 (Regulatory Integrative Comp. Physiol. 23):R33-R39, 1988.

**JOURNAL PUBLICATIONS** (Continued)

49. Soltis, E.E., E. Iloeje and M.J. Katovich. Dietary potassium, blood pressure and peripheral adrenergic responsiveness in the deoxycorticosterone acetate-salt rat. *Clin. Exper. Hypert.* 10:447-466, 1988.
50. Smith, CD, Pearlmutter, F, Szkrybalo, M and Katovich, MJ. Changes in vascular vasopressin receptors and responsiveness in DOCA/NaCl-treated rats. *Clin. Exper. Hypert.* 10:629-648, 1988.
51. Katovich, MJ, Simpkins JW and O'Meara, J. Effects of acute central LHRH administration on the skin temperature response in morphine dependent rats. *Brain Research*, 494:85-94, 1989.
52. Katovich, MJ, Pitman, DL and Barney, CC. Mechanisms mediating the thermal response to morphine withdrawal in rats. *Proc. Soc. Expt. Biol. Med.* 193:129-135, 1990.
53. Katovich, MJ and Simpkins, JW. Effects of hyperglycemia on the development of a flush response in an animal model for the menopausal hot flash. *Ann. N.Y. Acad. Sci.*, 592:433-435, 1990.
54. Simpkins, JW, Katovich MJ and Millard WJ. Glucose modulation of skin temperature responses during morphine withdrawal in the rat. *Psychopharmacology.* 102:213-220, 1990.
55. Simpkins, JW and Katovich, MJ. Hypoglycemia causes hot flushes in animal models. *Ann. N.Y. Acad. Sci.*, 592:436-437, 1990.
56. Simpkins, JW, Andreadis, DK, Millard, WJ and Katovich, MJ. The effects of cellular glucoprivation on skin temperature regulation in the rat. *Life Sci.* 47:107-115, 1990.
57. Katovich, MJ, Barney, CC and Larsen, E. Effects of peripheral administration of naloxone on  $\beta$ -adrenergic mediated responses. *Pharmacology.* 41:167-176, 1990.
58. Soltis, EE and Katovich, MJ. Reduction in aortic smooth muscle beta-adrenergic responsiveness results in enhanced norepinephrine responsiveness in the Dahl-sensitive rat. *Clin. Exper. Hypert.* 13:117-132, 1991.
59. Katovich, MJ, Meldrum, MJ and Vasselli, JR. Beneficial effects of dietary acarbose in the STZ-induced diabetic rat. *Metabolism* 40:1275-1282, 1991.
60. Katovich, MJ, Pitman, D and Shechtman, O. Role of the adrenal gland in the thermal response to morphine withdrawal in rats. *Can. J. Physiol. and Pharmacol.* 70: 1090-1095, 1992.
61. Murray, FT, Johnson, RD, Sciandini, M, Katovich, MJ, Roundtree, J, and Jewette, H. Erectile and copulatory dysfunction in chronically diabetic BB/WOR rats. *Am. J. Physiol. Endocrinol. Metab.* 363:E151-E157, 1992.
62. Katovich, MJ, Marks, K and Sninsky, CA, Effect of Insulin on the altered thyroid function and adrenergic responsiveness in the diabetic rat. *Can. J. Physiol. Pharmacol.* 71:568-575, 1993.
63. Katovich, MJ and Meldrum, MJ. Effects of Insulin and Acarbose alone and in combination in the female Streptozotocin-induced diabetic rat. *J. Pharmaceutical Sci.* 82:1209-1213, 1993.
64. Schechtman, O and Katovich, MJ. Sex differences in vascular reactivity to adrenergic agents in the rat. *Comp. Biochem. Physiol.* 106A: 519-524, 1993.

**JOURNAL PUBLICATIONS** (Continued)

65. Iyer, SN, and Katovich, MJ. Effect of chronic losartan potassium treatment on fructose-induced hypertension. *Life Sci.* 55:PL139-144, 1994.
66. Patel, J, Katovich, MJ, Sloan, KB, Curry, SH, and Pranker, RJ. A prodrug approach to increasing the oral potency of phenolic drug. Part 2 Pharmacodynamics are preliminary bioavailability of an orally administered O-(Imidomethyl) of 17  $\beta$ -estradiol. *J. Pharmaceut. Sci.* 84:174-178, 1995.
67. Katovich, MJ, Hanley, K, Strubbe, G and Wright, BE. Effects of STZ-induced diabetes and insulin treatment on blood pressure in the male rat. *Soc. Exp. Biol. Med.* 208:300-306, 1995.
68. Katovich, MJ and Wright, BE. Effects of calcium channel blockers in the naloxone precipitated temperature changes in morphine dependent rats. *Life Sci. Adv. Pharmacol.* 13:11-19, 1994.
69. Iyer, SN, Wright, BE, Strubbe, G, Hanley, K and Katovich, MJ. Chronic Losartan potassium treatment blocks isoproterenol-induced dipsogenesis. *Physiol Behav.* 58:283-286, 1995.
70. Dawson, R, Patterson, TA., Iyer, SN. and Katovich, MJ. Plasma Tryptophan is altered in the Dahl rat model of hypertension. *Biogenic Amines* 11:109-121, 1995.
71. Bergeron, RJ, Wiegand, J, Sninsky, CA and Katovich, MJ. The impact of polyamine analogues on the blood pressure response of normotensive and hypertensive rats. *Clin. Exper. Hypertens.* 17:1197-1217, 1995.
72. Iyer, SN and Katovich, MJ. Vascular reactivity to phenylephrine and angiotensin II in Hypertensive rats associated with insulin resistance. *Clin. Exper. Hypertens.* 18:227-242, 1996.
73. Iyer, SN, Raizada, MK and Katovich, MJ. AT<sub>1</sub> receptor density changes during development of hypertension in hyperinsulinemic rats. *Clin. Exper. Hypertens.* 18:793-810, 1996.
74. Wright, BE and Katovich, MJ. Effect of restraint on drug induced changes in skin and core temperature in biotelemetered rats. *Pharmacol, Biochem. Behav.* 55:219-225, 1996.
75. Iyer, SN and Katovich, MJ. Effect of acute and chronic losartan treatment on glucose tolerance and insulin sensitivity in fructose-fed rats. *Amer. J. Hypertens.* 9:662-668, 1996.
76. Iyer, SN and Katovich, MJ. Fructose feeding in rats is not associated with sodium retention. *Amer. J. Hypertens.* 9:1018-1023, 1996.
77. Iyer, SN, Di, Lu, Katovich, MJ and Raizada MK. Chronic control of high blood pressure in the spontaneously hypertensive rat by delivery of angiotensin type 1 receptor antisense. *Proc. Natl. Acad. Sci.* 93:9960-9965, 1996.
78. Lu, D, Raizada, MK, Iyer, S, Reaves, P and Katovich, MJ. Losartan versus gene therapy: chronic control of high blood pressure in spontaneous hypertensive rats. *Hypertension* 30:363-370, 1997
79. Wright, BE, Vasselli, J and Katovich, MJ. Positive effects of Acarbose in the diabetic rat are not altered by feeding schedule. *Physiol Behav.* 63:867-874, 1998.

**JOURNAL PUBLICATIONS** (Continued)

80. James, MO, Yan, Z, Cornett, R, Murali, V, Jayanti, KM, Henderson, GN, Davydova, N, Katovich, MJ, Pollock, B and Stackpoole, W. Pharmacokinetics and Metabolism of [14C]-Dichloroacetate (DCA) in the Male Sprague Dawley Rat: Identification of Glycine Conjugates, Including Hippurate, as Urinary Metabolites of DCA. *Drug Metab Dispo.* 26:1134-1143, 1998.
81. Raizada, MK, Gelband, CH, and Katovich, MJ. Long-term control of hypertension by a gene therapy approach in the SHR. *Gene Ther. Mol Biol.* 2:319-325, 1998.
82. Sun, Z., Cade, R., Katovich, M.J., and Fregly, M.J., Body Fluid Distribution in Rats with Cold-Induced Hypertension. *Physiol. Behav.* 65:879-884, 1999.
83. Gelband, GH, Reaves, PY, Evans, J, Wang, H, Katovich, MJ, and Raizada, MJ, Angiotensin II Type 1 Receptor Antisense Gene Therapy Prevents Altered Renal Vascular Calcium Homeostasis in Hypertension. *Hypertens* 33:360-365, 1999.
84. Katovich, MJ. Gravitational Biology Opportunities planned for the International Space Station. *J. Gravitational Physiology* 5:189-192, 1999.
85. Katovich, MJ, Gelband, CH, Reaves, P, Wang, HW, Yang, H, and Raizada, MK. Reversal of hypertension by angiotensin II type 1 receptor antisense gene therapy in adult SHR. *Amer J Physiol.* 277 (Heart Circ. Physiol. 46):H1260-1264, 1999.
86. Gelband, CH, Katovich, MJ and Raizada, MK. Antisense gene therapy in the long term-control of hypertension. *Gene Ther. Mol. Biol.* 3:249-256, 1999.
87. Wang, H, Katovich, MJ, Gelband, CH, Reaves, PY, Phillips, MI, and Raizada, MK. Sustained inhibition of angiotensin 1 converting enzyme (ACE) expression and long-term antihypertensive action by virally-mediated delivery of ACE antisense cDNA. *Circ. Res.* 85:614-622, 1999.
88. Raizada, MK, Katovich, MJ, Wang, H, Berecek, KH, and Gelband, CH. Is antisense gene therapy a step in the right direction in the control of hypertension? *Amer J Physiol.* 277 (Heart Circ. Physiol. 46):H423-H432, 1999.
89. Reaves, PY, Gelband, CH, Wang, H, Lu, D, Berecek, KH, Yang, H, Katovich, MJ and Raizada, MK. Permanent cardiovascular protection from hypertension by AT(1) receptor antisense gene therapy in hypertensive rat offspring. *Circ. Res.* 85:e44-e50, 1999.
90. Shechtman, O, Sun, Z, Fregly, MJ, Katovich, MJ. Increased tail artery vascular responsiveness to angiotensin II in cold-treated rats. *Can J Physio Pharmacol* 77:974-979, 1999.
91. Gardon, ML, Gelband, CH, Katovich, MJ and Raizada, MK. Potential use of gene therapy in the treatment of hypertension. *Drugs of Today* 35:925-930, 1999.
92. Katovich, MJ and NE Rowland. Effect of perinatal NaCl exposure on the angiotensin-induced temperature response in adult SD rats. *J. Thermal Biol.* 25:99-103, 2000.
93. Langevin, PB, Katovich, MJ, Wood, CE, James, CF, and Langevin, S0. The effects of nitroglycerin on the gravid uterus in sheep and rabbits. *Anesth and Analg* 90:337-343, 2000.
94. Katovich, MJ and Pachori, A. Effects of inhibition of the renin angiotensin system on the cardiovascular actions of insulin. *Diab. Obes. Metab.* 2:3-14, 2000.

**JOURNAL PUBLICATIONS** (Continued)

96. Raizada, MK, Francis, SC, Wang, HW, Gelband, CH, Reaves, PY and Katovich, MJ. Targeting of the renin-angiotensin system by antisense gene therapy: a possible strategy for the long-term control of hypertension. *J Hypertens* 18:353-362, 2000.
97. Pachori, AS, Reaves, PY, Gelband, SH, Katovich, MJ and Raizada, MK. Inability to induce hypertension in normotensive rats expressing AT<sub>1</sub> receptor antisense. *Circ. Res.* 86:1167-1172, 2000.
98. Gardon, M, Raizada, MK, Katovich, MK, Berecek, KH and Gelband, CH. Gene therapy for hypertension and restenosis. *JRAAS* 1:211-216, 2000.
99. Reaves PY, Wang HW, Katovich MJ, Gelband CH, and Raizada, MK. Attenuation of Hypertension by Systemic Delivery of Retroviral Vector Containing Type I Angiotensin II Receptor Antisense cDNA. *Methods.* 22(3):211-218, 2000.
100. Gelband, CH, Katovich, MJ, Raizada, MK. Current perspectives on the use of gene therapy for hypertension. *Circ. Res* 87:1118-1122, 2000.
101. Francis, SC, Katovich, MJ, Gelband, CH, Raizada, MK. Gene therapy in Cardiovascular Disease: Current Status. *Am J Pharmacogenetics* 1:56-66, 2001.
102. Katovich, MJ, Aerni, JD, Cespedes, AT, Rowland, NE. Perinatal dietary NACL level: effect on angiotensin-induced thermal and dipsogenic responses in adult rats. *Physiol & Behav.* 72:621-627, 2001.
103. Pachori, AS, Huentelman, MJ, Francis, SC, Gelband, CH, Katovich, MJ, and Raizada, MK. The future of hypertension therapy: sense, antisense or nonsense? *Hypertens* 37:357-364, 2001.
104. Katovich MJ, Reaves PY, Francis SC, Pachori AS, H-W and Raizada, MK. Gene therapy attenuates the elevated blood pressure and glucose intolerance in an insulin resistant model of hypertension. *J Hypertens.* 19:1553-1558, 2001.
105. Sellers, KW, Katovich, MJ, Gelband CH, and Raizada, MK. Gene therapy to control hypertension: current studies and future perspectives. *Am J Med Sci.* 322(1):1-6, 2001.
106. Metcalfe BL, Sellers KW, Jeng MJ, Heuntelman MJ, Katovich MJ and Raizada MK. Gene therapy for cardiovascular disorders: is there a future? *Ann NY Acad Sci* 953:31-42, 2001.
107. Francis SC, Raizada MK, Mangi AA, Melo LG, Dzau VJ, Vale PR, Isner JM, Losordo DW, Chao J, Katovich MJ, Berecek, KH. Genetic targeting for cardiovascular therapeutics: Are we near the summit or just beginning the climb? *Physiol Genomics* 7:79-94, 2002.
108. Metcalfe BL, Raizada MK, Katovich MJ. Genetic Targeting of the Renin-Angiotensin System for Long-Term Control of Hypertension. *Curr Hypertens Rep.* 4:25-31, 2002.
109. Huentelman MJ, Reaves PY, Katovich MJ and Raizada MK. Large-scale production of retroviral vectors for systemic gene delivery. *Methods Enzymol* 346:562-573, 2002.
110. Pachori AS, Numan MT, Ferrario CM, Diz DM, Raizada MK, Katovich, MJ. Blood pressure independent attenuation of cardiac hypertrophy by AT<sub>1</sub>R-AS gene therapy. *Hypertens.*, 39:969-975,2002.

**JOURNAL PUBLICATIONS** (Continued)

111. Yang H, Francis SC, Sellers K, DeBarros M, Sun C, Sumners C, Ferrario C, Katovich MJ, Muro AF, and Raizada MK. Hypertension-linked decreases in the brain  $\gamma$  - adducin gene expression. *Circ. Res.* 4:91; 633-639, 2002.
112. Coleman JE, Huentelman MJ, Kasparov S, Metcalfe BL, Paton JF, Katovich MJ, Semple-Rowland SL, Raizada MK. Efficient Large-Scale Production and Concentration of HIV-1-Based Lentiviral Vectors For Use In vivo. *Physiol Genomics* 12:221-228, 2003.
113. Reaves PY, Beck CR, Wang H-W, Raizada MK, Katovich MJ. Endothelial independent prevention of high blood pressure in L-NAME-treated rats by angiotensin II type 1 receptor antisense gene therapy. *Exp. Physiol.* 88(4):467-473, 2003.
114. Yang H, Reaves PY, Katovich MJ, Raizada MK. Decrease in hypothalamic gamma adducin in rat models of hypertension. *Hypertens.* 2004 Feb;43(2):324-8. Epub 2004 Jan 19.
115. Wang H, Gallinat S, Li HW, Sumners C, Raizada MK, Katovich MJ. Elevated blood pressure in normotensive rats produced by 'knockdown' of the angiotensin type 2 receptor. *Exp Physiol.* 89(3):313-322, 2004.
116. Metcalfe BL, Huentelman MJ, Parilak LD, Taylor DG, Katovich MJ, Knot HJ, Sumners C, Raizada MK. Prevention of Cardiac Hypertrophy by Angiotensin II Type 2 Receptor Gene Transfer. *Hypertens.* 43(6):1233-8, 2004.
117. Grobe JL, Rowland N, Katovich, MJ. Role of Angiotensin II and the subfornical organ in the physiological actions of ethanol. *Alcohol and Alcoholism.* 39(5):410-7, 2004.
118. Huentelman MJ, Zubcevic J, Katovich MJ, Raizada MK. Cloning and characterization of a secreted form of angiotensin-converting enzyme 2. *Regulatory Peptides.* 122(2):61-7,2004.
119. Falcon BL, Stewart JM, Bourassa E, Katovich MJ, Walter G, Speth RC, Sumners C, Raizada MK. Angiotensin II type 2 receptor gene transfer elicits cardioprotective effects in an angiotensin II infusion rat model of hypertension. *Physiol Genomics.* 19(3):255-61, 2004.
120. Katovich MJ, Grobe JL, Huentelman MJ, Raizada MK. ACE2 as a novel target for Gene Therapy for Hypertension. *Exp Physiol.* 90 (3): 299-305, 2005.
121. Der Sarkissian, S, Huentelman MJ, Stewart J, Katovich MJ and Raizada MK. ACE2: A novel target for cardiovascular diseases therapeutics. *Prog Biophys Mol Biol.* 91(1-2):163-98, 2006. Epub 2005 Jun 14.
122. Huentelman MJ, Grobe JL, Vazquez J, Stewart JM, Mecca AP, Katovich MJ, Ferrario CM, Raizada MK. Protection from Angiotensin II-induced Cardiac Hypertrophy and Fibrosis by Systemic Lentiviral Delivery of ACE2. *Exp Physiol.* 2005 Jul 27; [Epub ahead of print] *Exp Physiol.* 90: 783-790, 2005.
123. Grobe JL and Katovich MJ. Alterations in Aortic Vascular Reactivity to Angiotensin 1-7 in 17- $\beta$ -Estradiol-Treated Female SD Rats. *Regul Pept.* 133(1-3):62-7, 2006. Epub 2005 Oct 10.
124. Grobe JL, Mecca AP, Mao H, Katovich MJ. Chronic angiotensin-(1-7) prevents cardiac fibrosis in the DOCA-salt model of hypertension. *Am J Physiol Heart Circ Physiol* ;290(6):H2417-23 2006. Epub 2006 Jan 13.

**JOURNAL PUBLICATIONS** (Continued)

125. Mitra A, Katovich MJ, Mecca A, Rowland NE. Effects of central and peripheral injections of apelin on fluid intake and cardiovascular parameters in rats. *Physiol and Behavior* 30;89(2):221-5, 2006.
126. Grobe JL, Mecca AP, Lingis M, Shenoy V, Bolton TA, Machado JM, Speth RC, Raizada MK, Katovich MK. Prevention of angiotensin II-induced cardiac remodeling by angiotensin-(1-7). *Am J Physiol Heart Circ Physiol* 292(2):H736-42, 2007; Epub 2006 Nov 10
127. Li H, Gao Y, Grobe J, Raizada M, Katovich M, Sumners C. Potentiation of the antihypertensive actions of losartan by peripheral over expression of the angiotensin II (Ang II) type 2 receptor. *Am J Physiol Heart Circ Physiol*, 292(2):H727-35, 2007; Epub 2006 Nov 3
128. Grobe JL, Der Sarkissian S, Stewart JM, Meszaros JG, Raizada MK, Katovich MJ. ACE2 overexpression inhibits hypoxia-induced collagen production by cardiac fibroblasts. *Clin Sci (Lond)*. 113(8):357-64, 2007.
129. Der Sarkissian S, Grobe JL, Yuan L, Narielwala DR, Walter GA, Katovich MJ, Raizada MK. Cardiac Overexpression of Angiotensin Converting Enzyme 2 Protects the Heart From Ischemia-Induced Pathophysiology. *Hypertens*. 2008 Mar;51(3):712-8. Epub 2008 Feb 4.
130. Katovich, MJ, Grobe JL, Raizada MK. Angiotensin 1-7 as an Anti-hypertensive, Anti-fibrotic Target. *Current Hypertension Reports*. 10:227-232,2008.
131. Hernández Prada JA, Ferreira AJ, Katovich MJ, Shenoy V, Qi Y, Santos RA, Castellano RK, Lampkins AJ, Gubala V, Ostrov DA, Raizada MK. Structure-Based Identification of Small-Molecule Angiotensin-Converting Enzyme 2 Activators as Novel Antihypertensive Agents. *Hypertens*. 51(5):1312-7, 2008.
132. Li H-W, Gao Y, Qi Y, Katovich MJ, Jiang N, Raizada MK, Scheuer DA, Shi P, Sumners C. Macrophage migration inhibitory factor in hypothalamic paraventricular nucleus neurons decreases blood pressure in spontaneously hypertensive rats. *FASEB J*. 22(9):3175-85, 2008. Epub 2008 Jun 5.
133. Ferreira AJ, Shenoy V, Yamazato Y, Sriramula S, Francis J, Yuan L, Castellano RK, Ostrov DA, Oh SP, Katovich MJ and Raizada MK. Evidence for Angiotensin Converting Enzyme 2 as a therapeutic target for the prevention of pulmonary hypertension. *American Journal of Respiratory and Critical Care Medicine*. In press 2009.

## **BOOKS/CHAPTERS**

1. Smith, A.H. and M.J. Katovich. Gravitational influence upon the maintenance requirements of rabbits. In: *Life Scis and Space Res XV*, 1977, 257-261.
2. Barney, C.C., M.J. Fregly, M.J. Katovich and P.E. Tyler. On the central protein mediator of fever. In: *Fever* (edited by J. Lipton) Raven Press, New York, 1980, pp. 111-122.
3. Fregly, M.J., C.C. Barney, D.L. Kelleher and M.J. Katovich. Temporal relationship between the increases in metabolic rate and tail-skin temperature following administration of isoproterenol to rats. In: *Thermoregulatory Mechanisms and Their Therapeutic Implication*. 4th Int. Symp. on the Pharmacology of Thermoregulation, Oxford 1979, pp. 12-18 (Karger, Basel 1980).

## **BOOKS/CHAPTERS (cont.)**

4. Katovich, M.J. and M.J. Fregly.  $\beta$ -adrenergic responsiveness in deoxycorticosterone-salt-induced hypertension in rats. In: *Role of Salt in Cardiovascular Hypertension*. (Eds. Fregly, M.J. and M.R. Kare) Academic Press, Inc., 1982 pp. 293-312.
5. Katovich, M.J. and J.W. Simpkins. Role of dopamine in an animal model for the hot flush. In: *Sixth International Symposium on the Pharmacology of Thermoregulation*; Jasper, 1985, (Eds. K. E. Cooper, P. Lomax, E. Schonbaum and N. Veale) Karger, Basel 1986, pp. 123-128.
6. Simpkins, J.W. and M.J. Katovich. An animal model for pharmacologic evaluation of the menopausal hot flush. In: *The Climacteric in Perspective*, Ed. M. Notalovich, MTD Press LTD, 1986, pp. 213-251.
7. Katovich, M.J. and J.W. Simpkins. Further evidence for an animal model for the hot flush. In: *Thermoregulation: Research and Clinical Applications*. Seventh International Symposium on Pharmacology of Temperature regulation, Odense, Denmark 1988, (Eds. P. Lomax and E. Schonbaum) Karger, Basel 1989, pp. 1316-1330.
8. Simpkins, J.W. and M.J. Katovich. Relationship between blood glucose and hot flushes in women and an animal model. In: *Thermoregulation: Research and Clinical Applications*. Seventh International Symposium on the Pharmacology of Temperature regulation. Odense, Denmark, 1988, (Eds. P. Lomax and E. Schonbaum) Karger, Basel 1989, pp. 1312-1315.
9. Katovich, M.J., O. Shechtman and K. Hanley. Role of calcium in an animal model for the hot flush. In: *Thermoregulation: The Pathophysiological Basis of Clinical Disorders*. Eighth International Symposium on the Pharmacology of Temperature Regulation. Kananaskis, Alberta Canada 1991, (Eds. P. Lomax and E. Schonbaum) Karger, Basel 1992, pp. 93-99.
10. Katovich, M.J. and M.J. Meldrum. Positive effects of dietary acarbose alone or in combination with insulin in the streptozotocin-induced diabetic rat. In: *Drugs in Development Vol 1 Alpha-glucosidase inhibition: Potential use in diabetes*. (Eds. J. Vasselli, CA. Maggio and A. Schriabine). Neva Press, Branford, CT. 1993. pp. 109-122.
11. Katovich, M.J., G. Strubbe, and B.E. Wright. Adrenergic modulation of the surge in tail skin temperature induced by LHRH and 2 deoxyglucose. In: *Thermal Balance in Health and Disease. Recent Basic Research and Clinical Program. Advances in Pharmacological Sciences* (Eds. E. Zesberger, E. Schonbaum, and P. Lomax). Birkhauser Verlag, Basel 1994, pp. 33-340.
12. Iyer, S., M. Raizada, and M.J. Katovich. Changes in Angiotensin AT<sub>1</sub> receptor density during hypertension in fructose-fed rats. In: *Recent Advances in Cellular and Molecular Aspects of Angiotensin Receptors* (Eds. M. Raizada, M.I. Phillips, and C. Sumners) Plenum Press, NY. pp. 49-58, 1996.
13. Fregly, M.J., Connor, T., Katovich, M.J. and N.E. Rowland. Effects of chronic treatment with Angiotensin II on thermoregulation in rats. In: *Thermoregulation. Tenth International Symposium on Pharmacology of Thermoregulation* (Ed. C.M. Blatteis) New York Academy of Science. NY, NY. vol 813, pgs 211-215, 1997.

### **BOOKS/CHAPTERS (cont.)**

14. Katovich, M.J. Effects of estrogens and synthetic antiestrogens in an animal model for the menopausal hot flush. In: Thermal Physiology 1997. (Ed. Bodil N. Johannsen and R. Nielsen.) August Krogh Institute, Copenhagen, Denmark. Pp. 355-358, 1997.
15. Wang, H., Lu, D, Reaves, PY, Katovich, MJ and Raizada, MK. Retrovirally-mediated delivery of Angiotensin II type 1 receptor (AT<sub>1</sub>R) antisense in vitro and in vivo. In: Methods in Enzymology: Antisense Technology (edited by JN Abelson and MI Simon) Academic Press, Orlando, FL. Vol 314, pg 581-590, 2000.
16. Katovich, MJ, Wang, H, Gelband, CH, and Raizada, MK. Systemic delivery of a transgene in intact animals by a retroviral vector. In: Methods in Molecular Medicine. Vol 51: Angiotensin Protocols. (Ed. DH Wang), Humana Press, Inc (Totowa, NJ). Pgs. 67-81, 2001.
17. Pachori AS, Raizada, MK and Katovich, MJ. Gene therapy and renin angiotensin system. *In* Pharmacology and their Therapeutics in the New Millennium. Edited by SK Gupta. Narosa Publishing House, New Delhi, India. 2001, pg 166-176.
18. Katovich MJ, Grobe J, Raizada MK. Current and future novel targets of gene therapy for hypertension. In Cardiovascular Genomics. Humana Press Inc Totowa, NJ. (EDs. Raizada MK, Patton J, Kasparov S, Katovich MK) pgs 209-242, 2005.

## **MONOGRAPHS**

1. Katovich, M.J. and M.J. Meldrum. Diabetes Mellitus: Pathogenesis, Manifestations and Management. Pharmacy Power-Pac., Volume 3, Issue 1, HPI International, Tampa, 1990, pp. 1-18.
2. Katovich, M.J. Diabetes Mellitus: Old disease, Current Concepts. Pharmacy Power-Pac., Vol 3, Issue 11, HPI International, Tampa, 1990, pp. 1-44.
3. Katovich, M.J. and Vernikos, J. NASA/UF outreach workshop on the effects of gravity on pharmacokinetics. J. Gravitational Physiology 6:159, 1999

## **ABSTRACTS**

1. Katovich, M.J. Plasma glucose and fatty acid changes occurring during gravitational loading. *Federation Proc.* 35:747, 1976
2. Katovich, M.J. Changes in body mass and food intake induced by chronic acceleration in the male rabbit. *Federation Proc.* 36:431, 1977.
3. Katovich, M.J. and M.J. Fregly. The role of adrenergic receptors in mediating isoproterenol-induced thirst in rats. *The Physiologist* 20:50, 1977.
4. Katovich, M.J., M.J. Fregly and C.C. Barney. Inhibition of thermogenic drinking by adrenergic antagonists. *Federation Proc.* 37:249, 1978.
5. Fregly, M.J., M.J. Katovich and C.C. Barney. Attenuation of  $\beta$ -adrenergic thirst with an angiotensin converting enzyme inhibitor. *The Physiologist* 21:39, 1978.
6. Barney, C.C., M.J. Katovich and M.J. Fregly. Thermogenic drinking: role of the renin-angiotensin system. *Federation Proc.* 38:1227, 1979.
7. Katovich, M.J., C.C. Barney and M.J. Fregly. Increased  $\beta$ -adrenergic responsiveness in spontaneous hypertensive (SHR) rats. *Federation Proc.* 38:1259, 1979.
8. Katovich, M.J., C.C. Barney and M.J. Fregly. Effect of propranolol on experimentally-induced thirst. *The Physiologist* 22:67, 1979.
9. Barney, C.C., M.J. Katovich and M.J. Fregly. Effect of SQ 14,255 (Captopril) on experimentally-induced thirst in rats. *The Physiologist* 22:7, 1979.
10. Katovich, M.J., C.C. Barney and M.J. Fregly. Effect of chronic administration of isoproterenol on some  $\beta$ -adrenergic responses. *Federation Proc.* 39:593, 1980.
11. Barney, C.C., M.J. Katovich, M.J. Fregly.  $\beta$ -adrenergic responsiveness during cold-acclimation. *Federation Proc.* 39:182, 1980.
12. Katovich, M.J. Effects of chronic dietary propranolol on blood pressure and  $\beta$ -adrenergic responsiveness in renal hypertensive (RH) rats. *Federation Proc.* 40:528, 1981.
13. Barney, C.C. and M.J. Katovich.  $\beta$ -adrenergic responsiveness of food deprived rats. *Federation Proc.* 41:1756, 1982.
14. Iloeje, E., E.E. Soltis, M.J. Katovich and F.P. Field. Effect of desoxycorticosterone acetate (DOCA) alone and in combination with NaCl on blood pressure and adrenergic responsiveness in the rat. *Federation Proc.* 41:1657, 1982.
15. Katovich, M.J. and M.J. Fregly. Reduced peripheral  $\beta$ -adrenergic responsiveness in renal hypertensive rats. *Federation Proc.* 41:1660, 1982.
16. Song, I.C., J.W. Simpkins and M.J. Katovich. Skin temperature instability during morphine withdrawal in the dependent rat. 2nd Florida Neuroendocrine Symposium, Feb. 1982.
17. Katovich, M.J. Reduced peripheral beta-adrenergic responsiveness in hyperprolactinemic rats. *Endocrinology* 110:296s, 1982.
18. Song, I., J.W. Simpkins and M.J. Katovich. Skin temperature response to morphine withdrawal in the rat: an animal model for the hotflush. *Endocrinology* 110:115s, 1982.
19. Gabriel, S.M., I. Song, M.J. Katovich and J.W. Simpkins. Changes in body temperature, LH secretion and hypothalamic catecholaminergic neuronal activity during morphine withdrawal in female rats. 10th Annual Meeting of the Society of Neuroscience, 1982.
20. Murray, F.T., M.J. Katovich and D.F. Cameron. Gonadal dysfunction in the spontaneously diabetic B.B. rat: a model for diabetic impotence and infertility. *Clinical Research* 31:392, 1983.

**ABSTRACTS** (Continued)

21. Song, I.C., M.J. Katovich and J.W. Simpkins. Thermoregulatory cardiovascular and neuroendocrine responses to morphine withdrawal in the rat: an animal model for the menopausal hot flush. 3rd Florida Neuroendocrine Symposium, Feb. 1983.
22. Barney, C.C. and M.J. Katovich. Metabolic, cardiovascular, and dipsogenic effects of isoproterenol in food deprived rats. Federation Proc. 42:637, 1983.
23. Katovich, M.J., S.P. Baker and C. Nelson. Alteration in beta-adrenergic receptor number in hyperprolactinemic rats. Federation Proc. 42:638, 1983.
24. Smith, C.D., M.J. Katovich, E.E. Soltis and F.P. Field. Adrenergic responsiveness to chronic NaCl treatment. Federation Proc. 42:896, 1983.
25. Simpkins, J.W., S.T. Taylor, S.M. Gabriel and M.J. Katovich. Evidence that chronic hyperprolactinemia produces dependence on endogenously released opioids. Endocrinology 112:168s, 1983.
26. Katovich, M.J., D.F. Cameron and F.T. Murray. Testicular morphology in a hyperprolactinemic rat model. Endocrinology 112:108s, 1983.
27. Simpkins, J.W., I.C. Song, M.J. Katovich, N. Bodor and R. Tuttle. Tail skin temperature: a sensitive in vivo bioassay for opiate receptor antagonists. 11th Annual Meeting of the Society for Neuroscience, 1983.
28. Katovich, M.J. and S.P. Baker. Hyperprolactinemia reduces peripheral  $\beta$ -adrenergic responsiveness. Spring Meeting of the Southeast Endocrine Group, March, 1984.
29. Iloeje, E., M.J. Katovich and E.E. Soltis. Time course of alterations in peripheral adrenergic responsiveness in the DOCA/NaCl hypertensive rat. Federation Proc. 43:650, 1984.
30. Katovich, M.J., J.W. Simpkins and I-C Song. Role of the alpha adrenergic system in the tail skin temperature surge during morphine withdrawal. Federation Proc. 43:745, 1984.
31. Simpkins, J.W. and M.J. Katovich. Spontaneous tail skin temperature surges in aging female rats: dependence on reproductive state and ambient temperatures. Abstracts, 7th International Congress of Endocrinology, Excerpta Medica 1235, 1984.
32. Katovich, M.J., J.W. Simpkins and I-C Song. Absence of a central locus for the naloxone-mediated surge in tail skin temperature and LH secretion in the rat. Abstracts, 7th International Congress of Endocrinology, Excerpta Medica 859, 1984.
33. Katovich, M.J. and E.E. Soltis. Alteration in vascular  $\alpha$  and  $\beta$ -adrenergic responsiveness in the Dahl rat. Federation Proc. 44:682, 1985.
34. Barney, C.C., K.E. Wuertz and M.J. Katovich. Role of thyroid hormone in the  $\beta$ -adrenergic responsiveness of food deprived rats. Federation Proc. 44:1739, 1985.
35. Smith, C.D., M.J. Katovich. Relative importance of adrenoreceptor subtypes in vascular smooth muscle from DOCA/NaCl hypertensive rats. 67th Annual Endocrine Meeting, pg 169, 1985.
36. Smith, C.D., M.J. Katovich. Effects of chronic verapamil treatment on the development of DOCA/NaCl hypertension in rats. ASPET 1985.
37. Berglund, L.A., W.R. Anderson, M.J. Katovich and J.W. Simpkins. Ovarian steroids decrease the hypothermic and LH responses to morphine. 15th Annual Meeting for the Society for Neuroscience, 11:1198, 1985.

**ABSTRACTS** (Continued)

38. Iloeje, E., E.E. Soltis, and M.J. Katovich. Effects of dietary potassium (K) on peripheral adrenergic responsiveness in the DOCA-Salt rat. *Federation Proc.* 45:300, 1986.
39. Katovich, M.J. and J. O'Meara. Effects of estrogen replacement in an animal model for the menopausal hot flush. *Federation Proc.* 45:407, 1986.
40. Wallace, D.R., K. Marks, and M.J. Katovich. Metabolic and Physiological effects of deoxycorticosterone acetate (DOCA) and potassium chloride on DOCA/NaCl hypertension. *Federation Proc.* 45:895, 1986.
41. Smith, C.C. and M.J. Katovich. Effects of chronic nifedipine on the development of DOCA/NaCl hypertension in rats. *Federation Proc.* 45:300, 1986.
42. Barney, C.C., S.D. O'Conner, D.R. West and M.J. Katovich. Adrenergic modulation of thermal dehydration induced thirst in rats. *Federation Proc.* 45:905, 1986.
43. Clark, J.T., P.S. Kalra, W.J. Millard and M.J. Katovich. Effects of the MtTW15 tumor on copulatory behavior, penile reflexes, plasma hormones and organ weights. *Federation Proc.* 45:889, 1986.
44. Katovich, M.J., J.W. Simpkins and J. O'Meara. Effects of central LHRH manipulation on the skin temperature response in an animal model for the hot flush. 1st International Congress of Neuroendocrinology, July 1986, pg. 87.
45. Lawson, D., C. Smith, M. Katovich, P. Mehta and J. Mehta. Cumulative contractile effects of Leukotriene D4 and epinephrine on isolated aortic rings. *Circulation* 74 (Suppl. II):II-15, 1986.
46. Cameron, D.F., M.J. Katovich, G. Papadi, J. Friedman, P. Kalra and W.J. Millard. Male reproductive dysfunction in the hyperprolactinemic rat. *Physiologist* 29:131, 1986.
47. Katovich, M.J., C.A. Sninsky and K. Marks. Reduced peripheral beta-adrenergic responsiveness in diabetic rats. *Physiologist* 29:181, 1986.
48. Marks, K.S. and M.J. Katovich. Time course and severity of a reduced peripheral adrenergic responsiveness in diabetic rats. *Fed.Proc.* 46:700, 1987.
49. Smith, C.D., M.J. Katovich and M.J. Meldrum. Time course alterations in VSM adrenergic system in DOCA/NaCl rats. *Federation Proc.* 46:1255, 1987.
50. Clark, J.T., W.J. Millard and M.J. Katovich. Large increases in circulation growth hormone (GH) and prolactin (PRL) levels are associated with deficits in sexual behavior in rats. *International Symposium on Growth Hormone* I-10:39, 1987.
51. Katovich, M.J., L.F. Yeh and S.P. Baker. Effect of thyroxine on dipsogenic responsiveness to isoproterenol in food-deprived rats. 17th Annual Meeting for the Society of Neuroscience 13:1171, 1987.
52. Soltis, E.E. and M.J. Katovich. Adrenergic responses in aortic smooth muscle of the Dahl rat. *FASEB J.*, 2(5)A967, 1988.
53. Katovich, M.J., M.J. Meldrum and E.E. Soltis. NaCl treatment alters vascular adrenergic responsiveness in the Dahl rat. *FASEB J.* 2(5)A967, 1988.
54. Simpkins, J.W., W.J. Millard and M.J. Katovich. Glucose modifies the opiate withdrawal response. *FASEB J.* 2(5)A1197, 1988.
55. Katovich, M.J., M. Meldrum and J.R. Vasselli. Effects of 7 weeks of Acarbose treatment on metabolic and thermal parameters in Diabetic rats. *Physiologist* 31:A20, 1988.
56. Katovich, M.J., C.C. Barney and E. Larsen. Effects of naloxone on beta-adrenergic mediated responses in rats. *FASEB J.* 3:A731, 1989.

**ABSTRACTS** (Continued)

57. Pitman, D. and M.J. Katovich. Effect of adrenalectomy and  $\alpha$ -adrenergic agonists on the surge in skin temperature in an animal model for the hot flush. *FASEB J.* 3:A700, 1989.
58. Simpkins, J.W., M.J. Katovich, W.J. Millard and S. Knight. Effects of acute hyper- and hypoglycemia on the skin temperature response to morphine withdrawal in the rat. *FASEB J.* 3:A701, 1989.
59. Katovich, M.J. Effect of sex steroids on the development of blood pressure in DOCA/NaCl hypertensive rats. *FASEB J.* 4:A855, 1990.
60. Katovich, M.J., M.J. Meldrum and J.R. Vasselli. Beneficial effects of acarbose treatment in the streptozotacin (STZ)-induced diabetic rat. In: *Lessons from Animal Diabetes 3rd International Workshop.* pp. 37, 1990.
61. Katovich, M.J. and J.W. Simpkins. Adrenergic modulation of the LHRH induced flush response in rats. *Physiologist.* 33:A105, 1990.
62. Shechtman, O., M.J. Katovich, P. Van Bergen and M. J. Fregly. Vascular reactivity in the cold-induced hypertensive rat. *FASEB J.* 5:A852, 1991.
63. Katovich, M.J. and D. L. Pitman. Role of adrenal glands in mediating the thermal response to morphine withdrawal. *FASEB J.* 5:A1401, 1991.
64. DeCarlo, A., O. Shechtman and M.J. Katovich. The effect of estrogen and food restriction on blood pressure in DOCA/NaCl rats. *The Physiologist* 34:251, 1991.
65. Katovich, M.J., K. Hanley and O. Shechtman. Development of DOCA/NaCl hypertension in the Wistar Furth rat. *The Physiologist* 34:252, 1991.
66. Shechtman, O., M.J. Katovich and E.E. Soltis. Sex differences in vascular reactivity in rat aorta. *The Physiologist* 34:255, 1991.
67. Patel, J., R.J. Pranker, M.J. Katovich, K.B. Sloan. Prodrug approach to improvement of the oral bioavailability of compounds undergoing first pass effect. *Pharm. Research* 8:S-222, 1991.
68. Katovich, M.J. and C.A. Sninsky. Effect of insulin on the altered tail skin temperature response to isoproterenol and its relationship to thyroid function in the diabetic rat. 74th Annual Meeting Program and Abstracts. The Endocrine Society pg. 405, 1992.
69. Patel, J., R.J. Prankaerd, M.J. Katovich and K.B. Sloan. A Comparison of the oral potencies of a prodrug of 17  $\beta$ -estradiol in ovariectomized rats. *J. Clin. Pharmacol.* 31:870, 1991.
70. Katovich, M.J., Simpkins, J.W., and Sninsky, C.A. The role of blood glucose in menopausal hot flushes. GCRC Program Directors Association Meeting; Reston, Virginia, Dec. 9, 1992.
71. Patel, J.U., Sloan, K.B., Katovich, M.J., Curry, S.H. and Pranker, R.J. Pharmacokinetic-Pharmacodynamic evaluation of a prodrug designed to improve and bioavailability of compounds susceptible to hepatic first pass effect. *Pharm Res.* 9:57, 1992.
72. Katovich, M.J. and M.J. Meldrum. Effect of combined acarbose and insulin treatment in the STZ diabetic rat. *FASEB J* 7(3):A847, 1993.
73. Patton, P., M.J. Katovich, and C. Sninsky. MK-801 does not attenuate temperature changes associated with tolerance and dependence in the morphine-treated rat. *FASEB J* 7(3):A 706, 1993.
74. Katovich, M.J. Effects of STZ-induced diabetes and insulin treatment on blood pressure in the male sprague dawley rat. 75th Annual Endocrine Meeting pg.425, 1993.

**ABSTRACTS** (Continued)

75. Iyer, S. and M. J. Katovich. Effects of fructose diet on insulin, sodium and hypertension. 75th Annual Endocrine Meeting pg. 493, 1993.
76. Patton, P., M.J. Katovich, and C. Sninsky. Effect of an N-Methyl-D-ASPARTATE (NMDA) receptor antagonist (MK-801) on morphine tolerance and dependence of the GI tract. Clin. Res. 41: 159A, 1993.
77. Iyer, S. and M.J. Katovich. Role of DUP-753 (Losartan Potassium) in fructose induced hypertension. FASEB J. 8: A75, 1994.
78. Wright, B.E., S. Iyer and M.J. Katovich. Chronic losartan treatment inhibits isoproterenol-induced drinking in rats. FASEB J. 8: A579, 1994.
79. Katovich, M.J., F.E. Williams and L.L. Bellinger. Effects of liver denervation on the modulation in skin temperature associated with fructose administration during morphine withdrawal in the rat. FASEB J. 8: A65, 1994.
80. Katovich, M.J. and B.E. Wright. Positive effects of acarbose in the diabetic rat are not affected by feeding schedules. Diabetes, 43S:165A, 1994.
81. Katovich, M.J. and S. Iyer. Losartan treatment improves insulin sensitivity and glucose tolerance in insulin resistant rats. FASEB J A:999, 1995.
82. Iyer, S. and M.J. Katovich. Changes in angiotension II receptor density during hypertension in fructose fed rats. FASEB J A:331, 1995.
83. Wright, B. and M.J. Katovich. Effect of restraint on biotelemetered skin and core temperature in rats. FASEB J 9:A255, 1995.
84. Iyer, S. and M.J. Katovich. Acute Losartan treatment lowers blood pressure in fructose-fed rats. International Symposium on Cellular and Molecular Aspects of Angiotension Receptors, page 3, 1994.
85. Katovich, M.J., Wright, B.E., and S. Iyer. Effect of sodium diet on plasma insulin and blood pressure in Dahl sensitive (DS) and Dahl resistant (DR) male rats. 77th Annual Endocrine Meeting, page 181, 1995.
86. Shughrue, P.J., Katovich, M.J. and I. Merchenthaler. The chemical induction of hot flush agreement the level of c-fos in specific regions of the rat brain. 77th Annual Endocrine Meeting, page 152, 1995.
87. Iyer, S. and M.J. Katovich. Effects of chronic fructose treatment on vascular reactivity to various contractile agents. 77th Annual Endocrine Meeting, page 182, 1995.
88. Brazeau, G.A., Katovich, M.J. and D.W. Walker. Heat shock protein expression and lipid peroxidation in alcoholic myopathy. Alcoholism: Clinical and Experimental Res. 19:100A, 1995.
89. Katovich, M.J., Lu, D., Iyer, S., and M.K. Raizada. Chronic Attenuation of High Blood Pressure (Bp) In Spontaneously Hypertensive Rat (SHR) By Retrovirally-Medicated Delivery of Antisense cDNA Sequences of AT<sub>1</sub>-Receptor. FASEB J. 10:A276, 1996.
90. Iyer, S., and M.J. Katovich. Chronic fructose feeding in rats is not associated with sodium or water retention. FASEB J. 10:A630, 1996.
91. Roesch, D., Hanley, K., Iyer, S., and M.J. Katovich.. Failure of fructose feeding to increase blood pressure in streptozotocin-treated, diabetic rats. FASEB J. 10:A630, 1996.
92. Iyer, S., Lu, D., Katovich, M.J., and M.K. Raizada. Retroviral-mediated delivery of antisense cDNA of AT<sub>1</sub>-Receptor attenuates development of high blood pressure in the spontaneously hypertensive rat 10th International Congress of Endocrinology Vol.1 page 105, 1996.

**ABSTRACTS** (Continued)

93. Langevin, P.B., M.J. Katovich and C.F. James. Uterine smooth muscle compliance: effect of nitroglycerine independent of a contractile mediator. American Association of Anesthesiologist Meeting 85(3A):885,1996.
94. Raizada, M.K., Lu, D., Iyer, S., and M.J. Katovich. Losartan versus Gene Therapy: Chronic of high blood pressure in spontaneously hypertensive rats. Hypertension 28:27, 1996.
95. Martin, R.L., D.M. Wackerly, L.A. Ramos, and M.J. Katovich. Peripheral but not central administration of losartan blocks the angiotensin-induced pressor response in male rats. FASEB J. 11:A38, 1997.
96. Reaves, P., D. Lu, H. Yang, M. Katovich and M.K. Raizada. Comparison of physiological and gene-therapy approaches in the long-term control of high blood pressure in spontaneously hypertensive rats. FASEB J. 11:A218, 1997.
97. Reaves, P.Y., J.R. Martens, D. Lu, C.H. Gelband, K.H. Berecek, M. Katovich and M.K. Raizada. Virus-Mediated Delivery of AT<sub>1</sub> receptor-antisense prevents pathophysiological changes in SHR. 51st annual conference of the council for high blood pressure research, Sept. 1997.
98. Gelband, C.G., J. R. Martens, P.Y. Reaves, D. Lu, M.J. Katovich, and M.K. Raizada. Long term attenuation of hypertension by AT<sub>1</sub> receptor antisense gene therapy prevents contractile and K<sup>+</sup> current alterations in the rat renal vasculature. 70<sup>th</sup> Scientific Session of the American Heart Association pg 97, 1997.
99. Langevin, PB, Katovich, MJ, James, CF, and Langevin, SO. The effect of nitroglycerin on the uterus: mechanism of action. Anesthesiology 87:A887, 1997.
100. Katovich, M.J., D.M. Wackerly, L.A. Ramos, and R.L. Martin. Effect of central losartan administration on glucose tolerance and blood pressure in an insulin resistant model of hypertension. FASEB J. 12:A89, 1998.
101. Pachori, A.S., B.E. Houk, and M.J. Katovich. Chronic Ang II treatment does not cause insulin resistance in SD rats. FASEB J. 12:A89, 1998.
102. Aerni, J.D., N.E. Rowland and M.J. Katovich. Effect of perinatal NaCl exposure on adult responses to angiotensin II. FASEB J. 12:A111, 1998.
103. Reaves, P.Y., H. Dang, H. Wang, M.J. Katovich, and M.K. Raizada. Delivery of retrovirally mediated AT<sub>1</sub>R-antisense cDNA lowers BP in adult SH rats. FASEB J. 12:A41, 1998.
104. Sun, Z., Cade, R., Katovich, M.J., and M.J. Fregly. Fluid exchange during exposure to cold. FASEB J. 12:A125, 1998.
105. Wang, H., Reaves P., Kimura, B., Lu, D., Gelband, C.H., Phillips, M.I., Katovich, M.J., and Raizada, M.K. Long-term inhibition of angiotensin converting enzyme (ACE) activity by viral-mediated delivery of ACE antisense cDNA in rat pulmonary endothelial cells (RPEC). 52<sup>nd</sup> Annual Fall Conference and Scientific Sessions of the Council for High Blood Pressure, Sept., 1998. Hypertens. 32:627, 1998.
106. Gelband, CH, Reaves, P, Evans, J, Yang, H-W, Katovich, MJ and Raizada, MK. AT<sub>1</sub> receptor antisense (AT<sub>1</sub>R-AS) gene therapy prevents altered calcium homeostasis in hypertension. 52<sup>nd</sup> Annual Fall Conference and Scientific Sessions of the Council for High Blood Pressure, Sept., 1998. Hypertens. 32:590, 1998.
107. Raizada, MK, Reaves, PY, Wang, H, Gelband, CH and M.J. Katovich. Permanent reversal of hypertension by angiotensin type 1 receptor antisense (AT<sub>1</sub>R-AS) gene therapy. 2<sup>nd</sup> International Symposium on Angiotensin Antagonism, 1998.
108. Langevin, PB, Katovich, MJ, Beck, K, and Langevin, SO. Vascular responsiveness to phenylephrine during labor. Anesthesiology 89:A1044, 1998.

**ABSTRACTS** (Continued)

109. Crews, EC, Aerni, JD, Rowland, NE, Katovich, MJ and SL Semple-Rowland. Perinatal dietary NaCl level: effect on angiotensin (Ang) II receptors in discrete brain regions of rat mothers and pups. Abstracts for the 28<sup>th</sup> annual meeting of the Society of Neuroscience. Vol 24:48, 1998.
110. Gelband, CH, Reaves, P, Dang, H, Wang, H, Raizada, and Katovich, M.J. Reversal of hypertension by retroviral-mediated (LNSV) delivery of angiotensin II type 1 receptor antisense (AT<sub>1</sub>R-AS) in the adult spontaneously hypertensive rat (SHR). *Circulation* 98:I-329, 1998.
111. Evans, J, Reaves, PY, Wang, H, Katovich, MJ, Raizada, MK and Gelband, CH. Calcium channel alterations in hypertension are prevented by angiotensin II type 1 receptor antisense (AT<sub>1</sub>R-AS) gene therapy. *Circulation* 98:I-333, 1998.
112. Reaves, PY, Wang, H, Lu, D, Yang, H, Katovich, MJ, Raizada, MK and Gelband, CH. Permanent reversal of hypertension and altered renal vascular Ca<sup>2+</sup> homeostasis b angiotensin II type 1 receptor antisense (AT<sub>1</sub>R-AS) gene therapy. *Biophysical Soc. Annual Meeting, Baltimore, MD, Feb 1999.*
113. Langevin, PB, Katovich, MJ, and Beck, CR. Vascular Responsiveness during Pregnancy. Society for Obstetric Anesthesia and Perinatology, 31<sup>st</sup> annual meeting. *Anesth Analg.* 88:S255, 1999.
114. Reaves, PY, Wang, H-W, Yang, H, Katovich, MJ, Berecek, K, and Raizada, MK. Permanent prevention of hypertension by angiotensin type 1 receptor antisense gene therapy in the SHR. *FASEB J.* 13 (4):A776, 1999.
115. Gelband, CG, Pachori, A, Kochera, R, Numan, MT, Byrne, BJ, Katovich, MJ, Ganten, D, Ferrario, CM, and Razaida, MK. Functional evidence of cardiovascular pathophysiology in the TGR (mRen2)27 transgenic rat. *FASEB J.* 13 (4):A342, 1999.
116. Beck, CR, Langevin, PB and Katovich, MJ. Vascular responsiveness in pregnancy. *FASEB J.* 13 (4):A421, 1999.
117. Katovich, MJ, Wang, S, and Pottfay, J. Effect of fructose feeding on the development of hypertension and glucose intolerance in female SD rats. *FASEB J.* 13 (4):A114, 1999.
118. Berecek, K., Reaves, P.Y., White, R, Allen, L. Powell, P., Katovich, M.J., Gelband, C.H., and Raizada, M.K. Vascular morphology in offspring of SHR-treated with angiotensin type 1 receptor antisense gene therapy. *FASEB J.* 13 (4):A1008, 1999.
119. Aerni, J, Cespedes, A, Rowland, N, and Katovich, MJ. Perinatal NACL exposure alters the angiotensin-induced thermal response in adult SD rats. *FASEB J.* 13 (4):A744, 1999.
120. Numan, MT, Byrne, BJ, Gelband, CH, Pachori, A., Katovich, MJ, Garter, D., Ferrario, C and Raizada, MK. Echocardiography evaluation of the TGR (mRen) 27 transgenic rat reveals severe ventricular hypertrophy and pericardial effusion. *Annual Meeting of Am. Pediatric Soc. San Diego, CA, April, 1999.*
121. Berecek, KH, Reaves, PY, White, R., Katovich, MJ, Gelband, CH, and Raizada, MK. Vascular morphology in the SHR treated with AT<sub>1</sub> receptor antisense gene therapy. 13<sup>th</sup> Inter-American Society of Hypertension, Buenos Ares, Argentina, May 1999.
122. Langevin, PB, Katovich, MJ, and Beck, CR. Resting vascular tone during pregnancy. *American Society of Anesthesiologist, Anesthesiology* 91:A1094, 1999. Meeting of the American Society of Anesthesiologist, Sept 1999.

**ABSTRACTS** (Continued)

123. Langevin, PB, Katovich, MJ, and Beck, CR. Vascular responsiveness during pregnancy. American Society of Anesthesiologist, Anesthesiology 91:A1088, 1999. Meeting of the American Society of Anesthesiologist, Sept 1999.
124. Wang, HW., Reaves, PY, Gelband, CH, Katovich, MJ, Raizada, M. Angiotensin I – converting enzyme antisense gene therapy causes permanent antihypertensive effects in the SHR. 53<sup>rd</sup> annual fall conference and scientific sessions of the council for high blood pressure research, 1999.
125. Gelband, CH, Wang H-W, Gardon, ML, Keene, K, Goldberg, DS, Reaves, PY, Katovich, MJ and Raizada, MK. Angiotensin I-converting enzyme antisense prevents altered renal vascular reactivity, but not high blood pressure, in spontaneously hypertensive rats. 53<sup>rd</sup> annual fall conference and scientific sessions of the council for high blood pressure research, 1999.
126. Raizada, MK, Gelband, CH, Katovich, MJ. Antisense gene therapy and permanent control of hypertension. Frontiers in Pharmacology and Therapeutics in 21<sup>st</sup> Century, Dec 1-4, New Dehli, India, 1999, pg 28.
127. Pachori, AS, Raizada, MK, Gelband, CH, Numan, M, Ferrario, CM, Katovich, MJ. Persistent antihypertensive effects of the AT1R antisense gene therapy in (MREN2)-27 renin transgenic rat. Frontiers in Pharmacology and Therapeutics in 21<sup>st</sup> Century, Dec 1-4, New Dehli, India, 1999, pg 29.
128. Katovich, MJ, Potfay, J, Wang, S, and Zacher, L. Effect of age and sex steroids on the development of fructose-induced hypertension. FASEB J. 14:A670, 2000.
129. Pachori, AS, Ferrario, CM, Raizada, MK, and Katovich, MJ. Effectiveness of AT<sub>1</sub>R-AS gene therapy in monogenic and non-genetic models of hypertension. FASEB J. 14:A368, 2000.
130. Gardon, ML, Katovich, MJ, Raizada, CH and Gelband, CH. AT1RAS gene therapy prevents medial thickening and balloon injury-induced neointimal formation in hypertension. FASEB J. 14: A650, 2000.
131. Katovich, MJ, Pachori, AS, Wang, HW, Gelband, CH, Ferrario, CM and MK Raizada. AT<sub>1</sub>R antisense gene therapy protects normal rats from angiotensin II induced hypertension. 3<sup>rd</sup> International Symposium on Angiotensin II Antagonism Feb 28-March 2<sup>nd</sup>, 2000 in London, England.
132. Katovich, MJ, Reaves, PY, Wang HW, Gelband, CH, and Raizada, MK. Angiotensin Type 1 receptor antisense vs ACE antisense gene therapy in the SHR. Amer. J Hypertens 13:77A, 2000. 15<sup>th</sup> Scientific meeting of the American Society of Hypertension, May 16-20, 2000 in NY, NY.
133. Raizada, MK, Gelband, CH, and Katovich, MJ. Retroviral vector-mediated delivery of ACE antisense cDNA (ACE-AS) causes permanent protection from hypertension in the SHR. 10<sup>th</sup> European meeting in Hypertension. May29-June 4, 2000, Goteborg, Sweden.
134. Katovich, MK, Reaves, PY, Wang HW, Pachori, A, Gelband, CH, and Raizada, MK. AT<sub>1</sub>R antisense prevents high blood pressure and glucose intolerance in the fructose model of hypertension. 18<sup>th</sup> Scientific meeting of the International Society of Hypertension, Aug 20-24, 2000, Chicago, IL. Journal of Hypertension 18: (suppl):s75, 2000.

135. Katovich, MK, Wang HW, Gallinat, S, Sumners, C, and Raizada, MK. Perinatal delivery of angiotensin type 2 receptor (AT2R) antisense cDNA Increases Blood pressure in adult normotensive rats. *Hypertens* 36:690, 2000. Presented at Council for High Blood Pressure 54<sup>th</sup> Annual Fall Conference and Scientific Sessions in Washington DC in Oct , 2000.
136. Langevin, PB, Beck, CR, Chang, G, Katovich, MJ. Vascular responsiveness in pregnancy and pre-eclampsia. *Anesth Analg* 90:294, 2000.
137. Rowland, NE, and Katovich, MJ. Role of Angiotensin II in action of ethanol on temperature of rats. Neuroscience meeting, 2000.
138. Pachori A, Katovich MJ, and Raizada, MK. AT<sub>1</sub>R-AS gene therapy protects against cardiac hypertrophy by inducing early and gene expression independent of increase in blood pressure. 2<sup>nd</sup> International forum on Angiotensin II receptor antagonism. Monte Carlo, Monaco in Jan 24-26, 2001.
139. Beck C, Katovich MJ and Langevin PB. Vascular responses in pregnancy and pre-eclampsia. *Anesth Analg* May 2001, London , England.
140. Pachori A, Raizada MK, Ferrario CM, and Katovich MJ. AT<sub>1</sub>R antisense gene therapy attenuates neonatal onset of cardiac hypertrophy in the renin transgenic rat. Eleventh European Meeting on Hypertension in Milan Italy, June 15-18<sup>th</sup>, 2001.
141. Reaves PY, Francis SC, Beck C, Gelband CH, Katovich MJ and Raizada MK. Endothelial independent mechanism of antihypertensive effects on AT<sub>1</sub>R antisense gene therapy. Eleventh European Meeting on Hypertension in Milan Italy, June 15-18<sup>th</sup>, 2001.
142. Reaves PY, Francis SC, Beck C, Gelband CH, Katovich MJ and Raizada MK. Antihypertensive effects of AT<sub>1</sub>R antisense gene therapy are not endothelium dependent in L-Name treated rats. 10<sup>th</sup> International Symposium on SHR and Molecular Medicine. Berlin, Germany, May 2-4, 2001.
143. Beck C, Katovich MJ and Langevin PB. Vascular hyporesponsiveness during pregnancy is influenced by humoral factors. *FASEB J.* 15, 2001.
144. Wang S, Ju, J and Katovich M. Effect of early dietary fructose intervention on blood pressure and glucose intolerance. *FASEB J.* 15, 2001.
145. Huentelman MJ, Katovich MJ, Gelband CH, and Raizada MK. Efficient concentration of a lentiviral based gene therapy vector for systemic delivery. *FASEB J.* 15, 2001.
146. Rowland NE, Grobe JL and Katovich MJ. Effects of subfornical organ (SFO) lesion on thermal and behavioral responses to ethanol in rats. *FASEB J.* 15, 2001.
147. Reaves PY, Francis SC, Beck C, Katovich MJ and Raizada MK. AT<sub>1</sub> receptor antisense gene therapy prevents the development of high blood pressure in L-NAME treated rats. 55<sup>th</sup> Fall Conference of the High Blood Pressure Council in Chicago, IL, Sept 22-25, 2001. *Hypertens* 38: 495, 2001.
148. Broxon CS, Erdem RS, Fleegal M, Pachori A, Scarpace PJ, Sumners C, KatovicMJ, Tumer N. Angiotensin II reduces adrenal medullary TH and D $\beta$ H gene expression, in vivo, in rats. Society of Neuroscience, 2001.
149. Huentelman MJ, Katovich MJ, and Raizada MK. Effective Lentivector-mediated transduction of the neonatal cardiovascular system. *Physiologist* 45:78, 2002.
150. Hong Y, Reaves PY, Sumners C, Katovich MJ, Raizada MK. Hypertension-Linked Decrease in Brain  $\lambda$ -Adducin Gene Expression is independent of high blood pressure. *Physiologist* 45:77, 2002.

**ABSTRACTS** (Continued)

151. Beck, CR, Langevin, PB, Katovich MJ. Attenuated vascular tone in pregnancy is not adrenergically mediated. FASEB 16:A100, 2002.
152. Huentelman MJ, Katovich MJ, and Raizada MK. Efficient Systemic gene transfer to the cardiovascular system by a lentiviral-based vector. FASEB 16:A820, 2002.
153. Hong Y, Francis SC, DeBarros M, Sun C-W, Sumners C, Ferrario C, Katovich MJ, Raizada MK. Hypertension-Linked Decrease in Brain Gamma-Adducin Gene Expression. FASEB 16:A820, 2002.
154. Raizada MK and Katovich MJ. AT<sub>1</sub> receptor antisense gene therapy produces beneficial outcomes in many forms of experimental hypertension. 19<sup>th</sup> Scientific Meeting of the International Society of Hypertension, 2002.
155. Katovich MJ, Wang H, Gallinat S, Sumners C, and Raizada MK. An angiotensin type 2 receptor (AT2R) "knockdown" model results in an increase in blood pressure in adult normotensive rats. 19<sup>th</sup> Scientific Meeting of the International Society of Hypertension, 2002.
156. Reaves PY, Beck CR, Raizada MK and Katovich MJ. Prevention of high blood pressure in L-NAME treated rats by AT1 receptor antisense gene therapy is endothelial independent. 75th Scientific session of American Heart Association. Nov 16, 2002.
157. Yang H, Reaves PY, Katovich MJ, Raizada MK. Decrease in hypothalamic Gamma-Adducin is linked to hypertension. 57th Fall Council for High Blood Pressure Research in Wash DC, Sept 23-26, 2003.
158. Beck, CR, Langevin PB, Katovich, MJ. Reduced vascular response in pregnancy is endothelial dependent. FASEB J 17:A58, 2003.
159. Metcalfe BL, Huentelman MJ, Parilak L, Taylor D, Knot HJ, Katovich MJ, Sumners C, Raizada MK. Prevention of Cardiac Hypertrophy Independent of Elevated Blood Pressure by Angiotensin II Type 2 Receptor Gene Transfer. 57th Fall Council for High Blood Pressure Research in Wash DC, Sept 23-26, 2003.
160. Beck, CR, Katovich, MJ. The angiotensin AT2 receptor attenuates the vascular response to angiotensin II during pregnancy. FASEB J. 18: A1236, 2004.
161. Grobe J, Katovich MJ. Effect of sex steroid modulation on vascular reactivity to angiotensin 1-7 in the aorta. FASEB J. 19: A, 2005
162. Li H, Gao Y, Grobe J, Raizada M, Sumners C. Adenoviral-mediated systemic transduction of the angiotensin II (Ang II) type 2 receptor (AT2R) enhances the hypotensive action of losartan. Molecular Therapy 11:S244, 2005.
163. Mitra A, Grobe J, Katovich MJ, Rowland NE. Effects of Central and Peripheral Administration of Apelin on Food Intake, Water Intake, and Blood Pressure. Society for the Study of Ingestive Behavior annual meeting in Pittsburgh in mid-July 2005.
164. Vazquez J, Huentelman M, Correa de Adjienin, Diez Freire C, Katovich MJ, Raizada M. Prevention of hypertension-linked pathophysiological changes by ACE2 gene transfer. 59<sup>th</sup> Annual Fall Conference Council for High Blood Pressure
165. JM Stewart, Grobe JL, Katovich MJ. Estrogen modulates ACE2 activity in cardiac myocytes. FASEB J. 20:A1189, 2006.
166. Grobe JL, Mecca AP, Lingis M, Mao H, Katovich MJ. Angiotensin 1-7 prevents cardiac fibrosis in angiotensin II and DOCA-salt models of hypertension. FASEB J. 20:A305, 2006.

**ABSTRACTS** (Continued)

167. Grobe JL, Der Sarkissian S, Lihui Y, Stewart JM, Raizada MK, Katovich MJ. ACE2 Overexpression Inhibits Hypoxia-Induced Collagen Production by Cardiac Fibroblasts. 60<sup>th</sup> annual High Blood Pressure Council meeting in San Antonio, Sept 2006. *Hypertens*. 48:e79, 2006.
168. Grobe JL, Mecca AP, Lingis M, Shenoy V, Bolton T, Machado J, Speth RC, Raizada MK, M.J. Katovich, MJ. Angiotensin-(1-7) Prevents Cardiac Remodeling During Angiotensin II-Induced Hypertension. *FASEB J*. 21:755.1, 2007.
169. Shenoy V, Qi YF, Machado J, Bolton T, Grobe JL, Katovich MJ. Effects of 17-beta-estradiol on cardiac remodeling in the DOCA-salt model of hypertension. *FASEB J*. 21:955.14, 2007.
170. Hernandez Prada JA, Ostrov DA, Katovich MJ, Raizada MK. Structure-based discovery of angiotensin-converting enzyme 2 (ACE2) activators. *FASEB J* 21:955.19, 2007
171. Hernandez Prada JA, Ferreira AJ, Ostrov DA, Katovich MJ, Raizada MK. Angiotensin-converting enzyme 2 (ACE2) activators decrease blood pressure in the rat. *Inter-American Society of Hypertension XVII*, 2007.
172. Hernandez Prada JA, Ostrov DA, Katovich MJ, Raizada MK. Structure-based discovery of an ACE2 Activator with antihypertensive properties. 61<sup>st</sup> Annual High Blood Pressure research Conference in Tucson, in Arizona . Sept 26<sup>th</sup> 2007.
173. Qi Y, Li H, Mecca A, Shenoy V, Sumners C, Katovich MJ. Overexpression of Angiotensin II type 2 receptor (AT2R) in neonatal cardiomyocytes induces apoptosis. *FASEB J*: 1238.18, 2008.
174. Ferreira AJ, Hernandez-Prada JA, Ostrov D, Katovich MJ, Raizada MK. Structure-based discovery of an ACE2 activator with antihypertensive properties. *FASEB J* 2008
175. Shenoy V, Ferreira AJ, Qi Y, Dooies A, Raizada MK, Katovich MJ. Overexpression of Angiotensin (1-7)-fusion protein attenuates monocrotaline induced pulmonary hypertension. *FASEB J* 22:1209.2, 2008.
176. Ferreira AJ, Shenoy V, Ostrov D, Katovich MJ, Raizada MK. Ace2 activation attenuates monocrotaline-induced pulmonary hypertension in rats. *Hypertension 2008 Meeting*, June 14th - 19th, 2008 in Berlin, Germany.
177. Shenoy V, Ferreira AJ, Qi Y, Fraga-Silva RA, Dooies A, Francis J, Reudelhuber T, Raizada MK, Katovich MJ. Prevention of monocrotaline-induced hypertension by lenti-viral mediated gene delivery of angiotensin-(1-7). *American Heart Association meeting*. New Orleans, Nov 8-12, 2008. In *Circ Res*. 103:1500, 2008.
178. Ferreira AJ, Shenoy V, Ostrov D, Katovich MJ, Raizada MR. XNT, an ACE2 activator, prevents monocrotaline-induced pulmonary hypertension. *American Heart Association meeting*. New Orleans, Nov 8-12, 2008.
179. Ferreira AJ, Shenoy V, Yuan L, Katovich MJ, Reudelhuber T, Raizada MK. Ace2 activation attenuates monocrotaline-induced pulmonary hypertension in rats. *High Blood Pressure Council Meetings in Atlanta*, Sept, 2008.
180. Shenoy V, Ferreira AJ, Qi Y, Dooies KA, Raizada MK, Katovich MJ. Lenti-viral mediated overexpression of ACE2 or Angiotensin-(1-7) prevents bleomycin-induced pulmonary fibrosis. *FASEB J*. 23: 770.7, 2009
181. Mecca AP, O'Connor TE, Dooies A, Katovich MJ, Sumners C. Central administration of Angiotensin 1-7 is cerebroprotective in a rat model of ischemic stroke. *FASEB J*. 23: 947.1, 2009.
182. Qi L, Liu X, Li H, Shenoy V, Li Q, Hauswirth WW, Sumners C, Katovich MJ. AAV

- mediates more specific cardiac gene transfer in the rat than AAV2, AAV5, AAV7, and AAV8. FASEB J. 23: 939.12, 2009.
183. Fraga-Silva RA, Sorg BS, Wankhede M, deDeugd C, Ferreira AJ, Jun Y, Baker MB, Li Y, Castellano RK, Katovich MJ, Raizada, MK. ACE2 activation promotes antithrombotic activity. FASEB J. 23: 593.15, 2009.
  184. Bruce E, Shenoy V, Grobe J, Qi Y, Ferreira AJ, Fraga-Silva R, Collamat G, Katovich MJ. 17 $\beta$ -estradiol Prevents Cardiac Remodeling in DOCA-salt Model of Hypertension in Rats. FASEB J. 23: 2009

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