

## Curriculum Vitae

**JAMES MICHAEL HAGBERG**BIOGRAPHICAL**Birth Date:** 6/26/1950**Citizenship:** USA**Home Address:** 11739 Bryce Overlook Court, Columbia, MD 21044**Business Address:** Department of Kinesiology

University of Maryland

College Park, MD 20742-2611

**Birth Place:** Kenosha, WI**Telephone:** 301-405-2487**Fax:** 301-405-5578**Email:** hagberg@umd.eduEDUCATION AND TRAININGUndergraduate

1968-1972, Carthage College, Kenosha, Wisconsin, B.S. in Physical Education, 1972

Graduate

1972-1974, University of Wisconsin, Madison, Wisconsin, M.S. in Exercise Physiology, 1974

1974-1976, University of Wisconsin, Madison, Wisconsin, Ph.D. in Exercise Physiology, 1976

Postgraduate

1976-1979, NIH Postdoctoral Fellow, Department of Preventive Medicine, Washington University School of Medicine, Sponsor: Dr. John Holloszy, Exercise Physiology and Preventive Medicine

ACADEMIC APPOINTMENTS AND POSITIONS

1979-1983 Assistant Professor, Department of Preventive Medicine, Washington University School of Medicine

1983-1986 Associate Professor, Department of Medicine, Washington University School of Medicine

1986-1988 Associate Professor, Departments of Exercise Sciences, Physiology, and Medicine (Cardiology), University of Florida

1988-1993 Associate Professor, Center on Aging, University of Maryland, College Park, Maryland

1988-1993 Guest Scientist, Laboratory of Cardiovascular Studies, Gerontology Research Center, National Institute on Aging, Baltimore, Maryland

1988-1993 Associate Professor, Department of Medicine, Division of Geriatric Medicine, Johns Hopkins University School of Medicine and Francis Scott Key Medical Center, Baltimore, Maryland

1990-1993 Associate Professor, Department of Medicine, Division of General Internal Medicine and Geriatrics, School of Medicine, University of Maryland at Baltimore and Veterans Administration Medical Center, Baltimore, MD

1992-1993 Associate Director for Research, Baltimore Veterans Administration Medical Center Geriatric Research, Education, and Clinical Center

1993-1996 Professor, Department of Medicine, Division of Cardiology, Preventive Cardiology Program and Director, Applied Exercise Physiology Laboratory, University of Pittsburgh Heart Institute, University of Pittsburgh School of Medicine

1994-1996 Professor, Department of Health, Physical, and Recreation Education, University of Pittsburgh

1996-present Professor, Department of Kinesiology, University of Maryland, College Park, MD

1996-present Professor, Department of Medicine, Division of Geriatrics, School of Medicine, University of Maryland, Baltimore and Veterans Administration Medical Center, Baltimore, MD

2000-2006 Assistant Dean for Research, College of Health and Human Performance, University of Maryland, College Park, MD

2011-2012 Volunteer Assistant Track and Field and Cross Country Coach, University of Maryland

2014-present Professor, Department of Epidemiology and Public Health, University of Maryland Baltimore

2015-2020 Director of Graduate Studies, Department of Kinesiology, University of Maryland College Park

2016-present Team Exercise Physiologist, District Track Club, Washington DC

2018-present Associate Director, Center on Aging, University of Maryland College Park School of Public Health

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MEMBERSHIPS IN PROFESSIONAL AND SCIENTIFIC SOCIETIES

1972-present	American College of Sports Medicine
1980-2008	American Heart Association, Council for High Blood Pressure Research
1980-2014	American Physiological Society
1998-present	National Academy of Kinesiology
1998-present	American Academy for the Advancement of Science

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HONORS

1980	Fellow, American College of Sports Medicine
1983	New Investigator Award, American College of Sports Medicine
1991	Fellow, American Heart Association Council for High Blood Pressure Research
1997	University of Maryland College Park Life Sciences Inventor of the Year
1998	Elected Member, American Academy of Kinesiology and Physical Education
1999	University of Maryland College of Health and Human Performance Research and Development Award
2002	University of Maryland Distinguished Scholar Teacher
2002	University System of Maryland Regent's Award for Research
2004	American College of Sports Medicine Citation Award
2005	College of Health and Human Performance Leda Amick Wilson Mentoring Award
2007	College of Health and Human Performance Jerry Wrenn Outstanding Service Award
2012	University of Maryland Graduate Mentor of the Year Award
2012	US Track and Field Technical Coaching Certificate
2013	UMCP School of Public Health George F. Kramer Practitioner of the Year Award

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PATENTS, INVENTIONS, AND COPYRIGHTS

1997	Filed 8 Invention Disclosures for Genetic Markers Identifying Persons Who Will Improve Clinical variables with Exercise Training
1997	Filed 12 Invention Disclosures for Additional Genetic Markers Identifying Persons Who Will Improve Clinical Variables with Exercise Training
1998	Filed US and International Patent Application for Genetic Markers Identifying Persons Who Will Improve Clinical Variables with Exercise Training
1999	Filed Second US and International Patent Application for Genetic Markers Identifying Persons Who Will Improve Clinical Variables with Exercise Training
1999	Filed Third US and International Patent Application for Genetic Markers Which Identify Individuals Who Improve Their Diabetes Status with Exercise
1999	Filed Fourth US and International Patent Application for Genetic Markers Which Identify Individuals Who Improve Their Cholesterol Levels with Exercise
1999	Filed Invention Disclosures on Genetic Markers Related to Hemodynamic Responses to Exercise
2000	US Copyright "The Wedding Song" – lyrics for a church wedding hymn
2002	US Patent #6,399,306 awarded – title "Genetic Markers Which Identify Individuals Who Decrease Their Blood Pressure Through Exercise"
2004	US Patent #6,743,587 awarded- title "ACE Genotype Which Correlates with Improved Success in Sodium Excretion in Hypertensives and Exercise"
2004	US Copyright "A's, T's, C's, and G's" – Dr. Seuss Genetics Poem
2012	Filed Invention Disclosure for Method to Enhance Function in Circulating Angiogenic Cells

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ENTREPRENEURIAL ACTIVITIES

2013	Founding Member, Training Optimizations System, LLC
2013	Training Optimization System, LLC named SemiFinalist for Under Armour39 Challenge

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PUBLICATIONS

Dr. Hagberg's publications have been cited as of 10/01/2017 a total of ~18,500 times, resulting in an h-index of 72, and with 47 different publications being each cited more than 100 times.

Refereed Articles

1. FJ Nagle, JM Hagberg, S Kamei. Maximal O<sub>2</sub> uptake of boys and girls aged 14-17. Europ J Appl Physiol 36: 75-80, 1977
2. JM Hagberg, FJ Nagle, JL Carlson. Transient O<sub>2</sub> uptake responses at the onset of exercise. J Appl Physiol 44: 90-92, 1978
3. AA Ehsani, JM Hagberg, RC Hickson. Rapid changes in left ventricular dimensions and mass in response to physical conditioning and deconditioning. Am J Cardiol 42: 52-56, 1978
4. JE Carroll, MH Brooke, DC DeVivo, KK Kaiser, JM Hagberg. Biochemical and physiological consequences of carnitine palmityl transferase deficiency. Muscle and Nerve 1: 103-110, 1978
5. JM Hagberg, MD Giese, RB Schneider. Comparison of three procedures for measuring VO<sub>2</sub>max in competitive cyclists. Europ J Appl Physiol 39: 47-52, 1978
6. RK Conlee, RC Hickson, WW Winder, JM Hagberg, JO Holloszy. Regulation of glycogen synthesis in muscles of rats following exercise. Am J Physiol 235: R145-R150, 1978
7. WW Winder, JM Hagberg, RC Hickson, AA Ehsani, JA McLane. Time course of the sympathoadrenal adaptation to endurance exercise training in man. J Appl Physiol 45: 370-374, 1978
8. JM Hagberg, JP Mullin, FJ Nagle. Oxygen consumption during constant load exercise. J Appl Physiol 45: 381-384, 1978
9. WW Winder, RC Hickson, JM Hagberg, AA Ehsani, JA McLane. Training induced changes in hormonal and metabolic responses to submaximal exercise. J Appl Physiol 46: 766-771, 1979
10. JE Carroll, DC DeVivo, MH Brooke, GJ Planer, JM Hagberg. Fasting as a provocative test in neuromuscular disease. Metabolism 28: 683-687, 1979
11. RC Hickson, JM Hagberg, RK Conlee, DA Jones, AA Ehsani, WW Winder. Effect of training on hormonal responses to exercise in competitive swimmers. Europ J Appl Physiol 41: 211-9, 1979
12. MH Brooke, JE Carroll, JE Davis, JM Hagberg. The prolonged exercise test. Neurology 29: 635-643, 1979
13. JE Carroll, JM Hagberg, MH Brooke, JB Shumate. Bicycle ergometry with computerized gas exchange measurements in neuromuscular diseases. Arch Neurol 36: 457-461, 1979
14. JM Hagberg, RC Hickson, JA McLane, AA Ehsani, WW Winder. Disappearance of norepinephrine from the circulation following strenuous exercise. J Appl Physiol 47: 1311-1314, 1979
15. RL Gingerich, RC Hickson, JM Hagberg, WW Winder. Effect of endurance exercise training on plasma pancreatic polypeptide concentration during exercise. Metabolism 28: 1179-1182, 1979
16. JM Hagberg, JP Mullin, M Bahrke, J Limburg. Physiological profiles and selected psychological characteristics of national class American cyclists. J Sports Med Phys Fitness 19: 341-346, 1979
17. JM Hagberg, RC Hickson, AA Ehsani, JO Holloszy. Faster adjustment to and recovery from submaximal exercise in the trained state. J Appl Physiol 48: 218-224, 1980
18. JM Hagberg, FJ Nagle, JP Mullin. Effect of work intensity and duration on recovery VO<sub>2</sub>. J Appl Physiol 48: 540-544, 1980
19. JE Carroll, MH Brooke, DC DeVivo, JB Shumate, R Kratz, SP Ringel, JM Hagberg. Carnitine deficiency: lack of response to carnitine therapy. Neurology 30: 616-626, 1980

20. PWR Lemon, JM Hagberg, RP Hermiston. Exercise  $VO_2$  estimation using recovery sampling. Can J Appl Sport Science 5: 64-68, 1980
21. JM Hagberg, JE Carroll, MH Brooke. Endurance exercise training in a patient with central core disease. Neurology 30: 1242-1244, 1980
22. RC Hickson, JM Hagberg, AA Ehsani, JO Holloszy. Time course of the adaptive response of aerobic power and heart rate to training. Med Sci Sports Exercise 13: 17-20, 1981
23. JM Hagberg, JP Mullin, MD Giese, E Spitznagel. Effect of pedal rate on the submaximal exercise responses of competitive cyclists. J Appl Physiol 51: 447-451, 1981
24. AA Ehsani, GW Heath, JM Hagberg, KB Schechtman. Noninvasive assessment of left ventricular function induced by graded isometric exercise in healthy subjects. Chest 80: 51-55, 1981
25. GW Heath, JM Hagberg, AA Ehsani, JO Holloszy. A physiological comparison of young and older endurance athletes. J Appl Physiol 51: 634-640, 1981
26. AA Ehsani, GW Heath, JM Hagberg, BE Sobel, JO Holloszy. Effects of 12 months of intense exercise training on ischemic ST-segment depression in patients with coronary artery disease. Circulation 64: 1116-1124, 1981
27. JE Carroll, JB Shumate, MH Brooke, JM Hagberg. Riboflavin responsive lipid myopathy with carnitine deficiency. Neurology 31: 1557-1559, 1981
28. JM Hagberg, EF Coyle, JE Carroll, JM Miller, WH Martin, MH Brooke. Exercise hyperventilation in McArdle's disease patients. J Appl Physiol 52: 991-994, 1982
29. EF Coyle, WH Martin, AA Ehsani, JM Hagberg, SA Bloomfield, DR Sinacore, JO Holloszy. Blood lactate threshold in some well-trained ischemic heart disease patients. J Appl Physiol 54: 18-23, 1983
30. RM Carney, PM McKeivitt, AP Goldberg, JM Hagberg, JA Delmez, HR Harter. Psychological effects of exercise training in hemodialysis patients. Nephron 33: 179-181, 1983
31. JM Hagberg, AA Ehsani, JO Holloszy. Effects of 12 months of intense exercise training on stroke volume in patients with coronary artery disease. Circulation 67: 1194-1199, 1983
32. GW Heath, AA Ehsani, JM Hagberg, JM Hinderliter, AP Goldberg. Exercise training improves lipoprotein lipids in patients with coronary artery disease. Am Heart J 105: 889-95, 1983
33. JM Miller, EF Coyle, WM Sherman, JM Hagberg, DL Costill, WJ Fink, SE Terblanche, JO Holloszy. Effect of glycerol feeding on endurance and metabolism during prolonged exercise in man. Med Sci Sports Exercise 15: 237-242, 1983
34. DR Seals, DR Sinacore, BF Hurley, PM Nemeth, JM Hagberg. Failure of endurance training to alter the cardiovascular response to static contraction. Clin Physiol 3: 219-226, 1983
35. JM Hagberg, AP Goldberg, AA Ehsani, GW Heath, JA Delmez, HR Harter. Exercise training improves hypertension in hemodialysis patients. Am J Nephrol 3: 209-212, 1983
36. EF Coyle, JM Hagberg, BF Hurley, WH Martin, AA Ehsani, JO Holloszy. Carbohydrate feeding during prolonged exercise can delay fatigue. J Appl Physiol 55: 230-235, 1983
37. JM Hagberg, EF Coyle. Physiological determinants of endurance performance as studied in competitive racewalkers. Med Sci Sports Exercise 15: 287-289, 1983
38. GW Heath, JR Gavin, JM Ponser, JM Hagberg, SA Bloomfield, JO Holloszy. Effects of exercise and lack of exercise on glucose tolerance and insulin sensitivity. J Appl Physiol 55: 512-517, 1983

39. JM Hagberg, AA Ehsani, D Goldring, GW Heath, A Hernandez, K Schechtman, JO Holloszy. Effect of exercise training on the blood pressure and hemodynamic features of adolescent hypertensives. Am J Cardiol 52: 763-768, 1983
40. JM Florence, MH Brooke, JM Hagberg, JE Carroll. Endurance exercise in neuromuscular disease. In: Neuromuscular Diseases. Ed: G Serratrice, C Desnuell, JF Pellissier, D Cros, JL Gastraut, J Pouget, A Schiano. Raven Press: New York, pp 577-582, 1984
41. JM Hagberg, AA Ehsani, DR Sinacore, D Goldring, A Hernandez, JO Holloszy. Effect of weight training on the blood pressure and hemodynamics of adolescent hypertensives. J Pediatrics 104: 147-151, 1984
42. JM Hagberg, AA Ehsani, GW Heath, D Goldring, A Hernandez, JO Holloszy. Effect of exercise training on catecholamine levels and hemodynamics of adolescent hypertensives during rest, submaximal exercise and orthostatic stress. Clin Physiol 4: 117- 124, 1984
43. BF Hurley, JM Hagberg, WK Allen, DR Seals, JC Young, R Cuddihee, JO Holloszy. Effect of training on blood lactate responses during submaximal exercise. J Appl Physiol 56: 1260-1264, 1984
44. JM Hagberg, EF Coyle. Physiological responses of competitive racewalkers during racewalking and running. Int J Sports Med 5: 74-77, 1984
45. DR Seals, JM Hagberg, WK Allen, BF Hurley, GP Dalsky, AA Ehsani, JO Holloszy. Glucose tolerance in young and older athletes and sedentary men. J Appl Physiol 56: 1521-1525, 1984
46. AA Ehsani, GW Heath, WH Martin, JM Hagberg, JO Holloszy. Effects of intense exercise training on plasma catecholamines in coronary patients. J Appl Physiol 57: 154-159, 1984
47. DR Seals, JM Hagberg, BF Hurley, AA Ehsani, JO Holloszy. Effects of endurance training on glucose tolerance and plasma lipid levels in older men and women. J Am Med Assoc 252: 645-649, 1984
48. BF Hurley, DR Seals, JM Hagberg, AC Goldberg, SM Ostrove, JO Holloszy, WG Wiest, AP Goldberg. High-density lipoprotein cholesterol in bodybuilders vs powerlifters: negative effects of androgen use. J Am Med Assoc 252: 507-513, 1984
49. DR Seals, WK Allen, BF Hurley, GP Dalsky, AA Ehsani, JM Hagberg. Elevated high-density lipoprotein cholesterol levels in older endurance athletes. Am J Cardiol 54: 390-393, 1984
50. A Kettner, AP Goldberg, JM Hagberg, JA Delmez, HR Harter. Cardiovascular and metabolic responses to submaximal exercise in hemodialysis patients. Kidney Intern 26: 66-71, 1984
51. BF Hurley, DR Seals, AA Ehsani, LJ Cartier, GP Dalsky, JM Hagberg, JO Holloszy. Effects of high intensity strength training on cardiovascular function. Med Sci Sports Exercise 16: 483-488, 1984
52. JM Florence, JM Hagberg. Effect of training on the exercise responses of neuromuscular disease patients. Med Sci Sports Exercise 16: 460-464, 1984
53. DR Seals, JM Hagberg, BF Hurley, AA Ehsani, JO Holloszy. Endurance training in older men and women. I. Cardiovascular responses to exercise. J Appl Physiol 57: 1024-1029, 1984
54. DR Seals, BF Hurley, J Schultz, JM Hagberg. Endurance training in older men and women. II. Blood lactate responses to submaximal exercise. J Appl Physiol 57: 1030-1033, 1984
55. EF Coyle, WH Martin, DR Sinacore, MJ Joyner, JM Hagberg, JO Holloszy. Time course of the loss of adaptations after stopping prolonged intense endurance training. J Appl Physiol 57: 1857-1864, 1984
56. WK Allen, DR Seals, BF Hurley, AA Ehsani, JM Hagberg. Lactate threshold and distance running performance in young and older endurance athletes. J Appl Physiol 58: 1281-1284, 1985

57. JE Yerg, DR Seals, JM Hagberg, JO Holloszy. The effect of endurance exercise training on ventilatory function in older individuals. J Appl Physiol 58: 791-794, 1985
58. DR Seals, BF Hurley, JM Hagberg, J Schultz, BJ Linder, L Natter, AA Ehsani. Effects of training on systolic time intervals at rest and during isometric exercise in older men and women 61 to 64 yrs old. Am J Cardiol 55: 797-800, 1985
59. JM Hagberg, WK Allen, DR Seals, BF Hurley, AA Ehsani, JO Holloszy. A hemodynamic comparison of young and older endurance athletes during exercise. J Appl Physiol 58: 2041-2046, 1985
60. BF Hurley, PM Nemeth, WH Martin, JM Hagberg, GP Dalsky, JO Holloszy. Muscle triglyceride utilization during exercise: effect of training. J Appl Physiol 60: 562-567, 1986
61. JE Yerg, DR Seals, JM Hagberg, AA Ehsani. Syncope secondary to ventricular asystole in an endurance athlete. Clin Cardiol 9: 220-222, 1986
62. RM Carney, RD Wetzel, JM Hagberg, AP Goldberg. The relationship between depression and aerobic capacity in hemodialysis patients. Psychosom Med 48: 143-147, 1986
63. BF Hurley, JM Hagberg, DR Seals, AA Ehsani, AP Goldberg, JO Holloszy. Glucose tolerance and lipid-lipoprotein levels in middle-aged powerlifters. Clin Physiol 7: 11-19, 1987
64. SL Heller, KK Kaiser, J Planer, JM Hagberg, MH Brooke. McArdle's disease with myoadenylate deaminase deficiency: observation in a combined enzyme deficiency. Neurology 39: 1039-1042, 1987
65. JM Hagberg, SJ Montain, WH Martin. Blood pressure and hemodynamic responses following exercise in older hypertensives. J Appl Physiol 63: 270-276, 1987
66. MA Rogers, C Yamamoto, JM Hagberg, JO Holloszy, AA Ehsani. The effect of 7 years of intense exercise training on patients with coronary artery disease. J Am Coll Cardiol 10: 321-326, 1987
67. RM Carney, B Templeton, BA Hong, HR Harter, JM Hagberg, KB Schechtman, AP Goldberg. Exercise training reduces depression and increases performance of pleasant activities in hemodialysis patients. Nephron 47: 194-198, 1987
68. BF Hurley, JM Hagberg, DR Seals, AA Ehsani, AP Goldberg, RE Brennan, JO Holloszy. Resistive training can reduce coronary risk factors without altering VO<sub>2</sub>max or percent body fat. Med Sci Sports Exercise 20: 150-154, 1988
69. R Valdes, JM Hagberg, TE Vaughan, BWC Lau, DR Seals, AA Ehsani. Endogenous digoxin-like immunoreactivity in blood is increased during prolonged strenuous exercise. Life Sci 42: 103-110, 1988
70. MA Rogers, C Yamamoto, DS King, JM Hagberg, AA Ehsani, JO Holloszy. Improvement in glucose tolerance after 1 wk of exercise in patients with NIDDM. Diabetes Care 11: 613-618, 1988
71. JM Hagberg, DR Seals, JE Yerg, J Gavin, R Gingerich, B Premachandra, JO Holloszy. Metabolic responses to exercise in young and older athletes and sedentary men. J Appl Physiol 65: 900-908, 1988
72. MA Rogers, C Yamamoto, JM Hagberg, WH Martin, AA Ehsani, JO Holloszy. Effect of 6 days of exercise training on responses to maximal and submaximal exercise in middle-aged men. Med Sci Sports Exercise 20: 260-264, 1988
73. DR Seals, MA Rogers, JM Hagberg, C Yamamoto, PE Cryer, AA Ehsani. Left ventricular dysfunction after prolonged strenuous exercise in healthy subjects. Am J Cardiol 61: 875-879, 1988
74. JM Hagberg, JE Yerg, DR Seals. Pulmonary function in young and older athletes and untrained men. J Appl Physiol 65: 101-105, 1988

75. SJ Montain, SM Jilka, AA Ehsani, JM Hagberg. Altered hemodynamics at rest and during exercise in older men and women with essential hypertension. Hypertension 12: 479-484, 1988
76. JM Hagberg, SJ Montain, WH Martin, AA Ehsani. Effect of exercise training on 60 to 69 year old persons with essential hypertension. Am J Cardiol 64: 348-353, 1989
77. JM Hagberg, JE Graves, M Limacher, DR Woods, C Cononie, S Leggett, Gruber, ML Pollock. Cardiovascular responses of 70-79 year old men and women to exercise training. J Appl Physiol 66: 2589-2594, 1989
78. MA Rogers, JM Hagberg, WH Martin, AA Ehsani, JO Holloszy. Decline in  $VO_2$ max with aging in master athletes and sedentary men. J Appl Physiol 68: 2195-2199, 1990
79. JM Hagberg, DS King, MA Rogers, SJ Montain, SM Jilka, WM Kohrt, SL Heller. Exercise and recovery ventilatory and  $VO_2$  responses of patients with McArdle's disease. J Appl Physiol 68: 1393-1398, 1990
80. LB Panton, JE Graves, ML Pollock, JM Hagberg, W Chen. Effect of aerobic and resistance exercise training on fractionated reaction time and speed of movement. J Gerontol 45: M26-M31, 1990
81. C Cononie, JE Graves, ML Pollock, MI Phillips, C Sumners, JM Hagberg. Effects of resistance and endurance exercise training on blood pressure in 70-79 year old men and women. Med Sci Sports Exercise 23: 505-511, 1991.
82. S McCole, K Claney, J-C Conte, R Anderson, JM Hagberg. Energy expenditure during bicycling. J Appl Physiol 68: 748-753, 1990
83. MA Rogers, DS King, JM Hagberg, AA Ehsani, JO Holloszy. Effect of 10 days of inactivity on glucose tolerance in master athletes. J Appl Physiol 68: 1833-1837, 1990
84. ML Pollock, JF Carroll, JE Graves, SH Leggett, RW Braith, M Limacher, JM Hagberg. Injuries and adherence to walk/jog and resistance training programs in the elderly. Med Sci Sports Exercise 23: 1194-1200, 1991.
85. WL Haskell, AS Leon, CJ Casperson, VF Froelicher, JM Hagberg, W Harlan, JO Holloszy, JG Regensteiner, PD Thompson, RA Washburn, PWF Wilson. Cardiovascular benefits and assessment of physical activity and physical fitness in adults. Med Sci Sports Exercise 24: S201-S220, 1992
86. A Menkes, S Mazel, RA Redmond, K Koffler, CR Libanati, CM Gundberg, TM Zizik, JM Hagberg, RE Pratley, BF Hurley. Strength training increases regional bone mineral density and bone remodeling in middle-aged and older men. J Appl Physiol 74: 2478-2484, 1993
87. DR Sinacore, EF Coyle, JM Hagberg, JO Holloszy. Histochemical and physiological correlates of training - and detraining- induced changes in the recovery from a fatigue test. Phys Ther. 73: 661-667, 1993
88. WH Martin, GP Dalsky, BF Hurley, DE Matthews, DM Bier, JM Hagberg, JO Holloszy. Effect of endurance exercise training on plasma FFA turnover and oxidation during exercise. Am J Physiol 265: E708-E714, 1993
89. DR Seals, JM Hagberg, RJ Spina, MA Rogers, KB Schechtman, AA Ehsani. Enhanced left ventricular performance in endurance trained older men. Circulation 89:198-205, 1994
90. DR Dengel, RE Pratley, JM Hagberg, AP Goldberg. Impaired insulin sensitivity and maximal responsiveness in older hypertensive men. Hypertension 23:320-324, 1994
91. CC Cononie, AP Goldberg, E Rogus, JM Hagberg. Seven consecutive days of exercise lowers plasma insulin responses to an oral glucose challenge in sedentary 60-80 yr olds. J Am Geriatr Soc 42:394-398, 1994

92. WC Hersey, JE Graves, ML Pollock, R Gingerich, RB Shireman, GW Heath, F Spierto, SD McCole, JM Hagberg. Endurance exercise training improves body composition and plasma insulin responses in 70-79 yr old men and women. Metabolism 43: 847-854, 1994
93. DR Dengel, JM Hagberg, PJ Coon, DT Drinkwater, AP Goldberg. Effects of weight loss by diet alone or combined with aerobic exercise on body composition in older obese men. Metabolism 43:867-871, 1994
94. CK Ewart, KS Loftus, JM Hagberg. School-based exercise to lower blood pressure in high-risk African American girls: project design and baseline findings. J. Health Education 26(Suppl 2): 1-7, 1995.
95. F O'Connor, JL Fleg, G Gerstenblith, LC Becker, AP Goldberg, JM Hagberg, L Lakatta, EG Lakatta, SP Schulman. Effect of body fat on exercise hemodynamics in sedentary older men. Aging Clin Exp Res 6:257-265, 1994
96. DR Dengel, JM Hagberg, PJ Coon, DT Drinkwater, AP Goldberg. Comparable effects of diet and exercise on body composition and lipoproteins in older men. Med Sci Sports Exerc 26:1307-1315, 1994
97. RE Pratley, JM Hagberg, EM Rogus, AP Goldberg. Enhanced insulin sensitivity and lower waist-to-hip ratio in master athletes. Am J Physiol 268: E484-E490, 1995.
98. GE Caldwell, SD McCole, JM Hagberg. Pedal force profiles during uphill cycling. In: Proceedings of the Eighth Annual Conference of the Canadian Society for Biomechanics. Ed: Herzog W, BM Nigg. Calgary, Canada, 1995, pp 58-59.
99. J Kang, RJ Robertson, JM Hagberg, DE Kelley, FL Goss, SG DaSilva, RR Sluminski, AC Utter. Effect of exercise intensity on glucose and insulin metabolism in obese individuals and obese NIDDM patients. Diabetes Care 19: 341-349, 1996
100. SP Schulman, JL Fleg, AP Goldberg, J Busby-Whitehead, JM Hagberg, FC O'Connor, G Gerstenblith, LC Becker, LI Katzel, LE Lakatta, EG Lakatta. Continuum of cardiovascular performance across a broad range of fitness levels in healthy older men. Circulation 94: 359-367, 1996.
101. SR Colberg, JM Hagberg, SD McCole, JM Zmuda, PD Thompson, DE Kelley. Utilization of glycogen but not plasma glucose is reduced in individuals with NIDDM during mild intensity exercise. J Appl Physiol 81: 2027-2033, 1996.
102. DR Dengel, RE Pratley, JM Hagberg, EM Rogus, AP Goldberg. Distinct effects of aerobic exercise training and weight loss on glucose homeostasis in obese sedentary men. J Appl Physiol 81: 318-325, 1996.
103. MD Brown, GE Moore, M Korytkowski, SD McCole, JM Hagberg. Improvement of insulin sensitivity by short-term exercise training in hypertensive African-American women. Hypertension 30: 1549-1553, 1997
104. LI Katzel, AP Goldberg, J Busby-Whitehead, JM Hagberg, JL Fleg. Abnormal exercise electrocardiograms in master athletes after 3 months of deconditioning. J Am Geriatr Soc 45: 744-746, 1997.
105. JM Hagberg, AP Goldberg, L Lakatta, FC O'Connor, LC Becker, EG Lakatta, JL Fleg. Expanded blood volumes contribute to the increased cardiovascular performance of older endurance-trained men. J. Appl Physiol 85: 484-489, 1998
106. GE Caldwell, L Li, SD McCole, JM Hagberg. Pedal and crank kinetics in uphill cycling. J Appl Biomech 14: 245-259, 1998
107. MJ Rosen, JD Sorkin, AP Goldberg, JM Hagberg, LI Katzel. Predictors of age-associated decline in maximal aerobic capacity: a comparison of four statistical models. J Appl Physiol 84: 2163-2170, 1998.



108. DR Dengel, JM Hagberg, RE Pratley, EM Rogus, AP Goldberg. Improvements in blood pressure, glucose metabolism and lipoprotein lipids after aerobic exercise plus weight loss in obese hypertensive middle-aged men. Metabolism 47: 1075-1082, 1998.
109. JM Hagberg, RE Ferrell, SD McCole, KR Wilund, GE Moore. ACE genotype is associated with VO<sub>2</sub>max in postmenopausal women. J Appl Physiol 85: 1842-1846, 1998.
110. DR Dengel, AT Galecki, JM Hagberg, RE Pratley. The independent and combined effects of weight loss and aerobic exercise on blood pressure and oral glucose tolerance in older men. Am J Hypertension 11: 1405-1412, 1998.
111. CK Ewart, DR Young, JM Hagberg. Effects of school-based aerobic exercise on blood pressure in adolescent girls at risk for hypertension. Am J Public Health 88: 949-951, 1998.
112. GE Caldwell, JM Hagberg, SD McCole, L Li. Lower extremity joint moments during uphill cycling. J Appl Biomech 15: 166-181, 1999
113. JM Hagberg, RE Ferrell, DR Dengel, KR Wilund. Exercise training-induced blood pressure and plasma lipid improvements in hypertensives may be genotype dependent. Hypertension 34: 18-23, 1999.
114. JM Hagberg, RE Ferrell, LI Katzel, DR Dengel, JD Sorkin, AP Goldberg. Apolipoprotein E genotype and exercise training-induced increases in plasma HDL- and HDL<sub>2</sub>-cholesterol levels. Metabolism 48: 943-945, 1999.
115. SD McCole, MD Brown, GE Moore, JM Zmuda, J Cwynar, JM Hagberg. Cardiovascular hemodynamics with increasing exercise intensities in postmenopausal women. J Appl Physiol 87: 2334-2340, 1999.
116. RE Ferrell, V Conte, EC Lawrence, SM Roth, JM Hagberg, BF Hurley. Frequent sequence variation in the human myostatin (GDF8) gene as a marker for analysis of muscle related phenotypes. Genomics 62: 203-209, 1999.
117. NS Taylor-Tolbert, DR Dengel, MD Brown, SD McCole, RE Pratley, RE Ferrell, JM Hagberg. Ambulatory blood pressure following acute exercise in older men with essential hypertension. Am J Hypertension 13: 44-51, 2000.
118. AP Goldberg, MJ Busby, LI Katzel, RM Krauss, M Lumpkin, JM Hagberg. Cardiovascular fitness, body composition, and lipoprotein lipid metabolism in older men. J Gerontol 55: M342-M349, 2000.
119. SD McCole, MD Brown, GE Moore, JM Zmuda, JD Cwynar, JM Hagberg. Enhanced cardiovascular hemodynamics in endurance-trained postmenopausal women athletes. Med Sci Sports Exercise 32: 1073-1079, 2000
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Submitted Articles

1. JM Hagberg. A Personal Biography of a Physiological Misnomer: The Anaerobic Threshold. In Preparation.
2. CB Springer, RM Sapp, WS Evans, NT Jenkins, JM Hagberg, SJ Prior. Prior exercise does not prevent increases in vascular-related circulating microRNAs during postprandial lipemias. Submitted for Publication.

Reviews, Invited Published Papers, Proceedings of Conferences and Symposia, Monographs, Books, and Book Chapters

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48. JM Hagberg. Physical activity and hypertension in obesity. In: Physical Activity and Obesity (2<sup>nd</sup> Edition). Ed: C Bouchard and PT Katzmarzyk. Human Kinetics Press: Champaign, IL, 2010, pp 277-280.
49. T Rankinen, SM Roth, MS Bray, R Loos, L Perusse, B Wolfarth, JM Hagberg, C Bouchard. Advances in exercise, fitness, and performance genomics. Med Sci Sports Exercise 42: 835-846, 2010.
50. JM Hagberg. Interactive effects of genetics and acute exercise and exercise training on plasma lipoprotein-lipids and blood pressure phenotypes. In: Molecular and Translational Medicine Series: Exercise Genomics Volume. Ed: LS Pescatello and SM Roth. Humana Press, 2011, pp 129-156.
51. JM Hagberg. Genes, Exercise, and Cardiovascular Phenotypes. In: Genetic and Molecular Aspects of Sports Performance: IOC Sports Sciences Series. Ed: E Hoffman, C Bouchard, Wiley-Blackwell Publishers, 2011, pp 249-261.
52. JM Hagberg. CREB1: A Missing Link for Heart Rate Regulation? Circ: CV Genetics. 3: 229-231, 2010
53. JM Hagberg. Exercise Genes?: And No Not Levis 501s!. J Appl Physiol 109: 619-620, 2010.
54. S Witkowski, NT Jenkins, JM Hagberg. Enhancing treatment for cardiovascular disease: exercise and circulating angiogenic cells. Ex Sports Sciences Reviews 39: 93-101, 2011.
55. JM Hagberg, T Rankinen, R Loos, L Pérusse, SM. Roth, B Wolfarth, C Bouchard. Advances in Exercise, Fitness and Performance Genomics in 2010. Med Sci Sports Exercise 43: 743-752, 2011.
56. JM Hagberg. Do genetic variations alter the effects of exercise training on cardiovascular disease and can we identify the candidate variants now or in the future? J Appl Physiol 111: 916-928, 2011.
57. JM Hagberg, NT Jenkins, EE Spangenburg. Exercise training, genetics, and type 2 diabetes-related Phenotypes. Acta Physiologica 205: 456-471, 2012
58. SM Roth, T Rankinen, JM Hagberg, R Loos, L Pérusse, MA Sarzynski, B Wolfarth, C Bouchard. Advances in Exercise, Fitness and Performance Genomics in 2011. Med Sci Sports Exercise 44:809-817, 2012
59. L Pérusse, T Rankinen, JM Hagberg, RJF Loos, SM Roth, MA Sarzynski, B Wolfarth, C Bouchard. Advances in Exercise, Fitness, and Performance Genomics in 2012. Med Sci Sports Exercise 45: 824-831, 2013
60. B Wolfarth, T Rankinen, JM Hagberg, RJF Loos, L Pérusse, SM Roth, MA Sarzynski, C Bouchard. Advances in Exercise, Fitness, and Performance Genomics in 2013. Med Sci Sports Exercise 46: 851-859, 2014
61. RJF Loos, JM Hagberg, L Pérusse, SM Roth, MA Sarzynski, T Rankinen, B Wolfarth, C Bouchard. Advances in Exercise, Fitness, and Performance Genomics in 2014. Med Sci Sports Exercise 47: 1105-1112, 2015
62. RM Sapp, DD Shill, SM Roth, JM Hagberg. Circulating microRNAs in acute and chronic exercise: more than mere biomarkers. J Appl Physiol 122: 702-717, 2017.
63. RM Sapp, JM Hagberg. CrossTalk: Acute exercise does not elicit damage to the endothelial layer of systemic blood vessels in healthy individuals. J Physiol (London) 596: 541-544, 2018 (Rebuttal 596:547, 2018).
64. JM Hagberg, EF Coyle, KM Baldwin, GD Cartee, L Fontana, MJ Joyner, JP Kirwan, DR Seals, EP Weiss. The Historical Context and Scientific Legacy of John O. Holloszy. In Press: J Appl Physiol

65. RQ Landers-Ramos, RM Sapp, DD Shill, JM Hagberg, SJ Prior. Exercise and Cardiovascular Progenitor Cells. Comp Physiology 9:767-797, 2019.
  66. JR Zierath, JM Hagberg, EF Coyle. Obituary: John O. Holloszy 1933-2018. Cell Metabolism 28: 329, 2018.
  67. JM Hagberg, EF Coyle, KM Baldwin, GD Cartee, L Fontana, MJ Joyner, JP Kirwan, DR Seals, EP Weiss. The Historical Context and Scientific Legacy of John O. Holloszy. J Appl Physiol. 127: 277-305, 2019.
  68. RM Sapp, JM Hagberg. Circulating microRNAs: Advances in Exercise Physiology. Curr Opin Physiology. 10: 1-9 , 2019.
  69. B Hurley, AP Goldberg, JM Hagberg. John O. Holloszy: An Enduring Legacy in Exercise Physiology, Aging, and Muscle Research. In Press: J Gerontol Med Sci 74: 588-589, 2019
  70. WS Evans, RM Sapp, K Kim, JM Heilman, JM Hagberg, SJ Prior. Effects of exercise training on the paracrine function of circulating angiogenic cells. In Press: Int J Sports Med.
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## PROFESSIONAL ACTIVITIES

### TEACHING

#### 1. Courses Taught

##### Washington University

- Basic Physiology, Undergraduate course in Program in Physical Therapy, 1984-1986
- Exercise Physiology, Undergraduate course in Program in Physical Therapy, 1984-1986
- Exercise Physiology, Graduate course in Program in Physical Therapy, 1982-1986

##### University of Florida

- Basic Physiology, Campus-wide undergraduate course, 1986-1988
- Exercise Physiology, Graduate course, 1986-1988
- Exercise Physiology Laboratory Techniques, Graduate Course, 1986-1988
- Graduate and Undergraduate Independent Studies

##### University of Maryland

- Graduate and Undergraduate Independent Studies
- Senior Thesis, Undergraduate course for Kinesiological Sciences Majors, 1990-1992
- Aging, Exercise, and the Cardiovascular and Respiratory Systems, Graduate Course, 1989-1992
- Aging, Exercise, Body Composition, and Metabolism, Graduate Course, 1989-1992

##### University of Pittsburgh

- Clinical Exercise Physiology Graduate Journal Club, 1993 + 1994

##### University of Maryland

- Undergraduate Research Internships
- Undergraduate Independent Studies
- Graduate Independent Studies
- Masters Thesis
- Doctoral Dissertation
- KNES 260 CORE Science of Physical Activity and Cardiovascular Health
- KNES 465 Physical Activity and Disease Prevention
- KNES 498 Exercise and Aging
- KNES 711 Professional Development and Grant Writing
- KNES 497 Senior Thesis
- KNES 689 Research Ethics
- KNES 692 Cardiovascular Aspects of Exercise Physiology

- KNES 695 Graduate Exercise Physiology Laboratory

## 2. Graduate Students Supervised

### Doctoral

- Rian Landers-Ramos, PhD, 2015 – Effects of cardiovascular disease and physical inactivity on the paracrine function of circulating angiogenic cells. NIH Postdoctoral Fellow, Division of Geriatrics and Gerontology, Department of Medicine, University of Maryland Baltimore School of Medicine.
- Nathan Jenkins, PhD, 2011 – University of Maryland, Dissertation Topic - Regulatory effects of acute and chronic endurance exercise on nitric oxide and reactive oxygen species in human circulating angiogenic cells. Current Position – Assistant Professor, Department of Kinesiology and Exercise Science, University of Georgia
- Michael Lockard, PhD, 2009 – University of Maryland, Dissertation Topic – Effect of thrombin on endothelial progenitor cells with exercise and exercise training. Present Position – Assistant Professor, Department of Exercise Science, Willamette University, Salem, OR
- Jennifer McKenzie, PhD, 2008 – University of Maryland, Dissertation Topic – Effect of visfatin gene polymorphisms and exercise training on plasma visfatin levels and metabolic phenotypes . Present Position – Assistant Professor, Department of Exercise Science, McDaniel College, Westminster, MD
- Sarah Witkowski, PhD – 2008, University of Maryland, Dissertation topic – Effect of long-term exercise on endothelial progenitor cells in healthy humans. Present Position – Assistant Professor, Dept of Kinesiology, University of Massachusetts
- Tina Ellis, PhD – 2006, University of Maryland, Dissertation topic – LOX-1 genotype, dietary fat intake, and aerobic exercise training: influence in endothelial function, oxidative stress, lipoprotein-lipids, and soluble LOX-1. Present Position- Assistant Professor, Dept of Internal Medicine, Wake Forest University of Health Sciences
- Josef Brandauer, PhD – 2005, University of Maryland, Dissertation topic – Effect of endurance exercise training on fasting and postprandial plasma adiponectin levels. Present Position – Assistant Professor, Gettysburg College, Gettysburg, PA
- Chad Paton, PhD – 2005, University of Maryland, Dissertation Topic- Defining the hemostatic responses to an oral fat load before and after exercise training. Present Position – NIH Postdoctoral Fellow, Univ of Wisconsin School of Medicine, Madison, WI
- Amy Halverstadt, PhD – 2004, University of Maryland, Dissertation topic – Interleukin-6 genotypes and HDL-C, its subfractions, and responses to exercise training. Present Position – Instructor, George Washington University.
- Ted Weiss, PhD – 2003, University of Maryland, Dissertation Topic – FABP2 genotype and exercise training as determinants of glucoregulatory function and postprandial lipemia. Present Position – Assistant Professor, Dept of Nutrition and Dietetics, St. Louis University, St Louis, MO
- Mark Roltsch, PhD – 2001, University of Maryland, Dissertation Topic – Associations between ACE genotype and exercise cardiovascular hemodynamics in young women. Present Position – Program Officer, NHLBI/NIH
- Dana Phares, PhD – 2001, University of Maryland, Dissertation Topic – The effect of common adrenergic receptor polymorphisms and exercise training on body fat phenotypes. Present Position – Program Officer, NHLBI/NIH.
- Onanong Tiyasangthong, MD, PhD – 2001, University of Maryland, Dissertation Topic – Effects of a common genetic polymorphism and exercise training on fibrinolysis in men and women aged 50 to 70. Present Position – Faculty, Chulalongkorn School of Medicine, Bangkok, Thailand.
- Kenneth Wilund, PhD – 2000, University of Maryland, Dissertation Topic – Effects of endurance exercise training on plasma LpAI and LpAI:All concentrations in sedentary adults. Present Position – Assistant Professor, Department of Kinesiology, University of Illinois.
- Steve McCole, PhD - 1995, University of Maryland, Dissertation topic - Cardiovascular hemodynamics of postmenopausal women during exercise. Present Position - Professor, McDaniel College, Westminster, MD
- Michael Brown, PhD - 1995, University of Maryland, Dissertation topic - Mechanisms underlying blood pressure reductions with exercise training in older black hypertensive males. Current Position - Associate Professor, Department of Kinesiology and School of Medicine, Temple University

### Masters

- Ryan Sapp, MA, 2015 – Thesis Topic – Exercise training-associated differences in circulating miRNAs and serum-induced endothelial cell migration rate.
- Kelsey Corrigan, MA 2015 – Thesis Topic – Effect of a 10 day cessation of training in older endurance

- athletes on pathological nitric oxide and reactive oxygen species levels in circulating angiogenic cells.
- Lori Bjork, MA 2010 – University of Maryland, Thesis Topic – Circulating biomarkers of nitro-oxidative stress in young and older active and inactive men.
- Gina Many, MA 2010 – University of Maryland, Thesis Topic – The effects of low-volume/moderate-intensity aerobic training on metabolic syndrome components in morbidly obese minority adolescents.
- Faith Augrom, MA, 2005 – University of Maryland, Thesis Topic – Effects of lamin A/C C1908T polymorphism on body composition, plasma lipoprotein-lipid profile, and insulin sensitivity changes with exercise training.
- Amanda Harne, MA, 2005 – University of Maryland, Thesis Topic – Influence of vitamin D receptor gene polymorphisms on changes in insulin sensitivity with aerobic exercise training.
- Rakesh Gopinathannair, MA, MD, 2003 – University of Maryland, thesis Topic – Influence of lipoprotein lipids and APO E gene polymorphisms on coagulation factor VIII changes with 6 months of aerobic exercise training.
- Michael Lockard, MA, 2003 – University of Maryland, Thesis Topic – Prothrombin fragment 1+2 response to 6 months of exercise training in sedentary individuals.
- Tina Ellis, MA, 2003 – University of Maryland, Thesis Topic – Influence of the LPL S447X and hepatic lipase polymorphisms on changes in LDL particle size and concentration with exercise training.
- Jennifer McKenzie, MA, 2003 – University of Maryland, Thesis Topic – eNOS gene polymorphisms and the nitric oxide response to an oral glucose tolerance test.
- Victoria Proctor, MA, RN, 2002 – University of Maryland, Thesis Topic – Effect of exercise training on plasma HDL-C and HDL2-C levels in individuals with a common LPL polymorphism.
- Ioana Ghiu, MA, MD, 2002 – University of Maryland, Thesis Topic – The genetics of plasma coagulation factor VII changes with exercise training.
- Nicole Fendrick, MA – 2001, University of Maryland, Thesis Topic - Association between the ACE gene polymorphism and VO<sub>2</sub>max.
- Kathleen Rodgers, MA – 1998, University of Maryland, Thesis Topic – Effects of menstrual, familial, lifestyle, and nutritional risk factors on bone mineral density in postmenopausal women.
- Tomas Mendez, MA – 1997, University of Maryland, Thesis Topic – Effect of acute resistive exercise on the ambulatory blood pressure of resistive-trained college men and women.
- Nadine Taylor-Tolbert, MS - 1993, University of Maryland, Thesis topic - Effect of acute exercise on ambulatory blood pressure of older male hypertensives
- Frank Russo, MS - 1993, University of Maryland, Thesis topic - Effect of uphill cycling technique on subsequent performance of an individual time trial
- W. Clark Hersey, MS - 1988, University of Florida, Thesis topic - Effect of exercise training on body composition and glucose and insulin metabolism in 70-79 yr old men and women
- Charles Cononie, MS - 1988, University of Florida, Thesis topic - Mechanisms underlying blood pressure reductions elicited in 70-79 yr old male and female hypertensives with exercise training
- Julaine Florence, MS - 1984, Washington University Program in Physical Therapy, Thesis topic - Effect of endurance exercise training on patients with neuromuscular diseases

### 3. Postdoctoral Fellows Supervised

- Amy Halverstadt, Postdoctoral PhD, Department of Kinesiology, University of Maryland College Park, Research Area – Impact of common genetic variations on plasma lipoprotein-lipid levels and their responses to endurance exercise training in older men and women
- Gregory Heath, Postdoctoral, DHSc, Washington University School of Medicine (with J.O. Holloszy), Research area - Impact of exercise training on cardiovascular function and cardiovascular disease risk factors, Present position - Division of Cardiovascular Disease Control, Centers for Disease Control, Atlanta, GA
- Edward Coyle, Postdoctoral, PhD, Washington University School of Medicine (with J.O. Holloszy), Research area - Effect of detraining on metabolic and cardiovascular function in highly-trained individuals, Current Position - Professor, Department of Kinesiology, University of Texas
- Bernard Hurley, Postdoctoral, PhD, Washington University School of Medicine (with J.O. Holloszy), Research area - Effects of resistive training on cardiovascular function and cardiovascular disease risk factors in middle-aged and older males, Current Position - Professor, Department of Kinesiology, University of Maryland
- Marc Rogers, Postdoctoral, PhD, Washington University School of Medicine (with J.O.

Holloszy), Research area - Effects of endurance exercise training and detraining in older athletes, Current Position - Associate Professor, Department of Kinesiology, University of Maryland

Douglas Seals, Postdoctoral, PhD, Washington University School of Medicine (with J.O. Holloszy), Research area - Effects of endurance exercise training on metabolic and cardiovascular function in 60-69 yr old males and females, Current Position - Professor, Department of Kinesiology, University of Colorado

Donald Dengel, Postdoctoral, PhD, University of Maryland School of Medicine (with A.P. Goldberg), Research area - Effects of exercise training and weight loss on glucose and insulin metabolism and sympathetic nervous system activity in older obese hypertensive males, Current Position - Associate Professor, Department of Kinesiology, University of Minnesota

#### 4. Undergraduate Research Interns Supervised

Nickiana Lora, Undergraduate UMCP Biology Minority Access Program (BIOMAP) – Exercise training and plasma glucose and insulin changes during an OGTT

Ramon Balinas, Undergraduate UMCP Biology Minority Access Program (BIOMAP) – APO E genotype and exclusion rates in the GERS Exercise Training Study

Christopher Wohn, Undergraduate UMCP Howard Hughes Fellow – APO E genotype and exercise training-induced changes in postprandial lipemia

Daryl Arnold, Undergraduate UMCP Kinesiology Honors Student – CETP genotype and plasma lipid changes with endurance exercise training

Austin Bailey, Undergraduate UMCP Kinesiology Honors Student – Effects of Exercise on the Number and Function of Endothelial Progenitor Cells

Jessica Bender, Undergraduate UMCP Kinesiology Honors Student -

## RESEARCH

### 1. Grants

#### Washington University School of Medicine

- |             |   |
|-------------|---|
| 1978 - 1979 | NIH Individual Postdoctoral Research Fellowship, "Effect of exercise training on adolescent hypertensives", \$35,000                        |
| 1979 - 1986 | NIH, Coprincipal investigator, "Effect of intense prolonged exercise training on patients with coronary artery disease", \$1,500,000        |
| 1979 - 1981 | American Heart Association, Coprincipal investigator, "Cardiovascular and metabolic function in older endurance-trained athletes", \$50,000 |
| 1979 - 1982 | NIH, Coprincipal investigator, "Effect of exercise training on patients with end-stage renal disease", \$525,000                            |
| 1980 - 1983 | NIA Young Investigator Award, Principal investigator, "Effect of exercise training on older men and women", \$90,000                        |
| 1984        | AARP Andrus Foundation, Principal investigator, "Effect of exercise training on 60-69 year old male and female hypertensives", \$50,000     |
| 1985 - 1990 | NIA Program Project, Coprincipal investigator, "Effect of exercise training on older individuals", \$3,000,000                              |

#### University of Florida

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|-------------|---|
| 1987 - 1988 | United States Olympic Committee, Principal investigator, "Physiologic and metabolic correlates of improved aerodynamics during competitive cycling", \$35,000 |
| 1987 - 1988 | Diabetes Treatment Centers of America, Principal investigator, "Effect of exercise on glucose and insulin metabolism in 70-79 yr old men and women", \$30,000 |

#### University of Maryland

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|-------------|---|
| 1988 - 1990 | Intergovernmental Personnel Agreement with Laboratory of Cardiovascular Sciences, Gerontology Research Center, NIA, Principal investigator, \$58,000            |
| 1988 - 1993 | NIA Teaching Nursing Home Award, Coprincipal investigator, "Metabolic, cardiovascular, and neurologic function and exercise training in older men", \$3,000,000 |
| 1988 - 1993 | NIA, Coprincipal investigator, "Metabolic function in senior athletes", \$800,000   |
| 1988 - 1994 | NIH Division of Research Resources, Coinvestigator, Johns Hopkins School of Medicine General Clinical Research Center, \$11,000,000                             |
| 1990 - 1992 | American Diabetes Association, Coprincipal investigator, "Metabolic function in elderly hypertensives", \$60,000  |

- 1990 - 1992 Maryland Affiliate - American Heart Association, Principal investigator, "Hypertension, hyperinsulinemia, and the sympathetic nervous system activity", \$40,000
- 1991 United States Olympic Committee, Principal investigator, "Effects of hill-climbing technique on physiology, biomechanics, and performance during competitive cycling", \$17,000
- 1991 - 1995 NIH, Coprincipal investigator, "School-based exercise to lower adolescent blood pressure", \$730,000
- 1992 - 1997 Veterans Administration Geriatric Research, Education, and Clinical Center, Associate Director for Research, \$6,000,000
- 1992 - 1994 Veterans Administration, Principal investigator, "Metabolic function in elderly hypertensives", \$80,000
- 1992 - 1997 NIA, Coprincipal Investigator, Pre- and Postdoctoral Training Grant, "Research Training in Gerontology and Exercise Physiology", \$736,000

#### University of Pittsburgh

- 1994 - 1996 Pennsylvania Affiliate-American Heart Association, Principal Investigator, "Interactive effects of hormone replacement and exercise training on cardiovascular function in postmenopausal women", \$70,000
- 1994 - 2001 NIH, NIDDM Primary Prevention Trial, Co-Investigator, \$1,989,000
- 1995 AARP Andrus Foundation, Principal Investigator, "Interactive effects of hormone replacement therapy and exercise training on cardiovascular disease risk factors in postmenopausal women", \$75,000
- 1995 Merck Pharmaceuticals, Principal Investigator, "Interaction between antihypertensive medications and the blood pressure-lowering effect of acute exercise", \$15,000
- 1994 - 1997 NIH, Coinvestigator, "Effect of visceral obesity on muscle FFA utilization", \$629,793

#### University of Maryland

- 1996 - 2008 NIH/NIA, Coinvestigator, "Research Training in Gerontology and Exercise Physiology", \$1,600,000
- 1998 - 2003 NIH/NIA, Principal Investigator, "APO E genotype and HDL changes with exercise training", \$1,800,000
- 1999 - 2001 NIH/NIA, Coinvestigator, "Genotype, age, muscular strength, and muscle mass", \$212,000
- 1999 - 2004 NIH/NIA, Principal Investigator, "Predoctoral Training in Gerontology and Exercise Physiology", \$500,000
- 1999 - 2002 NIH/NIMH, Sponsor for Charles Hillman Individual Predoctoral Fellowship, "Aging, Fitness, and Cognitive Function", \$50,000
- 2000 - 2005 NIH/NIA, Principal Investigator, "ACE Genotype, BP, and Exercise Training in Older Hypertensives", \$2,100,000
- 2000-2001 NIH/NIA, Principal Investigator, Administrative Supplement for High Throughput Genetic Technology, \$104,690
- 2000-2005 NIH/NIA, Primary Mentor for Thomas Obisesan, MD of Howard University School of Medicine, Patient-Oriented Research Career Development Award, \$625,000
- 2003 - 2008 NIH/NIA, Primary Mentor for Michael Brown, PhD, Research Career Development Award, \$500,000
- 2003 - 2008 NIH/NIA, CoMentor for Stephen Roth, PhD, Research Career Development Award, \$500,000
- 2004 - 2018 NIH/NIA, Principal Investigator, "Predoctoral Training in Gerontology and Exercise Physiology", \$1,000,000
- 2004 - 2007 NIH/NIA, Primary mentor for Amy Halverstadt, PhD, Postdoctoral Fellow, "Genetics, Lipids, and Exercise Training", \$120,000
- 2004 - 2006 American Heart Association, Primary Mentor for Chad Paton, Predoctoral Fellow, "Gene expression, postprandial fibrinolytic and coagulation responses, and exercise training", \$40,000
- 2006 - 2007 NIH/NCRR, Co-Investigator, Washington Consortium Clinical Translational Science Award Planning Grant, \$150,000
- 2008 - 2024 NIH/NHLBI, Program Director, University of Maryland Summer Research and Training (UM STAR) R25 program for under-represented minority undergraduate students, \$325,000
- 2008 - 2010 NIH/NHLBI, Co-Investigator, Investigating the effect of a low-fat diet, physical activity, and the combination on plasma inflammatory markers, \$275,000
- 2011 - 2013 NIH/NHLBI, Principal Investigator, Translational Studies of EPCs as a Novel Cardiovascular Disease Risk Factor, \$390,000



- 2012 – 2014 NIH/NCI, Principal Investigator (Multiple PI with Dr. Lucile Adams-Campbell, Georgetown University), Exergaming Intervention and Breast cancer Bioarkers in Black Women, \$390,000
- 2013 - 2024 NIH/NIA, Program Director, University of Maryland Aging, Diversity and Professional Training (UM ADAPT) R25 program for under-represented minority undergraduate students, \$1,225,000

## 2. Seminars and Invited Lectureships Related to Research

- September, 1984 - Maastricht, Netherlands - International Meeting - Physiological Implications of the Lactate Threshold
- September, 1984 - Karolinska Institute Stockholm, Sweden - Effect of Exercise Training on Patients with Coronary Artery Disease
- September, 1984 - Huddinge Hospital Stockholm, Sweden - Effect of Exercise Training on Patients with End-Stage Renal Disease
- June, 1986 - Gothenburg, Sweden - Acta Medica Scandinavica Meeting on Physical Activity and Disease - Exercise Training and Hypertension
- June, 1986 - Copenhagen, Denmark - International Biochemistry of Exercise Meetings - Impact of Exercise Training on Patients with Coronary Artery Disease
- November, 1987 - University of Wisconsin - Effects of Chronic and Acute Exercise on Individuals with Hypertension
- June, 1988 - Toronto, Canada International Consensus Conference on Physical Activity, Fitness and Health - Physical Activity, Fitness, and Hypertension
- February, 1988 - Orlando, FL Cardiac Rehabilitation Update 88 Meetings - Effect of Exercise Training on Older Individuals
- May, 1989 - American College of Sports Medicine National Meeting - Effects of Prolonged High-Intensity Exercise Training on Patients with Coronary Artery Disease
- February, 1990 - Orlando, FL Cardiac Rehabilitation 90 Update Meetings - Effect of Exercise Training on Older Individuals with Noninsulin Dependent Diabetes
- June, 1990 - Montreal, Canada International Hypertension Society International Meeting Satellite Meeting - Effect of Exercise Training on Individuals with Hypertension
- February, 1991 - Rutgers University Eastern Regional American College of Sports Medicine Meeting - Exercise Training and Hypertension
- April, 1991 - National Conference on Cholesterol and High Blood Pressure Control - Washington, DC - Exercise in the Treatment of Hypertension
- May, 1991 - New York Regional Chapter of the American Heart Association Meeting - Effect of Exercise Training on Patients with Coronary Artery Disease
- July, 1991 - Ohio State University - Visiting Professor
- November, 1991 - Penn State University - Syndrome X in Older Individuals and the Impact of Exercise Training
- January, 1992 - American University - Impact of Exercise Training on the Physiology of Aging
- May, 1992 - Toronto, Canada Second International Consensus Conference on Physical Activity, Fitness, and Health - Physical Activity, Fitness, Health, and Aging
- May, 1992 - University of Texas - Impact of Exercise Training on the Physiology of Aging
- May, 1992 - American College of Sports Medicine National Meeting - Physiology of Competitive Cycling
- June, 1992 - New Jersey Institute of Gerontology - Effect of Exercise training on the Chronic Progressive Diseases Associated with Aging
- September, 1992 - University of Maryland Eastern Shore Conference of Healthy Aging in Rural America - Healthy Aging through Fitness
- March, 1993 - American Alliance for Health, Physical Education, Recreation, and Dance National Meeting - Washington, DC - Endurance Exercise Training and the Cardiovascular System in Older Individuals
- June, 1993 - American College of Sports Medicine National Meeting Symposium - Seattle, WA - The Metabolic Syndrome and Hypertension
- April, 1993 - Baltimore Veterans Administration Medical Center Geriatric Research, Education, and Clinical Center - Regional Symposium on Prevention of Cardiovascular Disease in Older Veterans through Physical Activity and Fitness
- November, 1993 - NIH Trials of Hypertension Prevention Training Meeting - Pittsburgh, PA - Cardiovascular Health: Is Only High-Intensity Exercise Beneficial?
- January, 1994 - Rocky Mountain American College of Sports Medicine Chapter - Exercise Training and

- Hypertension; Exercise Training and Aging
- April, 1994 - 19th Southeastern Conference on High Blood Pressure - Atlanta, GA - Will physical activity improve your cardiovascular health?
- May, 1994 - Thrift Drug Cycling Classic Science Seminar - Physics and Physiology of Cycling
- June, 1994 - ACSM Exercise Specialist Workshop, University of Pittsburgh - Special Considerations: Exercise Training for Patients with Essential Hypertension
- April, 1995 - Pennsylvania Affiliate of American Diabetes Association - Exercise and Diabetes
- May, 1995 - Thrift Drug Cycling Classic Science Seminar - Physiology of Cycling for the Racer and the Recreational Cyclist
- May, 1995 - American College of Sports Medicine National Meeting Symposium - The Heart of the Master Athlete
- June, 1995 - ACSM Exercise Specialist Workshop, University of Pittsburgh - Special Considerations: Exercise Training for Patients with Essential Hypertension
- August, 1995 - Gothenburg, Sweden - International Congress on Sport Science - Cardiovascular
- August, 1995 - Gothenburg, Sweden - International Congress on Sport Science - Does Exercise Training Play a Role in the Treatment of Hypertension?
- October, 1995- Quebec, Canada - Canadian Exercise Physiology National Meeting - The Role of Exercise Training in the Treatment of Hypertension
- October, 1995- Quebec, Canada - Canadian Exercise Physiology National Meeting - Socratic Debate: I There a Performance Decline Associated with Aging?
- December, 1995- Bethesda, MD - NIH NHLBI Consensus Conference on Physical Activity and Heart Disease Risk Factors - Physical Activity, Physical Fitness, and Hypertension
- April, 1996 - Pennsylvania Affiliate of American Diabetes Association - Exercise and Diabetes
- May, 1996 - Thrift Drug Classic Science Seminar – Aerodynamics and Physics of the US Olympic Committee 1996 Olympic Team Super Bikes
- March, 1997 - Washington DC – Invited Speaker – Public Health Service Women’s Health Conference – Everything Women Need to Know About Health and Nutrition – Health Benefits of Physical Activity for Women
- May, 1997 - Denver, CO – Invited Speaker – Bruno Balke 90<sup>th</sup> Birthday Symposium – Physiology or Postmenopausal Women with Different Habitual Physical Activity Levels
- May, 1997 - Denver, CO – Invited Symposium Speaker, American College of Sports Medicine National Meeting – Aerobic or Resistive Exercise Training for Cardiovascular Benefits in the Elderly?
- June, 1998 - Baltimore, MD – Invited Speaker – Becton-Dickinson – Genetic Markers for Clinical Exercise Training Adaptations
- October, 1998 - Colorado Springs, CO – US Olympic Training Center – Invited Speaker – Genetics of Exercise Training-Induced Adaptations
- October, 1998 - Rockville, MD – Invited Speaker - Mid-Atlantic Human Anatomy and Physiology Society – Genetic Aspects of Exercise Training-Induced Adaptations
- February, 1999 - College Park, MD – Invited Speaker - College of Health and Human Performance Alumni Meeting – Genes and Exercise
- February, 1999 - St. Louis, MO - Washington University School of Medicine – Invited Speaker – Genetics of Exercise Training-Induced Clinical Adaptations
- January, 2000 - the Washington, DC – American Heart Association meeting on Do Existing Databases Hold Answers to Clinical Questions in Geriatric Cardiovascular Disease and Stroke – Effect of Common Genetic Polymorphisms on Cardiovascular Disease Risk Factor Changes with Lifestyle Interventions
- February, 2000 - the Boulder, CO – University of Colorado Invited Speaker – Applying Genetic Techniques to the Study of Exercise Physiology
- March, 2000 - State College, PA – Penn State University Invited Speaker – Applying Genetic Techniques to the Study of Exercise Physiology
- May, 2000 - Baltimore, MD – University of Maryland Baltimore School of Physical Therapy Invited Speaker – Genetics of Clinical Exercise Training Adaptations
- June, 2000 - Little Rock, AR – International Biochemistry of Exercise Meeting Invited Speaker – Aging, Genetics, and the Cardiovascular System
- October, 2000 - Austin, TX – Department of Kinesiology, University of Texas Invited Lecturer – Genetics of Exercise Training-Induced Adaptations

- October, 2000 - San Antonio, TX – Department of Physiology, University of Texas Health Science Center  
Invited Lecturer – Genetics of Exercise Training-Induced Adaptations
- October, 2000 - Arlington, TX – Department of Kinesiology, University of Texas Arlington Invited Lecturer –  
Exercise and Aging
- October, 2000 - Dallas, TX – Institute of Environmental and Exercise Medicine, Presbyterian Hospital  
Invited  
Lecturer - Genetics of Exercise Training-Induced Adaptations
- October, 2000 - Ft. Worth, TX - Department of Physiology, University of Texas Health Science Center  
Invited Lecturer – Exercise Training and Hypertension
- October, 2000 – Milwaukee, WI – Department of Human Kinetics, University of Wisconsin Milwaukee Invited  
Lecturer - Exercise and Aging
- November, 2000 - MidAtlantic ACSM Regional Meeting Invited Speaker – Effects of genotype on  
cardiovascular function and cardiovascular disease risk factor changes with exercise  
training in older persons
- November, 2000 - College Park, MD – University of Maryland BioScience Research Review Day Plenary  
Speaker – Genomics and Health Optimization
- February, 2001 - Columbia, MO – Department of Nutritional Sciences, University of Missouri Invited Lecturer  
- Genetics of Exercise Training-Induced Adaptations
- February, 2001 - St. Louis, MO – Division of Geriatrics and Gerontology, Washington University School of  
Medicine, Invited Lecturer - Genetics of Exercise Training-Induced Adaptations
- May, 2001 - Baltimore, MD – Invited Symposium National Meeting of American College of Sports  
Medicine – Role of Genetics in Exercise Training-Induced Changes in Cardiovascular  
Disease Risk Factors
- June, 2001 - Pittsburgh, PA – Obesity Nutrition Research Center Invited Speaker – Genetics of Exercise  
Training-Induced Clinical Adaptations
- November, 2001 - Baltimore, MD – Invited Speaker University of Maryland School of Medicine Division of  
Geriatrics – Genetics of Plasma Lipid Changes with Exercise Training
- February, 2002 - Greenville, NC – Invited Speaker East Carolina University – Genetics of Clinical Exercise  
Training-Induced Adaptations
- February, 2002 – Washington DC – Invited Speaker Howard University School of Medicine General Clinical  
Research Center– Genetics of Clinical Exercise Training-Induced Adaptations
- March, 2002 - Westminster, MD – Invited Speaker Western Maryland College – Kinesiogenomics: The  
Interaction Between Genetics and Exercise Training
- June, 2002 - St. Louis, MO – Invited Speaker Washington University John Holloszy Applied Physiology  
Reunion Meeting – Human Clinical Exercise Physiology in the Era of Genomic  
Medicine
- June, 2002 - St. Louis, MO – Invited Speaker Washington University John Holloszy Applied Physiology  
Reunion Meeting – Historical Background for Human Applied Physiology Human Aging  
Research
- August, 2002 - Washington, DC – Invited Speaker Research Center for Genetic Medicine, Children’s  
National Medical Research Center – Genetic Aspects of Clinical Exercise Training  
Adaptations in Humans
- September, 2002 - State College, PA – Invited Speaker Pennsylvania State University – Genetic Variation and  
Clinical Exercise Training Adaptations
- November, 2003 - University of Maryland Distinguished Scholar Teacher Lecture – The 0.1% Solution: The  
Genetics of Individualized Medicine
- June, 2003 - Washington DC – Invited Speaker National American Physical Therapy Association  
Meeting – Is There a Genetic Basis for Interindividual Differences in Responses to  
Clinical Interventions?
- March, 2004 - Virginia Tech University – Invited Speaker Department of Foods, Nutrition, and Exercise –  
The Genetics of Exercise Training Adaptations
- March, 2004 - Virginia Tech University – Invited Speaker Campus Molecular, Genetics, and Cell Biology  
Program - The 0.1% Solution: The Genetics of Individualized Medicine
- November, 2006 - University of Delaware – Invited Lecturer Exercise Physiology Graduate Program –  
Genetics and Clinical Exercise Physiology Training Phenotypes
- November, 2006 - University of Maryland BioScience Day Invited Symposium Speaker – The 0.1% Solution to  
Individualized Health

- October, 2007 - Washington DC Regional Institute for Clinical and Translational Science Webinar – The 0.1% Solution: Personalized Medicine, Exercise Interventions, and Translational Research
- April, 2009 - University of Wisconsin, Nagle/Montoye Guest Lecture – Exercise and Cardiovascular Disease Risk Factors at the Clinical, Genetic, and Molecular Levels
- October, 2009 - Temple University, Invited Speaker - Exercise and Cardiovascular Disease Risk Factors at the Clinical, Genetic, and Molecular Levels
- December, 2011- University of Maryland Intercollegiate Athletics Department, Elite Distance Coaches Clinic, Running Physiology for Middle and Long Distance Runners
- September, 2013- Texas A and M Huffines Institute Friday Podcast – Stem Cells and McArdle's Disease
- January, 2014 - Café Scientifique (Annapolis, MD) – Exercise: Just How Good Can It Be?
- April, 2014 - Invited Speaker Panel: The Benefits of Exercise and physical Activity. University of Maryland College Park School of Public Health Research Day
- December, 2014- Run Far, Run Fast – Washington DC Cross Country Clinic organizer and speaker - Running Physiology for Middle and Long Distance Runners
- February, 2015- Training Optimization System Apps – Maryland State National Strength and Conditioning Association meeting
- February, 2015 - Organizer and Advocate, ACSM/SFIA Physical Advocay Day on Capitol Hill
- March, 2015 - Speaker, Congressional Briefing, ENRICH Act
- December, 2015- Run Far, Run Fast – Washington DC Cross Country Clinic organizer
- November, 2016 - Invited Speaker, MidAtlantic Regional Chapter ACSM The Next Frontier: Stem Cells and Cardiovascular Exercise Physiology
- December, 2016- Run Far, Run Fast – Washington DC Cross Country Clinic organizer and speaker - Running Physiology for Middle and Long Distance Runners and Apps for Training Athletes

#### Other Professional Activities

Reviewer for Hypertension, Circulation, Journal of Gerontology, Medicine and Science in Sports and Exercise, American Journal of Cardiology, Journal of the American Medical Association, Acta Physiologica Scandinavica, Diabetes Care, American Journal of Physiology

- 1983 Ad hoc Reviewer NIH Clinical Trials Study Section
- 1984 Ad hoc Reviewer NIH Clinical Trials Study Section
- 1985 Ad hoc Reviewer NIH Respiratory and Applied Physiology Study Section
- 1985-2005 Editorial Board, Journal of Applied Physiology
- 1986 Grant Reviewer - Sports Science Division, United States Olympic Committee
- 1986-1989 Associate Editor, Medicine and Science in Sports and Exercise
- 1987 Grant Reviewer - Sports Science Division, United States Olympic Committee
- 1989-1998 Editorial Board, Exercise and Sport Sciences Reviews
- 1989-present Editorial Board, International Journal of Sports Medicine
- 1989 Ad hoc Reviewer NIH Geriatrics Research Training Centers Study Section
- 1990 Ad hoc Reviewer NIH Aging Study Section and Site Visit Team
- 1990 NIH Ad Hoc Study Section - Frailty and Falls RFA
- 1990 1993 Board of Trustees, American College of Sports Medicine
- 1990-1992 Editorial Board, Cycling Science
- 1991 Ad hoc NIH Epidemiology and Disease Control Study Section
- 1991 Chairperson, American College of Sports Medicine Position Stand Committee on Exercise Training and Hypertension
- 1991 Member, American College of Sports Medicine Position Stand Committee on the Health Benefits of Physical Activity
- 1991 Member, NIH Consensus Conference Committee on Physical Activity in Women and Youth
- 1992 Ad hoc NIH Epidemiology and Disease Control Study Section
- 1992 Outside Reviewer - Gainesville VAMC Merit Review Application
- 1992 Ad hoc Site Visitor NIA Program Project Study Section
- 1992 - 1993 Administrative Council, American College of Sports Medicine
- 1993 Ad hoc NIH Epidemiology and Disease Control Study Section
- 1993 Ad hoc Reviewer - NIGMS Minority Biomedical Research Support Grant
- 1993 NIH Study Section to review RFA "Pathologic effects of impaired myocardial function in older persons"

- 1993 Ad hoc VA Merit Review grant reviewer
- 1994 Ad hoc NIH Epidemiology and Disease Control Study Section
- 1994 Western Psychiatric Institute and Clinic - Internal Grant Review
- 1994 University of Pittsburgh School of Nursing - Internal Grant Review
- 1994 Ad hoc Grant Reviewer, Allegheny Singer Research Institute
- 1994 Ad hoc Grant Reviewer, NIH Minority Training Grant Study Section
- 1995 Grant Reviewer, Maryland Gerontology and Geriatric Education and Research Program
- 1995 Ad Hoc NIA grant reviewer (twice)
- 1995 Ad Hoc Reviewer, NHLBI Clinical Trials Study Section
- 1995 Ad Hoc VA MERIT grant reviewer
- 1995 Writing Member, NIH/NHLBI Consensus Conference on Physical Activity and Cardiovascular Disease Risk Factors
- 1995 - 2000 Biological and Clinical Aging NIH Study Section member
- 1996 Ad Hoc Reviewer, NHLBI Clinical Trials Study Section
- 1996 NIA Teaching Nursing Home Site Visit review team member
- 1996 Grant Reviewer, University of Pittsburgh School of Nursing Center for Chronic Diseases
- 1996 Ad Hoc Reviewer, NHLBI Clinical Trials Study Section
- 1998 Consultant – Parke-Davis – Development of a National Curriculum for Insulin Resistance and Exercise Training
- 1999 – 2004 Member, Data and Safety Monitoring Board, Johns Hopkins NIH-funded trial of Exercise Training in Elderly Hypertensives
- 2000 Ad hoc Reviewer, Howard University School of Medicine Mordecai Wyatt Research Grants
- 2000 Ad hoc Reviewer, NIH/NHLBI Clinical Trials Study Section
- 2000 Ad hoc Reviewer, Alberta Heritage Medical Research Foundation grant
- 2000 – 2002 Organizer, 2002 John Holloszy Applied Physiology Reunion Meeting, St. Louis, MO
- 2001 Reviewer, NIH/NHLBI Research and Demonstration Project Study Section
- 2001 Reviewer, NIH/NIA Institutional Training Grant Study Section
- 2003 – 2008 Member, Data Safety and Monitoring Board, Dr. Andrew Taylor (Harvard University) trial on the effects of physical activity on peripheral vascular blood flow control
- 2004 Ad hoc Member, NIA Pepper Center Study Section
- 2004 – 2005 Editorial Board, Exercise and Sports Sciences Reviews
- 2005 - 2011 Associate Editor, Journal of Applied Physiology
- 2005 External Grant Reviewer, University of Michigan Diabetes Research and Training Center
- 2007 Session Moderator, NIH/NCI Conference – Gene-Nutrition and Gene-Physical Activity Interactions in the Etiology of Obesity
- 2009 NIH/NIA ad hoc Program Project grant reviewer
- 2009 NIH Recovery Challenge grant reviewer
- 2012 NIH/NHLBI Study Member for Minority Short-Term Training Programs
- 2013 ACSM National Health Through Fitness Day Capitol Hill Advocate
- 2013 NIH Grant Reviewer, Directors Early Independence Award
- 2013 Congressional Briefing, Physical Inactivity, national Coalition for Promoting Physical Activity
- 2014 ACSM National Health Through Fitness Day Capitol Hill Advocate
- 2015 ACSM National Health Through Fitness Day Capitol Hill Advocate
- 2016 ACSM National Health Through Fitness Day Capitol Hill Advocate
- 2018 Organizer, John Holloszy Scientific and Historical Legacy Memorial Meeting, St. Louis, MO

**CURRENT RESEARCH INTERESTS**

Preventive medicine aspects of exercise and nutrition programs for progressive cardiovascular and metabolic diseases, especially those associated with aging, with a primary emphasis on novel cardiovascular disease risk factors.

**SERVICE**

1. University and Medical School Committees

University of Florida

- Search Committee for exercise physiology faculty position
- Graduate Education Committee

University of Maryland

- Search Committee for exercise physiology faculty position

- College Faculty Assembly (elected)
- Research Committee

University of Pittsburgh

- General Clinical Research Center Advisory Committee

University of Maryland

- Department of Kinesiology Full Professor Promotion Committee, 1997 – 1998
- Department of Kinesiology Executive Committee 1997 – 1998
- College of Health and Human Performance Advisory Council 1997 – 1998
- Chair, Department of Kinesiology Merit Review Committee 1997 – 1998
- Chair, Department of Kinesiology Exercise Physiology Search Committee 1996- 1997
- Chair, Department of Kinesiology Post-Tenure Review Committee 1997 - 1999
- Department of Kinesiology Human Subjects Committee 1997 – 2001
- College of Health and Human Performance Research Committee 1997
- Chair, College of Health and Human Performance Media Background Session 1996 -1997
- Invited Speaker, University of Maryland Equity Conference 1997
- Department of Kinesiology Tenure and Promotion Committee 1997 – 1999
- Chair, Exercise Physiology Search Committee 1997 - 1998
- TV Interview – University of Maryland Flagship Cable Network 1996
- Member, Department Chair Search Committee 1998 - 1999
- Department of Kinesiology Executive Committee 1999 – 2007
- Member, College of Health and Human Performance Dean Search Committee 1999 - 2000
- Member, University BioScience Faculty Advisory Committee 1999 - 2004
- Chair, Department Merit Committee 1998 – 2004
- Chair, Department Merit Committee 1999 – 2005
- Chair, Exercise Physiology Search Committee 2000 - 2001
- Member, UMCP Distinguished Scholar Teacher Review Committee 2003
- Member, College of Health and Human Performance Administrative Council 2000 – 2003
- Member, Dean Norma Allewell Review Committee 2004
- Elected Member, University Senate 2003 - 2007
- Member, University Senate Faculty Affairs Committee 2004 - 2005
- Chair, Dr. John Jeka APT Committee 2004
- Co-Chair, University of Maryland Institutional Review Board 2005 - 2015
- Chair, Exercise Physiology Search Committee 2005 - 2006
- Chair, Exercise Physiology Search Committee 2006 - 2007
- Member, Steering Committee, Washington Consortium Clinical Translational Science Award 2006 - 2008
- Member, Core Resources Working Committee, Washington Consortium Clinical Translational Science Award 2006 – 2008
- Chair, Health Literacy Center Director Search Committee 2010-2011
- Member, Department of Kinesiology Post-Tenure Review Committee 2012
- Member, Department of Kinesiology APT Committee 2012
- Chair, School of Public Health APT Committee 2012-2013
- Member, IRB Staff Search Committee 2012
- Chair, University of Maryland Graduate Mentor of the Year Review Committee 2013
- Member, University Committee to Review Applicants for Kirwan Faculty Research and Scholarship Prize 2014
- Member, Campus Research Support Oversight Committee 2015 – present
- Chair, Department of Kinesiology Work Load Task Force 2014 – present
- Chair, University of Maryland Institutional Review Board 2015 - present
- Chair, Exercise Physiology Search Committee 2015 – 2016
- Member, Maryland Institute for Applied Environmental Health Director Search Committee, 2015

2016

- Member, President's Advisory Committee on Institutional Conflict of Interest, 2015 – present
- Member, Department of Kinesiology Executive Committee, 2015 - present
- Chair, UMCP Campus Scholarly Misconduct Investigation
- Member, Campus Research Services Oversight Committee, 2015 – present

2. Community Activities

- 1991 Board of Directors, Howard County (MD) Chapter of the American Heart Association
- 1997 to present, Member, Archaeology Society of Maryland