

Bibliography

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i10-index: 93

Citations (as 02/05/2025): 7117

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12. Zhu XY, Chade AR, Ritman EL, Lerman A, Lerman LO. Simvastatin preserves renal microvascular structure in renal artery stenosis. Abstract book, page 378A, (#1042-135) of the 54th Scientific Sessions of the American College of Cardiology, Orlando, FL, March 2005.
13. Zhu XY, Rodriguez-Porcel M, Chade AR, Ritman EL, Lerman A, Lerman LO. Coronary microvascular remodeling in hypertension: Role of oxidative stress. Abstract book, page 433A (#1157-131) of the 54th Scientific Sessions of the ACC, Orlando, FL, March 2005.
14. Chade AR, Zhu X, Lerman A, Lerman LO. HMG Co-A Reductase Inhibitors Improve Renal Endothelial Function in

Atherosclerotic Renal Artery Stenosis. Abstract book of the XVI Scientific Meeting of the Inter-American Society of Hypertension, April 2005.

15. Zhu XY, Chade AR, Lerman A, Lerman LO. Simvastatin Prevents Coronary microvascular remodeling in hypertension. Abstract book of the XVI Scientific Meeting of the Inter-American Society of Hypertension, April 2005.
16. Daghini E, Primak A, Chade AR, Krier JD, Zhu X, McCollough CH, Lerman LO. Measurements of renal hemodynamics and function using 64-slice multidetector CT: Comparison with EBCT. RSNA meeting, November 2005.
17. Herrmann J, Saguner A, Chade AR, Versari D, Olson M, Lerman LO, Lerman A. Proteasome inhibition - A new road to atherogenesis?" *J Am Coll Cardiol*. 2006;47 Suppl. A, 329A.
18. Herrmann J, Saguner A, Versari D, Chade AR, Olson M, Lerman LO, Lerman A. Coronary endothelial dysfunction as a consequence of chronic in-vivo proteasome inhibition? European Society of cardiology Meeting, 2006.
19. Daghini E, Chade AR, Zhu X, Versari D, Krier JD, Lerman A, Lerman LO. Synergistic effect of hypertension and hypercholesterolemia on myocardial microvascular permeability response to acute coronary artery stenosis. 60th Annual Fall Conference and Scientific Sessions of the Council for High Blood Pressure Research, San Antonio, TX, October 4-7, 2006.
20. Daghini E, Primak AN, Chade AR, Krier JD, Zhu X, McCollough CH, Lerman LO. Evaluation of myocardial microvascular permeability and fractional vascular volume using 64-slice helical CT. AHA Scientific Sessions 2006 in Chicago, Illinois, November 12-15.
21. Chade AR, Textor, S, Lerman A, Lerman LO. Endothelin-A receptor blockade improves renal microvascular architecture and function in experimental hypercholesterolemia. Presented at the American Society of Nephrology-Scientific Session, Renal Week, San Diego, CA, November 2006.
22. Chade AR, Lerman LO. Simvastatin attenuates epithelial-to-mesenchymal transdifferentiation and renal scarring in the ischemic kidney. Presented at the Inter-American Society of Hypertension XVIIth Scientific Sessions, May 2007.
23. Chade AR, Zhu XY, Krier J, Pislaru S, Simari R, Lerman A, Lerman LO. Intra-renal infusion of autologous progenitor cells improves the hemodynamics and function of the ischemic kidney. Presented at the Inter-American Society of Hypertension XVIIth Scientific Sessions, May 2007.
24. Chade AR, Krier, Lerman A, Lerman LO. Thalidomide decreases inflammation and improves renal endothelial function in experimental hypercholesterolemia. Presented at the Inter-American Society of Hypertension XVIIth Scientific Sessions, May 2007.
25. Zhu XY, Chade AR, Pislaru S, Simari R, Lerman A, Lerman LO. Early renovascular hypertension upregulates vegf expression in endothelial progenitor cells. Presented at the Inter-American Society of Hypertension XVIIth Scientific Sessions, May 2007.
26. Lavi R, Chade AR, Zhu XY, Krier J, Lerman A, Lerman LO. Simvastatin improves renal function and decreases fibrosis in pigs with combined hypertension and hypercholesterolemia. Presented at the Inter-American Society of Hypertension XVIIth Scientific Sessions, May 2007.
27. Lavi R, Primak A, Daghini E, Chade AR, Krier J, Zhu XY, McCollough C, Lerman LO. Feasibility of determining renal artery stenosis degree and function with 64-slice multi-detect computed tomography. Presented at the Inter-American Society of Hypertension XVIIth Scientific Sessions, May 2007.
28. Zhu XY, Chade AR, Krier J, Daghini E, Lavi R, Lerman A, Lerman LO. Inhibition of the chemokine monocyte chemoattractant protein-1 decreases recruitment of circulating fibrocytes to the stenotic porcine kidney in renovascular

hypertension. *J Am Coll Cardiol.* 51(10):A314, 2008.

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30. Zhu XY, Chade AR, Krier J, Daghini E, Lavi R, Guglielmotti A, Lerman A, Lerman LO. Inhibition of the chemokine monocyte chemoattractant protein-1 improves endothelial function of porcine kidney in renovascular hypertension. 62th Annual Fall Conference and Scientific Sessions of the Council for High Blood Pressure Research, Atlanta, GA (Published in *Hypertension.* 52(4) e32-e131, 2008).
31. Zhu XY, Chade AR, Krier J, Jing Lin, Lavi R, Lerman A, Lerman LO. Endothelial progenitor cells improve renal function in experimental atherosclerotic renovascular disease. 62th Annual Fall Conference and Scientific Sessions of the Council for High Blood Pressure Research, Atlanta, GA (Published in *Hypertension.* 52(4) e32-e131, 2008).
32. Jing Lin, Zhu XY, Chade AR, Krier J, Daghini E, Lavi R, Guglielmotti A, Lerman A, Lerman LO. MCP-1 mediates myocardial microvascular dysfunction in swine renovascular hypertension. 62th Annual Fall Conference and Scientific Sessions of the Council for High Blood Pressure Research, Atlanta, GA (Published in *Hypertension.* 52(4) e32-e131, 2008).
33. Fernandez S, Iliescu, R, Chade AR. Renoprotective effects of exogenous VEGF in experimental renovascular disease. 62th Annual Fall Conference and Scientific Sessions of the Council for High Blood Pressure Research, Atlanta, GA (Published in *Hypertension.* 52(4) e32-e131, 2008).
34. Zhu X, Chade AR, Lin J, Krier JD, Lerman A, Lerman LO. Activation of the Xanthine oxidase pathway in experimental atherosclerotic renovascular disease is blunted by cell-based therapy. Renal Week 2008, Nov., Philadelphia, American Nephrology Society (*J Am Soc Nephrol.* 19: 2008, p 649A, SA-PO2395).
35. Iliescu R, Chade AR. Renal neovascularization in experimental obesity. Renal Week 2008, Nov., Philadelphia, American Society of Nephrology (*J Am Soc Nephrol.* 19: 2008, p 110A, SA-FC491).
36. Iliescu R, Chade AR. Microvascular Loss and Progression of Renal Injury in Renovascular Disease: Renoprotective Effects of VEGF. Presented at Experimental Biology 2009, April 2009, New Orleans, LA (Published in *FASEB J.* 2009 23:804.7).
37. Kelsen S, Chade AR. Endothelin-A receptor blockade preserves the renal microcirculation in experimental renovascular disease. 63rd Annual Fall Conference and Scientific Sessions of the Council for High Blood Pressure Research, Chicago, IL (*Hypertension.* 54(4) e70, 2009).
38. Maric C, Manigrasso MB, Marbury DC, Chade AR. Decrease in renal microvascular density precedes the decline in renal function in STZ-induced diabetic rats. Presented at Renal Week 2009, Oct., San Diego, CA, American Society of Nephrology.
39. Chade AR, Kelsen S, Fails F, Bailey J. Renal microvascular disease and the responses to renal revascularization. Presented at Experimental Biology 2010, Anaheim, CA.
40. Chade AR, Kelsen S, Fails F, Bailey J. Endothelin-A receptor blockade improves angiogenic signaling in the stenotic kidney. Presented at Experimental Biology 2010, Anaheim, CA.
41. Veerisetty SS, Kelsen S, Chade AR. Novel renoprotective effect of endothelin-A receptor blockade by up-regulation of hepatocyte growth factor in the stenotic kidney. 64th Annual Fall Conference and Scientific Sessions of the Council for High Blood Pressure Research, Washington, DC, 2010. *Hypertension.* 56(5) e160, 2010.
42. Chade AR. Intra-renal administration of VEGF: A potential therapeutic approach for renovascular disease. Presented at Experimental Biology 2011, Washington, DC (04/11/2011).

43. Maric C, Flynn E, Chade AR. Treatment with C-peptide slows the progression of diabetic renal disease in the streptozotocin (STZ)-induced diabetic rat. Presented at Experimental Biology 2011, Washington, DC (04/11/2011).
44. Chade, AR: "Potential Mechanisms of VEGF-Induced Renoprotection in Renovascular Disease" page e39, Abstract HG02, Hypertension 2011, 58:e33-e1832011.
45. Chade AR. Endothelin-A receptor blockade in chronic renovascular disease: A novel therapeutic application. Abstract FR-OR234, J Am Soc Nephrol 22: 2011. American Society of Nephrology-Kidney Week 2011, Philadelphia, PA, 2011.
46. Chade AR. Intra-renal administration of hepatocyte-growth factor reversed microvascular functional rarefaction and decreased remodeling in the stenotic kidney. 66th Annual Fall Conference and Scientific Sessions of the Council for High Blood Pressure Research, Washington, DC, 2012.
47. Chade AR. Chronic Endothelin-A Receptor Blockade Improved the Responses to Renal Revascularization in Experimental Renovascular Disease. American Society of Nephrology-Kidney Week 2012, San Diego, CA, 2012.
48. Chade AR: Atrasentan Therapy Enhanced Recovery of Renal Function After Renal Angioplasty in Experimental Renovascular Disease. 50th ERA-EDTA Congress, Istanbul, Turkey, May 21st, 2013.
49. Chade AR, Stewart NJ: Renal angioplasty, endothelin receptor blockers, and recovery of renal function: A, not B. American Society of Nephrology-Kidney Week 2013, Atlanta, GA, November 2013.
50. Tullos NA, Davidovich R, Chade AR: Dual ETA/B receptor blockade therapy in renovascular disease. Experimental Biology 2014, San Diego, CA, April 2014.
51. Chade AR, Tullos NA, Surlis, BL: Endothelin-A Receptor Antagonism Following Renal Angioplasty Enhanced the Recovery of Renal Function by Decreasing Podocyte and Tubular Damage. 68th Annual Fall Conference and Scientific Sessions of the Council for High Blood Pressure Research, San Francisco, CA, 2014.
52. Chade AR, Bidwell GL: Administration of Elastin-like Polypeptide-VEGF in the Stenotic Kidney: a Novel Targeted Treatment to Recover Renal Function. American Society of Nephrology-Kidney Week 2014, Philadelphia, PA, November 2014.
53. Chade AR, Harvey TW: Potential Mechanisms of Renoprotection in the Stenotic Kidney After Endothelin-type A Receptor Antagonism: Podocytes, VEGF and sFlt-1. Experimental Biology 2015, Boston, MA, April 2015.
54. Chade AR, Harvey TW, Bidwell GL: Systemic Administration of a Biopolymer-delivered VEGF Improved Renal Hemodynamics and Microvascular Rarefaction in Renal Artery Stenosis. Experimental Biology 2015, Boston, MA, April 2015.
55. Bidwell GL, Chade AR: A kidney-targeted protein biopolymer drug delivery system. Experimental Biology 2015, Boston, MA, April 2015.
56. Chade AR, Bidwell GL: "Therapeutic Angiogenesis in Renal Artery Stenosis: Intra-renal Therapy Using a Biopolymer-delivered VEGF Construct Ameliorates Microvascular Damage and Renal Dysfunction". 52th ERA-EDTA, London, UK, May 2015.
57. Chade AR, Vincent LJ, Mahdi F, Shao Q, Bidwell GL,: A Novel Kidney-targeted Bioengineered Protein Carrier for Drug Delivery Binds to the Kidney Independent of the Species. Experimental Biology 2016, San Diego, CA, April 2016.
58. Chade AR, Vincent LJ, Bidwell GL: "A Novel Biopolymer-Delivered VEGF for Therapeutic Angiogenesis in Renovascular Disease: Targeting the Kidney Via Systemic Administration". 53th ERA-EDTA, Vienna, Austria, May

2016.

59. Chade AR, Guise E, Vincent LJ, Bidwell GL: “Angioplasty Combined with Intra-renal Administration of a Biopolymer-delivered VEGF Construct to Improve Renal Recovery: A New Therapeutic Strategy”. American Society of Nephrology-Kidney Week 2016, Chicago, IL, November 2016.
60. Guise E, Harvey T, Williams M, Chade AR: “A Biopolymer-delivered VEGF Construct Improves Kidney Recovery by Stimulating Pro-angiogenic Signaling and Renal Progenitor Cell Mobilization in Chronic Renovascular Disease”. Experimental Biology 2017, Chicago, IL, April 2017.
61. Warrington JP, Spradley FT, Chade AR, Ryan MJ, Granger JP, Drummond HA: “Altered Placental Vascular Remodeling in a Mouse Model of Reduced beta-ENaC”. Experimental Biology 2017, Chicago, IL, April 2017.
62. Chade AR, Guise E, Williams M, Harvey T: A novel swine model of chronic renal disease. 54th ERA-EDTA, Madrid, Spain, June 2017. *Nephrol Dial Transplant* (2017) 32 (suppl_3): iii450. DOI: <https://doi.org/10.1093/ndt/gfx162.MP068>
63. Chade AR, Guise E, Williams M, Harvey T, Bidwell, GL: “Reversal of renal dysfunction and injury by therapeutic angiogenesis in chronic renal disease: not everything is lost”. 54th ERA-EDTA, Madrid, Spain, June 2017. *Nephrol Dial Transplant* (2017) 32 (suppl_3): iii42. DOI: <https://doi.org/10.1093/ndt/gfx113.MO004>
64. Chade AR, Williams M, Bidwell GL: “Therapeutic angiogenesis in CKD”. American Society of Nephrology-Kidney Week 2017, New Orleans, LA, November 2017.
65. Kuna M, Mahdi F, McGowan JWD, Chade AR, Bidwell GL: “Pharmacokinetics and Intra-Renal Accumulation of the Drug Delivery Biopolymer Elastin-Like Polypeptide is Dependent on its Molecular Weight”. American Society of Nephrology-Kidney Week 2017, New Orleans, LA, November 2017.
66. Guise E, Pruett WA, Chade AR: “A Boolean Model of Microvascular Rarefaction to Predict Renal Outcomes in Renovascular Disease”. Experimental Biology 2018, San Diego, CA.
67. Engel JE, Williams ML, Guise E, Drummond H, Chade AR: “Translational Traits of a Swine Model of CKD: Inflammation”. Experimental Biology 2018, San Diego, CA.
68. Chade AR, Engel JE, Williams ML, Bidwell GL: “Therapeutic Angiogenesis Promotes Renal Recovery in CKD Partly by Shifting Macrophage Phenotype”. 55th ERA-EDTA, Copenhagen, Denmark, May 2018.
69. Grill R., Sereduck S., Pride Y., Chade AR: “Acute but Sustained Treatment with Cannabinoid Receptor-2 Agonist Preserves Hind Limb Bone Density in Mice after SCI”. Scientific Sessions of the Society for Neuroscience, San Diego, CA, November 2018.
70. Guise E, Engel JE, Williams ML, Bidwell GL, Chade AR: “Bioengineered VEGF therapy following renal angioplasty in renovascular disease: More and better microvessels”. Experimental Biology 2019, Orlando, FL.
71. Engel JE, Guise E, Bidwell GL, Chade AR: “VEGF Therapy Shifts Macrophage Phenotype and Improves Renal Recovery in Chronic Kidney Disease”. Experimental Biology 2019, Orlando, FL.
72. Chade AR, Engel JE, Williams E, Bidwell GL: “Molecular Targeting of Renal Inflammation Using Drug-Delivery Technology in Chronic Kidney Disease”. 56th ERA-EDTA, Budapest, Hungary, June 2019.
73. Chade AR, Engel JE, Williams E, Bidwell GL: “A novel kidney-targeted bioengineered carrier for VEGF delivery in experimental renovascular disease: Proof of concept”. 56th ERA-EDTA, Budapest, Hungary, June 2019.
74. Chade AR, Engel JE, Williams E, Williams M, Howell J, Bidwell GL: “Anti-inflammatory therapy in chronic kidney

disease using drug-delivery technology: mechanisms and effects of renal NFkB inhibition". American Society of Nephrology-Kidney Week 2019, Washington, DC, November 2019.

75. Grayson B, Pride Y, Sereduck S, Chade AR, Grill R, Tucci M: "Systemic Treatment with Cannabinoid Receptor 2 Agonist to Treat Osteoporosis in a Rodent Model of SCI". Experimental Biology 2020, San Diego, CA, April 4-7 2020.
76. Waller J, Burke S, Engel J, Chade AR, Bidwell GL: "Determining the effects of pro-angiogenic ELP-VEGF therapy on tumor growth and progression". Experimental Biology 2020, San Diego, CA, April 4-7 2020.
77. Chade AR, Williams E, Engel JE, Hall M: "A novel model of heart failure with preserved ejection fraction". 57th ERA-EDTA, Milan, Italy, June 2020.
78. Chade AR, Engel JE, Williams E, Bidwell GL: "Chronic kidney disease, inflammation, and heart failure with preserved ejection fraction: A renal-cardio axis?". 57th ERA-EDTA, Milan, Italy, June 2020.
79. Bidwell GL, Waller J, Engel J, Chade AR: "Dose Escalating Toxicology Study of ELP-VEGF, a Novel Biologic for Renal Therapeutic Angiogenesis". 57th ERA-EDTA, Milan, Italy, June 2020.
80. Chade AR, Williams E, Engel JE, Hall M: "A novel model of chronic kidney disease and heart failure with preserved ejection fraction". American Society of Nephrology-Kidney Week 2020, Denver, CO, October 2020.
81. Chade AR, Hall M, Fortenberry D, Bossier D, Bidwell GL: "A Renal-Cardio Inflammatory Axis Mediates Cardiac Dysfunction in CKD via IL-33-ST2: A Novel Mechanism". 58th ERA-EDTA, Berlin, Germany, June 2021.
82. Collett JA, Hyuk B, Ullah M, Mehotra P, Chade AR, Bidwell GL, Basile DP: "ELP-VEGF 121 improves renal function, decreases inflammation, and induces vascular protection from ischemia-reperfusion injury in mice". American Society of Nephrology-Kidney Week 2021, San Diego, CA.
83. Chade AR, Mohamed TMA, Eirin A: "Cytokines of Kidney Origin are retained in the Heart and Induce Cardiac Injury in CKD: A Renal-cardio Axis". American Society of Nephrology-Kidney Week 2021, San Diego, CA.
84. Farahani RA, Ferguson CM, Zhu X-Y, Tang H, Jordan KL, Saadiq IM, Herrmann SM, Chade AR, Lerman A, Lerman LO, Eirin A: "Renal revascularization attenuates myocardial mitochondrial damage and improves diastolic function in pigs with metabolic syndrome and renovascular hypertension". American Society of Nephrology-Kidney Week 2021, San Diego, CA.
85. Chade AR, Eirin A, Bidwell GL: "Feasibility and Efficacy of Targeted Cardiac NF-kB Inhibition in Experimental Diastolic Dysfunction Using Drug-Delivery Technology: A Proof-of-Concept Study". Scientific Sessions of the American Heart Association 2021, Boston, MA.
86. Chade AR, Eirin A: "HFpEF in CKD is Associated with Elevated TNF- α /IL-6 Inflammatory Signaling from the Kidney". Experimental Biology 2022, Philadelphia, PA.
87. Chade AR, Mohamed TMA, Eirin A: "Renal inflammatory signaling alters cardiomyocyte kinetics and lead to HFpEF in CKD: A mechanistic proof of concept study". Experimental Biology 2022, Philadelphia, PA.
88. Chade AR, Bidwell GL: "Systemic therapy with a single-dose kidney-targeted bioengineered VEGF construct improves stenotic kidney hemodynamics in experimental renovascular disease". 59th ERA-EDTA, Paris, France, May 2022.
89. Chade AR, Mohamed TMA, Miller J, Abouleisa R, Ouand Q, Tang H, Saadiq I, Eirin A: "A novel CKD to HFpEF connection: inflammatory signaling, micro-RNAs, and NF-kB". 59th ERA-EDTA, Paris, France, May 2022.

90. Chade AR, Eirin A: “Chronic kidney disease is associated with cardiac downregulation of vascular endothelial growth factor A (VEGFA) and development of diastolic dysfunction: epigenetics and microRNAs”. 59th ERA-EDTA, Paris, France, May 2022.
91. Chade AR, Eirin A: “Pathophysiology and molecular characterization of a novel model of chronic kidney disease and left ventricular diastolic dysfunction (CKD-LVDD model)”. American Society of Nephrology-Kidney Week 2022, Orlando, FL.
92. Chade AR, Eirin A: “Pathophysiology of CKD-LVDD: role of renal TNF- α and IL-6 inflammatory signaling”. American Society of Nephrology-Kidney Week 2022, Orlando, FL.
93. Chade AR, Eirin A: “Micro-RNA-532-3p: a potential target in CKD-HFpEF pathophysiology”. American Physiological Society Summit. Long Beach, CA, April 2023.
94. Chade AR, Sitz R, Eirin A: “miR-451b and chronic kidney disease: A novel target to modulate renal VEGF signaling”. 60th ERA-EDTA, Milan, Italy, June 2023.
95. Chade AR, Mohamed T, Eirin A: “Chronic kidney disease, heart failure, cytokines, and NF-kB: Is there a connection?”. American Society of Nephrology-Kidney Week 2023, Philadelphia, PA.
96. Kazemina S, Zhy XY, Tang H, Jordan KL, Saadiq IM, Herrmann S, Chade AR, Irazabal MV, Lerman LO, Eirin, A: “Renal ischemia alters the transcriptomic and epigenetic profile of inflammatory genes in swine scattered tubular-like cells”. 2023 Mayo Clinic Young Investigators Research Symposium, Mayo Clinic, Rochester, MN, September 30th 2023.
97. Chade AR, Sitz R, McCarthy E, Tharp DL, Bidwell GL, Eirin A: “VEGF therapy improves cardio-renal pathophysiology in a novel model of CKD-HFpEF”. 61st ERA-EDTA, Stockholm, Sweden, May 2024.
98. Chade AR, McCarthy E, Sitz R, Eirin A: “Targeted inhibition of miR-452-5p rescues VEGF signaling and improves cardiac microvascular rarefaction in a novel swine model of CKD-HFpEF”. Basic Cardiovascular Sciences Scientific Sessions, Chicago, IL, July 2024.
99. Singha SK., Abdelfattah A, Hanna C, Hogan MC., Chade AR, Eirin A, Irazabal MV: “Progressive Intrarenal Microvascular Damage Presents Early On and Is Preceded by Vascular Molecular Changes in ADPKD”. American Society of Nephrology-Kidney Week 2024, San Diego, CA.

Invited presentations

1. “Syncope: clinical presentation, diagnosis and treatment.” Circulo Medico de Mendoza. Mendoza, Argentina. October 22, 2000.
2. “An experimental model of atherosclerotic renal artery stenosis.” Department of Internal Medicine and Cardiovascular Diseases, Hospital L.C. Lagomaggiore, Mendoza, Argentina. April 10, 2002.
3. “Mechanisms of renal injury in atherosclerotic “ischemic nephropathy.” Presented at the Department of Internal Medicine – Division of Hypertension, Mayo Clinic, Rochester, MN. May 2002.
4. “Renovascular Disease: mechanisms of hypertension and ischemic nephropathy.” Textor S, Lerman LO and Chade AR. Medical Grand Rounds, Department of Internal Medicine, Mayo Clinic, Rochester, MN. July 17, 2002.
5. “Mechanisms of injury in atherosclerotic renovascular disease.” Department of Cardiovascular Diseases, Hospital L.C. Lagomaggiore, Mendoza, Argentina. November 19, 2003.
6. “The kidney in early atherosclerosis: An Overview.” Department of Internal Medicine, Division of Nephrology and

Hypertension. Mayo Clinic, Rochester, MN. June 17, 2004.

7. "The kidney in early atherosclerosis." Department of Internal Medicine, Cardiovascular Research Seminar Series. Mayo Clinic, Rochester, MN. December 2, 2004.
8. "Simvastatin Promotes Angiogenesis and Prevents Microvascular Remodeling in Chronic Renal Ischemia." Northwestern University Feinberg School of Medicine, Cardiovascular Young Investigator's Forum. Chicago, IL, October 2005.
9. "Experimental Renovascular disease: Beyond the Obstruction." Dept. of Physiology, University of Mississippi Medical Center, Jackson, MS. June 27, 2006.
10. "Endothelin-A receptor blockade improves renal microvascular architecture and function in experimental hypercholesterolemia." Northwestern University Feinberg School of Medicine, Cardiovascular Young Investigator's Forum. Chicago, IL, October 2006.
11. "Endothelin-A receptor blockade improves renal microvascular architecture and function in experimental hypercholesterolemia." Chade AR, Textor SC, Lerman A, Lerman LO. The American Society of Nephrology-Renal Week, Poster Discussion Session, November 2006.
12. "Utility of Autologous Progenitor Cell Delivery in Atherosclerotic Renovascular Disease." Chade AR and Lerman LO. Presented at the Milestones in Cardiovascular Diseases, Scientific Sessions of the AHA, Chicago, IL, November 2006.
13. "Atherosclerotic Renovascular Disease: Beyond the Vessels." Scientific Sessions of the American Society of Hypertension. Chicago, IL, May 2007.
14. "Intra-renal Infusion of Endothelial Progenitor Cells Restores Microvascular Architecture and Function in the Ischemic Kidney." Northwestern University Feinberg School of Medicine, Cardiovascular Young Investigator's Forum. Chicago, IL, October 2007 (1st prize).
15. "Pathways of Renal Injury in Renovascular Disease." Department of Physiology and Biophysics-Seminar series, University of Mississippi Medical Center. February, 2008.
16. "Enfermedad Renovascular: Mecanismos de injuria renal y alternativas terapéuticas." Department of Internal Medicine, Hospital L.C. Lagomaggiore, Mendoza, Argentina. March 5, 2008.
17. "Pathways of Renal Injury in Experimental Renovascular Disease." Oschner Clinic, New Orleans, LA, May 28th 2008.
18. "Time-Dependent Microvascular Loss and Progression of Renal Injury in Renovascular Disease: Renoprotective Effects of VEGF." Northwestern University Feinberg School of Medicine, Cardiovascular Young Investigator's Forum. Chicago, IL, October 2008 (1st prize).
19. "Dyslipidemia, microcirculation, and the kidney." Department of Physiology and Biophysics-Seminar series, University of Mississippi Medical Center. February 2009.
20. "The Poor Responses of the Stenotic Kidney to Revascularization: Is Microvascular Disease the Cause." Northwestern University Feinberg School of Medicine, Cardiovascular Young Investigator's Forum. Chicago, IL, September 2009 (2nd prize).
21. "Renal Microvascular Disease and the Responses of the Stenotic Kidney to Revascularization." Department of Physiology and Biophysics-Seminar series, University of Mississippi Medical Center. April 2010
22. "The Renal Microcirculation: How Important Those Small Vessels are for the Kidney." Water, Electrolytes, and Homeostasis New Investigator Award, Experimental Biology 2010.

23. "Hypercholesterolemia and Renal Injury." 2010 APS Renal Hemodynamics Meeting, Saxtons River, VT.
24. "VEGF and the Microcirculation." Common Signaling Pathways in the Heart and Kidney II-2010 Scientific Sessions of the American heart Association. Chicago, IL, November 2010.
25. "Microvascular Disease and the Outcomes of Renal Revascularization: The Missing Link?" Northwestern University, Feinberg Cardiovascular Research Institute Fall Seminar Series, January 2011.
26. "Renovascular Disease, Microcirculation and the Progression of Renal Injury." Department of Pharmacology-Seminar series, University of Mississippi Medical Center. February 2011.
27. "An Attempt to Understand the Mechanisms and Role of Microvascular Damage and Repair in Renovascular Disease." Department of Physiology and Biophysics-Seminar series, University of Mississippi Medical Center. May 2011
28. "Potential Mechanisms of VEGF-induced Renoprotection in Renovascular Disease." Council of High Blood Pressure Research-Harry Goldblatt Award. Orlando, FL, September 2011.
29. "ET-A Blocker Administration on Renovascular Disease: A Potential Therapeutic Application." American Society of Nephrology-Renal Week 2011, Philadelphia, PA, November 2011.
30. "Renovascular Hypertension: Microvascular Dysfunction and Potential Treatments." Experimental Biology 2012-Physiology in Focus. San Diego, CA, April 2012.
31. "Targeting the Renal Microcirculation: Potential Therapeutic Applications of Angiogenic Cytokines in Renovascular Hypertension." American Society of Hypertension-Scientific Sessions 2012. New York, NY, May 2012.
32. "VEGF-induced Renoprotection in Renovascular Disease: a Potential Therapeutic Approach." International Society of Hypertension-Scientific Sessions 2012. Sidney, Australia, October 2012 (*Keynote Invited speaker*).
33. "Angiogenesis terapeutica en enfermedad renovascular: evidencia pre-clinica". Department of Internal Medicine, Hospital L.C. Lagomaggiore, Mendoza, Argentina. March 13th, 2013.
34. "Therapeutic Angiogenesis in Experimental Renovascular Disease". Department of Physiology, Tulane University Health Science Center. March 25th, 2013.
35. "Potential Therapeutic Applications of Angiogenic Cytokines in Experimental Renovascular Disease" Annual Congress of the Romanian Society of Physiology, Iasi, Romania, May 9th, 2013.
36. "A Potential Therapeutic Approach in Renovascular Disease". University of Medicine and Pharmacy "Gr. T. Popa" Iasi, Romania. May 15th, 2013.
37. "The endothelin pathway in chronic renovascular disease: a potential therapeutic target?" Department of Physiology and Biophysics-Seminar series, University of Mississippi Medical Center. June 2013
38. "Translational therapeutic strategies in chronic renovascular disease". Abbvie Park, August 8th, 2013.
39. "Searching for novel therapeutic approaches in renovascular disease". Indiana University School of Medicine, October 22nd, 2013.
40. "Therapeutic strategies in experimental renovascular disease". Department of Radiology Seminar Series, University of Mississippi Medical Center. January 15th, 2014.
41. "Renal Artery Stenosis: Clinical and Translational Implications". Department of Physiology-Physiology in Medicine

Seminar Series, University of Mississippi Medical Center. May 7th, 2014.

42. "Enfermedad renovascular cronica: angioplastia renal, tratamiento medico, o los dos?" Department of Internal Medicine, Hospital L.C. Lagomaggiore, Mendoza, Argentina. August 14th, 2014.
43. "Renal Therapeutic Angiogenesis for the Stenotic Kidney: Novel Application of Bioengineered Polymer-stabilized VEGF Constructs" Department of Physiology and Biophysics-Seminar series, University of Mississippi Medical Center. February 4th 2015.
44. "Therapeutic Angiogenesis for the Kidney: Any Chance?". Nephrology Grand Rounds - Weill Cornell Medical Center/Memorial Sloan Kettering Cancer Center, NY. April 8th, 2015.
45. "Targeting the Renal Microcirculation: Therapeutic Angiogenesis in Renovascular Disease". University of Manchester, Salford Royal Hospital, Manchester, UK. May 27th, 2015.
46. "Animal Models of Renovascular Hypertension: From Swine to Pearls." American Society of Nephrology-Kidney Week 2015, San Diego, CA, November 2015.
47. "Renal Microcirculation in Dyslipidemia and Obesity." American Society of Nephrology-Kidney Week 2015, San Diego, CA, November 2015.
48. "Therapeutic Angiogenesis to Protect the Kidney: More than a wishful thinking?". Institute of Cardiovascular Sciences, University of Manchester, Manchester, UK. February 3rd, 2016.
49. "Targeting the Renal Microcirculation: Prevent the loss of, protect the damaged, create new ones" Department of Physiology and Biophysics-Seminar series, University of Mississippi Medical Center. February 17th 2016.
50. "Angiogenesis Terapeutica en Enfermedad Renal Cronica" Department of Internal Medicine, Hospital L.C. Lagomaggiore, Mendoza, Argentina. March 16th, 2016.
51. "A Novel Biopolymer-Delivered VEGF for Therapeutic Angiogenesis in Renovascular Disease: Targeting the Kidney Via Systemic Administration". Free communication-53th ERA-EDTA, Vienna, Austria, May 2016.
52. "Small vessels, big role: Renal microcirculation and progressive renal injury". Council of High Blood Pressure Research-Mid-Career Award for Research Excellence. Orlando, FL, September 2016.
53. "Therapeutic angiogenesis for the renal microcirculation: Small vessels, big role". University of Aachen, Aachen, Germany. May 31st 2017.
54. "Reversal of renal dysfunction and injury by therapeutic angiogenesis in chronic renal disease: not everything is lost". 54th ERA-EDTA, Madrid, Spain, June 5th 2017.
55. "Therapeutic angiogenesis for the kidney: Can we?" Department of Physiology and Biophysics-Seminar series, University of Mississippi Medical Center. August 30th 2017.
56. "Small Vessels with a Big Role: Renal Microcirculation, Progression of Renal Injury, Therapeutic angiogenesis". The British and Irish Hypertension Society Annual Scientific Meeting 2017. Glasgow, Scotland, September 12th 2017.
57. Chade AR, Williams M, Bidwell GL: "Therapeutic angiogenesis in CKD". American Society of Nephrology-Kidney Week 2017, New Orleans, LA, November 2017.
58. "Angiogenesis terapeutica en enfermedad renal: una nueva estrategia?". School of Medicine, Universidad Nacional de Cuyo, Mendoza, Argentina. March 13th, 2018.

59. "Angiogenesis Terapeutica en Enfermedad Renal: Bioingenieria Aplicada". Department of Internal Medicine, Hospital L.C. Lagomaggiore, Mendoza, Argentina. March 14th, 2018.
60. "Developing New Therapies for renal disease". Pathology-Research Day, University of Mississippi Medical Center. May 11th, 2018.
61. "Therapeutic Angiogenesis Promotes Renal Recovery in CKD Partly by Shifting Macrophage Phenotype". Free Communication- 55th ERA-EDTA, Copenhagen, Denmark, May 2018.
62. "Biotechnology and renal disease: *An update about the search for novel therapies?*" Department of Physiology and Biophysics-Seminar series, University of Mississippi Medical Center. August 22nd 2018.
63. "Bioengineered Polymers for Renal Therapeutic Angiogenesis" American Society of Nephrology-Kidney Week 2018, San Diego, CA, November 2018.
64. "Developing Biologics for Kidney Therapies: A work in progress" Division of Nephrology Grand Rounds-University of Mississippi Medical Center. January 18th, 2019.
65. "Biotechnology and therapeutic targets in cardiovascular and renal disease". 82nd Annual Mississippi Academy of Sciences Meeting. February 21-22, 2019
66. "Molecular Targeting of Renal Inflammation Using Drug-Delivery Technology in Chronic Kidney Disease". Free Communication-56th ERA-EDTA, Budapest, Hungary, June 2019.
67. "A novel kidney-targeted bioengineered carrier for VEGF delivery in experimental renovascular disease: Proof of concept". Free Communication-56th ERA-EDTA, Budapest, Hungary, June 2019.
68. "Applied biotechnology for chronic kidney disease: Therapeutic angiogenesis and anti-inflammatory strategies?" Department of Physiology and Biophysics-Seminar series, University of Mississippi Medical Center. August 7th 2019.
69. "Applied biotechnology and therapeutic targets in cardiovascular and renal disease: work in progress and future directions" CardioPulmonary Vascular Biology Seminar Series, Brown University, Providence, RI. December 13th 2019.
70. "Progression of chronic kidney disease in obesity". Scientific Sessions of the Mexican Society of Nutrition and Endocrinology. Mexico City, Mexico. February 22nd 2020.
71. Chade AR, Engel JE, Williams E, Bidwell GL: "Chronic kidney disease, inflammation, and heart failure with preserved ejection fraction: A renal-cardio axis?". Free Communication-Invited talk. 57th ERA-EDTA, Milan, Italy, June 8th 2020.
72. "Applied biotechnology to treat cardiovascular and renal disease" Medical Students Research Program-Seminar Series, University of Mississippi Medical Center. July 24th 2020.
73. "Treating the kidney, helping the heart: *A renal-cardio axis in CKD?*" Department of Physiology and Biophysics-Seminar series, University of Mississippi Medical Center. August 5th 2020.
74. "Treating the kidney and helping the heart: work in progress in experimental CKD?" Department of Physiology, School of Medicine, Tulane University, New Orleans, LA. September 14th 2020
75. "Applied biotechnology in CKD: Novel therapies targeting microvessels and inflammation". Scientific Sessions of the Romanian Society of Physiology. October 22nd 2020.
76. "Comprension y manejo de la enfermedad renovascular aterosclerotica

Biotecnología aplicada al desarrollo de nuevos tratamientos”. Scientific Sessions of the Mexican Society of Nutrition and Endocrinology. Mexico City, Mexico. November 17th 2020.

77. “Novel biotechnology to treat the kidney (and help the heart?). Work in progress in experimental CKD”. Invited Talk, Hospital Privado Universitario, Cordoba, Argentina. November 20th, 2020.
78. “Novel therapeutic strategies to treat kidney and (hopefully) help the heart in chronic renal disease. Work in progress”. Invited speaker, Seminar Series-Renal Division, School of Medicine, Emory University. Atlanta, GA. April 2nd 2021.
79. “Emerging Topics on Nutrition, Exercise, and Metabolism in Fluid and Electrolyte Homeostasis” Featured Topic-Chair. Experimental Biology 2021.
80. “A Renal-Cardio Inflammatory Axis Mediates Cardiac Dysfunction in CKD via IL-33-ST2: A Novel Mechanism”. Free Communication-58th ERA-EDTA, Berlin, Germany, June 2021.
81. “Renal-cardio pathophysiology in CKD” Department of Physiology and Biophysics-Seminar series, University of Mississippi Medical Center. August 11th 2021.
82. “Renal-cardio pathophysiology in CKD: Work in progress and future directions”. Center for Integrative Cardiovascular and Metabolic Diseases (CICMD) at the University of Florida, Gainesville, FL. November 2021.
83. “Renal-cardio pathophysiology in CKD: treating the kidney, helping the heart: New strategies and future directions”. Department of Medical Pharmacology and Physiology, University of Missouri, Columbia, MO. December 2021.
84. ” Feasibility and Efficacy of Targeted Cardiac NF-kB Inhibition in Experimental Diastolic Dysfunction Using Drug-Delivery Technology: A Proof-of-Concept Study”. Scientific Sessions of the American Heart Association 2021, Boston, MA.
85. Chade AR: “From the kidney to the heart: fixing one, helping the other: New strategies, possible future directions, and a message”. 17th International Congress for Medical Students and Young Doctors - Congressis 2022; Iasi, Romania.
86. “Systemic therapy with a single-dose kidney-targeted bioengineered VEGF construct improves stenotic kidney hemodynamics in experimental renovascular disease”. Quick fire, oral presentation at 59th ERA-EDTA, Paris, France, May 2022.
87. Chade AR: “A novel CKD to HFpEF connection: inflammatory signaling, micro-RNAs, and NF-kB”. Moderated oral presentation at 59th ERA-EDTA, Paris, France, May 2022.
88. Chade AR: “Chronic kidney disease is associated with cardiac downregulation of vascular endothelial growth factor A (VEGFA) and development of diastolic dysfunction: epigenetics and microRNAs”. Mini-oral presentation at 59th ERA-EDTA, Paris, France, May 2022.
89. Chade AR: “Pig models of renal disease: Metabolic abnormalities, renal artery stenosis, chronic kidney disease”. Control of Kidney Function in Health and Disease: New frontiers. June 26-30, 2022, at the Boars Head Resort, Charlottesville, VA.
90. Chade AR: “Pathophysiology of cardiac failure in chronic kidney disease: Animal models, strategies, and possible future directions”. Cardiovascular Day, University of Missouri, Columbia. March 7th, 2023.
91. Chade AR: “Micro-RNA-532-3p: a potential target in CKD-HFpEF pathophysiology”. American Physiological Society Summit. Long Beach, CA, April 22nd, 2023.
92. Chade, AR: “Pathophysiology of cardiac failure in chronic kidney disease: fixing one to help the other, potential

mechanisms and new approaches”. The Department of Physiology, University of Tennessee Health Sciences Center. May 18th, 2023.

93. Chade AR, Sitz R, Eirin A: “miR-451b and chronic kidney disease: A novel target to modulate renal VEGF signaling”. 60th ERA-EDTA, Milan, Italy, June 18th 2023. *Focused Oral*.
94. Chade, AR: “Pathophysiology of cardiac failure in chronic kidney disease: One model, 2 organs, numerous mechanisms and targets for interventions”. Frontiers in Heart and Vascular Research Seminar Series, Center for Heart and Vascular Research. University of Nebraska Medical Center, January 30-31st, 2024.
95. Chade AR, Sitz R, McCarthy E, Tharp DL, Bidwell GL, Eirin A: “VEGF therapy improves cardio-renal pathophysiology in a novel model of CKD-HFpEF”. 61st ERA-EDTA, Stockholm, Sweden, May 2024. *Focused Oral*.
96. Chade AR: “Regeneration of Kidney Microcirculation by Delivery of Growth Factors”. Mayo Clinic Regenerative Nephrology and Kidney Transplantation Conference 2024. June 13-15th, Orlando, FL.
97. Chade AR: “Using CT to Noninvasively Measure Kidney Hemodynamics?”. ASN Kidney Week October 24-27, San Diego, CA, 2024.

Patents

1. Chade A.R. and Bidwell, G.L. III. “Kidney-Targeted Drug Delivery Systems.” PCT full utility patent filed to the United States Patent and Trademark Office on November 12th, 2015. PCT/US15/60438.
U.S. Patent Application No. 15/517,805, filed April 7, 2017.

US patent issued on 06/18/2019. Patent number US10,322,189 B2.

EU patent issued on 06/08/2021. Patent validated in France, United Kingdom, Ireland, and Germany.

2. Bidwell, G.L. III and Chade, A.R. “Molecular size of elastin-like polypeptide delivery system for therapeutics modulates intrarenal deposition and bioavailability”. PCT Full Utility patent filed on March 29th, 2019. U.S. Patent Application Serial No. 62/826,413.

USA patent allowed on 02/15/2022. Patent number US11,248,038 B2.