
BIOGRAPHICAL SKETCH

Provide the following information for the key personnel and other significant contributors in the order listed on Form Page 2.
Follow this format for each person. **DO NOT EXCEED FOUR PAGES.**

NAME David E. Stec	POSITION TITLE Professor		
eRA COMMONS USER NAME DAVIDSTEC			
EDUCATION/TRAINING <i>(Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)</i>			
INSTITUTION AND LOCATION	DEGREE <i>(if applicable)</i>	YEAR(s)	FIELD OF STUDY
University of Scranton, Scranton, PA	B.S.	1991	Biology
Medical College of Wisconsin, Milwaukee, WI	Ph.D.	1996	Physiology
University of Iowa, Iowa City, IA	Post-Doc	1996-2000	Molecular Genetics

Please refer to the application instructions in order to complete sections A, B, and C of the Biographical Sketch.

A. Positions and Honors

Positions:

- 1991-1996: Graduate Student, Department of Physiology, Medical College of Wisconsin, Milwaukee, WI.
- 1996-2000: Research Fellow, Department of Internal Medicine, University of Iowa College of Medicine, Iowa City, IA.
- 2000-2001: Assistant Research Scientist, Department of Internal Medicine, University of Iowa College of Medicine, Iowa City, IA.
- 2001- 2009: Assistant Professor, Director, Transgenic Core, Department of Physiology & Biophysics, University of Mississippi Medical Center, Jackson, MS.
- 2007: Tenure
- 2009-2017: Associate Professor, Director, Transgenic Core, Department of Physiology & Biophysics, University of Mississippi Medical Center, Jackson, MS.
- 2017- : Professor, Director, Transgenic Core, Department of Physiology & Biophysics, University of Mississippi Medical Center, Jackson, MS.

Honors:

- 1994-1996: Predoctoral Fellowship, American Heart Association, Wisconsin Affiliate. Mechanism of sensitive hypertension in Dahl S rats.
- 1995: Merck Young Investigator Award for Excellence in Cardiovascular Research, American Heart Association Council for High Blood Pressure Research, New Orleans, LA.
- 1996: Outstanding Dissertation Award, Friends of the Medical College of Wisconsin, Milwaukee, WI.
- 1996-1998: Iowa Cardiovascular Interdisciplinary Research Fellowship, Gene targeting of the renin-angiotensin system via the Cre-loxP recombinase system.
- 1998-2000: Individual National Research Service Award (NRSA), Department of Health and Human Services. Role of intrarenal renin-angiotensin system in blood pressure regulation.
- 1998: Young Investigator Travel Grant, International Society of Hypertension, Amsterdam, Netherlands.
- 1998: Outstanding Postdoctoral Poster, University of Iowa College of Medicine, Research Day, University of Iowa, Iowa, City.
- 2000: Young Investigator Travel Grant, International Society of Hypertension, Chicago, IL.
- 2003: Fellow, American Heart Association
- 2006: Co-Chair, AHA Cardiorenal Study Section
- 2009: Young Scholars Award- American Society of Hypertension, San Francisco, CA.

2010-11: Co-Chair, AHA National Cardiorenal 1 Study Section
2012-13: Chair, AHA National Cardiorenal 1 Study Section

B. Publications

1. Hamoud AR, Weaver L, Stec DE, Hinds TD Jr. Bilirubin in the liver-gut signaling axis. *Trends in Endocrinology and Metabolism*. Epub Feb 3, 2018.
2. Adeosun SO, Moore KH, Lang DM, Nwaneri AC, Hinds TD Jr., Stec DE. A novel fluorescence-based assay for the measurement of biliverdin reductase activity. *Reactive Oxygen Species*, 5(13):35-45, 2018. PMID:PMC5785779.
3. Bakrania BA, Spradley FT, Satchell SC, Stec DE, Rimoldi JM, Gadepalli RS, Granger JP. Heme oxygenase-1 is a potent inhibitor of placental ischemia-mediated endothelin-1 production in cultured human glomerular endothelial cells *Am. J. Physiol. Regul. Integr. Comp. Physiol.* Epub Dec 8, 2017.
4. George EM, Cockrell K, Arany M, Stec DE, Rimoldi JM, Gadepalli RS, Granger JP. Carbon monoxide releasing molecules blunt placental ischemia-induced hypertension. *Am. J. Hypertens.* 30(9):931-937, 2017.
5. Hosick PA, Weeks MF, Hankins MW, Moore KH, Stec DE. Sex-dependent effects of HO-1 deletion from adipocytes in mice. *Int. J. Mol. Sci.*18(3)E611, 2017. PMID:PMC5372627.
6. Adeosun SO and Stec DE. Bilirubin protects the aging heart. *Acta Physiol (Oxf)*, 220(4):402-403, 2017. PMID:PMC5522653.
7. Hinds TD Jr., Hosick PA, Chen S, Tukey RH, Hankins MW, Nestor-Kalinowski A, Stec DE. Mice with hyperbilirubinemia due to Gilbert's Syndrome polymorphism are resistant to hepatic steatosis by decreases serine 73 phosphorylation of PPAR α . *Am. J. Physiol. Endocrinol. Metab.*, 312(4):E244-E252, 2017. PMID:PMC5406988.
8. Marino JS, Stechschulte LA, Stec DE, Nestor-Kalinowski A, Coleman S, Hinds TD Jr. Glucocorticoid receptor β induces hepatic steatosis by augmenting inflammation and inhibition of the peroxisome proliferator-activated receptor (PPAR) α . *J. Biol. Chem.* 291(50):25776-25788, 2016. PMID:PMC5203696.
9. Hinds TD Jr., Burns KA, Hosick PA, McBeth L, Nestor-Kalinowski A, Drummond HA, Alamodi AA, Hankins MW, Vanden Heuvel JP, Stec DE. Biliverdin reductase A attenuates hepatic steatosis by inhibition of glycogen synthase kinase (GSK) 3 β phosphorylation of serine 73 of peroxisome proliferator-activated receptor (PPAR) α . *J. Biol. Chem.* 291(48):25179-25191, 2016. PMID:PMC5122784.
10. Hinds TD Jr., Adeosun SO, Alamodi AA, Stec DE. Does bilirubin prevent hepatic steatosis through activation of the PPAR α nuclear receptor? *Medical Hypotheses*. 95:54-57, 2016. PMID:PMC5433619.
11. Stec DE, John K, Trabbic CJ, Luniwal A, Hankins MW, Baum J, Hinds TD Jr. Bilirubin binding to PPAR α inhibits lipid accumulation. *PloS ONE* 11(4):e0153427. Doi:10.1371/journal.pone.0153427, 2016. PMID:PMC4829185.
12. Ryan MJ, Coleman TT, Sasser JM, Pittman KM, Hankins MW, Stec DE. Vascular smooth muscle specific deletion of the leptin receptor attenuates leptin induced vascular relaxation. *Am. J. Physiol. Regul. Integr. Comp. Physiol.* 310(10):R960-7, 2016. PMID:PMC4896083.
13. Stec DE, Juncos LA, Granger JP. Renal Intramedullary Infusion of Tempol Normalizes the Blood Pressure Response to Intrarenal Blockade of Heme Oxygenase-1 in Angiotensin II-Dependent Hypertension. *J. Am. Soc. Hypertens.* 10(4):346-351, 2016. PMID:PMC4829442.

14. Hosick PA, AlAmodi AA, Hankins MW, Stec DE. Chronic treatment with a carbon monoxide releasing molecule reverses dietary induced obesity in mice. *Adipocyte* 5:1-10, 2015. PMID:PMC4836479.
15. Lu Y, Wei J, Stec DE, Roman RJ, Ge Y, Cheng L, Liu EY, Zhang Z, Laerkegaard Hansen PB, Fan F, Juncos LA, Wang L, Pollock J, Huang PL, Fu Y, Wang S, Liu R. Macula densa nitric oxide synthase 1 β protects against salt-sensitive hypertension. *J Am Soc Nephrol* 27(8):2345-56, 2016. PMID:PMC4829442.
16. Hall ME, Harmancey R, Stec DE. Lean heart: Role of leptin in cardiac hypertrophy and metabolism. *World Journal of Cardiology* 7(9):511-524, 2015 . PMID:PMC4577678.
17. George EM, Stout JM, Stec DE, Granger JP. Heme oxygenase induction attenuates TNF- α -induced hypertension in pregnant rodents. *Front. Pharmacol.* 6:165 doi: 10.3389/fphar.2015.00165. PMID:PMC4538306.
18. Drummond HA and Stec DE. β ENaC acts as a mechanosensor in renal vascular smooth muscle cells that contributes to renal myogenic blood flow regulation, protection from renal injury and hypertension. *J. of Nephrology Res* 1(1):1-9, 2015. PMID:PMC5138029.
19. O'Brien L, Hosick PA, John K, Stec DE, Hind Jr., TD. Biliverdin reductase isozymes in metabolism. *Trends in Endocrinology and Metabolism.* 26(4):212-220, 2015. PMID: PMC4380527.
20. Gannon KP, McKey SE, Stec DE, Drummond HA. Altered myogenic vasoconstriction and regulation of whole kidney blood flow in the ASIC2 knockout mouse. *Am. J. Physiol. Renal Physiol.* 308(4), F339-F348, 2015. PMID:PMC4329487.
21. Hall ME, Maready MW, Hall JE, Stec DE. Rescue of cardiac leptin receptors in db/db mice prevents myocardial triglyceride accumulation. *Am. J. Physiol. Endocrinol. Metab.*, 307(3), E316-25, 2014. PMID:PMC4121577.
22. Hosick PA, Ahmed EK, Gousset MU, Granger JP, Stec DE. Inhalation of carbon monoxide is ineffective as a long-term therapy to reduce obesity in mice fed a high fat diet. *BMC Obesity:* 1:6, 2014. PMID:PMC4511028.
23. Warrington JP, Coleman K, Skaggs C, Hosick PA, Stec DE, Ryan MJ, Granger JP, Drummond HA. Heme oxygenase-1 promotes migration and beta epithelial Na⁺ channel expression in cytotrophoblasts and ischemic placentas. *Am. J. Physiol. Regul. Integr. Comp. Physiol.* 306(9), R641-6 2014. PMID:PMC4010664.
24. Hosick PA, AlAmodi AA, Storm MV, Gousset MU, Pruett BE, Gray III W, Stout J, Stec DE. Chronic carbon monoxide treatment attenuates development of obesity and remodels adipocytes in mice fed a high-fat diet. *Int. J. Obesity* 38(1):132-139, 2014. PMID:PMC3760985.
25. Stout JM, Gousset MU, Drummond HA, Gray III W, Pruett BE, Stec DE. Sex-specific effects of heme oxygenase-2 deficiency on renovascular hypertension. *J. Am. Soc. Hypertens.* 7(5):328-35, 2013. PMID: PMC3783623.
26. Stec DE, Storm MV, Pruett BE, Gousset MU. Antihypertensive actions of moderate hyperbilirubinemia: Role of superoxide inhibition. *Am. J. Hypertens.* 26(7):918-23, 2013. PMID:PMC3731819.
27. George EM, Hosick PA, Stec DE, Granger JP. Heme oxygenase inhibition increases blood pressure in pregnant rats. *Am. J. Hypertens.* 26(7):924-30, 2013. PMID:PMC3731822.
28. Hall ME, Smith G, Hall JE, Stec DE. Cardiomyocyte-specific deletion of leptin receptors causes lethal heart failure in Cre-recombinase mediated cardiotoxicity. *Am. J. Physiol. Regul. Integr. Comp. Physiol.* 303(12):R1241-50, 2012. PMID:PMC03532590

29. Stec DE, Ishikawa K, Sacerdoti D, Abraham NG. Emerging role of heme oxygenase and its metabolites in the regulation of cardiovascular function. *Int. J. Hypertens.* 2012;2012: 593530. Epub Oct 22, 2012. PMID:PMC3485519
30. Stec DE, Hosick PA, Granger. Bilirubin, renal hemodynamics, and blood pressure. *Front. Pharmacol.* 3:18, 2012 (Epub Feb 14, 2012) PMID: PMC3278997
31. Stec DE, Drummond HA, Gousset MU, Storm MV, Abraham NG, Csongradi E. Expression of heme oxygenase-1 in thick ascending loop of Henle attenuates angiotensin II-dependent hypertension. *J Am Soc Nephrol* 23(5): 834-841, 2012. PMID:PMC3338287.
32. Csongradi E, Juncos LA, Drummond HA, Vera T, Stec DE. Role of carbon monoxide in kidney function: Is a little carbon monoxide good for the kidney? *Curr Pharm Biotechnol.* 13: 819-826, 2012. PMID:PMC3354025.
33. Csongradi E, Storm MV, Stec DE. Renal inhibition of heme oxygenase-1 increases blood pressure in angiotensin-II dependent hypertension. *Int.J. Hypertens.* 2012;2012:497213. Epub Nov 16, 2011. PMID:PMC3227477.
34. Chandrashekar K, Lopez-Ruiz A, Juncos R, Nath K, Stec DE, Vera T, Liu R, Juncos LA. The modulatory role of heme oxygenase on subpressor angiotensin II-induced hypertension and renal injury. *Int. J. Hypertens.* 2012;2012:392890. Epub 2012 Mar 11. PMID:PMC3312292.
35. Hosick PA and Stec DE. Heme oxygenase, a novel target for the treatment of hypertension and obesity? *Am. J. Physiol. Regul. Integr. Comp. Physiol.* 302:R207-214, 2012. PMID:PMC3278997
36. George EM, Aranay M, Cockrell K, Storm MV, Stec DE, Granger JP. Induction of heme oxygenase-1 attenuates sFlt-1 induced hypertension in pregnant rats. *Am. J. Physiol. Regul. Integr. Comp. Physiol.* 301(5):R1495-500, 2011. PMID: PMC3213946
37. Rodriguez F, Lopez B, Perez C, Fenoy FJ, Hernandez I, Stec DE, Li Volti G, Garcia Salom M. Chronic tempol treatment attenuates the renal hemodynamic effects induced by a heme oxygenase inhibitor in streptozotocin diabetic rats. *Am. J. Physiol. Regul. Integr. Comp. Physiol.* 301(5):R1540-8, 2011. PMID:
38. Drummond HA, Grifoni SC, Abu-Zaid A, Gousset M, Chiposi R, Barnard JM, Murphey B, Stec DE. Renal inflammation and elevated blood pressure in a mouse model of reduced β ENaC. *Am. J. Physiol. Renal Physiol.*301(2):F443-9, 2011. PMID:PMC3154591
39. Csongradi E, doCarmo JM, Dubinion JH, Vera T, Stec DE. Chronic HO-1 induction with cobalt protoporphyrin (CoPP) treatment increases oxygen consumption, activity, heat production and lowers body weight in obese melanocortin-4-receptor-deficient mice. *Int. J. Obesity* 36(2):244-53, 2012. PMID: PMC3139690
40. Hall ME, Smith G, Hall JE, Stec DE. Systolic dysfunction in cardiac specific ligand inducible MerCreMer transgenic mice. *Am. J. Physiol. Heart and Circulatory Physiology.* 301(1):H253-60, 2011. PMID: PMC3129917
41. George EM, Cockrell K, Aranay M, Csongradi E, Stec DE, Granger JP. Induction of heme oxygenase 1 attenuates placental ischemia-induced hypertension. *Hypertension.* 57(5):941-8, 2011. PMID: PMC3085942
42. Salahudeen AK, Yang M, Huang H, Dore S, Stec DE. Fenoldopam preconditioning :role of heme oxygenase-1 in protecting human tubular cells and rodent kidneys against cold-hypoxia injury. *Transplantation* 91(2):176,182, 2011. PMID: PMC3142452
43. Cao J, Sodhi K, Inoue K, Quilley J, Rezzani R, Rodella L, Vanella L, Germinario L, Stec DE, Abraham NG, Kappas A. Lentiviral human heme oxygenase targeting endothelium

- improved vascular function in Ang II model of hypertension. *Hum Gene Ther.* 22:1-12, 2011. PMID: PMC3057195
44. Bardowell SA, Stec DE, Parker RS. Common variants of cytochrome P450 4F2 exhibit altered vitamin E- ω -hydroxylase specific activity. *J.Nutr.* 140 (11):1901-6, 2010. PMID: PMC2955872
 45. Vera T and Stec DE. Moderate hyperbilirubinemia improves renal hemodynamics in angiotensin II dependent hypertension. *Am. J. Physiol. Regul. Integr. Comp. Physiol.* 299(4):R1044-9, 2010. PMID: PMC2957382
 46. Csongradi E, Vera T, Rimoldi JM, Gadepalli RS, Stec DE. In Vivo Inhibition of Renal Heme Oxygenase with an Imidazole-Dioxolane Inhibitor. *Pharmacol Res.* 61(6):525-30, 2010. PMID: PMC2859119
 47. Hall JE, da Silva AA, do Carmo JM, Dubinion J, Hamza S, Munusamy S, Smith G, Stec DE. Obesity-induced Hypertension: Role of Sympathetic Nervous System, Leptin and Melanocortins. *J Biol Chem.* 285(23):17271-6, 2010. PMID: PMC2878489
 48. Stec DE, Vera T, Storm MV, McLemore Jr GR, Ryan MJ. Blood pressure and renal blood flow responses in heme oxygenase-2 knockout mice. *Am. J. Physiol. Regul. Integr. Comp. Physiol.* 297(6):R1822-8, 2009. PMID: PMC2803624
 49. Young SC, Storm MV, Speed JS, Kelsen S, Tiller CV, Vera T, Drummond HA, Stec DE. Inhibition of biliverdin reductase increases ANG II-dependent superoxide levels in cultured renal tubular epithelial cells. *Am. J. Physiol. Regul. Integr. Comp. Physiol.* 297(5):R1546-53, 2009. PMID: PMC2777783
 50. Vera T, Granger JP, Stec DE. Inhibition of bilirubin metabolism induces moderate hyperbilirubinemia and attenuates angiotensin-II dependent hypertension in mice. *Am. J. Physiol. Regul. Integr. Comp. Physiol.* 297(3):R738-43, 2009. PMID: PMC2739796
 51. Kelsen S, Patel BJ, Parker LB, Vera T, Rimoldi JM, Gadepalli RSV, Drummond HA, Stec DE. Heme Oxygenase Attenuates Angiotensin II-Mediated Superoxide Production in Cultured Mouse Thick Ascending Loop of Henle Cells. *Am.J. Physiol. Renal Physiol.* 295(4):F1158-65, 2008. PMID: PMC2576158.
 52. Vera T, Kelsen S, Stec DE. Kidney-Specific Induction of Heme Oxygenase-1 Prevents Angiotensin II Hypertension. *Hypertension.* 52:1-6, 2008. PMID: PMC2803055.
 53. Stec DE, Drummond HA, Vera T. Role of Carbon Monoxide in Blood Pressure Regulation. *Hypertension.* 51:1-8, 2008.
 54. Stec DE, Vera T, McLemore GR, Kelsen S, Rimoldi JM, Gadepalli RSV, Ryan MJ. Heme oxygenase-1 induction does not improve vascular relaxation in angiotensin II hypertensive mice. *Am. J. Hypertens.* 21(2):189-93, 2008. PMID: PMC2849138.
 55. Zabalgoitia M, Colston JT, Reddy SV, Holt JW, Regan RF, Stec DE, Rimoldi JM, Chandrasekar B. Carbon monoxide donors or HO-1 overexpression block interleukin 18 mediated NF- κ B-PTEN –dependent human cardiac endothelial cell death. *Free Radical Biology and Medicine.* 44:284-298, 2008. PMID: PMC2576158.
 56. Asija A, Peterson SJ, Stec DE, Abraham NG. Targeting endothelial cells with heme oxygenase-1 gene using VE-Cadherin promoter attenuates hyperglycemia-mediated cell injury and apoptosis. *Antioxidants & Redox Signaling* 9(12):2065-73, 2007.
 57. Goodman AI, Olszanecki R, Yang LM, Quan S, Li M, Omura S, Stec DE, Abraham NG. Heme oxygenase-1 protects against radiocontrast-induced acute kidney injury by regulating anti-apoptotic proteins. *Kidney Int.* 72(8):945-53, 2007.
 58. Stec DE, Roman RJ, Flasch A, Rieder MJ. A functional polymorphism in human CYP4F2 decreases 20-HETE production. *Physiological Genomics.* 30(1):74-81, 2007.
 59. Vera T, Kelsen S, Yanes LL, Reckelhoff JF, Stec DE. HO-1 induction lowers blood pressure and superoxide production in the renal medulla of angiotensin II hypertensive mice. *Am.J. Physiol. Regul. Integr. Comp. Physiol.* 292(4): R1472-8, 2007.
 60. Stec DE, Bishop C, Rimoldi JM, Poreddy SR, Vera T, Salahudeen AK. Carbon monoxide (CO) protects renal tubular epithelial cells against cold-rewarm apoptosis. *Renal Failure.* 29:1-6, 2007.

61. Vera T and Stec DE. Heme Oxygenase-1: A potential anti-hypertensive target. *Current Hypertension Reviews*. 3(1): 75-82, 2007.
62. Stec DE, Gannon KP, Beaird JS, Drummond HA. 20-Hydroxyeicosatetraenoic Acid (20-HETE) stimulates migration of vascular smooth muscle cells. *Cell Physiol Biochem*. 19:121-128, 2007.
63. Olszanecki R, Rezzani R, Omura S, Stec DE, Rodella L, Botros F, Goodman AI, Drummond G, Abraham NG. Genetic suppression of HO-1 exacerbates renal damage: Reversed by an increase in the anti-apoptotic signaling pathway. *Am. J. Physiol. Renal Physiol*. 292:F148-157, 2007.
64. Granger JP, Abram S, Stec DE, Chandler D, LaMarca B. Endothelin, the Kidney, and Hypertension. *Current Hypertension Reports*. 8(4): 298-303, 2006.
65. Grifoni SD, Gannon KA, Stec DE, Drummond HA. ENaC proteins contribute to VSMC migration. *Am. J. Physiol. Heart Circ Physiol*. 291(6):H3076-86, 2006.
66. Ryan MJ, Jernigan NL, Drummond HA, McLemore Jr., GR, Rimoldi JM, Poreddy SR, Gadepalli RSV, Stec DE. Renal vascular responses to CORM-A1 in the mouse. *Pharmacol Res*. 54(1):24-9, 2006.
67. Drummond HA, Furtado MM, Myers S, Grifoni S, Parker KA, Hoover A, Stec DE. ENaC proteins are required for NGF-induced neurite growth. *Am. J. Physiol. Cell Physiol*. 290(2):C404-C410, 2006.
68. Tallam LS, Stec DE, Willis MA, da Silva AA, Hall JE. Melanocortin-4 receptor-deficient mice are not hypertensive or salt-sensitive despite obesity, hyperinsulinemia, and hyperleptinemia. *Hypertension* 46(2): 326-332, 2005.
69. Vera T, Henegar JR, Drummond HA, Rimoldi JM, Stec DE. Protective effect of carbon monoxide releasing compounds in ischemia-induced acute renal failure. *J Am soc Nephrol* 16: 950-958, 2005.
70. Vera T, Taylor M, Bohman Q, Flasch A, Roman RJ, Stec DE. Fenofibrate prevents the development of angiotensin II-dependent hypertension in mice. *Hypertension* 45(2):730-735, 2005.
71. Stec DE. Smart Gene Therapy for the Heart. *Hypertension* 43:720-721, 2004.
72. Stec DE, Flasch A, Roman RJ, White JA. Distribution of Cytochrome P450 4A and 4F isoforms along the nephron in mice. *Am. J. Physiol. Renal Physiol.*, 284:F95-F102, 2003.
73. Zhu H, Paul IA, Stec DE, Peeler DF, Piletz JE. Non-adrenergic exploratory behavior induced by moxonidine at mildly hypotensive doses. *Brain Research*, 964:9-20, 2003.
74. Stec DE, Keen HL, Sigmund CD. Lower blood pressure in floxed angiotensinogen mice after adenoviral delivery of Cre-recombinase. *Hypertension*. 39 (2 pt 2):629-633, 2002.
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76. Ding Y, Stec DE, Sigmund CD. Genetic evidence that lethality in angiotensinogen-deficient mice is due to loss of systemic but not renal angiotensinogen. *J. Biol. Chem* 276:7431-7436, 2001
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80. Stec DE, Sigmund CD. Modifiable gene expression in mice: Kidney-specific deletion of a target gene via the Cre-loxP system. *Exp Nephrol* 6:568-575, 1998.
81. Stec DE, Davisson RL, Sigmund CD. Transgenesis and gene targeting in the mouse. *Trends Cardiovasc Med* 8:256-264, 1998.
82. Jiang J, Stec DE, Drummond HA, Simon JS, Koike G, Jacob HJ, Roman RJ. Transfer of a salt-resistant renin allele raises blood pressure in Dahl salt-sensitive rats. *Hypertension* 29:619-627, 1997.

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84. Wang MH, Stec DE, Balazy M, Matyugin V, Yang CS, Roman RJ, Schwartzman ML. Cloning, sequencing, and cDNA-directed expression of the rat renal CYP4A2:arachidonic acid omega-hydroxylation and 11,12-epoxidation by CYP4A2 protein. *Arch. Biochem. & Biophys.* 336:240-250, 1996.
85. Stec DE, Triolett MR, Krieger JK, Jacob HJ, Roman RJ. Cytochrome P4504A activity and salt-sensitive hypertension in spontaneously hypertensive rats. *Hypertension* 27:1329-1336, 1996.
86. Stec DE, Deng AY, Rapp JP, Roman RJ. Cytochrome P4504A cosegregates with hypertension in Dahl S rats. *Hypertension* 27(pt.2): 564-568, 1996.
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88. St. Lezin EM, Pravenec M, Wong AL, Liu W, Wang N, Lu S, Jacob HJ, Roman RJ, Stec DE, Wang JM, Reid IA, Kurtz TW. Effect of renin gene transfer on blood pressure and renin gene expression in a congenic strain of Dahl Salt-Resistant rats. *J. Clin. Invest.* 97:522-527, 1996.

Complete List of Published Work in My Bibliography:

<https://www.ncbi.nlm.nih.gov/sites/myncbi/david.stec.2/bibliography/40816641/public/?sort=date&direction=descending>

C. Research Support

Ongoing Support

NIH 1R01HL108618-01- Granger 4/1/2011-12/31/2015

National Heart, Lung, Blood Institute
"Hypertension, Kidney, and Pregnancy"

The goal of this project is to determine the role of heme oxygenase and its metabolites in the development of pregnancy induced hypertension

Role: Co-Investigator- 1.8 person months per year

NIH 1R01DK098582-01A1-Liu 9/9/2013-8/31/2018

NIH/NIDDK
"Tubuloglomerular feedback and salt-sensitive hypertension"

Role : Co-Investigator-1.2 person months per year

The goal of this project is to determine the role of macula densa NOS1 in the regulation of tubuloglomerular feedback and salt-sensitive hypertension.

NIH PO1 HL05197-11- Hall 12/1/2014-11/30/2019

National Heart, Lung, Blood Institute
"Cardiovascular dynamics and their control. Project 1, Neurohumoral and renal mechanisms of hypertension."

Role: Co-Investigator, Project 1- 0.6 person months per year.

The goal of this project is to determine the role of the proopiomelanocortin pathway in the development of obesity hypertension.

P20GM104357-01- Hall 9/5/2103-4/30/2018

NIH/NIGM
"Cardiorenal and Metabolic Diseases Research Center"

Role: Core Director-0.6 person months per year

The goal is the project is to create and support a Center of Biomedical Research Excellence focused on cardiovascular, renal and metabolic diseases.

Completed Support

RO1-HLO8842-S1 7/15/2009-6/30/2011

National Heart, Lung, Blood Institute
"The Renal Medulla and Hypertension"

This was an administrative supplement obtained as part of the American Recovery and Reinvestment Act of 2009 to support a post-doctoral fellow in the lab. The goal of the project was to determine the mechanism by which inhibition of heme oxygenase increases blood pressure and alters kidney function.

Role: Principle Investigator

0755330B-Stec 7/1/07-6/30/09 (Turned back early)

American Heart Association, Greater Southeast Affiliate
"Role of renal medullary HO-1 in blood pressure regulation."

The goal of the project is to determine the mechanism by which increases in heme oxygenase-1 (HO-1) and its metabolites carbon monoxide and bilirubin in the renal medulla alters blood pressure and kidney function.

Role: Principle Investigator.

0430094N- Stec 1/1/04-12/31/07

American Heart Association, National Affiliate
"Evaluation of the renal cytochrome P450 4A system in mice."

The goal of this project is to characterize the renal cytochrome P450 4A system in the kidney of the mouse and to develop specific models of increased renal production of 20-HETE in transgenic mice.

Role: Principle Investigator.

01603957- Stec 7/1/01-6/30/03

American Heart Association, Heartland Affiliate
Evaluation of the renal cytochrome P450 4A system in mice.

The goal of this project was to characterize the renal cytochrome P450 4A system in the kidney of the mouse and to develop specific models of increased renal production of 20-HETE in transgenic mice.