

## **CURRICULUM VITAE**

*Revised March 25, 2007*

**NAME:** Fruzsina Klára Johnson, M.D.

**MAIDEN NAME:** Fruzsina Klára Kozma

**CURRENT STATUS:** Permanent resident of the U.S.A.

**CURRENT POSITION:** Assistant Professor  
Trauma and Emergency Medicine  
Department of Surgery  
University of Texas Health Science Center at San Antonio

**MAILING ADDRESS:** Dr. Fruzsina K. Johnson  
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University of Texas Health Science Center at San Antonio  
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[johnsonf@uthscsa.edu](mailto:johnsonf@uthscsa.edu)

**D.O.B., LOCATION:** August 14, 1973, Budapest, Hungary

**EDUCATION:** Doctor of Medicine, Semmelweis University, Budapest, Hungary,  
1991-1999

**RESEARCH EXPERIENCE/EMPLOYMENT/ACADEMIC PROGRESSION:**

Student Researcher, 09/01/93-01/31/96, Experimental Research Department and 2<sup>nd</sup> Institute of Physiology, Semmelweis University, Budapest, Hungary, *Advisor* -László Ligeti, MD, PhD

Research Associate, 02/01/96-12/15/97, Department of Pharmacology, New York Medical College, Valhalla, NY, *Advisor* - Alberto Nasjletti, MD

Medical Doctorate completed in 1999 at Semmelweis University, Budapest, Hungary

Postdoctoral Training 02/01/00 - 9/30/02 in the Department of Physiology, Tulane University, New Orleans, LA, *Advisor* - L. Gabriel Navar, PhD

Instructor, 10/01/02 - 06/30/04 in the Department of Physiology, Tulane University, New Orleans, LA

Assistant Professor, 07/01/04 - 05/31/2006 in the Department of Physiology, Tulane University, New Orleans, LA

Assistant Professor since 06/01/2006 in the Division of Trauma and Emergency Surgery, Department of Surgery, University of Texas Health Science Center at San Antonio, TX

**MERITORIOUS AWARDS:**

1995 2<sup>nd</sup> prize Student Research Forum, Semmelweis University of Medicine

1998 1<sup>st</sup> prize Student Research Forum, Semmelweis University of Medicine

2000 “Dean of School of Medicine Award for Excellence in Research and Presentation by a Resident or Fellow”, Twelfth Annual Tulane Health Research Day, Tulane University

2000 finalist for the Sixteenth Annual Aventis Pharma Hypertension Research Clinical Fellowship Program, 54<sup>th</sup> Annual Fall Conference and Scientific Sessions of the Council for High Blood Pressure Research

2001 SAFMR/SSCI/APS Trainee Award, Southern Regional Meeting of the American Federation of Medical Research

2001- 2003 August Krogh Young Investigator Award of the Microcirculatory Society, 48<sup>th</sup> Annual Meeting of the Microcirculatory Society

2001 Caroline tum Suden/Frances A. Hellebrandt Professional Opportunity Award, American Physiological Society, Experimental Biology 2001

2005 Tulane University Health Sciences Center Auxiliary Endowment for Excellence in Research Award, Tulane University

**SOCIETIES:**

Regular Member of the American Physiological Society - *Affiliations: Water and Electrolyte Homeostasis Section (primary), Cardiovascular Section (secondary), Endocrine Section (tertier)* - since 2000

Regular Member of the Microcirculatory Society - since 2001

Professional Member of the Council for High Blood Pressure Research, American Heart Association - since 2001

Professional Member of the American Diabetes Association - since 2004

Regular Member of the Shock Society - since 2004

Professional Member of the American Federation for Medical Research - since 2004

Professional Member of the National Lipid Association - since 2005

**NATIONAL COMMITTEES:**

Porter Physiology Development Committee, American Physiological Society, 2005-present

**EDITORIAL BOARDS, REVIEW PANELS:**

*Recent Patent Reviews on Cardiovascular Drug Discovery*, Editorial Board member, 2005-present

*Medical Science Monitor*, International Reviewers Panel member, 2005-present

**INVITED PRESENTATIONS, SYMPOSIUMS:**

Seminar speaker: *Metabolic syndrome increases endogenous carbon monoxide production to promote hypertension and endothelial dysfunction*, Obesity Research Program meeting May 11, 2005, Department of Medicine, Division of Endocrinology, Louisiana State University Health Sciences Center, New Orleans, LA

Organizer and co-chair: *Regulation of cerebrovascular function in health and disease*, The Microcirculatory Society Young Investigators Symposium, Experimental Biology 2006 meeting, San Francisco, CA

Seminar speaker: *Role of heme oxygenase-derived carbon monoxide in endothelial dysfunction during metabolic syndrome*, October 11, 2006, Department of Pharmacology, University of Texas Health Science Center at San Antonio, San Antonio, TX

Organizer and co-chair: *Role of L-arginine metabolism in cardiovascular/renal disease*, American Physiological Society, Water & Electrolyte Homeostasis Section Featured Topic, Experimental Biology 2007 meeting, Washington, D.C.

**SERVICE:**

Ad hoc reviewer for *American Journal of Physiology (Renal, Heart and Circulatory, Endocrinology and Metabolism, Gastrointestinal and Liver, Regulatory, Integrative and Comparative sections)*, *Hypertension*, *Nephrology Dialysis and Transplant*, *Acta Physiologica Scandinavica*, *Toxicology*, *Diabetes Care* journals

Mentor for APS/NIDDK Minority Travel Fellow Keisha Williams, IUPS/EB2005 meeting

**FUNDING HISTORY:**

**Title:** Role of a heme-heme oxygenase-carbon monoxide system in the regulation of vascular tone in isolated arterial vessels

**Funding Agency:** AHA - Southeast Affiliate

**Type:** Postdoctoral Fellowship

**Project Period:** 07/01/00-06/30/02

**Annual Direct Cost:** \$30,000

**PI:** Fruzsina K. Johnson, MD

**Role on Project:** PI

**Title:** Vascular roles for carbon monoxide in Dahl/Rapp rats

**Funding Agency:** Solvay Pharmaceuticals

**Type:** Hypertension Yearly Grants Program

**Project Period:** 07/01/00-06/30/01

**Annual Direct Cost:** \$25,000

**PI:** Fruzsina K. Johnson, MD

**Role on Project:** PI

**Title:** Tulane COBRE in Hypertension and Renal Biology - Project #3: Heme-Heme Oxygenase-Carbon Monoxide System in Salt-Induced Hypertension

**Funding Agency:** NIH - NCRR

**Type:** COBRE

**Project Period:** 09/01/02 - 06/30/07

**Annual Direct Cost for Project #3:** \$158,303

**PI:** L. Gabriel Navar, PhD

**Role on Project:** Jr. Faculty Investigator leader of Project #3

**RESEARCH CONSORTIUMS:**

**Consortium for Integrative Cardiovascular Research (<http://www.cvlabs.org/welcome.htm>),** co-founder, Head of Tulane Division, Director of Microcirculatory Subdivision (<http://www.cvlabs.org/fjohnson/main.htm>)

**National Trauma Institute (NTI),** member

**COLLABORATIONS:**

Robert A. Johnson, PhD, Associate Professor, Department of Surgery, University of Texas Health Science Center at San Antonio, TX

William Durante, PhD, Professor, Department of Medical Pharmacology and Physiology, University of Missouri - Columbia, MO

Hendrik J. Vreman, PhD, Senior Research Scientist, Department of Pediatrics, Stanford University, Palo Alto, CA

Chandan Prasad, PhD, Department of Medicine, Division of Endocrinology, Louisiana State University, New Orleans, LA

**TEACHING EXPERIENCE:**

Instructor for Medical Physiology Course (muscle, cardiovascular, neural and endocrine physiology), Experimental Research Department and 2<sup>nd</sup> Institute of Physiology, Semmelweis University, Budapest, Hungary, 1993-1995

Laboratory Instructor for Medical Physiology Course, Experimental Research Department and 2<sup>nd</sup> Institute of Physiology, Semmelweis University, Budapest, Hungary, 1993-1995

Instructor for English Medical Physiology Course (muscle, cardiovascular, neural and endocrine physiology), Experimental Research Department and 2<sup>nd</sup> Institute of Physiology, Semmelweis University, Budapest, Hungary, 1994-1995

Laboratory Instructor for English Medical Physiology Course, Experimental Research Department and 2<sup>nd</sup> Institute of Physiology, Semmelweis University, Budapest, Hungary, 1994-1995

Laboratory Instructor for Fundamentals of Animal Research, Departments of Comparative Medicine, New York Medical College and Veterinary Technology Mercy College, Valhalla, NY, 1996-97

Laboratory Instructor for Biomedical Engineering Course (cardiovascular labs), Departments of Physiology/Biomedical Engineering, Tulane University, New Orleans, LA, 2000-2006

Facilitator for Problem Based Learning sessions, Medical Physiology Course, Department of Physiology, Tulane University, New Orleans, LA, 2001-2006

Laboratory Instructor for Experimental Physiology Course (cardiovascular and reproductive physiology), Department of Physiology, Tulane University, New Orleans, LA, 2001-2006

Lecturer for Summer Medical Physiology Course (hemodynamics, local vascular control), Department of Physiology, Tulane University, New Orleans, LA, 2004-2006

Lecturer for Biomedical Engineering (undergraduate) Course (hemodynamics, local vascular control), Departments of Physiology/Biomedical Engineering, Tulane University, New Orleans, LA, 2004-2006

**TEACHING EXPERIENCE (cont):**

Lecturer for Medical Physiology Course (hemodynamics, local vascular control, endocrine physiology), Department of Physiology, Tulane University, New Orleans, LA, 2005-2006

Lecturer for Integrative Cardiovascular Physiology Course (Graduate), Department of Physiology, Tulane University, New Orleans, LA, 2005-2006

**STUDENT TRAINEES SUPERVISED:**

Steven S. Hale, Medical Student, Tulane University, 2001, Department of Physiology, Tulane University

Keith E. Jackson, PhD, Postdoctoral Fellow, 2002-present, Department of Physiology, Tulane University

Chris V. Nguyen, Medical Student, Tulane University, 2003, Department of Physiology, Tulane University

Federico J. Teran, Medical Student, Tulane University, 2003, Department of Physiology, Tulane University

Scott D. Appleton, PhD, Postdoctoral Fellow, 2003, Department of Physiology, Tulane University

Blake K. Stevenson, Medical Student, Tulane University, 2004, Department of Physiology, Tulane University

**PUBLICATIONS (maiden name Kozma):**

*Peer reviewed journal articles, invited reviews and bookchapters:*

1. **Kozma F**, Johnson RA, Nasjletti A. Role of carbon monoxide in heme-induced vasodilation. *Eur J Pharmacol* 323:R1-R2, 1997.
2. Johnson RA, **Kozma F**, Colombari E. Invited Review: Carbon monoxide: From toxin to endogenous modulator of cardiovascular functions. *Braz J Med Biol Res* 32:1-14, 1999.
3. **Kozma F**, Johnson RA, Zhang F, Yu C, Tong X, Nasjletti A. Contribution of endogenous carbon monoxide to regulation of diameter in resistance vessels. *Am J Physiol* 276:R1087-R1094, 1999.
4. Johnson RA, **Johnson FK**. The effects of carbon monoxide as a neurotransmitter. *Current Opinion in Neurology* 13:709-713, 2000.
5. Johnson RA, **Johnson FK**. The heme-heme oxygenase-carbon monoxide system and hypertension. in *Carbon Monoxide and Cardiovascular Functions* Edited by R. Wang, CRC Press LLC, 2002, pp. 149-163.
6. **Johnson FK**, Teran FJ, Prieto-Carrasquero M, Johnson RA. Vascular effects of an inhibitor of heme oxygenase are enhanced in the absence of nitric oxide. *Am J Hypertens* 15:1074-1080, 2002.

**PUBLICATIONS (cont.):**

*Peer reviewed journal articles, invited reviews and bookchapters (cont.):*

7. **Johnson FK**, Durante W, Peyton KJ, Johnson RA. Heme oxygenase inhibitor restores arteriolar nitric oxide function in Dahl rats *Hypertension* 41:149-155, 2003.
8. **Johnson FK**, Johnson RA. Carbon monoxide promotes endothelium-dependent constriction of isolated gracilis muscle arterioles. *Am J Physiol Regul Integr Comp Physiol* 285:R536-R541, 2003.
9. Johnson RA, Teran FJ, Durante W, Peyton KJ, **Johnson FK**. Enhanced heme oxygenase-mediated coronary vasodilation in Dahl salt-sensitive hypertension. *Am J Hypertens* 17:25-30, 2004.
10. **Johnson FK**, Durante W, Peyton KJ, Johnson RA. Heme oxygenase-mediated endothelial dysfunction in DOCA-salt, but not in spontaneously hypertensive rat arterioles. *Am J Physiol Heart Circ Physiol* 286:H1681-H1687, 2004.
11. Reyna SV, Ensenat MS, **Johnson FK**, Wang H, Schafer AI, Durante W. Cyclic strain stimulates L-proline transport in vascular smooth muscle cells. *Am J Hypertens* 17:712-717, 2004.
12. Teran FJ, Johnson RA, Stevenson BK, Peyton KJ, Jackson KE, Appleton SD, Durante W, **Johnson FK**. Heme oxygenase-derived carbon monoxide promotes arteriolar endothelial dysfunction and contributes to salt-induced hypertension in Dahl salt-sensitive rats. *Am J Physiol Regul Integr Comp Physiol* 288:R615-R622, 2005.
13. **Johnson FK**, Johnson RA, Peyton KJ, Durante W. Arginase inhibition restores arteriolar endothelial function in Dahl rats with salt-induced hypertension. *Am J Physiol Regul Integr Comp Physiol* 288:R1057-R1062, 2005.
14. **Johnson FK**, Johnson RA, Durante W. Aldosterone promotes endothelial dysfunction via prostacyclin independent of hypertension. *Hypertension* 46: 29-30, 2005.
15. Durante W, **Johnson FK**, Johnson RA. Heme oxygenase-1 as a therapeutic target in atherosclerosis. *Drug Discovery Today: Therapeutic Strategies* 2:201-206, 2005.
16. **Johnson FK**, Johnson RA, Durante W, Jackson KE, Stevenson BK, Peyton KJ. Metabolic syndrome increases endogenous carbon monoxide production to promote hypertension and endothelial dysfunction. *Am J Physiol Regul Integr Comp Physiol* 290: R601-R608, 2006.
17. Durante W, **Johnson FK**, Johnson RA. Role of carbon monoxide in cardiovascular function. *J Cellular Molecular Medicine* 10:672-686, 2006.
18. Durante W, **Johnson FK**, Johnson RA. Invited review. Arginase: a critical regulator of nitric oxide synthesis and vascular function. *Clin Exp Pharmacol Physiol* (in press)

**PUBLICATIONS (cont.):**

*Peer reviewed journal articles, invited reviews and bookchapters (cont.):*

19. Joshi MS, Ferguson TB, **Johnson FK**, Johnson RA, Parthasarathy S, Lancaster JR. Receptor mediated activation of nitric oxide by arginine in endothelial cells. *Proc Natl Acad Sci USA* (under revision)
20. Johnson RA, Appleton SD, Peyton KJ, Jackson KE, Durante W, **Johnson FK**. High salt diet increases endogenous carbon monoxide production to exacerbate hypertension and endothelial dysfunction in obese Zucker rats. (In preparation for submission)
21. Johnson RA, **Johnson FK**. Endogenous carbon monoxide impairs flow-induced dilation in resistance vessels. *Hypertension* (in preparation for submission)
22. Jackson KE, Hale SS, Farley EP, Moehlin M, **Johnson FK**, Navar LG, Johnson RA. Endogenous carbon monoxide acutely alters water and electrolyte homeostasis. *Am J Physiol Regul Integr Comp Physiol* (in preparation for submission)
23. **Johnson FK**, Jackson KE, Teran FJ, Durante W, Peyton KJ, Ortiz RM, Johnson RA. Spironolactone prevents cardiovascular/renal failure and endothelial dysfunction in hypertensive Dahl rats. *Am J Hypertens* (in preparation for submission)
24. **Johnson FK**, Johnson RA, Durante W. Invited Review: An integrative approach to the vascular heme-heme oxygenase-carbon monoxide system in hypertension: Opposing actions with complex pathophysiological roles. *Current Hypertension Reviews* (in preparation for submission)

*Papers presented at national/international meetings:*

1. **Kozma F**, Johnson RA, Nasjletti A. Heme-derived carbon monoxide - A novel vasodilator. *Hypertension*. 1997;29(3):887. (Abstract 198)
2. **Kozma F**, Scholer M, Johnson RA, Nasjletti A. Vasodilatory function of the heme-heme oxygenase-carbon monoxide system. *Microcirculation*. 1997; 4 (1):158. (Abstract 228)
3. **Kozma F**, Ligeti L, Monos E, Colombari E, Johnson RA. Heme-derived carbon monoxide: Endogenous regulator of nitric oxide synthase? *Pathophysiology*. 1998;5 (Suppl. 1):245.
4. Johnson RA, **Kozma F**, Colombari E: Heme-derived CO:Endothelium/sGC-independent vasodilation and endothelium/sGC-dependent vasoconstriction. *Abstracts of XIII. Reunion of FESBE* 1998; page 261.
5. **Kozma F**, Johnson RA, Tong X, Nasjletti A: Role of carbon monoxide in the regulation of basal tone in resistance vessels. *Hypertension* 1998; 32:599. (Abst. 60)
6. **Johnson FK**, Coco K, Teran F, Johnson RA. Unique interaction between the carbon monoxide and nitric oxide systems on vascular tone. *Addendum to EB 2000* (presented at the Experimental Biology 2000 meeting)
7. **Johnson FK**, Teran FJ, Coco KC, Johnson RA. L-NAME, but not phenylephrine enhances the effects of endogenous carbon monoxide on vascular tone *in vivo* and *in vitro*. *Hypertension* 2000; 36: 678.(Abstract 4)



**PUBLICATIONS (cont.):**

*Papers presented at national/international meetings (cont.):*

8. **Johnson FK**, Teran FJ, Coco KC, Johnson RA. Vascular effects of endogenous carbon monoxide are enhanced in the absence of endothelium-derived nitric oxide. *Acta Haematologica* 2000; 103(Suppl 1):72. (Abstract 287)
9. **Johnson FK**, Teran FJ, Navar LG, Johnson RA. Carbon monoxide promotes endothelium-dependent constriction of gracilis arterioles. *FASEB J* 2001; 15:A49. (Abstract 42.7)
10. **Johnson FK**, Teran FJ, Navar LG, Johnson RA. Endogenously-formed carbon monoxide promotes endothelium-dependent constriction of gracilis arterioles. *FASEB J* 2001; 15: A773. (Abstract 635.14)
11. Johnson RA, Nguyen CV, Teran FJ, **Johnson FK**. Carbon monoxide decreases contractility of the paced Langendorff-perfused heart. *FASEB J* 2001; 15: A1139 (Abstract 891.19)
12. Teran FJ, **Johnson FK**, Johnson RA. Endogenously-formed carbon monoxide and nitric oxide interact to affect coronary blood flow and cardiac contractility. *EB2001 Late-Breaking Abstracts* 2001: page 6. (Abstract LB13)
13. **Johnson FK**, Teran FJ, Durante W, Navar LG, Johnson RA. An inhibitor of endogenous carbon monoxide production restores arteriolar nitric oxide function in hypertensive Dahl rats. *Hypertension* 2001; 38: 474. (Abstract 12)
14. Teran FJ, **Johnson FK**, Durante W, Johnson RA. Heme oxygenase-mediated cardioprotection in hypertensive Dahl salt sensitive rats. *Hypertension* 2001; 38: 531. (Abstract P227)
15. **Johnson FK**, Johnson RA. Carbon monoxide promotes dilation of arterioles during nitric oxide clamp. *J Investig Med* 2002; 50:137A (Abstract 719)
16. Vu HV, **Johnson FK**, Johnson RA. Heme oxygenase inhibitor promotes vasoconstriction independent of Rho-kinase. *J Investig Med* 2002; 50:138A (Abstract 721)
17. Rozeski JE, **Johnson FK**, Johnson RA. Endogenous carbon monoxide chronically contributes to water/sodium homeostasis. *J Investig Med* 2002; 50:133A (Abstract 699)
18. Hale SS, **Johnson FK**, Johnson RA. Endogenous carbon monoxide interacts with nitric oxide and acutely promotes water/sodium excretion. *J Investig Med* 2002; 50:149A (Abstract 784)
19. Wilson AR, **Johnson FK**, Johnson RA. Intraperitoneal heme and carbon monoxide increase carboxyhemoglobin levels in the anesthetized rat. *J Investig Med* 2002; 50:137A (Abstract 720)
20. **Johnson FK**, Johnson RA. L-arginine protects against carbon monoxide-induced vasoconstriction. *FASEB J* 2002;16:A851. (Abstract 643.16)
21. **Johnson FK**, Vu HV, Johnson RA. Endogenous carbon monoxide dilates arterioles during nitric oxide clamp. *FASEB J* 2002;16:A128. (Abstract 134.22)
22. Vu HV, **Johnson FK**, Johnson RA. Heme oxygenase inhibitor induced vasoconstriction is modulated by Ca<sup>++</sup> channels. *FASEB J* 2002;16:A852. (Abstract 643.23)
23. Vu HV, **Johnson FK**, Johnson RA. Endogenous carbon monoxide promotes vasodilation independent of Rho-kinase. *FASEB J* 2002;16:A128. (Abstract 134.23)
24. Hale SS, **Johnson FK**, Johnson RA. An inhibitor of endogenously-formed carbon monoxide acutely decreases water/sodium excretion in L-NAME treated rats. *FASEB J* 2002;16:A840. (Abstract 640.17)
25. Rozeski JE, **Johnson FK**, Johnson RA. Endogenous carbon monoxide chronically contributes to water and sodium homeostasis in rats. *FASEB J* 2002;16:A840. (Abstract 640.17)
26. Wilson AR, **Johnson FK**, Johnson RA. Heme and delta aminolevulinic acid increase carboxyhemoglobin levels in the anesthetized rat. *FASEB J* 2002;16:A851. (Abstract 643.15)

**PUBLICATIONS (cont.):**

***Papers presented at national/international meetings (cont.):***

27. Kobori H, Nishiyama A, **Johnson FK**, Abe Y, Navar LG. Enhancement of intrarenal angiotensinogen (AGT) in Dahl salt-sensitive rats (DS) on high salt diets (HS). *FASEB J* 2002;16:A418. (Abstract 371.12)
28. **Johnson FK**, Durante W, Wilson AR, Johnson RA. Endogenous carbon monoxide (CO) contributes to arteriolar nitric oxide (NO) dysfunction in hypertensive Dahl rats. *Acta Physiol Hung* 2002;89:111. (Abstract D2PS041#18P)
29. Johnson RA, **Johnson FK**, Vu HV. Endogenously-formed carbon monoxide (CO) exerts both vasodilatory and vasoconstrictor influences on vascular tone. *Acta Physiol Hung* 2002;89:103. (Abstract D2AS041#02S)
30. Horvath B, Hrabak A, Kaldi K, **Johnson FK**, Sandor P, Benyo Z. The role of endogenous CO and its interaction with NO in the cerebral circulation. *Acta Physiol Hung* 2002;89:58. (Abstract D2PS032#16O)
31. **Johnson FK**, Durante W, Johnson RA. An inhibitor of endogenous carbon monoxide production restores arteriolar nitric oxide function in DOCA-salt hypertensive rats. *Hypertension* 2002;40:381. (Abstract 12)
32. Farley EP, **Johnson FK**, Johnson RA. Delta-aminolevulinic acid enhances carbon monoxide formation and acutely promotes water/sodium excretion. *J Investig Med* 2003;51:S295. (Abstract 221)
33. **Johnson FK**, Durante W, Peyton KJ, Johnson RA. Heme oxygenase-1 does not promote endothelial dysfunction in spontaneously hypertensive rats. *FASEB J* 2003;17:A1250. (Abstract 808.12)
34. Johnson RA, Farley EP, **Johnson FK**. Delta-aminolevulinic acid enhances endogenous carbon monoxide formation and acutely promotes water/sodium excretion. *FASEB J* 2003;17:A1250. (Abstract 808.11)
35. Johnson RA, **Johnson FK**. Carbon monoxide-induced vascular effects are not mediated by superoxide. *FASEB J* 2003;17:A142-A143. (Abstract 102.25)
36. **Johnson FK**, Durante W, Peyton KJ, Johnson RA. Spontaneously hypertensive rats do not display heme oxygenase-1-mediated endothelial dysfunction. *IASH Abstracts* 2003.
37. Johnson RA, **Johnson FK**. Carbon monoxide-induced vascular effects are tempol insensitive. *IASH Abstracts* 2003.
38. Ortiz RM, **Johnson FK**, Durante W, Navar LG, Johnson RA. A heme oxygenase inhibitor increases AII-stimulated plasma aldosterone. *APS Conference: Aldosterone and ENaC: From genetics to physiology*, 2003.
39. Appleton SD, Johnson RA, **Johnson FK**. A heme oxygenase inhibitor restores endothelial vasodilator function in obese Zucker rats. *J Investig Med* 2004;52:S265. (Abstract 48)
40. Teran FJ, Johnson RA, Appleton SD, Durante W, Peyton KJ, **Johnson FK**. Heme oxygenase-mediated endothelial dysfunction develops gradually in hypertensive Dahl rats. *J Investig Med* 2004;52:S307. (Abstract 279)
41. Jackson KE, Moehlen MW, **Johnson FK**, Navar LG, Johnson RA. Carbon monoxide acutely alters water/sodium excretion in L-NAME treated rats. *J Investig Med* 2004;52:S300. (Abstract 244)
42. Teran FJ, Johnson RA, Appleton SD, Durante W, Peyton KJ, **Johnson FK**. Gradual development of heme oxygenase-mediated arteriolar endothelial dysfunction in hypertensive Dahl rats. *FASEB J* 2004;18:A272. (Abstract 201.2)

**PUBLICATIONS (cont.):**

*Papers presented at national/international meetings (cont.):*

43. Appleton SD, Johnson RA, Durante W, Peyton KJ, **Johnson FK**. Salt-induced hypertension is associated with endothelial dysfunction and cardiac enlargement in obese Zucker rats. *FASEB J* 2004;18:A301. (Abstract 209.1)
44. Appleton SD, Johnson RA, **Johnson FK**. A heme oxygenase inhibitor restores endothelial vasodilator function in obese Zucker rats. *FASEB J* 2004;18:A622. (Abstract 430.13)
45. **Johnson FK**, Johnson RA, Peyton KJ, Durante W. Arginase inhibition improves arteriolar endothelial function in hypertensive Dahl rats. *FASEB J* 2004;18:A301. (Abstract 209.2)
46. Johnson RA, Durante W, Peyton KJ, **Johnson FK**. Inhibition of endogenous carbon monoxide production restores flow-induced dilation in hypertensive Dahl rats. *FASEB J* 2004;18:A275. (Abstract 201.18)
47. Johnson RA, **Johnson FK**. Endogenous carbon monoxide impairs flow-induced dilation in isolated skeletal muscle arterioles. *FASEB J* 2004;18:A251. (Abstract 196.19)
48. Jackson KE, Moehlen MW, **Johnson FK**, Navar LG, Johnson RA. Endogenous carbon monoxide alters water/sodium excretion independent of renal hemodynamics. *FASEB J* 2004;18:A1039. (Abstract 680.26)
49. **Johnson FK**, Jackson KE, Teran FJ, Durante W, Peyton KJ, Ortiz RM, Johnson RA. Spironolactone prevents cardiovascular/renal failure and endothelial dysfunction in hypertensive Dahl rats. *FASEB J* 2004;18:A302. (Abstract 209.4)
50. **Johnson FK**, Durante W, Peyton KJ, Johnson RA. Endogenous carbon monoxide abolishes flow-induced dilation in hypertensive Dahl arterioles in an L-arginine sensitive manner. *Hypertension* 2004;44:541-542. (Abstract P137)
51. Johnson RA, Ortiz RM, Appleton SD, Jackson KE, Navar LG, **Johnson FK**. AngII induces adrenal heme oxygenase-1 to promote feedback inhibition of aldosterone synthesis. *Hypertension* 2004;44:515. (Abstract 86)
52. Johnson RA, Appleton SD, **Johnson FK**, Majid DSA. Hemorrhagic shock promotes heme oxygenase-mediated endothelial dysfunction in rat arterioles. *Circulation* 2004;110:III-1098. (Abstract)
53. Stevenson BK, Johnson RA, Jackson KE, Peyton KJ, Durante W, **Johnson FK**. Heme-derived carbon monoxide promotes endothelial dysfunction and hypertension in obese Zucker rats. *J Investig Med* 2005;53:S264. (Abstract 62)
54. Jackson KE, Durante W, Peyton KJ, Johnson RA, **Johnson FK**. L-arginine restores coronary endothelial function in obese Zucker rats. *J Investig Med* 2005;53:S265. (Abstract 65)
55. Newsom RR, Appleton SD, **Johnson FK**, Johnson RA. Neural endogenous carbon monoxide lowers blood pressure via suppression of peripheral sympathetic neurons. *J Investig Med* 2005;53:S267. (Abstract 76)
56. Stevenson BK, Johnson RA, Jackson KE, Peyton KJ, Durante W, **Johnson FK**. Endogenous carbon monoxide promotes endothelial dysfunction in obese Zucker rats. *FASEB J* 19:A1237, 2005 (Abstract 687.16)
57. Jackson KE, Durante W, Peyton KJ, Johnson RA, **Johnson FK**. Coronary endothelial function in obese Zucker rats is restored by L-arginine. *FASEB J* 19:A634, 2005 (Abstract 364.17)
58. Johnson RA, Peyton KJ, Durante W, **Johnson FK**. Increased endogenous carbon monoxide formation promotes hypertension in obese Zucker rats. *FASEB J* 19:A635, 2005 (Abstract 364.20)

**PUBLICATIONS (cont.):**

***Papers presented at national/international meetings (cont.):***

59. Majid A, Appleton SD, **Johnson FK**, Johnson RA. Hemorrhagic loss induces heme oxygenase-mediated endothelial dysfunction in rat arterioles. *FASEB J* 19:A1224, 2005 (Abstract 685.14)
60. Johnson RA, Newsom RR III, **Johnson FK**. Neural endogenous carbon monoxide lowers blood pressure via suppression of peripheral sympathetic neurons. *FASEB J* 19:A604, 2005 (Abstract 355.12)
61. Durante W, Liu XM, Ensenat D, Johnson RA, **Johnson FK**, Peyton KJ. Glucose stimulates arginase activity in cultured vascular cells. *Addendum to EB 2005* (presented at the Experimental Biology 2005 meeting)
62. **Johnson FK**, Stevenson BK, Jackson KE, Peyton KJ, Durante W, Johnson RA. Endogenous carbon monoxide promotes endothelial dysfunction and hypertension in obese Zucker rats. *Diabetes* 54 (Suppl 1): A435, 2005. (Abstract 1813-P)
63. Durante W, **Johnson FK**, Johnson RA, Peyton KJ. Arginase induces endothelial dysfunction and hypertension in obese Zucker rats. *Diabetes* 54 (Suppl 1): A51, 2005. (Abstract 206-OR)
64. Johnson RA, Appleton SD, **Johnson FK**. Heme oxygenase-derived carbon monoxide decreases cardiac contractility and promotes post hemorrhagic circulatory collapse. *Shock* 23 Suppl 3, 2005. (Abstract 2)
65. Johnson RA, Jackson KE, Peyton KJ, Durante W, **Johnson FK**. Endogenous carbon monoxide production is increased and contributes to hypertension in Dahl salt-sensitive rats on high-salt diets. *Hypertension* 46:862, 2005 (Abstract P175)
66. **Johnson FK**, Jackson KE, Peyton KJ, Durante W, Johnson RA. Endogenous carbon monoxide production is increased and contributes to hypertension and endothelial dysfunction in obese Zucker rats. *Hypertension* 46:863, 2005. (Abstract P176)
67. **Johnson FK**, Johnson RA, Durante W, Jackson KE, Stevenson BK, Peyton KJ. Obesity increases HO-derived CO formation to promote hypertension and endothelial dysfunction. *Heme Oxygenase Conference 2005*
68. Johnson RA, **Johnson FK**, Jackson KE. Endogenous CO inhibits NOS, impairs flow-induced dilation and can enhance pressor responsiveness. *Heme Oxygenase Conference 2005*
69. Johnson RA, Majid DSA, Appleton SD, **Johnson FK**, Jackson KE, McCarty ME, Lin CS. Heme-L-lysinate increases CO formation and acutely promotes hemorrhagic circulatory collapse. *Heme Oxygenase Conference 2005*
70. **Johnson FK**, Johnson RA, Durante W, Stevenson BK, Peyton KJ. Metabolic syndrome elevates heme oxygenase-derived carbon monoxide formation to promote hypertension via endothelial dysfunction. *FASEB J* 20:A1392, 2006. (Abstract 905.7).
71. Johnson RA, Jackson KE, Peyton KJ, Durante W, **Johnson FK**. High-salt diet increases endogenous carbon monoxide production to promote hypertension in Dahl salt-sensitive rats. *FASEB J* 20:A306, 2006. (Abstract 211.6)
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