

# CURRICULUM VITAE

## *Nathan Thomas Jenkins*

### CONTACT INFORMATION:

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### EDUCATION:

2001-2005      **B.S. Ed.**, Exercise and Sport Science, University of Georgia.  
2005-2007      **M.S.**, Exercise Science, University of Georgia.  
2007-2011      **Ph.D.**, Kinesiology (Exercise Physiology), University of Maryland.  
2011-2013      **Postdoctoral Fellowship**, Vascular Biology/Exercise Physiology, University of Missouri.

### EMPLOYMENT:

2018-present      **Associate Professor (Tenured)**, Department of Kinesiology, and Director, Integrative Cardiovascular Physiology Laboratory, The University of Georgia.  
2013-2018      **Assistant Professor**, Department of Kinesiology, and Director, Integrative Cardiovascular Physiology Laboratory, The University of Georgia.  
2011-2013      **Postdoctoral Fellow**, NIH T32 Institutional Training Grant, University of Missouri, Columbia, Missouri. (M. Harold Laughlin, Ph.D., Mentor).  
2007-2011      **Predocctoral Fellow**, NIH T32 Institutional Training Grant, University of Maryland, College Park (James M. Hagberg, Ph.D., Mentor).  
2006-2007      **Graduate Laboratory Assistant**, Metabolism and Body Composition Lab, University of Georgia (Kirk J. Cureton, Ph.D., Mentor).  
2005-2006      **Basic Physical Education Teaching Assistant**, University of Georgia.

### PUBLICATIONS [n = 76]:

Current h-index (as of 4/10/2020): **28** (i.e., 28 papers cited  $\geq$  28 times)

#### Peer-reviewed published manuscripts:

1. **Jenkins NT**, Trilk JL, Singhal A, O'Connor PJ, Cureton KJ. Ergogenic effects of low doses of caffeine on cycling performance. *Int J Sport Nutr Exerc Metab* **18**(3): 328-342, 2008.
2. Singhal A, Trilk JL, **Jenkins NT**, Bigelman KA, Cureton KJ. Effect of intensity of resistance exercise on postprandial lipemia. *J Appl Physiol* **106**(3): 823-829, 2009.
3. **Jenkins NT**, Witkowski S, Spangenburg EE, Hagberg JM. Effects of acute and chronic endurance exercise on intracellular nitric oxide in putative endothelial progenitor cells: role of NADPH oxidase. *Am J Physiol-Heart Circ Physiol* **297**(5): H1798-H1805, 2009.

4. Witkowski S, Lockard MM, **Jenkins NT**, Obisesan TO, Spangenburg EE, Hagberg JM. Relationship between circulating progenitor cells, vascular function and oxidative stress with long-term training and short-term detraining in older men. *Clin Sci (London)* **118**(4): 303-311, 2010.
5. **Jenkins NT**, McKenzie JA, Damcott CL, Witkowski S, Hagberg JM. Endurance exercise training effects on body fatness, VO<sub>2</sub>max, HDL-C subfractions, and glucose tolerance are influenced by a *PLIN* haplotype in older Caucasians. *J Appl Physiol* **108**(3):498-506, 2010. \***Received editorial focus**: Ordovas JM and Smith CE. *PLIN1* gene: fat keeper and prevention switcher. *J Appl Physiol* **108**(3): 477-478, 2010.
6. Lockard MM, Witkowski S, **Jenkins NT**, Spangenburg EE, Obisesan TO, Hagberg JM. Thrombin and exercise similarly influence expression of cell cycle genes in cultured putative endothelial progenitor cells. *J Appl Physiol* **108**(6): 1682-1690, 2010.
7. **Jenkins NT**, McKenzie JA, Hagberg JM, Witkowski S. Plasma fetuin-A concentrations in young and older high- and low-active men. *Metabolism* **60**(2): 265-271, 2011.
8. Witkowski S, **Jenkins NT**, Hagberg JM. Enhancing treatment for cardiovascular disease: exercise and circulating angiogenic cells. *Exerc Sport Sci Rev* **39**(2): 93-101, 2011.
9. **Jenkins NT**, Landers RQ, Prior SJ, Soni N, Spangenburg EE, Hagberg JM. Effects of acute and chronic endurance exercise on intracellular nitric oxide and superoxide in circulating CD34<sup>+</sup> and CD34<sup>-</sup> cells. *J Appl Physiol* **111**(3): 929-937, 2011.
10. **Jenkins NT**, Hagberg JM. Aerobic training effects on glucose tolerance in pre-diabetic and normoglycemic humans. *Med Sci Sports Exerc* **43**(12):2231-2240, 2011.
11. **Jenkins NT**, Landers RQ, Thakkar SR, Fan X, Brown MD, Prior SJ, Spangenburg EE, Hagberg JM. Prior endurance exercise prevents postprandial lipemia-induced increases in reactive oxygen species in circulating CD31<sup>+</sup> cells. *J Physiol* **589**(22): 5539-5553, 2011. \***Received editorial focus**: Huffman DM, Calvert JW. Exercise to the Rescue. *J Physiol*, **589**(24): 5919-5920, 2011.
12. Prior SJ, **Jenkins NT**, Brandauer J, Weiss EP, Hagberg JM. Aerobic exercise training increases circulating IGFBP-1 concentration, but does not attenuate the reduction in circulating IGFBP-1 after a high-fat meal. *Metabolism* **61**(3): 310-316, 2012.
13. Bjork L, **Jenkins NT**, Witkowski S, Hagberg JM. Nitro-oxidative stress biomarkers in active and inactive men. *Int J Sports Med* **33**(4): 279-284, 2012.
14. Bouchard C, Blair SN, Church TS, Earnest CP, Hagberg JM, Hakkinen K, **Jenkins NT**, Karavirta L, Kraus WE, Leon AS, Rao DC, Sarzynski MA, Skinner JS, Slentz CA, Rankinen T. Adverse metabolic response to regular exercise: is it a rare or common occurrence? *PLoS ONE* **7**(5): e37887, 2012.
15. **Jenkins NT**, Martin JS, Laughlin MH, Padilla J. Exercise-induced signals for vascular endothelial adaptations: implications for cardiovascular disease. *Curr Cardiovasc Risk Rep*, **6**(4):331-346, 2012.
16. Hagberg JM, **Jenkins NT**, Spangenburg EE. Exercise training, genetics, and type 2 diabetes-related phenotypes. *Acta Physiol* **205**(4): 456-471, 2012.
17. Roberts MD, Company JM, Brown JD, Toedebusch RG, Padilla J, **Jenkins NT**, Laughlin MH, Booth FW. The clinical translation of juvenile rodent inactivity models to study the onset of childhood obesity. Invited Review. *Am J Physiol-Reg Int Comp Physiol* **303**(3): R247-R258, 2012.
18. Martin JS, Padilla J, **Jenkins NT**, Crissey JM, Bender SB, Rector RS, Thyfault JP, Laughlin MH. Functional adaptations in the skeletal muscle microvasculature to endurance and interval sprint training in the type 2 diabetic OLETF rat. *J Appl Physiol* **113**(8):1223-1232, 2012.

19. **Jenkins NT**, Padilla J, Arce-Esquivel AA, Bayless DS, Martin JS, Leidy HJ, Booth FW, Rector RS, Laughlin MH. Effects of endurance exercise training, metformin, and their combination on adipose tissue leptin and IL-10 secretion in OLETF rats. *J Appl Physiol* **113**(12):1873-1883, 2012.
20. Padilla J, **Jenkins NT**, Roberts MD, Arce-Esquivel AA, Martin JS, Laughlin MH, Booth FW. Differential changes in vascular mRNA levels between rat iliac and renal arteries produced by cessation of voluntary running. *Exp Physiol* **98**(1):337-347, 2013.
21. Many GM, **Jenkins NT**, Witkowski S, Damsker JM, Hagberg JM. The effects of aerobic training and age on plasma sICAM-1. *Int J Sports Med* **34**(3):253-7, 2013.
22. **Jenkins NT**, Padilla J, Boyle LJ, Credeur DP, Laughlin MH, Fadel PJ. Disturbed blood flow acutely induces activation and apoptosis of the human vascular endothelium. *Hypertension* **61**(3): 615-621, 2013.
23. Padilla J, **Jenkins NT**, Vieira-Potter VJ, Laughlin MH. Divergent phenotype of thoracic and abdominal perivascular adipose tissues. *Am J Physiol-Reg Int Comp Physiol* **304**(7): R543-R552, 2013.
24. Linden MA, Meers GM, Reubel ML, **Jenkins NT**, Booth FW, Laughlin MH, Ibdah JA, Thyfault JP, Rector RS. Hepatic steatosis development with four weeks of inactivity in previously active, hyperphagic OLETF rats. *Am J Physiol-Reg Int Comp Physiol* **304**(9):R763-R771, 2013.
25. Padilla J, **Jenkins NT**, Lee S, Zhang H, Cui J, Zuidema MY, Zhang C, Hill MA, Perfield JW II, Ibdah JA, Booth FW, Davis JW, Laughlin MH, Rector RS. Vascular transcriptional alterations produced by juvenile obesity in Ossabaw swine. *Physiol Genomics* **45**(11):434-446, 2013.
26. Roberts MD, Bayless DS, Company JM, **Jenkins NT**, Padilla J, Childs TE, Martin JS, Dalbo VJ, Booth FW, Rector RS, Laughlin MH. Elevated skeletal muscle irisin precursor FNDC5 mRNA in obese OLETF rats. *Metabolism* **62**(8):1052-1056, 2013.
27. Brandauer J, Landers-Ramos RQ, **Jenkins NT**, Spangenburg EE, Hagberg JM, Prior SJ. Effects of prior acute exercise on circulating cytokine concentration responses to a high-fat meal. *Physiol Rep* **1**(3): e00040, 2013.
28. Fain JN, Company JM, Booth FW, Laughlin MH, Padilla J, **Jenkins NT**, Bahouth SW, Sacks HS. Exercise training does not increase muscle FNDC5 protein or mRNA expression in pigs. *Metabolism* **62**(10): 1503-1511, 2013.
29. **Jenkins NT**, Padilla J, Rector RS, Laughlin MH. Physical activity increases  $\beta$ -adrenergic and natriuretic peptide receptor mRNAs in retroperitoneal adipose tissue of OLETF rats. *Exp Physiol* **98**(11): 1576-1584, 2013.
30. Deo SH, **Jenkins NT**, Padilla J, Parrish AR, Fadel PJ. Norepinephrine increases NADPH oxidase-derived superoxide production in peripheral blood mononuclear cells from healthy humans. *Am J Physiol - Reg Int Comp Physiol* **305**(10):R1124-R1132, 2013.
31. Boyle LJ, Credeur DP, **Jenkins NT**, Padilla J, Leidy HJ, Thyfault JP, Fadel PJ. Impact of reduced daily physical activity on conduit artery flow-mediated dilation and circulating endothelial microparticles. *J Appl Physiol* **115**(10):1519-1525, 2013
32. Padilla J, **Jenkins NT**. Induction of endoplasmic reticulum stress impairs insulin-stimulated vasomotor relaxation in rat aortic rings: Role of endothelin-1. *J Physiol Pharmacol* **64**(5):557-564, 2013.

33. Crissey JM, Padilla J, **Jenkins NT**, Martin JS, Rector RS, Thyfault JP, Laughlin MH. Metformin does not enhance insulin-stimulated vasodilation in skeletal muscle resistance arteries of the OLETF rat. *Microcirculation* **20**(8): 764-775, 2013.
34. **Jenkins NT**, Padilla J, Martin JS, Crissey JM, Thyfault JP, Rector RS, Laughlin MH. Differential vasomotor effects of insulin on gastrocnemius and soleus feed arteries in the OLETF rat model: Role of endothelin-1. *Exp Physiol* **99**(1): 262-271, 2014.
35. Simmons GH, Padilla J, **Jenkins NT**, Laughlin MH. Exercise training and vascular cell phenotype in a swine model of familial hypercholesterolaemia: conduit arteries and veins. *Exp Physiol* **99**(2): 454-65, 2014.
36. Padilla J, **Jenkins NT**, Laughlin MH, Fadel PJ. Blood Pressure Regulation VIII: Resistance Vessel Tone and Implications for a Pro-Atherogenic Conduit Artery Endothelial Cell Phenotype. Invited Review. *Eur J Appl Physiol* **114**(3): 531-44, 2014.
37. Padilla J, **Jenkins NT**, Lansford KA, Fleming N, Harrison NJ, Bayless DS, Sheldon RD, Rector RS, Laughlin MH. Differential regulation of adipose tissue and vascular inflammatory gene expression by chronic systemic inhibition of NOS in lean and obese rats. *Physiol Rep* **2**(2): e00225, 2014.
38. Crissey JM, **Jenkins NT**, Lansford KA, Thorne PK, Bayless DS, Vieira-Potter VJ, Rector RS, Thyfault JP, Laughlin MH, Padilla J. Adipose tissue and vascular phenotypic modulation by voluntary physical activity and diet restriction in obese insulin-resistant OLETF rats. *Am J Physiol – Reg Int Comp Physiol* **306**(8): R596-606, 2014
39. **Jenkins NT**, Padilla J, Thorne KP, Martin JS, Rector RS, Davis JW, Laughlin MH. Transcriptome-Wide RNA Sequencing Analysis of Rat Skeletal Muscle Feed Arteries. Part I: Impact of Obesity. *J Appl Physiol* **116**(8): 1017-32, 2014.
40. Padilla J, **Jenkins NT**, Thorne KP, Martin JS, Rector RS, Davis JW, Laughlin MH. Transcriptome-Wide RNA Sequencing Analysis of Rat Skeletal Muscle Feed Arteries. Part II: Impact of Exercise Training. *J Appl Physiol* **116**(8): 1033-47, 2014.
41. **Jenkins NT**, Padilla J, Laughlin MH. Beneficial paracrine effects of visceral adipocytes from obese rats on cultured endothelial cells. *J Clin Trans Endocrinol* **1**(1): e27-e30, 2014.
42. Toedebusch RG, Roberts MD, Wells KD, Company JM, Kanosky KM, Padilla J, **Jenkins NT**, Perfield JW II, Ibdah JA, Booth FW, Rector RS. Unique transcriptomic signature of omental adipose tissue in Ossabaw swine: a model of childhood obesity. *Physiol Genomics* **46**(10): 362-75, 2014.
43. Landers-Ramos RQ, **Jenkins NT**, SPANGENBURG EE, Hagberg JM, Prior SJ. Circulating angiogenic and inflammatory cytokine responses to acute aerobic exercise in trained and sedentary young men. *Eur J Appl Physiol* **114**(7): 1377-84, 2014.
44. Hiemstra JA, Gutiérrez-Aguilar M, Marshall KD, McCommis KS, Zgoda PJ, Cruz-Rivera N, **Jenkins NT**, Krenz M, Domeier TL, Baines CP, Emter CA. A new twist on an old idea part 2: cyclosporine preserves normal mitochondrial but not cardiomyocyte function in mini-swine with compensated heart failure. *Physiol Rep* **2**(6): e12050, 2014.
45. Padilla J, **Jenkins NT**, Thorne PK, Martin JS, Rector RS, Davis JW, Laughlin MH. Identification of genes whose expression is altered by obesity throughout the arterial tree. *Physiol Genomics* **46**(22): 821-32, 2014.
46. Durrer CG, Robinson E, Martinez N, Hummel ML, **Jenkins NT**, Kilpatrick MW, Little JP. Differential impact of acute high-intensity exercise on circulating endothelial microparticles and insulin resistance between overweight/obese males and females. *PLOS ONE* **10**(2): e0115860, 2015.

47. Sheldon RD, Padilla J, **Jenkins NT**, Laughlin MH, Rector RS. Chronic NOS inhibition accelerates NAFLD progression in an obese rat model. *Am J Physiol – Gastrointest Liver Physiol* **308**(6): G540-9, 2015.
48. Vieira-Potter VJ, Padilla J, Park YM, Welly RJ, Scroggins RJ, Britton SL, Koch LG, **Jenkins NT**, Crissey JM, Morris EM, Thyfault JP. Female Rats Selectively Bred for High Intrinsic Aerobic Fitness Are Protected from Ovariectomy-Associated Metabolic Dysfunction. *Am J Physiol – Reg Int Comp Physiol* **308**(6): R530-42, 2015.
49. Bender SB, DeMarco VG, Padilla J, **Jenkins NT**, Habibi J, Garro M, Pulakat L, Aroor AR, Jaffe IZ, Sowers JR. Mineralocorticoid receptor antagonism treats obesity-associated cardiac diastolic dysfunction. *Hypertension* **65**(5):1082-8, 2015.
50. Landers-Ramos RQ, Sapp RM, **Jenkins NT**, Roth AE, Cancre L, Chin ER, Spangenburg EE, Hagberg JM. Chronic endurance exercise affects paracrine action of CD31+ and CD34+ cells on endothelial tube formation. *Am J Physiol – Heart Circ Physiol* **309**(3): H407-H420, 2015.
51. Laughlin MH, Padilla J, **Jenkins NT**, Thorne PK, Martin JS, Rector RS, Akter S, Davis JW. Exercise-induced differential changes in gene expression among arterioles of skeletal muscles of obese rats. *J Appl Physiol* **119**(6): 583-603, 2015.
52. Laughlin MH, Padilla J, **Jenkins NT**, Thorne PK, Martin JS, Rector RS, Akter S, Davis JW. Exercise training causes differential changes in gene expression in diaphragm arteries and 2A arterioles of obese rats. *J Appl Physiol* **119**(6): 604-16, 2015.
53. Young H-J, **Jenkins NT**, Zhao Q, McCully KK. Measurement of intramuscular fat by muscle echo intensity. *Muscle & Nerve* **52**(6): 963-971, 2015.
54. Lansford KA, Shill DD, Dicks AR, Marshburn MP, Southern WM, **Jenkins NT**. Effect of acute exercise on circulating angiogenic cell and microparticle populations. *Exp Physiol* **101**(1): 155-167, 2016.
55. Kindler JM, Laing EM, **Jenkins NT**, Oshri A, Pollock NK, Isales C, Hamrick M, Lewis RD. Insulin Resistance Negatively Influences the Muscle-Dependent IGF-1-Bone Mass Relationship in Premenarcheal Girls. *J Clin Endocrinol Metab* **101**(1): 199-205, 2016.
56. Polley KR, **Jenkins NT**, O'Connor PJ, McCully KK. Influence of exercise training with resveratrol supplementation on skeletal muscle mitochondrial capacity. *Appl Physiol Nutr Metab* **41**(1): 26-32, 2016.
57. Shill DD, Marshburn MP, Hempel HK, Lansford KA, **Jenkins NT**. Heterogeneous circulating angiogenic cell responses to acute maximal exercise. *Med Sci Sports Exerc* **48**(12): 2536-2543, 2016.
58. Shill DD, Southern WM, Willingham TB, Lansford KA, McCully KK, **Jenkins NT**. Mitochondria-specific antioxidant supplementation does not influence endurance exercise training-induced adaptations in circulating angiogenic cells, muscle oxidative capacity, or maximal oxygen uptake. *J Physiol* **594**(23): 7005-7014, 2016.
59. Serviente C, Troy LM, de Jonge M, Shill DD, **Jenkins NT**, Witkowski S. Endothelial and inflammatory response to acute exercise in perimenopausal and late postmenopausal women. *Am J Physiol regul Integr Comp Physiol* **311**(5): R841-R850, 2016.
60. Padilla J, Thorne PK, Martin JS, Rector RS, Akter S, Davis JW, Laughlin MH, **Jenkins NT**. Transcriptomic effects of metformin in skeletal muscle arteries of obese insulin-resistant rats. *Exp Biol Med* **242**(6): 617-624, 2017.

61. Southern WM, Nichenko AS, Shill DD, Spencer C, **Jenkins NT**, McCully KK, Call JA. Skeletal muscle metabolic adaptations to endurance exercise training are attainable in mice with simvastatin treatment. *PloS One* **12**(2): e0172551, 2017.
62. Erickson ML, Little JP, Gay JL, McCully KK, **Jenkins NT**. Effects of postmeal exercise on postprandial glucose excursions in people with type 2 diabetes treated with add-on hypoglycemic agents. *Diabetes Res Clin Pract* **126**:240-247, 2017.
63. Kindler JM, Pollock NK, Laing EM, Oshri A, **Jenkins NT**, Isaacs CM, Hamrick MW, Ding K-H, Hausman DB, McCabe GP, Martin BR, Gllant KM, Warden SJ, Weaver CM, Peacock M, Lewis RD. Insulin Resistance and the IGF-I-Cortical Bone Relationship in Children Ages 9-13 Years. *J Bone Miner Res* **32**(7): 1537-1545, 2017.
64. Lobene AJ, Kindler JM, **Jenkins NT**, Pollock ML, Laing EM, Grider A, Lewis RD. Zinc supplementation does not alter indicators of insulin secretion and sensitivity in black and white female adolescents. *J Nutrition* **147**(7):1296-1300, 2017.
65. Shill DD, Polley KR, Willingham TD, Call JA, Murrow JR, McCully KK, **Jenkins NT**. Experimental intermittent ischemia augments exercise-induced inflammatory cytokine production. *J Appl Physiol* **123**(2): 434-441, 2017.
66. Erickson ML, Little JP, Gay JL, McCully KK, **Jenkins NT**. Postmeal exercise blunts postprandial glucose excursions in people on metformin monotherapy. *J Appl Physiol* **123**(2): 444-450, 2017.
67. Erickson ML, **Jenkins NT**, McCully KK. Exercise After You Eat: Hitting the Postprandial Glucose Target. *Front Endocrinol* **8**(228): 1-5, 2017.
68. Shill DD, Lansford KA, Hempel HK, Call JA, Murrow JR, **Jenkins NT**. Effects of exercise intensity in circulating microparticles in men and women. *Exp Physiol* **103**(5):693-700, 2018.
69. Feito Y, **Jenkins NT**, Crawford D, Mangine GT. The current evidence no longer supports the term “extreme conditioning programs;” let’s call it high-intensity functional training instead. *BMJ Open Sport & Exercise Medicine* 4 (online), 2018. (Review).
70. Durrer C, Lewis N, Wan Z, Ainslie P, **Jenkins NT**, Little JP. Short-term low-carbohydrate high-fat diet in healthy young males renders the endothelium susceptible to hyperglycemia-induced damage. *Nutrients* **11**(9): E489, 2019.
71. Southern WM, Nichenko A, McGranahan MJ, Krishnan L, Qualls A, **Jenkins NT**, Mortensen L, Yin H, Yin A, Guldberg R, Greising S, Call JA. PGC-1 $\alpha$  overexpression partially rescues impaired oxidative and contractile pathophysiology following volumetric muscle loss injury. *Sci Rep* **9**(1):4079, 2019.
72. Pearson RC, Olenick AA, Green ES, **Jenkins NT**. Tabata style functional exercise increases resting and postprandial fat oxidation but does not reduce triglyceride concentrations. *Exp Physiol* **105**(3):468-476, 2020.
73. Hewgley RA, Moore BT, Willingham TB, **Jenkins NT**, McCully KK. Muscle mitochondrial capacity and endurance in adults with type 1 diabetes. *Med Res Arch* **8**(2): 1-13, 2020.
74. Pearson RC, Olenick AA, Green ES, **Jenkins NT**. Exercise Effects on Postprandial Fat Oxidation: Meta-Analysis and Systematic Review. *Appl Physiol Nutr Metab*, **in press**, 2020.

Other peer reviewed publications:

75. Hanson ED, **Jenkins NT**, Roth SM. Genetic information will influence but not predict the first two-hour marathon. *J Appl Physiol* **110**(1): 290, 2011. (Letter).

76. **Jenkins NT**. Could NIRS be as ubiquitous as the metabolic cart in exercise physiology laboratories? *J Appl Physiol* **24**(1): 250, 2018. (Letter)

Manuscripts submitted for publication [n = 2]:

1. Grunewald ZI, Shill DD, Mohr SM, Lee S, Kirkland R, **Jenkins NT**, de La Serre CB. Influence of metabolic endotoxemia and cannabinoid receptor type-1 on cardiovascular and perivascular adipose tissue phenotype in rats. *Submitted for publication*.
2. Green ES, Williams ER, Feito Y, **Jenkins NT**. Enhanced Strength, Power, Work Capacity and Fatigue Resistance in High-Intensity Functional Training Athletes. *Submitted for publication*.

Manuscripts in preparation [n = 4]:

1. Shill DD, Willingham TB, Southern WM, Rekhman DB, McCully KK, Hagberg JM, **Jenkins NT**. Effects of Mitochondrial Antioxidant Supplementation and Endurance Exercise Training on Microparticles and Endothelial Cell Integrity. *Manuscript in preparation*.
2. Olenick AA, Pearson RC, Niersbach A, Green ES, **Jenkins NT**. Resistance Training Frequency Impacts the Metabolic Response to a High-Protein Weight Loss Diet in Women. *Manuscript in preparation*.
3. Pearson R, Green ES, Padilla J, **Jenkins NT**. Impact of nutritive and non-nutritive sweetened soft drinks on postprandial metabolism and endothelial function in young healthy men. *Manuscript in preparation*.
4. McGranahan MJ, Green ES, O'Connor PJ, McCully KK, **Jenkins NT**. Impact of stress on resting skeletal muscle oxygen consumption with and without Prior Exercise. *Manuscript in preparation*.

Theses:

1. M.S. Thesis (University of Georgia, 2007): Ergogenic, metabolic, and perceptual effects of low doses of caffeine.
2. Ph.D. Dissertation (University of Maryland, 2011): Regulatory effects of acute and chronic endurance exercise on nitric oxide and reactive oxygen species in human circulating angiogenic cells.

**ABSTRACTS [n = 55]:**

1. **Jenkins NT**, Trilk JL, Singhal A, O'Connor PJ, and Cureton KJ. Ergogenic, metabolic, and perceptual effects of low doses of caffeine. Slide presentation, 2007 ACSM annual meeting, New Orleans, LA. *Med Sci Sports Exerc*, **39**(5): Supplement, May 2007.
2. **Jenkins NT**, McKenzie JA, Damcott CL, and Hagberg JM. Perlipin gene haplotype associates with body composition phenotypes before and after endurance exercise training. Poster presentation, 2008 Experimental Biology Meeting, San Diego, CA. *FASEB J* **22**: 753, April 2008.
3. Singhal A, Trilk JL, **Jenkins NT**, Bigelman KA, and Cureton KJ. Effects of intensity of resistance exercise on postprandial lipemia. Slide presentation, 2008 ACSM annual meeting, Indianapolis, IN. *Med Sci Sports Exerc* **40**(5): Supplement, June 2008.
4. Witkowski S, Lockard MM, Harley R, **Jenkins NT**, Spangenburg EE, and Hagberg JM. CD34<sup>+</sup>/KDR<sup>+</sup> endothelial progenitor cells and vascular health: exercise and detraining. Poster presentation, Integrative Biology of Exercise Meeting, Hilton Head, SC, September 2008.

5. **Jenkins NT**, Witkowski S, Spangenburg EE, and Hagberg JM. Acute and chronic endurance exercise improve endothelial progenitor cell function and reduce expression of oxidative stress-related genes. Poster presentation at the 2009 ACSM annual meeting, Seattle, WA. *Med Sci Sports Exerc* **41**(5): Supplement, May 2009.
6. Soltow QA, Witkowski S, Yu T, **Jenkins NT**, Hagberg JM, Jones DP. Metabolic stress from exercise detraining. Poster Presentation at the 2010 Symposium of the International Group on Insulin Secretion, Paris, FR, March 2010.
7. **Jenkins NT**, McKenzie JA, Hagberg JM, Witkowski S. Plasma fetuin-A concentrations in young and older high- and low-active men. Poster presentation at the 2010 ACSM annual meeting, Baltimore, MD. *Med Sci Sports Exerc* **42**(5): Supplement, May 2010.
8. Bjork L, **Jenkins NT**, Witkowski S, Hagberg JM. Circulating biomarkers of nitro-oxidative stress in young and older active and inactive men. Poster presentation at the 2010 ACSM annual meeting, Baltimore, MD. *Med Sci Sports Exerc* **42**(5): Supplement, May 2010.
9. Witkowski S, Soltow QA, Yu T, **Jenkins NT**, Hagberg JM, Jones DP. Effect of age, endurance training, and short-term detraining on plasma metabolomic profiles. Poster presentation at the 2010 Integrative Physiology of Exercise Meeting, Miami, FL, September 2010.
10. **Jenkins NT**, Spangenburg EE, Prior SJ, Hagberg JM. Role of NADPH oxidase in training-related differences in NO levels of circulating CD34<sup>+</sup> and CD34<sup>-</sup> cells. Poster presentation at the 2010 Integrative Physiology of Exercise Meeting, Miami, FL, September 2010.
11. Soni N, **Jenkins NT**, Ludlow AT, Hagberg JM. KLOTHO KL-VS Genotype is associated with cardiovascular disease risk factors and adaptations to exercise training. Poster presented at the 2011 Experimental Biology Meeting, Washington, DC.
12. **Jenkins NT**, Landers RQ, Prior SJ, Soni N, Spangenburg EE, Hagberg JM. Acute and chronic endurance exercise effects on nitric oxide, superoxide, and redox-related gene expression in circulating CD34<sup>+</sup> cells. Oral presentation at the 2011 Experimental Biology Meeting, Washington, DC.
13. **Jenkins NT**, Hagberg JM. Effect of endurance training on glucose tolerance in pre-diabetic and normoglycemic older men and women. Poster presentation at the 2011 ACSM Annual Meeting, Denver, CO. *Med Sci Sports Exerc* **43**(5): Supplement, June 2011.
14. Landers RQ, **Jenkins NT**, Hagberg JM. Association of the ACE insertion/deletion polymorphism with exercise training-induced changes in glucose and insulin metabolism. Oral presentation at the 2011 ACSM Annual Meeting, Denver, CO. *Med Sci Sports Exerc* **43**(5): Supplement, June 2011.
15. **Jenkins NT**, Landers RQ, Thakkar SR, Fan X, Brown MD, Prior SJ, Spangenburg EE, Hagberg JM. Prior endurance exercise completely prevents postprandial lipemia-induced oxidative stress in circulating CD31<sup>+</sup> cells. Poster presentation at the NHLBI Symposium on Cardiovascular Regenerative Medicine, National Institutes of Health, Bethesda, MD, October 2011.
16. Landers-Ramos RQ, **Jenkins NT**, Spangenburg EE, Hagberg JM, Prior SJ. Effects of prior endurance exercise on postprandial lipemia-induced changes in circulating angiogenic cytokines in young men. Paper presented at the 2012 Experimental Biology Meeting, San Diego, CA.
17. Padilla J, **Jenkins NT**, Martin JS, Crissey JM, Bender SB, Rector RS, Thyfault JP, Laughlin MH. Acetylcholine- and insulin-mediated vasodilation in feed arteries and arterioles of rat skeletal muscle of different fiber type composition. Paper presented at the 2012 Experimental Biology Meeting, San Diego, CA.



18. **Jenkins NT**, Padilla J, Martin JS, Rector RS, Thyfault JP, Booth FW, Laughlin MH. Effects of endurance exercise training, metformin, and their combination on adipose tissue cytokine secretion in a rat model of type 2 diabetes. Paper presented at the 2012 Experimental Biology Meeting, San Diego, CA.
19. Landers-Ramos RQ, **Jenkins NT**, Spangenburg EE, Hagberg JM, Prior SJ. Training status does not influence acute exercise-induced increases in plasma angiogenic cytokines in young men. Poster presentation at the 2012 ACSM Annual Meeting. *Med Sci Sports Exerc* **44**(5): Supplement, June 2012.
20. Padilla J, **Jenkins NT**, Roberts MD, Laughlin MH, Booth FW. Cessation of wheel running differentially alters vascular gene expression in rat iliac and renal arteries. Poster presentation at the 2012 ACSM Annual Meeting. *Med Sci Sports Exerc* **44**(5): Supplement, June 2012.
21. Crissey JM, Padilla J, **Jenkins NT**, Martin JS, Thyfault JP, Laughlin MH. Endurance or sprint interval exercise, and metformin treatment differently modify insulin-induced vasodilation in skeletal muscle arterioles of obese insulin resistant rats. Paper presented at the 2012 Scientific Sessions of the American Diabetes Association, Philadelphia, PA, June 2012.
22. Deo SH, **Jenkins NT**, Padilla J, Parrish AR, Fadel PJ. Norepinephrine increases NADPH oxidase-derived superoxide production in peripheral blood mononuclear cells from healthy humans. Paper presented at the 2012 APS Autonomic Regulation of Cardiovascular Function in Health and Disease Meeting, Omaha, Nebraska, July 2012.
23. **Jenkins NT**, Padilla J, Martin JS, Crissey JM, Thyfault JP, Rector RS, Laughlin MH. Differential vasodilator effects of insulin between gastrocnemius and soleus muscle feed arteries: role of endothelin-1. Paper presented at the 2012 APS Integrative Biology of Exercise Conference, Denver, Colorado, October 2012.
24. Landers-Ramos RQ, Brandauer J, **Jenkins NT**, Spangenburg EE, Hagberg JM, Prior SJ. Effects of prior exercise on the inflammatory response to a high-fat meal in young men. Paper presented at the 2012 APS Integrative Biology of Exercise Conference, Denver, Colorado, October 2012.
25. Laughlin MH, Company JM, Booth FW, Padilla J, **Jenkins NT**, Sacks HS, Fain JN. Exercise training does not increase skeletal muscle FNDC5 protein or mRNA in pigs. Paper presented at the 2013 Experimental Biology Meeting, Boston, MA, April 2013.
26. **Jenkins NT**, Padilla J, Boyle LJ, Credeur DP, Laughlin MH, Fadel PJ. Pro-atherogenic blood flow and shear patterns acutely induce the release of CD62E<sup>+</sup> and CD31<sup>+</sup>/CD42b<sup>-</sup> endothelial microparticles in humans. Paper presented at the 2013 Experimental Biology Meeting, Boston, MA, April 2013.
27. Padilla J, **Jenkins NT**, Vieira-Potter VJ, Laughlin MH. Divergent phenotype of rat thoracic and abdominal perivascular adipose tissues. Paper presented at the 2013 Experimental Biology Meeting, Boston, MA, April 2013.
28. Boyle LJ, Credeur DP, **Jenkins NT**, Padilla J, Thyfault JP, Fadel PJ. Five days of physical inactivity reduces popliteal artery flow-mediated dilation in young healthy men. Paper presented at the 2013 Experimental Biology Meeting, Boston, MA, April 2013.
29. Landers-Ramos RQ, **Jenkins NT**, Roth AE, Cancre L, Spangenburg EE, Hagberg JM. Effects of training status on circulating angiogenic cell paracrine activity in young men and women. Paper presented at the 2013 Experimental Biology meeting, Boston, MA April 2013.

30. **Jenkins NT**, Padilla J, Rector RS, Laughlin MH. Physical activity increases  $\beta$ -adrenergic and natriuretic peptide receptor mRNAs in adipose tissue of OLETF rats. Paper presented at the 2013 ACSM Annual Meeting, Indianapolis, IN, June 2013.
31. Padilla J, **Jenkins NT**, Lee S, Zhang H, Cui J, Zuidema MY, Zhang C, Hill MA, Perfield JW II, Ibdah JA, Booth FW, Davis JW, Laughlin MH, Rector RS. Juvenile obesity in Ossabaw swine produces artery-specific changes in transcriptional profiles. Paper presented at the 2013 ACSM Annual Meeting, Indianapolis, IN, June 2013.
32. **Jenkins NT**, Padilla J, Thorne KP, Martin JS, Rector RS, Davis JW, Laughlin MH. Transcriptome-Wide RNA Sequencing Analysis of Rat Skeletal Muscle Feed Arteries: Impact of Obesity. Paper presented at the 2014 Experimental Biology Meeting, San Diego, CA, April 2014.
33. Padilla J, **Jenkins NT**, Thorne KP, Martin JS, Rector RS, Davis JW, Laughlin MH. Transcriptome-Wide RNA Sequencing Analysis of Rat Skeletal Muscle Feed Arteries: Impact of Exercise Training. Paper presented at the 2014 Experimental Biology Meeting, San Diego, CA, April 2014.
34. Sheldon RD, Padilla J, **Jenkins NT**, Laughlin MH, Rector RS. Nitric oxide synthase inhibition exacerbates liver injury in an obese rat model of NAFLD. Paper presented at the 2014 Experimental Biology Meeting, San Diego, CA, April 2014.
35. Vieira-Potter VJ, Scroggins R, Welly R, Park YM, Padilla J, Britton SL, Koch LG, **Jenkins NT**, Thyfault JP. Aerobic Fitness Protects Against Ovariectomy-Associated Metabolic Dysfunction in Rats. Paper presented at the 2014 Experimental Biology Meeting, San Diego, CA, April 2014.
36. Welly R, Padilla J, Scroggins R, Park YM, Britton SL, Koch LG, **Jenkins NT**, Thyfault JP, Vieira-Potter VJ. Low Intrinsic aerobic fitness increases susceptibility to ovariectomy-induced obesity and insulin resistance in the absence of adipose tissue inflammation. Paper presented at the 2014 Experimental Biology Meeting, San Diego, CA, April 2014.
37. Bender SB, Padilla J, Demarco VG, **Jenkins NT**, Habibi J, Garro M, Aroor AR, Sowers JR. Treatment of insulin resistance-related cardiac and coronary dysfunction by mineralocorticoid receptor antagonism. Paper presented at the 2014 Experimental Biology Meeting, San Diego, CA, April 2014.
38. **Jenkins NT**, Padilla J, Laughlin MH. Paracrine effects of visceral and subcutaneous adipocytes from lean and obese rats on cultured endothelial cells: an in vitro obesity paradox. Paper presented at the 2014 ACSM Annual Meeting, Orlando, FL, June 2014.
39. Crissey JM, **Jenkins NT**, Duncan KA, Thorne PK, Bayless DS, Vieira-Potter VJ, Rector RS, Thyfault JP, Laughlin MH, Padilla J. Adipose tissue and vascular phenotypic modulation by voluntary physical activity and diet restriction in obese insulin resistant rats. Paper presented at the 2014 ACSM Annual Meeting, Orlando, FL, June 2014.
40. Durrer CG, Martinez N, Hummel ML, **Jenkins NT**, Kilpatrick MW, Little JP. The Effects of Acute High-Intensity Exercise on Circulating Endothelial Microparticles in Overweight/obese Males and Females. Paper presented at the 2014 ACSM Annual Meeting, Orlando, FL, June 2014.
41. Durrer CG, Wan Z, Lewis N, Ainslie PN, **Jenkins NT**, Little JP. Effects of a seven day high-fat diet on oral glucose tolerance and endothelial function in young males. Paper presented at the 2015 ACSM Annual Meeting, San Diego, CA, June 2015.
42. Lansford KA, Shill DD, Dicks AR, Southern WM, **Jenkins NT**. Effect of acute endurance exercise on circulating angiogenic cell and microparticle subpopulations. Paper presented at the 2015 ACSM Annual Meeting, San Diego, CA, June 2015.

43. Shill DD, Lansford KA, Marshburn MP, **Jenkins NT**. Impact of acute exercise on angiogenesis- and inflammation-related gene expression in circulating angiogenic cell subpopulations. Paper presented at the 2015 ACSM Annual Meeting, San Diego, CA, June 2015.
44. **Jenkins NT**, Shill DD, Marshburn MP, Hempel HK, Lansford KA. Heterogeneous circulating angiogenic cell responses to maximal exercise. Paper presented at the 2016 ACSM Annual Meeting, Boston, MA, June 2016.
45. Shill DD, Lansford KA, Southern WM, Willingham TB, Marshburn MP, McCully KK, **Jenkins NT**. Mitochondrial-targeted antioxidant supplementation does not impact training-induced changes in circulating angiogenic cells. Paper presented at the 2016 ACSM Annual Meeting, Boston, MA, June 2016.
46. Southern WM, Shill DD, Lansford KA, Willingham TB, McCully KK, **Jenkins NT**. Effects of mitochondria-targeted antioxidant supplementation on mitochondrial adaptations to endurance training in healthy men. Paper presented at the 2016 ACSM Annual Meeting, Boston, MA, June 2016.
47. Erickson ML, McCully KK, Little JP, **Jenkins NT**. Effects of postmeal exercise on postprandial glucose in people treated with metformin. Paper presented at the 2016 ACSM Annual Meeting, Boston, MA, June 2016.
48. Shill DD, Polley KR, Willingham TD, Call JA, Murrow JR, McCully KK, **Jenkins NT**. Experimental intermittent ischemia augments exercise-induced inflammatory cytokine production. Paper presented at the 2017 ACSM Annual Meeting, Denver, CO, June 2017.
49. Shill DD, Willingham TB, Southern WM, McCully KK, Hagberg JM, Jenkins NT. Effects of Mitochondrial Antioxidant (MitoQ) Supplementation and Endurance Exercise Training on Endothelial Microparticles and Endothelial Cell Integrity. Poster presented at Europhysiology, the Annual Meeting of The Physiological Society, Sep 14-16, 2018.
50. McGranahan MJ, Green ES, O'Connor PJ, McCully KK, **Jenkins NT**. Impact of Stress on Resting Skeletal Muscle Oxygen Consumption with and without Prior Exercise. Poster presented at the 2019 ACSM Annual Meeting, Orlando, FL USA.
51. Olenick A, Niersbach A, Pearson RC, Green ES, **Jenkins NT**. High-Protein Diet-Induced Changes in Body Composition and Metabolic Flexibility in Women: Feasibility of a Novel Template-based Intervention Delivery Method. Poster presented to the 2019 Experimental Biology Meeting, Orland, FL USA.
52. Green E, Williams E, **Jenkins NT**. Enhanced Strength, Power, Work Capacity, and Fatigue Resistance in High Intensity Functional Training Athletes. Poster presented at the 2019 Experimental Biology Meeting, Orlando, FL USA.
53. Pearson, R. C., Olenick, A. A., Green, E. S., & **Jenkins, N. T.** Tabata style functional exercise increases resting and postprandial fat oxidation but does not reduce triglyceride concentrations. Paper to be presented at the 2020 Experimental Biology Meeting. *\*meeting cancelled due to SARS-CoV-2 pandemic.*
54. Olenick, A.A. Pearson, R.C., Green, E.S., & **Jenkins, N.T.** Substrate Utilization During High-Intensity Interval Training as a Novel Index of Metabolic Flexibility. Paper to be presented at the 2020 Experimental Biology Annual Meeting. *\*meeting cancelled due to SARS-CoV-2 pandemic.*
55. Pearson, R. C., Green, E. S., Olenick, A. A., & **Jenkins, N. T.** Impact of an aspartame-containing diet soft drink on postprandial metabolism. Paper to be presented at the 2020 Experimental Biology Annual Meeting. *\*meeting cancelled due to SARS-CoV-2 pandemic.*

**INVITED PRESENTATIONS [n = 15]:**

1. **Jenkins NT.** Regulatory effects of endurance exercise on nitric oxide and reactive oxygen species in human circulating angiogenic cells. Invited Seminar, Department of Biomedical Sciences, University of Missouri, Columbia, MO. March 25, 2011.
2. **Jenkins NT.** Regulatory effects of endurance exercise on nitric oxide and reactive oxygen species in human circulating angiogenic cells. Invited Seminar, Cardiovascular Research Center, School of Medicine, University of Virginia, Charlottesville, VA. April 18, 2011.
3. **Jenkins NT.** Bridging the risk factor gap: Novel mechanisms underlying physical activity-induced attenuation of cardiovascular diseases. Invited Seminar, Department of Nutrition and Exercise Physiology, University of Missouri, Columbia, MO. Nov 8, 2012.
4. **Jenkins NT.** Endothelial Adaptations in Health and Obesity-Related Metabolic Disease. Invited Seminar, Department of Kinesiology, University of Georgia, Athens, GA. March 5, 2013.
5. **Jenkins NT.** Endothelial Microparticles: a New “Arrow in the Quiver” for Exercise Vascular Cell Physiologists. Invited Seminar, Department of Health and Exercise Sciences, University of British Columbia-Okanagan. Kelowna, British Columbia, Canada. Oct 24, 2013.
6. **Jenkins NT, Murrow JR.** Exercise as Cardiovascular Medicine: Basic and Clinical Science Perspectives. Invited Tutorial, Southeast Chapter of the American College of Sports Medicine Annual Meeting. Greenville, SC. Feb 14, 2014. *\*note – this meeting was cancelled due to inclement weather.*
7. **Jenkins NT.** Addition of exercise to GM-CSF therapy in peripheral arterial disease. 1<sup>st</sup> Annual Exercise and Circulating Angiogenic Cell Summit, University of Maryland. College Park, MD. Oct 7, 2014.
8. **Jenkins NT.** Acute Impact of Physical (in)Activity on Circulating Vascular Cells and Microparticles. Invited Seminar, Department of Physiology, Georgia Regents University, Augusta, GA. Oct 16, 2014.
9. **Jenkins NT.** Exercise as a Cardiovascular Countermeasure for the Western Diet. Invited Seminar, Department of Foods and Nutrition, University of Georgia, Athens, GA. Oct 29, 2014.
10. **Jenkins NT.** Acute Impact of Physical (in)Activity on Circulating Vascular Cells and Microparticles. Invited Seminar, UGA-GRU Medical Partnership, Athens, GA. Nov 20, 2014.
11. **Jenkins NT.** Acute Impact of Physical (in)Activity on Circulating Vascular Cells and Microparticles. Invited Seminar, Department of Physiology and Pharmacology, University of Georgia, Athens, GA. Feb 16, 2015.
12. **Jenkins NT.** Flipping the Exercise Physiology Classroom. Innovation 20/20 Presentation, College of Education, University of Georgia, Athens, GA. March 20, 2015.
13. **Jenkins NT.** Impact of acute and chronic exercise on circulating angiogenic cell subpopulations. Invited seminar, Department of Kinesiology, University of Texas-Arlington, Arlington, TX. October 12, 2016.
14. **Jenkins NT.** Exercise-metformin effects on adipose tissue and the vasculature. Invited Symposium Presentation, Experimental Biology Meeting, Chicago, IL. April 28, 2017.
15. **Jenkins NT.** Impact of exercise, metformin, and the combination on postprandial glycemic control in humans. Invited Symposium Presentation, American College of Veterinary Internal Medicine Annual Meeting, Baltimore, MD, June 10, 2020. *\*meeting cancelled due to SARS-CoV-2 pandemic.*

## GRANTS/SUPPORT:

### Current

NIH R42-DK112497. (NT Jenkins, PI subaward) 9/18/2019 – 9/17/2021  
Preventing Vascular Complications in Type 1 Diabetes: Muscle Metabolic Monitoring  
The goal of this project is to determine the association between type 1 diabetes and muscle mitochondrial capacity. The parent SBIR grant was awarded to Infrared Rx, Inc. Dr. Jenkins is the PI of the research component of project, which was subcontracted entirely to UGA.  
**\$386,076 subcontract total costs to Dr. Jenkins and UGA.** \$1,347,211 total costs for overall project.

American Pecan Council (NT Jenkins, Co-I) 7/1/2020 – 6/30/2023  
The Ability of Pecan Consumption to Improve Vascular Function and Reduce Chronic Disease Risk in Aging Adults.  
The goal of this project is to determine the impact of 4 wk of pecan consumption on macro- and microvascular function in older adults at risk for chronic disease.  
**\$292,174 total costs.**

### Pending

Improving Independence in Older Adults with Claudication using Near Infrared Spectroscopy. NIH STTR.

### Completed

NIH T32-AG20068 (J.M. Hagberg, PI) 8/1/2007 – 7/31/2011  
NIH Institutional Training Grant  
Predoctoral Training in Exercise Physiology and Aging.  
My doctoral research primarily investigated the effects of acute and chronic endurance exercise on the regulation of reactive oxygen and nitrogen species in human circulating angiogenic cells. In addition, I completed a number of projects examining exercise training as preventive medicine for cardiovascular and metabolic diseases.  
Role: Predoctoral Fellow

Graduate Research Initiative Project (N. Jenkins, PI) 2/1/2009 – 1/31/2010  
Department of Kinesiology, University of Maryland  
Translational studies of exercise, lack of exercise, and redox gene expression in endothelial progenitor cells of older individuals.  
The goal of this project was to determine the role of NADPH oxidase in the effects of acute and chronic endurance exercise on intracellular nitric oxide production in human endothelial progenitor cells.  
**\$2,500.**

Graduate Research Initiative Project (N. Jenkins, PI) 2/1/2010 – 1/31/2011  
Department of Kinesiology, University of Maryland  
Role of NADPH oxidase in acute and chronic exercise effects on endothelial progenitor cell function.  
The goal of this project was to determine the role of NADPH oxidase underlying the effects of acute and chronic endurance exercise on intracellular nitric oxide and reactive oxygen species in human circulating CD34<sup>+</sup> progenitor cells. **\$2,500.**

Doctoral Student Research Grant (N. Jenkins, PI) 7/1/2010 – 6/30/2011  
American College of Sports Medicine Foundation

Role of NADPH oxidase in exercise effects on EPC function.

The goal of this project was to determine the role of NADPH oxidase as well as additional sources of reactive oxygen species underlying the effects of acute hypertriglyceridemia with or without prior endurance exercise on three distinct circulating angiogenic cell populations. **\$5,000.**

**NIH T32-AR048523**

**(R. Terjung, PI)**

**8/1/2011- 7/31/2013**

**NIH Institutional Training Grant**

Exercise and Health: Integration from Molecule to Patient

The overall goal of my postdoctoral research program was to define the independent and interactive roles of circulating factors and hemodynamic forces in (i) the etiology of obesity- and type 2 diabetes mellitus-related vascular dysfunction, and (ii) exercise-induced vascular endothelial adaptations.

Role: Postdoctoral Fellow

**Pilot Grant Program**

**(Meagher & Jenkins, Co-PIs)**

**11/15/2013-5/15/2014**

**University of Georgia Obesity Initiative**

Exercise-Induced Adipocyte-Specific Epigenetic Reprogramming in an Obese Rat Model

The goal of this project is to examine epigenetic signatures in adipocytes of visceral and subcutaneous adipose tissue depots in a rodent model of obesity. With Rich Meagher, Ph.D., Co-PI. **\$25,000.**

**Provost Summer Research Grant**

**(Jenkins, PI)**

**Summer, 2014**

**University of Georgia College of Education**

Interactive Effects of Exercise and Salsalate on Circulating Angiogenic Cells.

The goal of this project is to determine whether exercise and salsalate exert interactive effects on *in vitro* CAC function. **\$5,000.**

**Innovative Instruction Grant Award**

**(Jenkins, PI)**

**Summer, 2014**

**UGA Office of the Vice President for Instruction**

Flipping the Exercise Physiology Classroom to Enhance Student Learning

The goal of this project is to reorganize the format of Exercise Physiology I, KINS4630, from a traditional lecture based course to a “flipped” classroom. **\$5000.**

**Faculty Research Grants Program**

**(Jenkins, PI)**

**7/1/2014-6/30/2016**

**UGA Office of the Vice President for Research**

Effect of Exercise and GM-CSF on Circulating Angiogenic Cell Function

The goal of this project is to determine whether exercise and GM-CSF exert interactive effects on *in vitro* CAC function. **\$10,000.**

**ACSM Research Endowment Grant**

**(Jenkins, PI)**

**7/1/2015-6/30/2016**

**American College of Sports Medicine Foundation**

Effect of Acute Exercise Intensity on Paracrine Angiogenic Function of CD62E+ PBMCs

The goal of this project is to determine the influence of low and high intensity exercise on pro-angiogenic function of newly-discovered CD62E-expressing peripheral blood mononuclear cells. **\$10,000.**

**Faculty Research Grants Program**

**(Jenkins, PI)**

**7/1/2016-6/30/2018**

**UGA Office of the Vice President for Research**

Sex differences in exercise-induced effects on circulating angiogenic cells.

The goal of this project is to examine whether there are sex differences in the effects of exercise on circulating angiogenic cells. **\$10,000.**

**NIH 1R41DK112497-01 (Jenkins, PI Subcontract) 9/18/2017 – 9/17/2019**  
Preventing Vascular Complications in Type 1 Diabetes: Muscle Metabolic Monitoring.  
The goal of this project is to determine the association between type 1 diabetes and muscle mitochondrial capacity. The parent STTR grant was awarded to Infrared Rx, Inc. Dr. Jenkins was PI of the research component of the academic-industry partnership, which was subcontracted entirely to UGA. **\$40,131.**

Not Funded

**Individual Postdoctoral Fellowship (Jenkins, PI)**

**American Heart Association-Midwest Affiliate**

The overall hypothesis of this proposal was that disturbed blood flow (i.e., low flow/shear, high retrograde and oscillatory shear) and an obesity-induced pro-inflammatory circulating milieu interactively promote the development of vascular disease in T2D.

Role: Postdoctoral Fellow

**Priority score of first submission: 1.48 (fundable range: 1.0-1.4).** *This postdoctoral fellowship grant application was withdrawn from consideration after first review upon obtaining my current faculty position at the University of Georgia.*

**Pilot Grant Program (Jenkins, PI)**

**University of Georgia Obesity Initiative**

Impact of Exercise Training and Weight Loss on Circulating Microparticle-Induced Endothelial Cell Dysfunction in Obese Populations

**\$25,000.**

**Regenerative Engineering and Medicine Center (Jenkins, PI)**

**Georgia Partners Seed Grants Program**

Molecular and pharmacologic predictors of responders and non-responders to GM-CSF mobilization therapy in PAD

**\$70,000.**

**ACSM Research Endowment (Jenkins, PI)**

**American College of Sports Medicine Foundation**

Exercise preconditioning for enhancing circulating angiogenic cell function in peripheral arterial disease.

The goal of this project is to determine whether 5 consecutive days of exercise training enhances vascular repair functions of circulating angiogenic cells among patients with PAD.

**\$10,000.**

**Scientific Research Grants Program (Jenkins, Co-PI)**

**National Blood Foundation**

Enhancing circulating angiogenic cell-based regeneration in peripheral arterial disease: exercise preconditioning and cell-cell interactions

The goal of this project is to determine whether exercise preconditioning and promoting cell-cell interactions are effective new ways to improve circulating angiogenic cell-mediated vascular repair.

**\$75,000.**

**Integrative Proposal Development Program (Jenkins, Co-PI)**

**UGA Office of the Vice President for Research**

Cardiac Resynchronization Therapy for Heart Failure: Effects on Vascular Health and Skeletal Muscle Mitochondrial Function.

The goal of this project is to determine the efficacy of CRT on the health of peripheral tissues, i.e. skeletal muscle and the vasculature, in patients with heart failure.

**\$75,000.**

**Congressionally-Directed Medical Research Program (Jenkins, Co-I)**

**United States Department of Defense**

Muscle mitochondrial capacity, oxygen delivery, and fatigue following chemotherapy in people with colorectal cancer. K. McCully (PI), N. Jenkins, P. O'Connor, P. Nikolinakos, Co-I's.

**\$450,000.**

**Scientist Development Grant (Jenkins, PI) 1/1/2015-12/31/2019**

**American Heart Association**

Addition of exercise to GM-CSF therapy for treatment of peripheral arterial disease

The goal of this project is to determine whether exercise enhances circulating angiogenic cell function in patients receiving GM-CSF therapy for peripheral arterial disease.

**\$308,000.**

**UGA-GRU Seed Grant Program. (Jenkins, PI) 7/1/2015-6/30/2015**

Targeting postprandial hyperglycemia and optimizing the exercise protocol in women with diabetes and peripheral arterial disease.

The goal of this project is to determine whether continuous sub-ischemic walking produces more favorable postprandial glucose responses compared to intermittent walking in women with type 2 diabetes and peripheral arterial disease. **\$46,775.**

**Scientist Development Grant (Jenkins, PI) 7/1/2015-6/30/2019**

**American Heart Association (submitted to both National Center and Greater Southeast Affiliate)**

CD62E+ PBMCs as novel circulating angiogenic cells: impact of PAD and exercise training.

The goal of this project is to determine whether CD62E+ PBMCs are functional circulating angiogenic cells, including whether they exhibit reduced angiogenic capacity in people with peripheral arterial diseases and also whether their angiogenic function is amenable to exercise training. **\$308,000.**

**NIH R21 (K. McCully, PI) 4/1/2015 – 3/31/2017**

**National Institutes of Health**

Effects of metformin on exercise adaptations in the treatment of T2D.

The goal of this project is to determine the effects of exercise training with and without metformin therapy on muscle mitochondrial capacity and circulating markers of vascular health among individuals with T2D. Role: Co-Investigator. **\$346,000.**

**Innovative Clinical or Translational Science Award (Jenkins, PI) 4/1/2016 – 3/31/2019**

**American Diabetes Association**

Influence of postprandial exercise intensity on postmeal glycemic control and downstream effects on endothelial cell phenotype.

The goal of this project is to determine whether light- and moderate-intensity walking attenuates postprandial glycemic excursions following a breakfast meal in people with prediabetes. We will also use an *in vitro* approach determine whether any effects of exercise on postprandial glucose concentrations translate to a healthier endothelial cell phenotype. **\$599,515.**



- Research Grant Program** (Jenkins, Co-I) 9/1/2016 – 8/31/2019  
**California Walnut Commission**  
Daily Walnut Consumption to Manage and Treat Type 2 Diabetes  
The goal of this project is to determine the influence of walnut consumption on glucose control in people with type 2 diabetes.
- NIH Research Project Grant (R01)** (Jenkins, PI) 7/1/2016-6/30/2019  
**1R01DK110349-01**  
Influence of postprandial exercise intensity on postmeal glycemic control and downstream effects on endothelial cell phenotype.  
The goal of this project is to determine whether light- and moderate-intensity walking attenuates postprandial glycemic excursions following a breakfast meal in people with prediabetes. We will also use an *in vitro* approach determine whether any effects of exercise on postprandial glucose concentrations translate to a healthier endothelial cell phenotype. **\$1,124,110 total costs.**
- NIH Research Project Grant (R01)** (Jenkins, PI) 10/1/2016-9/31/20219  
**1R01HL134962-01**  
CD62E+ PBMCs as novel circulating angiogenic cells: impact of PAD and exercise training.  
The goal of this project is to determine whether CD62E+ PBMCs are functional circulating angiogenic cells, including whether they exhibit reduced angiogenic capacity in people with peripheral arterial diseases and also whether their angiogenic function is amenable to exercise training. **\$1,124, 110.**
- Pilot Grant Program** (Jenkins, Co-PI) 1/1/2017-6/30/2017  
**UGA Translational Research Unit**  
Independent and combined effects of eight weeks of curcumin and aerobic exercise training on inflammation and psychological symptoms and signs of chronic illness in sedentary, overweight, abdominally obese early postmenopausal women at increased risk of chronic illness. **\$50,000.**
- Pilot Grant Program** (Jenkins, Co-PI) 1/1/2017-6/30/2017  
**UGA Translational Research Unit**  
Reducing peak glucose levels using electrical stimulation after spinal cord injury. **\$27,427.**
- Almond Nutrition Research – Glucose Regulation** (Jenkins, PI) 1/1/2017-12/31/2018  
**California Almond Board**  
Influence of almond consumption on postprandial glucose, memory, executive function and symptoms of anxiety and depression in people with type 2 diabetes. **\$399,850.**
- NIH Research Project Grant (R01)** (Jenkins, Co-I) 8/1/2016-7/31/2018  
Effect of exercise on inflammation in normal and overweight HIV-positive adults. **\$412,500.**
- NIH Research Project Grant (R01)** (Jenkins, PI subcontract) 4/1/2017-3/30/2022  
The effect of ovarian hormone suppression on endothelial regeneration. **\$67,055.**
- NIH STTR (R34)** (Jenkins, Co-I) 9/1/2017-8/31/2019  
Managing Statin Intolerance in Older Adults: Muscle Metabolic Monitoring. **\$219,804.**
- American Diabetes Association** (Jenkins, Co-I) 1/1/2018-12/31/2020  
Effects of diet compensation on the metabolic benefits of acute exercise in overweight post-menopausal women. **\$534,862.**

- Metabolic Technologies, Inc..** (Jenkins, PI) 1/1/2019-12/31/2019  
Impact of  $\beta$ -hydroxy- $\beta$ -methylbutyric acid (HMB) on work capacity, body composition and muscle function in individuals participating in CrossFit® exercise training. **\$79,617**
- National Cattlemen’s Beef Association** (Jenkins, PI) 9/1/2018-8/31/2020  
Impact of Increased Lean Beef Consumption on Body Composition and Cardiometabolic Health in People Participating in High Intensity Functional Training (FP00013808). **\$197,010**
- Robert Wood Johnson Foundation** (Jenkins, PI) 6/1/2019-5/31/2022  
CrossFit®-Induced Reversal of Type 2 Diabetes. **\$588,788.**
- Pure Bare, LLC.** (Jenkins, PI) 6/1/2019-5/31/2020  
Impact of Pure Barre training on body composition in overweight & obese women. **\$52,653**
- American Heart Association** (Jenkins, Co-PI) 7/1/2019-6/30/2022  
Optimizing Exercise Therapy For Peripheral Arterial Disease. **\$330,000.**
- UGA CTSA** (Jenkins, PI) 5/1/2019-6/30/2020  
Metabolic flexibility in men and women. **\$40,000.**
- American Pecan Council** (Jenkins, Co-I) 7/1/2019—6/30/2022  
The Ability of Pecan Consumption to Improve Vascular Function and Reduce Chronic Disease Risk in Aging Adults

**TEACHING:**

**University of Georgia (2005-2007):**

- EXRS4630L** Exercise Physiology I Laboratory (Undergraduate & Graduate; with K. McCully, lead instructor)
- EXRS7330L** Laboratory Techniques for Assessment of Metabolic and Cardiorespiratory Responses to Exercise (Graduate; with K. Cureton, lead instructor)
- EXRS8300L** Advanced Exercise Physiology Laboratory (Graduate; with K. Cureton, lead instructor)

**University of Maryland (2007-2011):**

- KNES465** Exercise as Prevention and Treatment of Chronic Disease (guest lecturer; with J. Hagberg, lead instructor)
- KNES497H** KNES Honors Undergraduate Senior Thesis (guided 2 honors seniors on their thesis projects in our laboratory; with J. Hagberg, director of theses)
- KNES695** Exercise Physiology Laboratory Methods (Graduate; co-instructor with J. Hagberg)

**University of Georgia (2013-present):**

- KINS 4630** Exercise Physiology I. Fall 2013 (2 sections), Spring 2014, Spring 2015, Summer 2015, Spring 2016, Spring 2017, Spring 2018, Spring 2019.
- KINS 8300** Exercise, Obesity and Cardiometabolic Disorders. Spring 2014, Spring 2015, Spring 2017, Spring 2019.
- KINS 3700** Exercise Physiology. Fall 2014, Fall 2015, Fall 2016, Fall 2017, Fall 2018, Fall 2019.
- KINS 3700e** Exercise Physiology (online). Summer 2020.

- KINS 7330** Metabolic and Cardiorespiratory Aspects of Exercise Physiology. Fall 2014, Fall 2015, Fall 2016, Fall 2017, Fall 2018, Fall 2019.
- KINS 3480** Undergraduate Research Practicum (multiple).
- KINS 4680** Integrative Cardiovascular Physiology, Spring 2016, Spring 2018, Fall 2018, Spring 2020.

### **GRADUATE STUDENTS MENTORED:**

#### Primary Mentor:

- Kasey Lansford (Ph.D.) – May 2014-April 2016 (switched degree program to M.S.)  
Daniel Shill (M.S.) – August 2014-July 2016  
Melissa McGranahan (M.S.) – August 2016-December 2018  
Edward Green (Ph.D.) – Fall 2017-present  
Alyssa Olenick (Ph.D.) – Spring 2018-present  
Regis Pearson (Ph.D.) – Fall 2018-present

#### Graduate Committees:

- Melissa L. Erickson (Ph.D.) – Comprehensive Exams Committee and Dissertation Committee (co-mentor; completed summer 2016)  
Michael V. Fedewa (Ph.D.) – Comprehensive Exams Committee and Dissertation Committee (completed Spring 2015)  
Joseph Kindler (Ph.D.) – Comprehensive Exams Committee and Dissertation Committee (Department of Foods and Nutrition; completed Spring 2017)  
Hui-Ju (Zoe) Young (Ph.D.) – Dissertation Committee (completed summer 2014)  
Ping Yu (Ph.D.) – Dissertation Committee (Department of Genetics; completed Spring 2017)  
T. Bradley Willingham (Ph.D.) – Comprehensive Exams Committee and Dissertation Committee (completed summer 2017).  
Anna S. Nichenko (Ph. D.) – Comprehensive Exams Committee  
W. Michael Southern (Ph.D.) – Comprehensive Exams Committee and Dissertation Committee  
Kristine Polley (Ph.D.) – Dissertation Committee (Department of Foods and Nutrition, completed Spring 2018)

- Catherine Beck (M.S.) – Master’s Thesis Committee (completed Spring 2015)  
Zachary Grunewald (M.S.) –co-mentor with Claire de La Serre (Department of Foods and Nutrition; completed Summer 2016)  
Kristine Polley (M.S.) – Master’s Thesis Committee (completed Spring 2015)  
Meynard Toledo (M.S.) – Master’s Thesis Committee (completed Spring 2015)  
Jacob Fedewa (M.S., non-thesis) – Oral Comprehensive Exam Committee (completed Spring 2015)  
Andrea Lobene (M.S.) – Master’s Thesis Committee (Department of Foods and Nutrition)  
Lauren Brown (M.S.) – Master’s Thesis Committee (completed Spring 2019)  
Hallie Wachsmuth (M.S.) – Master’s Thesis Committee (completed Spring 2020)

#### Other Mentoring:

- Andrew B. Dicks (M.D.) – Summer Research Assistant, UGA-GRU Health Sciences Partnership, 2014

### **UNDERGRADUATE STUDENTS MENTORED:**

- S. Mohr** University of Georgia, Exercise Science Research Practicum, 2016  
**C. Elmore** University of Georgia, Exercise Science Research Practicum, 2015  
**A. Heriot** University of Georgia, Exercise Science Research Practicum, 2015

- A. Zuver** University of Georgia, Exercise Science Research Practicum, 2015
- A. Mullikin** University of Georgia, Exercise Science Research Practicum, 2015
- A. Burnside** University of Georgia, Exercise Science Research Practicum, 2015
- H. Hemple** University of Georgia, Exercise Science Research Practicum, 2015-16
- K. Cushen** University of Georgia, CURO Fellow, 2014-15
- I. Hawes** University of Georgia, Exercise Science Research Practicum and CURO Fellow, 2014-15
- M. Foley** University of Georgia, Exercise Science Research Practicum, 2014
- J. Balmforth** University of Georgia, Exercise Science Research Practicum, 2014
- Z. Osborne** University of Georgia, Exercise Science Research Practicum, 2014
- M. Marshburn** University of Georgia, Exercise Science Research Practicum and CURO Fellow, 2014-15
- M. McGranahan** University of Georgia, Exercise Science Research Practicum, 2014
- J. Chiang** University of Georgia, Exercise Science Research Practicum, 2013
- A. Ditmar** University of Georgia, Exercise Science Research Practicum, 2013
- C. Manse** University of Missouri EXposure to REsearch for SCience STudents (EXPRESS) Program, Department of Biomedical Sciences, University of Missouri. 2012.
- N. Soni** University of Maryland Summer Training and Research Program (UMSTAR), School of Public Health, UMCP School of Public Health. 2010.
- A. Bailey** Senior Thesis (Honors), Department of Kinesiology, UMCP School of Public Health. 2009-2010.
- J. Bender** Senior Thesis (Honors), Department of Kinesiology, UMCP School of Public Health. 2009-2010.
- M. Chukumerije** Howard Hughes Medical Institute Summer Research Program, College of Chemical and Life Sciences, and UMSTAR, UMCP School of Public Health. 2008 and 2009.
- B. Fakiledede** Ronald E. McNair Post-Baccalaureate Achievement Program, UMCP Graduate School. 2008.
- S. Safford** UMSTAR, School of Public Health, UMCP School of Public Health. 2008.
- C. Akoh** Peach State Louis Stokes Alliance for Minority Participation, Summer Undergraduate Research Program, University of Georgia, Athens, GA. 2006.

## **ACADEMIC AND PROFESSIONAL SERVICE:**

### **Grant Reviewer:**

L'Agence Nationale de la Recherche - French National Research Agency. Programme de Recherche Translationnelle en Santé (PRTS) - Translational Research Program in Health. Expert Peer Reviewer (ad hoc), July 2013.

Fonds Wetenschappelijk Onderzoek – Vlaanderen (National Fund for Scientific Research - Belgium). Expert Peer Reviewer (ad hoc), April 2014.

Fonds Wetenschappelijk Onderzoek – Vlaanderen (National Fund for Scientific Research - Belgium). Expert Peer Reviewer (ad hoc), June 2015.

### **Invited Manuscript Reviewer:**

*Journal of Applied Physiology*  
*Perceptual and Motor Skills*  
*Lipids in Health and Disease*

*Mechanisms of Aging and Development*  
*European Journal of Applied Physiology*  
*Rejuvenation Research*  
*American Journal of Physiology – Endocrinology and Metabolism*  
*American Journal of Physiology – Heart and Circulatory Physiology*  
*Frontiers in Exercise Physiology*  
*International Journal of Sports Medicine*  
*Medicine and Science in Sports and Exercise*  
*Physiological Genomics*  
*American Journal of Physiology – Regulatory, Integrative and Comparative Physiology*  
*Cytokine*  
*Applied Physiology, Nutrition and Metabolism*  
*Experimental Physiology*  
*Physiological Reports*  
*Journal of Rehabilitation Research and Developments*  
*Hypertension*  
*Biochimica et Biophysica Acta – Molecular Cell Research*  
*Exercise and Sports Science Reviews*

**Committees:**

University of Maryland

2008-2010 Graduate Council, Department of Kinesiology, UMCP  
 2008-2009 Department of Kinesiology Representative, UMCP Graduate Student Government  
 2009-2011 Dean’s Student Advisory Committee, School of Public Health, UMCP

University of Georgia

2014 Search committee, exercise physiology faculty member; Graduate Student Awards Committee  
 2015 Planning committee, Southern Translation Education and Research (STaR) Conference on Inflammation in Health and Disease  
 2016-present Appeals Committee, Department of Kinesiology  
 2016 Undergraduate Education Subcommittee – Kinesiology Strategic Plan  
 2017-present Institutional Review Board member, University of Georgia  
 2018-present Faculty Annual Reviews Committee (ad hoc), Department of Kinesiology  
 2019-present Awards Committee, UGA College of Education  
 2019-present Faculty Senate, UGA College of Education  
 2019-present Advisory Board, Obesity Initiative, University of Georgia

**MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS:**

2006-2016 American College of Sports Medicine  
 2006-2007 Southeast Chapter of the American College of Sports Medicine  
 2007-present The American Physiological Society  
 2013-present American Heart Association  
 2013-present Biomedical Health Sciences Institute, University of Georgia  
 2013-present Obesity Initiative, University of Georgia  
 Executive Committee, 2019-present

**ACADEMIC HONORS AND AWARDS:**

- 2007 NIH Predoctoral Fellowship, Dept. of Kinesiology, UMCP
- 2009 Michael L. Pollock Student Scholarship Award, ACSM Foundation
- 2010 Doctoral Student Research Grant Award, ACSM Foundation
- 2010 James H. Humphrey Graduate Student Published Research Award, Dept. of Kinesiology, UMCP (for publication #3 above)
- 2010 Dean's Graduate Scholar Award, School of Public Health, UMCP
- 2011 NIH Postdoctoral Fellowship, Dept. of Biomedical Sciences, University of Missouri
- 2012 Writing Award Scholar, American Academy of Kinesiology
- 2014 New Investigator Award, American College of Sports Medicine