

CURRICULUM VITA

Name: Bo Fernhall, Ph.D

Address: Office of the Dean
UIC College of Applied Health Sciences
808 South Wood Street, 169 CMET
Chicago, IL 60612

Phone : (312) 996-6695

Fax: (312) 996-4651

E-Mail: fernhall@uic.edu

Formal Education:

| | | |
|-------|------------------------------------|------|
| B.S. | Southern Connecticut State College | 1979 |
| M.S. | Southern Connecticut State College | 1981 |
| Ph.D. | Arizona State University | 1984 |

Professional Training and Academic Career:

| | |
|--------------|--|
| 2011-present | Dean, College of Applied Health Sciences, and Professor, Kinesiology and Nutrition, University of Illinois at Chicago, Chicago, IL. |
| 2004-2011 | Professor, Kinesiology and Community Health Department, University of Illinois at Urbana-Champaign, Urbana, IL. |
| 2004-2008 | Associate Dean for Research and Academic Affairs, College of Applied Health Sciences, University of Illinois at Urbana-Champaign, Urbana, IL. Coordinate the college research port-folio and oversee academic affairs. |
| 2000-2004 | Professor and Chair, Exercise Science Department, Syracuse University, Syracuse, NY. Direct all department activities, supervise faculty and staff, and direct the department research agenda. |

- 2001-2004 Adjunct Professor, Physical Medicine and Rehabilitation, SUNY Upstate Medical University, Syracuse, NY.
- 1998-2000 Professor, Director of Graduate Studies, Director of the Human Performance Laboratory, Director of Adult Fitness and Co-Director of Phase IV Cardiac Rehabilitation, Exercise Science Programs, School of Public Health and Health Services, The George Washington University Medical Center, Washington, DC.
- 1996-2000 Special Advisor and Residency Supervisor – Cardiac Rehabilitation and Exercise Physiology, National Rehabilitation Hospital, Washington, DC
- 1991-1998 Associate Professor with Tenure, Director of Graduate Studies, Director of the Human Performance Laboratory, Director of Adult Fitness and Co-Director of Phase IV Cardiac Rehabilitation, Exercise Science Programs, School of Public Health and Health Services, The George Washington University Medical Center, Washington, DC.
- 1990-1991 Associate Professor with tenure, Director of Preventive Fitness and Cardiac Rehabilitation, Director of the Human Performance Laboratory, Department of Physical Education, University of Rhode Island, Kingston, RI. Responsibilities included teaching, directing clinical programs, research, and committee participation.
- 1987-1990 Assistant Professor; Director of Preventive Fitness and Cardiac Rehabilitation, Director of the Human Performance Laboratory, Department of Physical Education, University of Rhode Island, Kingston, RI. Responsibilities included teaching, directing clinical programs, research and committee participation.
- 1984-1987 Assistant Professor; Director of Preventive Fitness and Cardiac Rehabilitation, Department of Physical Education, Northern Illinois University, DeKalb, IL. Responsibilities included teaching, developing and directing clinical programs, committee participation, and research.
- 1982-1984 Exercise Specialist, Faculty and Staff Fitness program, primary administrator and exercise leader, Arizona State University, Tempe, AZ. Initiated and developed the adult fitness program.
- 1981- 1982 Research Assistant, Human Performance Laboratory, Physical Education Department, Arizona State University, Tempe, AZ. Assisted in research, project development, data collection and laboratory maintenance.

1980-1981 Exercise Director, American Heart Association, Cardiac Rehabilitation Program, New Haven, CT.

Professional Organizations:

American College of Sports Medicine

North American Artery

American Physiological Society

American Heart Association

North American Society of Pediatric Exercise Medicine

Academic and Professional Honors:

King James McCristal Distinguished Scholar Award, UIUC, 2010

Elected Fellow of the American Heart Association, 2009

Lawrence Rarick National Research Award, NCPERID, 2006

Elected to The American Academy of Kinesiology and Physical Education, 2005.

Selected for the Fulbright Senior Specialist Program, Council of International Exchange of Scholars, 2002.

Outstanding Teacher Award, School of Public Health and Health Services, The George Washington University Medical Center, 1998 and 2000.

Distinguished Service Award, Physical Fitness Council, American Association of Active Lifestyles and Fitness, AAHPERD, 1996.

Who's Who in American Education, 1993.

Mabel Lee Award as outstanding young professional. AAHPERD, 1991.

Fellow, American Association of Cardiovascular and Pulmonary Rehabilitation, 1989.

Excellence in Higher Education Incentive Fund Award, Rhode Island Board of Governors, 1988.

Fellow, American College of Sports Medicine, 1987.

Alex Rabinoff Award as the Outstanding Graduating Physical Educator, Southern Connecticut State College, 1979.

Who's Who Among Students in American Colleges and Universities, 1978.

President of Tau Pi Sigma Honor Society, 1978.

Administrative Duties:

- | | |
|--------------|--|
| 2011-present | Dean, College of Applied Health Sciences, University of Illinois at Chicago. |
| 2009-2011 | Coordinator of the Exercise Physiology and Athletic Training Concentration, Department of Kinesiology and Community Health, University of Illinois at Urbana-Champaign. |
| 2004-2008 | Associate Dean for Research and Academic Affairs, College of Applied Health Sciences, University of Illinois at Urbana-Champaign. |
| 2000-2004 | Department Chair, Exercise Science Department, Syracuse University. Direct all department operations, academic program development, supervise faculty and staff. |
| 1991-2000 | Graduate Studies Coordinator, Exercise Science, George Washington University. Advise all M.S. students, student recruitment, academic planning, academic program development, place and supervise all student internships, serve on all student research committees. |
| 1991-2000 | Director, Human Performance Laboratory - Exercise Science, George Washington University. Direct and supervise all laboratory activities, manage budgets and research activity, equipment maintenance and updates, train all students in laboratory procedures. |
| 1991-2000 | Director, Preventive Fitness Program, Exercise Science, George Washington University. Direct and supervise all program activities, including program planning, client testing and consultations, exercise activities, budget planning and management, client recruitment and facilities. |

- 1992-2000 Co-director, Phase IV Cardiac Rehabilitation, Exercise Science, George Washington University. Direct and supervise all program activities, including program planning, client testing and consultations, exercise activities, budget planning and management, client recruitment and facilities.
- 1995-2000 Residency Supervisor, Cardiac Rehabilitation and Exercise Physiology, National Rehabilitation Hospital. Supervise, teach and train second year residents in physical and rehabilitation medicine during their rotation in cardiac rehab and exercise physiology.

Prior to 1991, I held similar administrative duties (except for Residency Supervisor) at University of Rhode Island, and Northern Illinois University.

Academic Program Development:

- 2007 Co-developed a new MPH program in the Community Health program, College of Applied Health Sciences, University of Illinois at Urbana-Champaign
- 2002 Developed the curriculum for a new Ph.D. program in Applied Exercise Physiology offered through the Exercise Science department, Syracuse University
- 1991 Developed the M.S. program in Exercise Science with a specialization in Clinical Exercise Physiology, Exercise Science, George Washington University.
- 1997 Assisting in the development of the new Physical Therapy Program, School of Medicine and Health Sciences, George Washington University.
- 1987 Developed the M.S. specialization in cardiac rehabilitation and exercise physiology of special populations at the University of Rhode Island.

Teaching Experience:

Undergraduate Courses Taught:

- Exercise Physiology
- Kinesiology
- Physical Fitness and Wellness Assessments
- Personal Fitness
- Physical Fitness Appraisal and Guidance
- Scientific Foundations of Human Activity
- Fitness Program Development (also for graduate credit)
- Stress Testing (also for graduate credit)
- Training and Conditioning
- Introduction to Exercise Science
- Various Activity Courses

Graduate Courses Taught:

- Cardiovascular Physiology
- Cardiac Rehabilitation
- Exercise for Special Populations
- Principles of Exercise Testing and Interpretation
- Exercise Programs for the Middle Aged and Elderly
- Fitness Evaluation and Exercise Prescription
- Advanced Topics in Exercise Physiology
- Testing and Training of the Competitive Athlete

Undergraduate Courses Developed:

- Scientific Foundations of Human Activity (restructured and redeveloped)
- Fitness Program Development (restructured and redeveloped)
- Physical Fitness and Wellness Assessments
- Fitness and Wellness Program Development

Graduate Courses Developed:

- Cardiac Rehabilitation
- Principles of Exercise Testing and Interpretation
- Exercise for Special Populations
- Advanced Topics in Exercise Physiology
- Exercise For the Older Adult and other Special Populations
- Testing and Training of the Competitive Athlete
- Cardiovascular Exercise Physiology

Theses and Dissertations Directed:

Racial and aging effects of acute antioxidant supplementation, 2015.

Racial differences in cardiovascular responses following an acute bout of aerobic

exercise, 2014.

Effects of aging and physical activity on cardiovascular responses to acute, induced inflammation, 2013.

Effect of acute moderate exercise on vaccination induced inflammation and arterial function in older adults, 2012.

Effect of acute resistance training protocols on autonomic function in recovery, 2012.

Cardiovascular responses to exercise of stimulant treated individuals, 2009.

The acute effects of interval and aerobic cycling on post-exercise hypotension in an endurance-trained population of men and women, 2009.

Hemodynamic and vascular response to resistance exercise with L-arginine, 2008.

Vascular and Neuro-Inflammatory Modulations Following a Resistance Training Intervention in African American Males, 2008.

Effect of resistance versus aerobic training on arterial function in pre-hypertensive adults, 2007.

Understanding physical activity in persons with intellectual disabilities, 2006.

Effect of resistance training or combined resistance and aerobic training on quality of life in individuals with COPD, 2005

Effect of yoga training on muscle strength and flexibility in individuals with mental retardation, 2003.

Physiologic profiles of elite Kuwaiti fencers, 2002.

Physical activity in Down syndrome, 2000.

Energy expenditure during superslow and standard circuit weight training, 2000.

Relationship between aerobic capacity, muscle strength and quality of life in individuals with myasthenia gravis, 2000.

Effects of beta blockade on three measures of the anaerobic threshold, 2000.

Effects of low intensity exercise training on blood pressure and quality of life in

older individuals, 2000.

Effects of exercise training on resting and exercise blood pressure in African-American and Caucasian postmenopausal women, 2000.

Heart rate and blood pressure changes during exercise in persons with Down syndrome, 1999.

Effects of six months of aerobic training on resting metabolic rate in African-American and Caucasian postmenopausal women, 1999.

Effect of exercise training on measured and predicted oxygen uptake in postmenopausal women, 1999.

Effect of exercise participation on pain perception in individuals with fibromyalgia, 1999

The heart rate-oxygen uptake relationship is not altered in individuals with Down syndrome, 1999.

A comparison of the effects of traditional and superslow strength training on strength and aerobic capacity in untrained, sedentary individuals, 1999.

Effect of maximal exercise on hemostatic markers in users and nonusers of oral contraceptives, 1999.

Effect of maturation on cardiovascular fitness development and run performance in adolescents with mental retardation; a four year follow-up, 1999.

Effect of high intensity continuous and intermittent exercise on aerobic capacity, aerobic endurance, and anaerobic capacity, 1999.

Predicting maximal heart rate - influence of gender, obesity and training status, 1999.

Relationship between aerobic capacity, anaerobic capacity, and leg strength in children with cerebral palsy, 1997.

Correlates of exercise induced fatigue in individuals with multiple sclerosis, 1997.

Effect of aerobic exercise training and estrogen replacement therapy on cardiorespiratory improvements in postmenopausal women, 1997.

Effect of beta-blockade on energy expenditure, 1997.

Influence of exercise and estrogen therapy on immune function in postmenopausal women, 1996-7.

Predicting substrate utilization and oxygen consumption in women, 1996.

Effect of exercise and estrogen therapy on the lipid profiles of postmenopausal women, 1995.

Predicted and measured VO₂ in men with and without CHD, 1994.

Differences among male and female middle distance runners, 1993.

Relationship between marathon performance, vVO₂max, running economy, and VO₂max, 1993.

Factors related to quality of life among male and female cardiac rehabilitation participants, 1991

Effect of prolonged acute exercise in cardiac patients, 1991.

Prediction of performance in off-road cyclists, 1990.

Validity of rating of perceived exertion in cardiac patients, 1990.

The effect of exercise and Lovastatin on CPK activity, 1989.

Anabolic steroids and blood pressure, 1989.

Running economy of elite distance runners, 1989.

The ventilatory thresholds of triathletes, 1988.

An electrocardiographic comparison of left ventricular hypertrophy in athletes and hypertensives during exercise, 1987.

R-wave amplitude in relation to ST-segment, VO₂max, and rate pressure product, 1987.

Influence of training specificity on the RST index, 1987.

Effects of music on exercise endurance, 1987.

Factors influencing exercise adherence in women, 1986.

Effect of exercise intensity on alpha brain wave activity, 1986.

Effect of training specificity and exercise modality on selected physiological variables, 1985.

Served on 76 theses or dissertations as a committee member.

Clinical Program Development:

- | | |
|-----------|---|
| 2015 | Developed and instituted the physical therapy faculty clinic at University for Illinois at Chicago, with Ross Arena, PT Department Head. |
| 1993-2000 | Developed, instituted and directed the exercise component of the LIFE program at George Washington University. This was a special outpatient cardiac rehabilitation program, utilizing a multidimensional interventional approach, including diet, lifestyle, family and exercise components. |
| 1991-2000 | Redeveloped, upgraded and direct the adult fitness program at George Washington University. |
| 1988-1989 | Redeveloped, upgraded, and expanded the EXERLIFE program at the University of Rhode Island. This program consisted of cardiac rehabilitation, cardiac maintenance, and adult fitness, |
| 1987 | Developed and instituted a teacher fitness program for public school district 300. This was one of a only few such programs in the country and the only one in Illinois, |
| 1985 | Developed and instituted Heart-R.A.T.E, a cardiac rehabilitation program operated in conjunction between Northern Illinois University and Kishwaukee Community Hospital. |
| 1984 | Redeveloped, upgraded and expanded Fitness Images Today, a preventive fitness program for faculty, staff, and community at Northern Illinois University. |
| 1982 | Developed and instituted the faculty and staff fitness program at Arizona State University together with Dr. W.J. Stone, and L. Borsdorf. |
| 1981 | Developed and instituted aquatic cardiac |

rehabilitation for the American Heart Association in New Haven, CT.

1980 Developed and instituted a senior fitness program for the city of West Haven, CT, together with E. Buck and Dr. T. Manfredi.

Committee Work:

Department and University Committees:

| | |
|--------------|--|
| 2015-present | UIC Resource Strategy Team |
| 2015-present | Vice Chancellor for Health Affairs Transition Committee |
| 2015-present | Co-Chair, UIC IT Governance Committee |
| 2015-present | UIC data governance committee |
| 2014 | Chair, Search Committee for the Dean of the College of Dentistry |
| 2011-present | University Health Science Council, UIC |
| 2011-present | University Undergraduate Policy Council, UIC |
| 2011-present | Deans Council, University of Illinois at Chicago |
| 2010-2011 | KCH On-line course committee |
| 2009 - 2011 | KCH course fee committee |
| 2009- 2011 | KCH Advisory Committee, UIUC |
| 2008-2011 | Promotion and Tenure Committee, KCH, UIUC. |
| 2004-2008 | Associate Dean's for Academic Affairs Committee, UIUC (Chair, 2005-2006) |
| 2005-2007 | University General Education Committee, UIUC |
| 2005-2006 | University Senate Educational Policy Committee, UIUC |
| 2004-2008 | Mary Jane Neer research Grant Committee, College of AHS at UIUC |
| 2004-2008 | Education Policy Committee, College of Applied Health Sciences, UIUC |

| | |
|-----------|---|
| 2004-2008 | Executive Committee, College of Applied Health Sciences, UIUC |
| 2004-2008 | Administrative Council, College of Applied Health Sciences, UIUC. |
| 2004-2008 | Chaired 6 Search Committees for the College of Applied Health Sciences, UIUC. |
| 2003-2004 | External funding committee, School of Education, Syracuse University, Syracuse , NY |
| 2003-2004 | Undergraduate retention sub-committee, Syracuse University, Syracuse, NY |
| 2000-2004 | Dean's Cabinet, School of Education, Syracuse University, Syracuse, NY |
| 2000-2004 | Gander's Lecture Committee, Syracuse University, Syracuse, NY |
| 2000-2004 | Research Committee, School of Education, Syracuse University, Syracuse NY |
| 2000 | Search Committee, Chair, Assistant Professor in Exercise Science, Syracuse University, Syracuse, NY. |
| 1999 | Search Committee, Department Chair, Prevention and Community Health, The George Washington University, Washington, DC. |
| 1997-2000 | Committee on Human Research, The George Washington University Medical Center, Washington, DC. |
| 1996 | Physical Therapy Program Director Search Comittee, School of Medicine and Health Sciences, The George Washington University, Washington, DC. |
| 1992-2000 | Chair, Department IRB Committee. Department of Exercise Science. The to George Washington University. Washington, DC. |
| 1995 | Search Committee Chair. Exercise, Nutrition and Weight Control Faculty Position. Exercise Science Programs. The George Washington University. Washington, DC. |
| 1992-1994 | Student Appeals Committee, School of Education and Human Development, The George Washington University, Washington, DC, |
| 1992 | Task Force on Faculty Utilization. School of Education and Human Development. The George Washington University. Washington, DC. |

1989 Graduate School Grant Committee, College of Human Sciences and Services. University of Rhode Island.

1989-1991 Chair, Graduate Curriculum Committee. University of Rhode Island.

1987-1991 Chair, ad hoc subcommittee on curriculum development. Exercise Science Committee. University of Rhode Island.

1987-1991 Program Directors Committee. University of Rhode Island.

1988 Chairperson Search Committee. Department of Physical Education. University of Rhode Island.

1988 Physical Therapy Search Committees (3 positions). University of Rhode Island.

1984-1987 College Research Council. College of Education. Northern Illinois University.

1986-1987 Chair, Department Research and Human Subjects Committee. Northern Illinois University.

1984-1986 Department Research and Human Subjects Committee. Northern Illinois University.

1986 University Affirmative Actions Advisory Committee. Northern Illinois University,

1986 Chair, Exercise Physiology Search Committee. Northern Illinois University.

1986 Chair, Athletic Training Search Committee. Northern Illinois University.

1985-1987 Search Committee member. Served on three search committees for the Department of Physical Education. Northern Illinois University.

1981-1983 Department Human Subjects Committee. Arizona State University.

Professional Committees:

| | |
|--------------|---|
| 2015-present | Oversight Committee, American Heart Association SFRN Health Disparities Network |
| 2015 | Review Committee, American Heart Association SFRN Health Disparities competition |
| 2013-present | Program Chair, North American Artery Annual meeting. |
| 2008-2012 | Board Member, North American Society of Pediatric Exercise Medicine |
| 2002-2006 | Board Member, North American Society of Pediatric Exercise Medicine. |
| 1997-2002 | Research Committee, American Association of Cardiovascular and Pulmonary Rehabilitation. Chair from 1998-2002 |
| 1992 -1998 | Area representative. Clinical Exercise Testing. American College of Sports Medicine. |
| 1993 -1997 | Chair, Publications Committee. American Association of Cardiovascular and Pulmonary Rehabilitation. |
| 1992 -1997 | Publications Committee. American Association of Cardiovascular and Pulmonary Rehabilitation. |
| 1993 | Chair, ARAPCS Physical Fitness Council. AAHPERD. |
| 1991 | Chair, Free Communications Committee. New England Chapter of the American College of Sports Medicine. |
| 1988 - 1990 | Executive Committee. New England Chapter of the American College of Sports Medicine. |
| 1989 | Exercise Committee. American Heart Association. AAHPERD liason. |
| 1987 - 1990 | Cardiac Rehabilitation Committee. American Heart Association. Rhode Island. |
| 1986 - 1987 | DeKalb County Board member and Chair of the Programs Committee. American Heart Association. |
| 1986 - 1990 | Chair, Publications Committee. Physical Fitness Council of AAHPERD. |

I981 Task Force on Cardiac Rehabilitation. American Heart Association. Connecticut Chapter.

I980-I981 Exercise Board. American Heart Association. Connecticut.

Grant Activity:

External Grants:

Department of Homeland Security (Horn, PI) Protection from chemical, thermal, and cardiovascular risks: Impact of PPE laundering and hood design. EMW-2015-FP00646. Role: Co-investigator and Site-PI. Total cost: \$1,465,114. 09/09/2016-09/08/2018.

National Multiple Sclerosis Society (Pilutti, PI) Lifestyle Physical Activity Intervention for Improving Cardiorespiratory Fitness and Vascular Comorbidity Risk in Multiple Sclerosis. RG-1602-07781 USD Role: Co-investigator. Total cost: \$351,620 10-01-2016 - 11-30-2018.

National Heart Lung and Blood Institute. Improving Blood Pressure & Vascular Risk with Resistance Exercise in African_Americans. 1R01HL130513-01A1 Role: Co-investigator PI: Shane Phillips. Total Cost: \$3,531,900 08-1-2016 to 4-30-2021.

Department of Homeland Security; Federal Emergency Management Agency; Assistance to Firefighters Grant Program. Firefighter Exposures on the Modern Fire Ground and training Ground. EMW – 2014-FP-00590 Role: Co-I and Site-PI. Total cost: \$1,289,179. 7-31-2015 to 7-30-2017.

Gift of Hope Foundation and Department of Surgery, UIC. Randomized Case-Control Trial About the Impact of Targeted Physical Activity and Diet Modification on Obese Kidney Transplant Recipients' Outcome. Role: Co-PI. Total cost: \$750,000. 12-1-2014 to 11-30-2017.

Department of Homeland Security; Federal Emergency Management Agency; Assistance to Firefighters Grant Program. Cardiovascular and Carcinogenic Risk Associated with Realistic Firefighting Environments. EMW-2013-FP-00766 Role: Co-I and Site-PI. Total Cost: \$1,492,545 10-1-2014 to 9-30-2015.

National Multiple Sclerosis Society. Exercise, Subclinical Atherosclerosis and Walking Mobility in Multiple Sclerosis. RG 4702A1/2 Role: PI. Total cost: \$685,182 10-1-2012 to 9-30-15. No cost extension to 9-30-2016.

NIH/NIDDK Intradialytic Protein Supplementation & Exercise Training in Dialysis Patients. 1R01DK084016-01A2 Role: Co-investigator. PI: Kenneth Wilund. Total

Cost: \$3,698,230 No cost extension 8-20-2015 to 8-20-2016.

Department of Homeland Security; Federal Emergency Management Agency; Assistance to Firefighters Grant Program. Effect of SCBA Design & Live Firefighting on Firefighter Balance, Gait and Safety of Movement (EMW-2010-FP-001606). Role: Co-PI, 7/9/2011 – 7/8/2014, \$999,569.

Department of Homeland Security; Federal Emergency Management Agency; Assistance to Firefighters Grant Program. Effect of Aspirin on Hemostatic and Vascular Function After Live Fire Fighting. EMW-2009-FP-00544 Role: Co-PI, 4/30/2010-3/31/2013, \$999,801.

National MS Society, Project METS in MS: Multi-modal exercise training stimulus in multiple sclerosis 581 NMSS RG 4499A3-1 Role: Co-Investigator, PI: Rob Motl, 4/1/2011 – 3/31/2013, Total Cost, \$550,000.

American Heart Association, Pre-doctoral fellowship. Racial Differences in Cardiovascular Responses Following an Acute Bout of Aerobic Exercise. Role: Faculty Sponsor. PI: Huimin Yan, 1/2012-12-2013, \$52,000.

American Heart Association, Pre-doctoral fellowship. Protective effects of acute moderate exercise on vaccination induced inflammation and arterial function. Role: Faculty Sponsor. PI: Sushant Ranadive. 7/2010- 6/2012. \$52,000.

Australian NHRMCA community based strength training program to improve work task performance in young adults with Down syndrome. 602535 Role: Co-Investigator, (Shields, PI) 10-31-2009- 10-30-2012 \$176,125.

NIH/NHLBI Vascular and Neuroinflammatory Effects of Endurance Training in African-Americans. 1RO1 HL93249-01A1 Role: PI. 9/2009-8/2011. \$756,183

Longitudinal Studies of Conscientiousness and Health. Role: Co-Investigator PI: Brent W. Roberts. Funded by NIH (renewal of 2RO1AG21178, 2009-2014), 2010-2015. \$3.2 million.

Changes in Cardiovascular Function as a Result of Prolonged Firefighting. Role: Co-PI Department of Homeland Security; Federal Emergency Management Agency; Assistance to Firefighters Grant Program, Grant No.EMW-2007-FP-02328 20-JUN-08 to 19-JUN-10. \$985,661.

Prediction of energy expenditure during walking in adults with and without Down syndrome. Role: Faculty Sponsor, PI: Stamatis Agiovlasitis. Funded by Special Olympics and CDC Student Grant Mechanism. 2/1/2009 – 1/31/2010. \$3,500.

Cardiovascular and Biomechanical Responses to Firefighting and PPE. Role: Co-PI,

Department of Homeland Security – 07/01/07-6/30/08 \$899,269

Cardiac Autonomic and Vascular Function alteration by acute systemic Inflammation: Effect of aging and physical activity. Role: Faculty Sponsor. Sae Young Jae, PI. American Heart Association - /701/06 – 6/31/08 \$97,224

Vascular and neuro-inflammatory modulations following resistance training in African American males. Role: Faculty Sponsor. Kevin Heffernan, PI. American Heart Association - 7/01/06 – 6/31/08 \$52,000

Autonomic function and exercise in type 2 diabetes. Role: Co-investigator; J. Kanaley, PI. NIH, 1/5/2004-4/31-2006, \$291,012

Muscle strength, physical work capacity, and functional performance in individuals with Down syndrome. Role: Principal Investigator. National Institute on Disability and Rehabilitation Research. 1/11/03-10/31/07, \$448,621

Autonomic function and exercise in Type 2 diabetics. Role: Co-investigator; Kanaley, PI. Funded by the State of New York – Bridgegrant. 11/2002-11/2003, \$70,000.

Research in physical medicine and rehabilitation. Role: Principal Investigator. Funded by SUNY Upstate Medical Center, 8/1/2001-8/1/2004, \$96,000

Research in pediatric cardiology. Role: Principal Investigator. Funded by SUNY Upstate Medical Center, 8/1/2001-8/1/2004, \$75,000.

Vitagrant – exercise and diet in obese minority children. Role: Co-investigator. Kay Bruening, PI. Funded by the State of New York, 8/1/02-7/31/05, \$225,286.

Effects of oxygenated water on exercise performance. Role: Principal Investigator. Funded by Life O2, 7/1/2001-6/30-2002, \$55,000.

Autonomic control and chronotropic incompetence in Down syndrome. Role: Principal Investigator. Funded by the American Heart Association, 1/1/2000 - 12/31/2002, No cost extension to 12/31/2003. \$212,000.

Effects of oxygenized water on exercise performance. Role: Principal Investigator. Funded by Oxytech, 1/2/2000 - 12/31/2000, \$30,000.

Hemostasis in postmenopausal African-American women: Effects of exercise and hormone therapy. Role: Co-investigator; Linda Szymanski, PI. Funded by the American Heart Association, Washington, DC Affiliate, \$25,000, 1997-98.

Safety and efficacy of levocarnitine supplementation in end stage renal disease patients undergoing maintenance hemodialysis. Role: Co-investigator; Sue Lau, PI. Funded by

Sigma-Tau Pharmaceuticals, Inc., \$90,000, 1997.

Exercise coagulability and fibrinolysis in postmenopausal women. An interdisciplinary project with the Division of Hematology. Role: Co-investigator; Linda Szymanski, PI. Funded by the American College of Sports Medicine Foundation, \$10,000, 1996.

Fernhall, PI. Validation of cardiovascular fitness field tests for children with mental retardation. A sub-contract to "Project Target", J. Winnick, PI. US Department Education. Funded for \$4,200, 1995.

Fernhall, Co-investigator. Oral contraceptives hypercoagulability and strenuous exercise: effects of race, smoking, and exercise training. An interdisciplinary project with the Division of Hematology. Submitted to DWHRP. Rated "excellent" but not funded. \$900,000, 1995.

Fernhall, Co-investigator. A phase II multicenter, double blind, randomized study of the safety and efficacy of Nutropin to improve physical and psychological well being in growth hormone deficient adults. An interdisciplinary project with the Department of Endocrinology at the Medical Center, George Washington University. Funded by Genentech. \$ 150,000, 1993-94.

Fernhall. Graduate student support for preventive cardiology. Funded by the Miriam Hospital, R.I., 1988-90. \$40,000.

Fernhall, Co-Investigator with Rowinski (PI). Equipment grant. Computerized video analysis system. Funded by the Champlin Foundation, 1988. \$50,000.

Fernhall, B. Development of a Health Assessment, Health Promotion Center. Funded by Board of Governors Incentive Fund for Excellence, State of Rhode Island, for July 1, 1988 to May 31, 1990. \$100,000.

Fernhall, B. Development and enhancement of a graded exercise testing system for educational, clinical, and research settings. Funded by the University of Rhode Island Foundation. 1987. \$3,300.

Fernhall, B., and Tymeson, G. Cardiovascular fitness levels of mentally retarded adults. Funded by the Illinois Association for Health, Physical Education and Recreation, 1984-1985. \$ 8,000.

Fernhall, B. Exercise therapy for the coronary patient. Funded by Kishwaukee Community Hospital, 1985-1987. \$45,000.

Fernhall, B. The effect of aerobic exercise on coronary bypass surgery patients. Funded by the Arizona Heart Association Beginning Investigator's Fund, 1984. \$1,500.

Internal Grants:

Physical activity and subclinical atherosclerosis in persons with MS. Role: PI. Funded by the UIUC Campus Research Board, January 2009 – January 2010, \$12,000

Can Administration of activity-dependent neuroprotective protein ameliorate common decrements in brain and autonomic function in a mouse model of Down syndrome? Role: Co-investigator, PI: Tracy Baynard. Funded by the Mary Jane Neer Fund, AHS, UIUC, April 2009-April, 2010, \$15,000.

Effect of autonomic, heart and arterial function on the age related decline in aerobic capacity in individuals with Down syndrome. Role: PI. Funded by the UIUC Campus Research Board, 1/25/2005-5/31/2007, \$15,628.

Physical activity, health,, function and quality of life in individuals with spinal cord injury. Role: PI. Funded by the ALS Schneider fund. \$16,000.

Aging, Cardioballistics and Motor Variability. Role: Co-Investigator. Jacob Sosnoff, PI. Funded by the UIUC Campus Research Board, 11/15/2005 – 12/31/2006. \$15,086.

Acute effects of resistance training on cognitive performance. Role: Co-investigator. Charles Hillman, PI. Funded by the UIUC Campus Research Board. 3/31/2005 – 3/31/2007, \$9,175.

Aging, Physiological Complexity, Functional Limitations and Disability. Role: Co-Investigator. Jacob Sosnoff, PI. Funded by the UIUC Aging Initiative. \$10,000.

Fernhall, Co-PI. Effect of exercise intensity and duration on maternal core temperature and fetal heart rates. Funded by SEHD, George Washington University, Spring, 1992.

Fernhall. Implementing a system for education and research in exercise blood pressure measurement. Funded by the University of Rhode Island Foundation, Fall, 1990. \$3,500.00

Fernhall. Prolonged exercise in cardiac patients. Funded by the Council of Research, University of Rhode Island, Summer 1990. \$8,000.

Fernhall. Development of a system for education and research in exercise prescription and training. Funded by the University of Rhode Island Foundation, Fall 1989. \$1,600.00

Fernhall. Development and enhancement of a pulmonary function testing system for educational, clinical and research settings. Funded by the University of Rhode Island Foundation, Fall, 1988. \$3,100.00

Fernhall. Equipment grant toward purchase of an oximeter. Funded by the University Council for Research, University of Rhode Island, 1988. \$ 4,000.00.

Manfredi, Rowinski, and Fernhall. Resistance training and anabolic steroids. Funded by the College of Human Science and Services Research Development Fund, University of Rhode Island, 1988. \$850.00.

Fernhall. Exercise prescription for cardiac patients during water exercise. Funded by the University Council for Research, University of Rhode Island. Summer 1988. \$3,000.00.

Fernhall. Equipment grant towards purchase of a metabolic exercise system. Funded by the University Council for Research, University of Rhode Island. Summer 1988. \$5,000.00.

Fernhall. Exercise induced EEG signs of cerebral ischemia. Funded by the Graduate School, Northern Illinois University. Summer 1987. \$3,000.00

Fernhall. EEG alpha activity during exercise. Funded by the Graduate School, Northern Illinois University, Summer 1986. \$3,000.00

Fernhall and Tymeson. Cardiovascular fitness levels of trainable mentally retarded adults. Funded by the Graduate School, Northern Illinois University, Summer 1985. \$6,000.00.

Grant review committees:

- | | |
|-----------|---|
| 2016 | American Heart Association, Strategically Focused Go Red for Women Research Network Committee. |
| 2015 | American Heart Association, Strategically Focused Disparities Research Network Committee. |
| 2008-2012 | American Heart Association, Epidemiology, Prevention, Outcomes & Behavioral Science 1 Peer Review Committee. Chair, 2011-2012. The committee met twice a year. |
| 2010-2011 | Chair, NASA/NSBRI (National Space Biomedical Research Institute) Panel on Research and Technology Development to Support Crew Health and Performance in Space Exploration Missions – Cardiovascular Aspects. Met once a year. |
| 2010 | NIH/NHLBI Ad- hoc reviewer for program grants. |

Publications:

Refereed Manuscripts:

309. Bunsawat K, Ranadive SM, Lane-Cordova AD, Yan H, Kappus RM, **Fernhall B**, Baynard T. The effect of acute maximal exercise on postexercise hemodynamics and central arterial stiffness in obese and normal-weight individuals. *Physiol Rep*. 2017 Apr;5(7). pii: e13226. doi: 10.14814/phy2.13226.
308. Kappus RM, Bunsawat K, Rosenberg AJ, **Fernhall B**. No Evidence of Racial Differences in Endothelial Function and Exercise Blood Flow in Young, Healthy Males Following Acute Antioxidant Supplementation. *Int J Sports Med*. 2017 Mar;38(3):193-200. doi: 10.1055/s-0042-119203
307. Jae SY, Kurl S, Laukkanen JA, Yoon ES, Choi YH, **Fernhall B**, Franklin BA. Relation of heart rate recovery after exercise testing to coronary artery calcification. *Ann Med*. Feb 6:1-21, 2017. doi: 10.1080/07853890.2017.1292044. [Epub ahead of print]
306. Motl RW, Mowry EM, Ehde DM, LaRocca NG, Smith KE, Costello K, Shinto L, Ng AV, Sullivan AB, Giesser B, McCully KK, **Fernhall B**, Bishop M, Plow M, Casaccia P, Chiaravalloti ND. Wellness and multiple sclerosis: The National MS Society establishes a Wellness Research Working Group and research priorities. *Mult Scler*. 2017 Jan 1:1352458516687404. doi: 10.1177/1352458516687404. [Epub ahead of print]
305. Motl RW, Sandroff BM, Pilutti LA, Klaren RE, Baynard T, **Fernhall B**. Physical activity, sedentary behavior, and aerobic capacity in persons with multiple sclerosis. *J Neurol Sci*. 372:342-346, 2017.
304. Yan H, Ranadive SM, Lane-Cordova AD, Kappus RM, Behun MA, Cook MD, Woods JA, Wilund KR, Baynard T, Halliwill JR, **Fernhall B**. Effect of acute aerobic exercise and histamine receptor blockade on arterial stiffness in African Americans and Caucasians. *J Appl Physiol*. 122(2):386-395, 2017.
303. Lane-Cordova AD, Ranadive SM, Kappus RM, Cook MD, Phillips SA, Woods JA, Wilund KR, Baynard T, **Fernhall B**. Aging, not age-associated inflammation, determines blood pressure and endothelial responses to acute inflammation. *J Hypertens*. 2016 Aug 23. [Epub ahead of print]
302. Agiovlasis S, Beets MW, Lamberth J, Pitetti KH, **Fernhall B**. Accuracy of a piezoelectric pedometer in persons with and without Down syndrome. *Res Dev Disabil*. 2016 Aug 9;59:73-79. doi: 10.1016/j.ridd.2016.08.003. [Epub ahead of print]
301. Ensari I, Motl RW, Klaren RE, **Fernhall B**, Smith DL, Horn GP. Firefighter exercise protocols conducted in an environmental chamber: developing a laboratory-based simulated firefighting protocol. *Ergonomics*. 2016 Jul 12:1-12. [Epub ahead of print]
300. Smith DL, Horn GP, Woods J, Ploutz-Snyder R, **Fernhall B**. Effect of Aspirin Supplementation on Hemostatic Responses in Firefighters Aged 40 to 60 Years. *Am J Cardiol*. [Epub ahead of print] PMID: 27241836

299. Yan H, Behun MA, Cook MD, Ranadive SM, Lane-Cordova AD, Kappus RM, Woods JA, Wilund KR, Baynard T, Halliwill JR, **Fernhall B**. Differential Post-Exercise Blood Pressure Responses between Blacks and Caucasians. *PLoS One*. 2016 Apr 13;11(4):e0153445. doi: 10.1371/journal.pone.0153445. eCollection 2016.
298. Jae SY, Bunsawat K, Fadel PJ, **Fernhall B**, Choi YH, Park JB, Franklin BA. Attenuated Heart Rate Recovery After Exercise Testing and Risk of Incident Hypertension in Men. *Am J Hypertens*. 2016 Apr 1. pii: hpw028. [Epub ahead of print]
297. Lane-Cordova AD, Phillips SA, Baynard T, Woods JA, Motl RW, **Fernhall B**. Effects of aging and physical activity on blood pressure and endothelial function during acute inflammation. *Exp Physiol*. 2016 Mar 29. doi: 10.1113/EP085551. [Epub ahead of print]
296. Sun P, Yan H, Ranadive SM, Lane AD, Kappus RM, Bunsawat K, Baynard T, Hu M, Li S, **Fernhall B**. Autonomic Recovery Is Delayed in Chinese Compared with Caucasian following Treadmill Exercise. *PLoS One*. 2016 Jan 19;11(1):e0147104. doi: 10.1371/journal.pone.0147104. eCollection 2016.
295. Klaren RE, Sandroff BM, **Fernhall B**, Motl RW. Comprehensive Profile of Cardiopulmonary Exercise Testing in Ambulatory Persons with Multiple Sclerosis. *Sports Med*. 2016 Jan 22. [Epub ahead of print]
294. Melo X, **Fernhall B**, Santos DA, Pinto R, Pimenta NM, Sardinha LB, Santa-Clara H. The acute effect of maximal exercise on central and peripheral arterial stiffness indices and hemodynamics in children and adults. *Appl Physiol Nutr Metab*. 2015 Nov 12:1-11.
293. Jae SY, Kurl S, Laukkanen JA, Zaccardi F, Choi YH, **Fernhall B**, Carnethon M, Franklin BA. Exercise Heart Rate Reserve and Recovery as Predictors of Incident Type 2 Diabetes. *Am J Med*. 2016 Feb 1. pii: S0002-9343(16)30076-6. doi: 10.1016/j.amjmed.2016.01.014. [Epub ahead of print]
292. Kappus RM, Ranadive SM, Yan H, Lane-Cordova AD, Cook MD, Sun P, Harvey IS, Wilund KR, Woods JA, **Fernhall B**. Sex differences in autonomic function following maximal exercise. *Biol Sex Differ*. 2015 Dec 1;6:28.
291. Townsend RR, Rosendorff C, Nichols WW, Edwards DG, Chirinos JA, **Fernhall B**, Cushman WC. American Society of Hypertension position paper: central blood pressure waveforms in health and disease. *J Am Soc Hypertens*. 2015 Nov 5. pii: S1933-1711(15)00751-2.
290. Kastelz A, Tzvetanov IG, **Fernhall B**, Shetty A, Gallon L, West-Thielke P, Hachaj G, Grazman M, Benedetti E. Experimental protocol of a randomized controlled clinical trial investigating the effects of personalized exercise rehabilitation on kidney transplant recipients' outcomes. *Contemp Clin Trials*. 2015 Oct 22;45(Pt B):170-176.
289. Guerra-Balic M, Oviedo GR, Javierre C, Fortuño J, Barnet-López S, Niño O, Alamo J, **Fernhall B**. Reliability and validity of the 6-min walk test in adults and seniors with intellectual

disabilities. *Res Dev Disabil.* 2015 Sep 28;47:144-153. doi: 10.1016/j.ridd.2015.09.011. [Epub ahead of print]

288. Izquierdo-Gomez R, Martínez-Gómez D, **Fernhall B**, Sanz A, Veiga ÓL. The role of fatness on physical fitness in adolescents with and without Down syndrome: The UP&DOWN study. *Int J Obes (Lond).* 2015 Aug 21. doi: 10.1038/ijo.2015.164. [Epub ahead of print]

287. Jae SY, Franklin B, Choi YH, **Fernhall B**. Metabolically Healthy Obesity and Carotid Intima-Media Thickness: Effects of Cardiorespiratory Fitness. *Mayo Clin Proc.* 2015 Sep;90(9):1217-24. doi: 10.1016/j.mayocp.2015.07.004. Epub 2015 Aug 3.

286. Ranadive SM, Yan H, Lane AD, Kappus RM, Cook MD, Sun P, Harvey I, Ploutz-Snyder R, Woods JA, Wilund KR, **Fernhall B**. Aerobic Exercise Training and Arterial Changes in African-Americans versus Caucasians. *Med Sci Sports Exerc.* 2015 Jul 29. [Epub ahead of print]

285. Melo X, Santa-Clara H, Santos DA, Pimenta NM, Pinto R, Minderico CS, **Fernhall B**, Sardinha LB. Single and combined effects of body composition phenotypes on carotid intima-media thickness. *Pediatr Obes.* 2015 Jul 22. doi: 10.1111/ijpo.12056. [Epub ahead of print]

284. Lane-Cordova AD, Ranadive SM, Yan H, Kappus RM, Sun P, Bunsawat K, Smith DL, Horn GP, Ploutz-Snyder R, **Fernhall B**. Effect of Aspirin Supplementation on Hemodynamics in Older Firefighters. *Med Sci Sports Exerc.* 2015 Jun 8. [Epub ahead of print]

283. Mendonca GV, **Fernhall B**. The influence of water ingestion on postexercise hypotension and standing haemodynamics. *Clin Physiol Funct Imaging.* 2015 Jun 5. doi: 10.1111/cpf.12249. [Epub ahead of print]

282. Izquierdo-Gomez R, Veiga ÓL, Sanz A, **Fernhall B**, Diaz-Cueto M, Villagra A. [Correlates of objectively measured physical activity in adolescents with down syndrome: the up & down study]. *Nutr Hosp.* 2015 Jun 1;31(6):2606-17. Spanish.

281. Jae SY, Kurl S, Laukkanen JA, Lee CD, Choi YH, **Fernhall B**, Franklin BA. Relation of C-Reactive Protein, Fibrinogen, and Cardiorespiratory Fitness to Risk of Systemic Hypertension in Men. *Am J Cardiol.* 2015 Mar 24. pii: S0002-9149(15)00971-6. doi: 10.1016/j.amjcard.2015.03.016. [Epub ahead of print]

280. Melo X, Santa-Clara H, Santos DA, Pimenta NM, Minderico CS, **Fernhall B**, Sardinha LB. Independent Association of Muscular Strength and Carotid Intima-Media Thickness in Children. *Int J Sports Med.* 2015 Apr 14. [Epub ahead of print]

279. Liem RI, Reddy M, Pelligra SA, Savant AP, **Fernhall B**, Rodeghier M, Thompson AA. Reduced fitness and abnormal cardiopulmonary responses to maximal exercise testing in children and young adults with sickle cell anemia. *Physiol Rep.* 2015 Apr;3(4). pii: e12338. doi: 10.14814/phy2.12338.

278. Wu PT, Fitschen PJ, Kistler BM, Jeong JH, Chung HR, Aviram M, Phillips SA, **Fernhall B**, Wilund KR. Effects of Pomegranate Extract Supplementation on Cardiovascular Risk

- Factors and Physical Function in Hemodialysis Patients. *J Med Food*. 2015 Mar 31. [Epub ahead of print]
277. Jae SY, Franklin BA, Choo J, Choi YH, **Fernhall B**. Exaggerated Exercise Blood Pressure Response During Treadmill Testing as a Predictor of Future Hypertension in Men: A Longitudinal Study. *Am J Hypertens*. 2015 Mar 30. pii: hpv036. [Epub ahead of print]
276. Melo X, Santa-Clara H, Santos DA, Pimenta NM, Minderico CS, **Fernhall B**, Sardinha LB. Linking cardiorespiratory fitness classification criteria to early subclinical atherosclerosis in children. *Appl Physiol Nutr Metab*. 2015 Apr;40(4):386-92. doi: 10.1139/apnm-2014-0378. Epub 2014 Dec 16.
275. Jeong JH, Wu PT, Kistler BM, Fitschen PJ, Biruete AG, Phillips SA, Ali MM, **Fernhall B**, Wilund KR. The presence and impact of diastolic dysfunction on physical function and body composition in hemodialysis patients. *J Nephrol*. 2015 Mar 10. [Epub ahead of print]
274. Griffith G, Klaren RE, Motl RW, Baynard T, **Fernhall B**. Experimental protocol of a randomized controlled clinical trial investigating exercise, subclinical atherosclerosis, and walking mobility in persons with multiple sclerosis. *Contemp Clin Trials*. 2015 Mar;41:280-6. doi: 10.1016/j.cct.2015.02.003. Epub 2015 Feb 14.
273. Mendonca GV, Vaz JR, Pezarat-Correia P, Fernhall B. Effects of Walking with Blood Flow Restriction on Excess Post-exercise Oxygen Consumption. *Int J Sports Med*. 2015 Feb 9. [Epub ahead of print]
272. Horn GP, Kesler RM, Motl RW, Hsiao-Wecksler ET, Klaren RE, Ensari I, Petrucci MN, **Fernhall B**, Rosengren KS. Physiological responses to simulated firefighter exercise protocols in varying environments. *Ergonomics*. 2015 Jan 19:1-10
271. Tzvetanov I, West-Thielke P, D'Amico G, Johnsen M, Ladik A, Hachaj G, Grazman M, Heller RU, **Fernhall B**, Daviglus ML, Solaro RJ, Oberholzer J, Gallon L, Benedetti E. A novel and personalized rehabilitation program for obese kidney transplant recipients. *Transplant Proc*. 2014 Dec;46(10):3431-7.
270. Alvarado AM, Ward KM, Muntz DS, Thompson AA, Rodeghier M, **Fernhall B**, Liem RI. Heart Rate Recovery Is Impaired after Maximal Exercise Testing in Children with Sickle Cell Anemia. *J Pediatr*. 2014 Dec 2. pii: S0022-3476(14)01031-2. doi: 0.1016/j.jpeds.2014.10.064. [Epub ahead of print]
269. Izquierdo-Gomez R, Martínez-Gómez D, Villagra A, **Fernhall B**, Veiga OL; on behalf of the UP&DOWN study group. Associations of physical activity with fatness and fitness in adolescents with Down syndrome: The UP&DOWN study. *Res Dev Disabil*. 2014 Nov 8;36C:428-436
268. Lee YH, Park SH, Yoon ES, Lee CD, Wee SO, **Fernhall B**, Jae SY. Effects of Combined Aerobic and Resistance Exercise on Central Arterial Stiffness and Gait Velocity in Patients with Chronic Poststroke Hemiparesis. *Am J Phys Med Rehabil*. 2014 Oct 29. [Epub ahead of print].

267. Sun P, Yan H, Ranadive SM, Lane AD, Kappus RM, Bunsawat K, Baynard T, Li S, **Fernhall B**. Blood Pressure Changes Following Aerobic Exercise in Caucasian and Chinese Descendants. *Int J Sports Med*. 2014 Oct 20. [Epub ahead of print]
266. Smith DL, Horn GP, Petruzzello SJ, Freund GG, Woods JA, Cook MD, Goldstein E, **Fernhall B**. Effect of Obesity on Acute Hemostatic Responses to Live-Fire Training Drills. *Am J Cardiol*. 2014 Sep 16. pii: S0002-9149(14)01787-1. doi: 10.1016/j.amjcard.2014.08.046. [Epub ahead of print]
265. **Fernhall B**, Borghi-Silva A, Babu AS. The Future of Physical Activity Research: Funding, Opportunities and Challenges. *Prog Cardiovasc Dis*. 2014 Sep 6. pii: S0033-0620(14)00135-2. doi: 10.1016/j.pcad.2014.09.003. [Epub ahead of print]
264. Jae SY, Kurl S, Laukkanen JA, Choi YH, Park WH, Bunsawat K, Heffernan KS, **Fernhall B**, Kang SM, Park JB. Usefulness of blood pressure rise prior to exercise stress testing to predict the risk of future hypertension in normotensive Korean men. *Am J Cardiol*. 2014 Oct 15;114(8):1238-42.
263. Lane AD, Yan H, Ranadive SM, Kappus RM, Sun P, Cook MD, Harvey I, Woods J, Wilund K, **Fernhall B**. Sex differences in ventricular-vascular coupling following endurance training. *Eur J Appl Physiol*. 2014 Aug 21. [Epub ahead of print]
262. Lane AD, Kappus RM, Bunsawat K, Ranadive SM, Yan H, Phillips S, Baynard T, Woods JA, Motl R, **Fernhall B**. Age-related ventricular-vascular coupling during acute inflammation in humans: Effect of physical activity. *Eur J Prev Cardiol*. 22:904-911, 2014.
261. Agiovlasitis S, Rossow LM, Yan H, Ranadive SM, Fahs CA, Motl RW, **Fernhall B**. Predicting METs from the heart rate index in persons with Down syndrome. *Res Dev Disabil*. 2014 Oct;35(10):2423-9.
260. Guilkey JP, Overstreet M, **Fernhall B**, Mahon AD. Heart rate response and parasympathetic modulation during recovery from exercise in boys and men. *Appl Physiol Nutr Metab*. 2014 Aug;39(8):969-75. doi: 10.1139/apnm-2013-0510. Epub 2014 Mar 28.
259. Melo X, Santa-Clara H, Pimenta NM, Martins SS, Minderico CS, **Fernhall B**, Sardinha LB. Intima-Media Thickness in 11-13 Years-Old Children: Variation Attributed to Sedentary Behavior, Physical Activity, Cardiorespiratory Fitness and Waist Circumference. *J Phys Act Health*. 2014 Jun 5. [Epub ahead of print]
258. Kistler BM, Fitschen PJ, Ranadive SM, **Fernhall B**, Wilund KR. Case Study: Natural Bodybuilding Contest Preparation. *Int J Sport Nutr Exerc Metab*. 2014 Jun 5. [Epub ahead of print]
257. Klaren RE, Horn GP, **Fernhall B**, Motl RW. Accuracy of the VO₂peak prediction equation in firefighters. *J Occup Med Toxicol*. 2014 Apr 28;9:17. doi: 10.1186/1745-6673-9-17. eCollection 2014.

256. Yan H, Prista A, Ranadive SM, Damasceno A, Caupers P, Kanaley JA, **Fernhall B**. Effect of Aerobic Training on Glucose Control and Blood Pressure in T2DDM East African Males. *ISRN Endocrinol*. 2014 Mar 4;2014:864897. doi: 10.1155/2014/864897. eCollection 2014
255. Ranadive SM, Kappus RM, Cook MD, Yan H, Lane AD, Woods JA, Wilund KR, Iwamoto G, Vanar V, Tandon R, **Fernhall B**. Effect of Acute Moderate Exercise on Induced Inflammation and Arterial Function in Older Adults. *Exp Physiol*. 99:729-739, 2014.
254. Pimenta NM, Santa-Clara H, Cortez-Pinto H, Silva-Nunes J, da Lapa Rosado M, Sousa PJ, Calé R, Melo X, Sardinha LB, **Fernhall B**. Body composition and body fat distribution are related to cardiac autonomic control in non-alcoholic fatty liver disease patients. *Eur J Clin Nutr*. 2014 Feb;68(2):241-6
253. Melo X, Santa-Clara H, Pimenta NM, Carrolo M, Martins SS, Minderico CS, **Fernhall B**, Sardinha LB. Body composition phenotypes and carotid intima-media thickness in 11-13-year-old children. *Eur J Pediatr*. 2014 Mar;173(3):345-52.
252. Yan H, Ranadive SM, Heffernan KS, Lane AD, Kappus RM, Cook MD, Wu PT, Sun P, Harvey IS, Woods JA, Wilund KR, **Fernhall B**. Hemodynamic and arterial stiffness differences between African-Americans and Caucasians following maximal exercise. *Am J Physiol Heart Circ Physiol*. 2014 Jan 1;306(1):H60-8.
251. Shields N, Taylor NF, Wee E, Wollersheim D, O'Shea SD, **Fernhall B**. A community-based strength training programme increases muscle strength and physical activity in young people with Down syndrome: a randomised controlled trial. *Res Dev Disabil*. 2013 Dec;34(12):4385-94
250. Ward CL, Suh Y, Lane AD, Yan H, Ranadive SM, **Fernhall B**, Motl RW, Evans EM. Body composition and physical function in women with multiple sclerosis. *J Rehabil Res Dev*. 2013 Dec;50(8):1139-48
249. Kappus RM, Fahs CA, Smith D, Horn GP, Agiovlasitis S, Rossow L, Jae SY, Heffernan KS, **Fernhall B**. Obesity and Overweight Associated With Increased Carotid Diameter and Decreased Arterial Function in Young Otherwise Healthy Men. *Am J Hypertens*. 2013 Sep 18. [Epub ahead of print]
248. Smith DL, Horn GP, Petruzzello SJ, Fahey G, Woods J, **Fernhall B**. Clotting and Fibrinolytic Changes following Firefighting Activities. *Med Sci Sports Exerc*. 2014 Mar;46(3):448-54.
247. Ranadive SM, Cook M, Kappus RM, Yan H, Lane AD, Woods JA, Wilund KW, Iwamoto G, Vanar V, Tandon R, **Fernhall B**. Effect of Acute Aerobic Exercise on Vaccine Efficacy in Older Adults. *Med Sci Sports Exerc*. 2014 Mar;46(3):455-61

246. Baynard T, Goulopoulou S, Sosnoff RF, **Fernhall B**, Kanaley JA. Cardiovagal Modulation and Efficacy of Aerobic Exercise Training in Obese Individuals. *Med Sci Sports Exerc.* 2014 Feb;46(2):369-75
245. Hu M, Yan H, Ranadive SM, Agiovlasitis S, Fahs CA, Atiq M, Atique N, **Fernhall B**. Arterial stiffness response to exercise in persons with and without Down syndrome. *Res Dev Disabil.* 2013 Oct;34(10):3139-47
244. Horn GP, Blevins S, **Fernhall B**, Smith DL. Core temperature and heart rate response to repeated bouts of firefighting activities. *Ergonomics.* 2013;56(9):1465-73.
243. Pimenta NM, Santa-Clara H, Sardinha LB, **Fernhall B**. Body fat responses to a 1-year combined exercise training program in male coronary artery disease patients. *Obesity (Silver Spring).* 2013 Apr;21(4):723-30.
242. Jae SY, Yoon ES, Jung SJ, Jung SG, Park SH, Kim BS, Heffernan KS, **Fernhall B**. Effect of cardiorespiratory fitness on acute inflammation induced increases in arterial stiffness in older adults. *Eur J Appl Physiol.* 2013 Aug;113(8):2159-66
241. Lane AD, Wu PT, Kistler B, Fitschen P, Tomayko E, Jeong JH, Chung HR, Yan H, Ranadive SM, Phillips S, **Fernhall B**, Wilund K. Arterial stiffness and walk time in patients with end-stage renal disease. *Kidney Blood Press Res.* 2013;37(2-3):142-50.
240. **Fernhall B**, Mendonca GV, Baynard T. Reduced work capacity in individuals with down syndrome: a consequence of autonomic dysfunction? *Exerc Sport Sci Rev.* 2013 Jul;41(3):138-47.
239. Motl RW, Pilutti LA, Sandroff BM, Klaren R, Balantrapu S, McAuley E, Sosnoff JJ, **Fernhall B**. Rationale and design of a randomized controlled, clinical trial investigating a comprehensive exercise stimulus for improving mobility disability outcomes in persons with multiple sclerosis. *Contemp Clin Trials.* 2013 May;35(1):151-8.
238. Lane AD, Ranadive SM, Yan H, Kappus RM, Cook MD, Sun P, Woods JA, Wilund K, **Fernhall B**. Effect of sex on wasted left ventricular effort following maximal exercise. *Int. Sports Med.* 34(9):770-6, 2013.
237. Mendonca GV, Teixeira MS, Heffernan KS, **Fernhall B**. Chronotropic and pressor effects of water ingestion at rest and in response to incremental dynamic exercise. *Exp Physiol.* 98(6):1133-43, 2013.
236. Fahs CA, Rossow LM, Yan H, Ranadive SM, Agiovlasitis S, Wilund KR, Baynard T, **Fernhall B**. Resting and post exercise arterial-ventricular coupling in endurance-trained men and women. *J Hum Hypertens.* 27:552-56, 2013.
235. Morrison S, Sosnoff JJ, Heffernan KS, Jae SY, **Fernhall B**. Aging, hypertension and physiological tremor: The contribution of the cardiobalistic impulse to tremorgenesis in older

adults. *J Neurol Sci.* 326: 68-74, 2013.

234. Heffernan KS, Yoon ES, Sharman JE, Davies JE, Shih YT, Chen CH, **Fernhall B**, Jae SY. Resistance exercise training reduces arterial reservoir pressure in older adults with prehypertension and hypertension. *Hypertens Res.* 36:422-27, 2013.

233. Tomás MT, Santa-Clara H, Bruno PM, Monteiro E, Carrolo M, Barroso E, Sardinha LB, **Fernhall B** The impact of exercise training on liver transplanted familial amyloidotic polyneuropathy (FAP) patients. *Transplantation.* 27;95(2):372-7, 2013.

232. Cook MD, Heffernan KS, Ranadive S, Woods JA, **Fernhall B**. Effect of resistance training on biomarkers of vascular function and oxidative stress in young African-American and Caucasian men. *J Hum Hypertens.* 27:388-92, 2013.

231. Cowley PM, Keslacy S, Middleton FA, Deruisseau LR, **Fernhall B**, Kanaley JA, Deruisseau KC. Functional and Biochemical Characterization of Soleus Muscle in Down syndrome Mice: Insight into the Muscle Dysfunction Seen in the Human Condition. *Am J Physiol Regul Integr Comp Physiol.* 303:R1251-60, 2012

230. Mendonca GV, Teixeira MS, Pereira FD, **Fernhall B**. Cardiovascular and autonomic effects of water ingestion during postexercise circulatory occlusion. *Appl Physiol Nutr Metab.* 37:1153-63, 2012

229. Mendonca GV, Pereira FD, **Fernhall B**. Heart rate recovery and variability following combined aerobic and resistance exercise training in adults with and without Down syndrome. *Res Dev Disabil.* 2012 Sep 20;34(1):353-361.

228. Jae SY, Heffernan KS, Yoon ES, Park SH, Carnethon MR, **Fernhall B**, Choi YH, Park WH. Temporal changes in cardiorespiratory fitness and the incidence of hypertension in initially normotensive subjects. *Am J Hum Biol.* 2012 Nov;24(6):763-7

227. Kanaley JA, Goulopoulou S, Franklin R, Baynard T, Carhart RL Jr, Weinstock RS, **Fernhall B**. Exercise training improves hemodynamic recovery to isometric exercise in obese men with type 2 diabetes but not in obese women. *Metabolism.* 2012 Aug 14. [Epub ahead of print]

226. Lane AD, Heffernan KS, Rossow LM, Fahs CA, Ranadive SM, Yan H, Baynard T, Wilund K, **Fernhall B**. Aortic reservoir function, estimated myocardial demand and coronary perfusion pressure following steady-state and interval exercise. *Clin Physiol Funct Imaging.* 2012 Sep;32(5):353-60

225. Motl RW, Balantrapu S, Pilutti L, Dlugonski D, Suh Y, Sandroff BM, Lane A, **Fernhall B**. Symptomatic correlates of six-minute walk performance in persons with multiple sclerosis. *Eur J Phys Rehabil Med.* 2012 Jul 23. [Epub ahead of print]

224. Jae SY, Heffernan KS, Yoon ES, Park SH, Choi YH, **Fernhall B**, Park JB. Pulsatile Stress, Inflammation and Change in Arterial Stiffness. *J Atheroscler Thromb*. 2012 Jul 14. [Epub ahead of print]
223. Pimenta NM, Santa-Clara H, Sardinha LB, **Fernhall B**. Body Fat Responses to a 1-Year Combined Exercise Training Program in Male Coronary Artery Disease Patients. *Obesity* (Silver Spring). 2012 Jun 15. doi: 10.1038/oby.2012.150. [Epub ahead of print]
222. Kappus RM, Ranadive SM, Yan H, Lane AD, Cook MD, Hall G, Harvey IS, Wilund KR, Woods JA, **Fernhall B**. Validity of predicting left ventricular end systolic pressure changes following an acute bout of exercise. *J Sci Med Sport*. 2013 Jan;16(1):71-5
221. Agiovlasitis S, Beets MW, Motl RW, **Fernhall B**. Step-rate thresholds for moderate and vigorous-intensity activity in persons with Down syndrome. *J Sci Med Sport*. 2012 Sep;15(5):425-30
220. Agiovlasitis S, Motl RW, Foley JT, **Fernhall B**. Prediction of energy expenditure from wrist accelerometry in people with and without Down syndrome. *Adapt Phys Activ Q*. 2012 Apr;29(2):179-90.
219. Motl RW, Suh Y, Balantrapu S, Sandroff BM, Sosnoff JJ, Pula J, Goldman MD, **Fernhall B**. Evidence for the different physiological significance of the 6- and 2-minute walk tests in multiple sclerosis. *BMC Neurol*. 2012 Mar 1;12:6
218. Motl RW, **Fernhall B**. Accurate prediction of cardiorespiratory fitness using cycle ergometry in minimally disabled persons with relapsing-remitting multiple sclerosis. *Arch Phys Med Rehabil*. 2012 Mar;93(3):490-5
217. Ranadive SM, Fahs CA, Yan H, Rossow LM, Agiovlasitis S, **Fernhall B**. Comparison of the acute impact of maximal arm and leg aerobic exercise on arterial stiffness. *Eur J Appl Physiol*. 2012; 112(7):2631-5.
216. Yan H, Fahs CA, Ranadive S, Rossow LM, Lane AD, Agiovlasitis S, Echols G, Smith D, Horn GP, Rowland T, **Fernhall B**. Evaluation of carotid wave intensity in firefighters following firefighting. *Eur J Appl Physiol*. 2012; 112:2631-2635.
215. Agiovlasitis S, Baynard T, Pitetti KH, **Fernhall B**. Heart rate complexity in response to upright tilt in persons with Down syndrome. *Res Dev Disabil*. 2011 Nov;32(6):2102-7.
214. Weikert M, Suh Y, Lane A, Sandroff B, Dlugonski D, **Fernhall B**, Motl RW. Accelerometry is associated with walking mobility, not physical activity, in persons with multiple sclerosis. *Med Eng Phys*. 2012; 34:590-597.
213. Jae SY, Heffernan K, **Fernhall B**, Choi YH. Cardiorespiratory Fitness and Carotid Artery Intima Media Thickness in Men With Type 2 Diabetes. *J Phys Act Health*. 2012; 9:549-553.

212. Collier SR, Frechette V, Sandberg K, Schafer P, Ji H, Smulyan H, **Fernhall B**. Sex differences in resting hemodynamics and arterial stiffness following 4 weeks of resistance versus aerobic exercise training in individuals with pre-hypertension to stage 1 hypertension. *Biol Sex Differ.* 2(1):9, 2011
211. Heffernan KS, Ranadive S, Weikert M, Lane A, Yan H, **Fernhall B**, Motl RW. Pulse pressure is associated with walking impairment in multiple sclerosis. *J Neurol Sci.* 309(1-2):105-9, 2011.
210. Ranadive SM, Yan H, Weikert M, Lane AD, Linden MA, Baynard T, Motl RW, **Fernhall B**. Vascular Dysfunction and Physical Activity in Multiple Sclerosis. *Med Sci Sports Exerc.* 2012; 44:238-243.
209. Agiovlasis S, Pitetti KH, Guerra M, **Fernhall B**. Prediction of VO₂peak from the 20-m shuttle-run test in youth with Down syndrome. *Adapt Phys Activ Q.* 28(2):146-56, 2011
208. **Fernhall B**, Fahs CA, Horn G, Rowland T, Smith D. Acute effects of firefighting on cardiac performance. *Eur J Appl Physiol.* 2012; 112:735-741.
207. Sosnoff JJ, Jae SY, Heffernan K, **Fernhall B**. Cardiobalistic impulse and fluctuations in isometric force output. *Motor Control.* 15(2):221-31, 2011.
206. Motl RW, **Fernhall B**, McAuley E, Cutter G. Physical activity and self-reported cardiovascular comorbidities in persons with multiple sclerosis: evidence from a cross-sectional analysis. *Neuroepidemiology.* 36(3):183-91, 2011
205. Mendonca GV, Pereira FD, **Fernhall B**. Effects of cigarette smoking on cardiac autonomic function during dynamic exercise. *J Sports Sci.* 29(9):879-86, 2011.
204. Fahs CA, Yan H, Ranadive S, Rossow LM, Agiovlasis S, Echols G, Smith D, Horn GP, Rowland T, Lane A, **Fernhall B**. Acute effects of firefighting on arterial stiffness and blood flow. *Vasc Med.* 2011 Apr;16(2):113-8.
203. Cowley PM, Ploutz-Snyder LL, Baynard T, Heffernan KS, Young Jae S, Hsu S, Lee M, Pitetti KH, Reiman MP, **Fernhall B**. The effect of progressive resistance training on leg strength, aerobic capacity and functional tasks of daily living in persons with Down syndrome. *Disabil Rehabil.* 33(23-24):2229-36, 2011
202. Tomás MT, Santa-Clara MH, Monteiro E, Baynard T, Carnero EÁ, Bruno PM, Barroso E, Sardinha LB, **Fernhall B**. Body composition, muscle strength, functional capacity, and physical disability risk in liver transplanted familial amyloidotic polyneuropathy patients. *Clin Transplant.* 25(4):E406-14, 2011.

201. Agiovlasitis S, Motl RW, Ranadive SM, Fahs CA, Yan H, Echols GH, Rossow L, **Fernhall B**. Energetic optimization during over-ground walking in people with and without Down syndrome. *Gait Posture*. 33(4):630-4, 2011.
200. Horn GP, Gutzmer S, Fahs CA, Petruzzello SJ, Goldstein E, Fahey GC, **Fernhall B**, Smith DL. Physiological recovery from firefighting activities in rehabilitation and beyond. *Prehosp Emerg Care*.15(2):214-25, 2011
199. Hsu S, Fernhall B, Hui SS, Halle J. Psychosocial factors of stages of change among adults with intellectual disabilities. *Intellect Dev Disabil*. 49(1):14-25, 2011
198. Mendonca GV, Pereira FD, Fernhall B. Fractal scaling properties of heart rate dynamics in persons with Down syndrome. *Auton Neurosci*. 161:110-115, 2011.
197. Kim J, Mutyala B, Agiovlasitis S, Fernhall B. Health behaviors and obesity among US children with attention deficit hyperactivity disorder by gender and medication use. *Prev Med*. 52:218-222, 2011.
196. Mendonca GV, Pereira FD, Fernhall B. Cardiac autonomic function during submaximal treadmill exercise in adults with Down syndrome. *Res Dev Disabil*. Mar-Apr;32(2):532-9, 2011
195. Agiovlasitis S, Motl RW, Ranadive SM, Fahs CA, Yan H, Echols GH, Rossow L, Fernhall B. Prediction of oxygen uptake during over-ground walking in people with and without Down syndrome. *Eur J Appl Physiol*. 28:146-156, 2011.
194. Mendonca GV, Pereira FD, Fernhall B. Reduced exercise capacity in persons with Down syndrome: cause, effect, and management. *Ther Clin Risk Manag*. 8:601-10, 2010.
193. Agiovlasitis S, Motl RW, Fahs CA, Ranadive SM, Yan H, Echols GH, Rossow L, Fernhall B. Metabolic Rate and Accelerometer Output during Walking in People with Down Syndrome. *Med Sci Sports Exerc*. 2010 [Epub ahead of print]
192. Mendonca GV, Pereira FD, Fernhall B. Effects of combined aerobic and resistance exercise training in adults with and without Down syndrome. *Arch Phys Med Rehabil* 92:37-45, 2011.
191. Jae SY, Heffernan KS, Lee M, Fernhall B. Relation of heart rate recovery to heart rate variability in persons with paraplegia. *Clin Auton Res*. 2010 [Epub ahead of print]
190. Colberg SR, Sigal RJ, Fernhall B, Regensteiner JG, Blissmer BJ, Rubin RR, Chasan-Taber L, Albright AL, Braun B; American College of Sports Medicine; American Diabetes Association. Exercise and type 2 diabetes: the American College of Sports Medicine and the American Diabetes Association: joint position statement executive summary. *Diabetes Care* 33:2692-6, 2010
189. Colberg SR, Sigal RJ, Fernhall B, Regensteiner JG, Blissmer BJ, Rubin RR, Chasan-Taber L, Albright AL, Braun B; American College of Sports Medicine; American Diabetes

- Association. Exercise and type 2 diabetes: the American College of Sports Medicine and the American Diabetes Association: joint position statement. *Diabetes Care* 33:e147-67, 2010.
188. Motl RW, Dlugonski D, Suh Y, Weikert M, Fernhall B, Goldman M. Accelerometry and its association with objective markers of walking limitations in ambulatory adults with multiple sclerosis. *Arch Phys Med Rehabil.* 91:1942-7, 2010.
187. American College of Sports Medicine; American Diabetes Association. Exercise and type 2 diabetes: American College of Sports Medicine and the American Diabetes Association: joint position statement. Exercise and type 2 diabetes. *Med Sci Sports Exerc.* 42:2282-303, 2010.
186. Melo X, Santa-Clara H, Almeida JP, Carnero EA, Sardinha LB, Bruno PM, Fernhall B. Comparing several equations that predict peak VO(2) using the 20-m multistage-shuttle run-test in 8-10-year-old children. *Eur J Appl Physiol.* 2010 [Epub ahead of print]
185. Ranadive SM, Fahs CA, Yan H, Rossow LM, Agliovlastis S, Fernhall B. Heart rate recovery following maximal arm and leg-ergometry. *Clin Auton Res.* 2010 [Epub ahead of print]
184. Pereira AM, Santa-Clara H, Pereira E, Simões S, Remédios I, Cardoso J, Brito J, Cabri J, Fernhall B. Impact of combined exercise on chronic obstructive pulmonary patients' state of health. *Rev Port Pneumol.* 16:737-57, 2010.
183. Jae SY, Heffernan KS, Fernhall B, Oh YS, Park WH, Lee MK, Choi YH. Association between cardiorespiratory fitness and arterial stiffness in men with the metabolic syndrome. *Diabetes Res Clin Pract.* 90:326-32, 2010.
182. Collier SR, Diggle MD, Heffernan KS, Kelly EE, Tobin MM, Fernhall B. Changes in arterial distensibility and flow-mediated dilation after acute resistance vs. aerobic exercise. *J Strength Cond Res.* 24:2846-52, 2010.
181. Goulopoulou S, Fernhall B, Kanaley JA. Developmental Changes in Hemodynamic Responses and Cardiovagagal Modulation during Isometric Handgrip Exercise. *Int J Pediatr.* 2010;2010. pii: 153780. Epub 2010 Aug 29.
180. Agiovlastitis S, Heffernan KS, Jae SY, Ranadive SM, Lee M, Mojtahedi MC, Fernhall B. Effects of paraplegia on cardiac autonomic regulation during static exercise. *Am J Phys Med Rehabil.* 89:817-23, 2010.
179. Motl RW, Suh Y, Dlugonski D, Weikert M, Agiovlastitis S, Fernhall B, Goldman M. Oxygen cost of treadmill and over-ground walking in mildly disabled persons with multiple sclerosis. *Neurol Sci.* 2010 [Epub ahead of print]
178. Mendonca GV, Heffernan KS, Rossow L, Guerra M, Pereira FD, Fernhall B. Sex differences in linear and nonlinear heart rate variability during early recovery from supramaximal exercise. *Appl Physiol Nutr Metab.* 35:439-46, 2010.

177. Agiovlasitis S, Motl RW, Fernhall B. Prediction of oxygen uptake during level treadmill walking in people with multiple sclerosis. *J Rehabil Med.* 42:650-5, 2010.
176. Rossow L, Fahs CA, Guerra M, Jae SY, Heffernan KS, Fernhall B. Acute effects of supramaximal exercise on carotid artery compliance and pulse pressure in young men and women. *Eur J Appl Physiol.* 110:729-37, 2010.
175. Mendonca GV, Pereira FD, Fernhall B. Oxygen uptake kinetics during exercise in adults with Down syndrome. *Eur J Appl Physiol.* 110(3):575-83, 2010.
174. Fahs CA, Yan H, Ranadive S, Rossow LM, Agiovlasitis S, Wilund KR, Fernhall B. The effect of acute fish-oil supplementation on endothelial function and arterial stiffness following a high-fat meal. *Appl Physiol Nutr Metab.* 35:294-302, 2010.
173. Jae SY, Heffernan KS, Park SH, Jung SH, Yoon ES, Kim EJ, Ahn ES, Fernhall B. Does an acute inflammatory response temporarily attenuate parasympathetic reactivation? *Clin Auton Res.* 20:229-33, 2010.
172. Motl RW, Dlugonski D, Suh Y, Weikert M, Agiovlasitis S, Fernhall B, Goldman M. Multiple Sclerosis Walking Scale-12 and oxygen cost of walking. *Gait Posture.* 31:506-10, 2010.
171. Shields N, Taylor NF, Fernhall B. A study protocol of a randomized controlled trial to investigate if a community based strength training program improves work task performance in young adults with Down syndrome. *BMC Pediatr.* 25;10(1):17, 2010.
170. Agiovlasitis S, Collier SR, Baynard T, Echols GH, Goulopoulou S, Figueroa A, Beets MW, Pitetti KH, Fernhall B. Autonomic response to upright tilt in people with and without Down syndrome. *Res Dev Disabil.* 31:857-863, 2010
169. Fahs CA, Heffernan KS, Ranadive S, Jae SY, Fernhall B. Muscular strength is inversely associated with aortic stiffness in young men. *Med Sci Sports Exerc.* 42:1619-24, 2010.
168. Wilund KR, Tomayko EJ, Wu PT, Ryong Chung H, Vallurupalli S, Lakshminarayanan B, Fernhall B. Intradialytic exercise training reduces epicardial fat and oxidative stress: a pilot study. *Nephrol Dial Transplant.* 25:2695-701, 2010.
167. Beets MW, Agiovlasitis S, Fahs CA, Ranadive SM, Fernhall B. Adjusting step count recommendations for anthropometric variations in leg length. *J Sci Med Sport.* 13:509-12, 2010.
166. Rossow L, Yan H, Fahs CA, Ranadive SM, Agiovlasitis S, Wilund KR, Baynard T, Fernhall B. Postexercise hypotension in an endurance trained population of men and women following high intensity interval and steady state cycling. *Am J Hypertens.* 2010 Apr;23(4):358-67.
165. Lee M, Zhu W, Hedrick B, Fernhall B. Determining metabolic equivalent values of

physical activities for persons with paraplegia. *Disabil Rehabil.* 2010;32(4):336-43.

164. Mendonca GV, Pereira FD, Morato PP, Fernhall B. Walking economy of adults with Down syndrome. *Int J Sports Med.* 2010 Jan;31(1):10-5.

163. Goulopoulou S, Baynard T, Franklin RM, Fernhall B, Carhart R Jr, Weinstock R, Kanaley JA. Exercise training improves cardiovascular autonomic modulation in response to glucose ingestion in obese adults with and without type 2 diabetes mellitus. *Metabolism.* 59:901-10, 2009.

162. Lee M, Zhu W, Hedrick B, Fernhall B. Estimating MET values using the ratio of heart rate for persons with paraplegia. *Med Sci Sports Exerc.* 42:985-90, 2010.

161. Cowley PM, Ploutz-Snyder LL, Baynard T, Heffernan K, Jae SY, Hsu S, Lee M, Pitetti KH, Reiman MP, Fernhall B. Physical fitness predicts functional tasks in individuals with Down syndrome. *Med Sci Sports Exerc.* 2010 Feb;42(2):388-93.

160. Fahs CA, Smith DL, Horn GP, Agiovlasis S, Rossow LM, Echols G, Heffernan KS, Fernhall B. Impact of excess body weight on arterial structure, function and blood pressure in firefighters. *Am J Cardiol* 104:1441-1445, 2009.

159. Mendonca, GV, Fernhall, B., Heffernan, KS, Pereira, FD. Spectral methods of heart rate variability analysis during dynamic exercise. *Clin Auton Res* 19:237-245, 2009.

158. Kanaley JA, Goulopoulou S, Franklin RM, Baynard T, Holmstrup ME, Carhart R Jr, Weinstock RS, Fernhall B. Plasticity of heart rate signaling and complexity with exercise training in obese individuals with and without Type 2 diabetes. *Int J Obes* 33:1198-1206, 2009

157. Jae SY, Heffernan KS, Yoon ES, Lee MK, Fernhall B, Park WH. The inverse association between cardiorespiratory fitness and C-reactive protein is mediated by autonomic function: a possible role of the cholinergic anti-inflammatory pathway. *Mol Med* 15:291-296, 2009.

156. Heffernan, KS, and Fernhall, B. A systematic appraisal of ventricular-aortic load in African-American men. *Artery Res.* 3:65-72, 2009.

155. Heffernan KS, Fahs CA, Iwamoto GA, Jae SY, Wilund KR, Woods JA, Fernhall B. Resistance exercise training reduces central blood pressure and improves microvascular function in African-American and white men. *Atherosclerosis*, 207:220-226, 2009.

154. Jae SY, Carnethon MR, Heffernan KS, Fernhall B, Lee MK, Park WH. Heart rate recovery after exercise and incidence of type 2 diabetes in men. *Clin Auton Res* 19:189-192, 2009.

153. Fahs, CA, Heffernan, KS and Fernhall, B. Hemodynamic and vascular responses resistance exercise with L-arginine. *Med Sci Sports Exerc* 41:773-779, 2009.
152. Pontifex MB, Hillman CH, Fernhall, B, Thomson KM, and Valentini TA. The effect of acute aerobic and resistance exercise on working memory. *Med Sci Sports Exerc* 41:927-934, 2009.
151. Heffernan KS, Jae SY, Tomayko E, Ishaque MR, Fernhall B, Wilund KR. Influence of arterial wave reflection on carotid blood pressure and intima-media thickness in older endurance trained men and women with pre-hypertension. *Clin Physiol Funct Imaging* 29:193-200, 2009.
150. Guerra M, Gine-Garriga M, Fernhall B. Reliability of Wingate testing in adolescents with Down syndrome. *Pediatr Exerc Sci* 21:47-54, 2009.
149. Fernhall B, Baynard T, Collier SR, Figueroa A, Goulopoulou S, Kamimori G, Pitetti K. Catecholamine response to maximal exercise in persons with Down syndrome. *Am J Cardiol*. 103:724-726, 2009.
148. Heffernan KS, Karas RH, Kuvin JT, Jae SY, Vieira VJ and Fernhall, B. Carotid artery stiffness, high density lipoprotein cholesterol and inflammation in men with pre-hypertension. *J Hum Hypertens* , 23:590-596, 2009.
147. Unnithan V, Holohan J, Fernhall B, Wylegala J, Rowland T, Pendergast DR. Aerobic cost in elite female adolescent swimmers. *Int J Sports Med* 30:194-199, 2009.
146. Heffernan KS, Sosnoff JJ, Ofori E, Jae SY, Baynard T, Collier SR, Goulopoulou S, Figueroa A, Woods JA, Pitetti KH, Fernhall B. Complexity of force output during static exercise in individuals with Down syndrome. *J Appl Physiol*. 106:1227-1233, 2009.
145. Heffernan KS, Jae SY, Vieira VJ, Iwamoto GA, Wilund KR, Woods JA, Fernhall B. C-reactive protein and cardiac vagal activity following resistance exercise training in young African American and white men. *Am J Physiol Regul Integr Comp Physiol*. 296:R1098-1105, 2009.
144. Mika A, Fernhall B, Mika P. Association between moderate physical activity, spinal motion, and back muscle strength in postmenopausal women with and without osteoporosis. *Disabil Rehabil*. 24:1-72008.
143. Goulopoulou S, Fernhall B, Kanaley JA. Hemodynamic responses and linear and non-linear dynamics of cardiovascular autonomic regulation following supramaximal exercise. *Eur J Appl Physiol*. 105(4):525-31, 2009.
142. Mendonça GV, Pereira FD, Fernhall B. Walking economy in make adults with Down syndrome. *Eur J Appl Physiol* 105:153-157, 2009.

141. Collier, S., Kanaley, J, Carhart, R, Frechette V, Tobin M, Hall AK, Luckenbaugh A, Fernhall, B. Effect of 4 weeks of aerobic or resistance exercise training on arterial stiffness, blood flow and blood pressure in pre- and stage-1 hypertensives. *J Hum Hypertens* 22:678-686, 2008.
140. Heffernan KS, Jae SY, Wilund KR, Woods JA, Fernhall, B. Racial differences in central blood pressure and vascular function in young men. *Am J Physiol Heart Circ Physiol* 295:H2380-2387, 2008.
139. Baynard, T, Pitetti, KH, Guerra, M, Unnithan, VB, Fernhall, B. Age related changes in aerobic capacity in individuals with mental retardation: A 20 year review. *Med Sci Sports Exerc* 40:1984-1989, 2008.
138. Collier, S., Kanaley, J, Carhart, R, Frechette V, Tobin M, Bennet N, Luckenbaugh A, Fernhall, B. Cardiac Autonomic Function and Baroreflex Changes Following 4 Weeks of Resistance Versus Aerobic Training in Individuals With Pre Hypertension. *Acta Physiol* 195:339-348, 2009.
137. Jae SY, Heffernan KS, Lee MK, Fernhall B, Park WH. Relation of cardiorespiratory fitness to inflammatory markers, fibrinolytic factors, and lipoprotein(a) in patients with type 2 diabetes mellitus. *Am J Cardiol* 102:700-703, 2008.
136. Jae SY, Heffernan, KS, Lee M, Fernhall B. Arterial structure and function in physically active persons with spinal cord injury. *J Rehabil Med* 40:535-538, 2008.
135. Fernhall B, Agiovlasitis S. Arterial function in youth: window into cardiovascular risk. *J Appl Physiol* 105:325-333, 2008
134. Heffernan KS, Sosnoff JJ, Fahs CA, Shinsako KK, Jae SY, Fernhall B. Fractal scaling properties of heart rate dynamics following resistance exercise training. *J Appl Physiol* 105:109-13, 2008
133. Franklin RM, Baynard T, Weinstock RS, Goulopoulou S, Carhart R Jr, Ploutz-Snyder R, Figueroa A, Fernhall B, Kanaley JA. Autonomic responses to physiological stressors in women with type 2 diabetes. *Clin Auton Res* 18:66-73, 2008.
132. Wilund KR, Tomayko EJ, Evans EM, Kim K, Ishaque MR, Fernhall B. Physical activity, coronary artery calcium, and bone mineral density in elderly men and women: a preliminary investigation. *Metabolism*. 57:584-91, 2008.
131. Heffernan KS, Jae SY, Lee M, Woods JA, Fernhall B. Arterial wave reflection and vascular autonomic modulation in young and older men. *Aging Clin Exp Res*. 20:1-7, 2008.

130. Fernhall, B., Heffernan, K., Jae, S.Y., Hedrick, B. Health Implications of Physical Activity in Individuals with Spinal Cord Injury; a Literature Review. *J Health Human Services Admin.* 20:468-502, 2008.
129. Unnithan, UB., Baynard, T., Potter, CR., Barker, P., Heffernan, KS., Kelly, E., Yates, G. and Fernhall, B. An exploratory study of cardiac function and oxygen uptake during cycle ergometry in overweight children. *Obesity* 15:2573-2682, 2007.
128. Heffernan, KS., Jae, SY., Fernhall, B. Heart rate recovery after exercise is associated with resting QTc interval in young men. *Clin Auton. Res.* 17:356-363, 2007.
127. Heffernan, KS., Sosnoff, JJ., Jae, SY., Gates, GJ., and Fernhall, B. Acute resistance exercise reduces heart rate complexity and increases QTc interval. *Int J Sports Med.*, 29:289-293, 2008.
126. Jae SY, Carnethon MR, Heffernan KS, Choi YH, Lee MK, Park WH, Fernhall B. Slow heart rate recovery after exercise is associated with carotid atherosclerosis. *Atherosclerosis*, 196;256-261, 2008.
125. Heffernan KS, Jae SY, Fernhall B. Racial differences in arterial stiffness after exercise in young men. *Am J Hypertens.* 20:840-5. 2007
124. Heffernan KS, Fahs CA, Shinsako KK, Jae SY, Fernhall B. Heart rate recovery and heart rate complexity following resistance exercise training and detraining in young men. *Am J Physiol Heart Circ Physiol.* 293(5):H3180-6, 2007.
123. Heffernan, KS, Edwards, DG, Rossow L, Jae SY, Fernhall B. External mechanical compression reduces regional arterial stiffness. *Eur J Appl Physiol.* 101(6):735-41, 2007.
122. Jae SY, Carnethon MR, Ahn ES, Heffernan KS, Choi YH, Lee MK, Fernhall B. Association between heart rate recovery after exercise testing and plasminogen activator inhibitor 1, tissue plasminogen activator, and fibrinogen in apparently healthy men. *Atherosclerosis.* 196;256-261, 2008.
121. Baynard T, Jacobs HM, Kessler CM, Kanaley JA, Fernhall B. Fibrinolytic markers and vasodilatory capacity following acute exercise among men of differing training status. *Eur J Appl Physiol.* 101(5):595-602, 2007.
120. Manini T, Marko M, VanArnam T, Cook S, Fernhall B, Burke J, Ploutz-Snyder L. Efficacy of resistance and task-specific exercise in older adults who modify tasks of everyday life. *J Gerontol A Biol Sci Med Sci.* 62(6):616-23, 2007.
119. Jae, SY, Carnethon, MR, Heffernan, KS, Choi YS, Lee, MK, Fernhall, B. Association between cardiorespiratory fitness and prevalence of carotid atherosclerosis among men with hypertension. *Am Heart J.* 153(6):1001-5, 2007.

118. Mika A, Mika P, Fernhall B, Unnithan VB. Comparison of recovery strategies on muscle performance after fatiguing exercise. *Am J Phys Med Rehabil.* 86(6):474-8, 2007.
117. Kanaley J, Baynard T, Franklin RM, Weinstock RS, Goulopoulou S, Carhart R, Ploutz-Snyder R, Figueroa A, Fernhall B. The effects of a glucose load and sympathetic challenge on autonomic function in obese women with and without type 2 diabetes mellitus. *Metabolism.* 56(6):778-85, 2007.
116. Rowland T, Fernhall B. Cardiovascular Responses to Static Exercise: A Re-Appraisal. *Int J Sports Med.* 11:905-8, 2007.
115. Heffernan, KS, Jae, SY, Edwards DG, Kelly EE, Fernhall B. Arterial stiffness following repeated Valsalva maneuvers and resistance exercise in young men. *Appl Physiol Nutr Metab* 32:257-264, 2007.
114. Figueroa A, Baynard T, Fernhall B, Carhart R and Kanaley JA. Endurance training improves post-exercise cardiac autonomic modulation in obese women with and without type 2 diabetes. *Eur J Appl Physiol.*, 100(4):437-44, 2007.
113. Heffernan, KS, Jae, SY, Lee, M, Mojtahedi, M, Evans, EM, Zhou, W, Fernhall, B. Gender differences in QTc interval in young, trained individuals with lower spinal cord injury. *Spinal Cord* 45(7):518-21, 2007.
112. Heffernan, KS, Jae, SY, Echols, GH, Lepine NR, Fernhall, B. Arterial Stiffness and wave reflection following exercise in resistance trained men. *Med Sci Sports Exerc.* 39:842-849, 2007.
111. Jae, SY, E. Ahn, K. Heffernan, J. Woods, M. Lee, W. Park, B. Fernhall. Relation of heart rate recovery after exercise to C-reactive protein and white blood cell count. *Am J Cardiol* 99:707-710, 2007.
110. Figueroa A, Baynard T, Fernhall B, Carhart R and Kanaley JA. Cardiovascular autonomic modulation after brisk walking in middle-aged women with type 2 diabetes and obesity. *Eur J Cardiovasc Prev Rehabil* 14:237-243, 2007.
109. Heffernan, KS, Collier SR, Kelly EE, Jae, SY, Fernhall, B. Arterial Stiffness and Baroreflex Sensitivity Following Bouts of Aerobic and Resistance Exercise. *Int. J. Sports Med,* 27:197-203, 2007.
108. Unnithan, VB, Houser W, Fernhall, B. Evaluation of the energy cost of playing a dance simulation video game in overweight and non-overweight children and adolescents. *Int. J. Sports Med,* 27:804-809, 2006.

107. Santa-Clara, H, Szymanski, L, Ordilly, T, Fernhall, B. Effects of exercise training on resting metabolic rate in postmenopausal African American and Caucasian women. *Metabolism*, 55:1358-1364, 2006.
106. Ferrel, MD, Beah, RL, Szeverenyi, NM, Krch, M, Fernhall, B. An fMRI Analysis of Neural Activity During Perceived Zone-State Performance. *J. Sport Exerc. Psych.*, 28:421-433, 2006.
105. Heffernan, KS, Jae, SY, Rossow, L, Shokunbi, HB, Gibson, EM, Fernhall, B. Effect of single-leg resistance exercise on regional arterial stiffness. *Eur. J. Appl. Physiol.* 98:185-190, 2006.
104. Rowland, T, Heffernan, K, Jae, SY, Echols, G, Fernhall, B. Tissue Doppler assessment of ventricular function during cycling in 7- to 12-yr-old boys. *Med Sci Sports Exerc.* 38:1216-1222, 2006.
103. Rowland, T., Heffernan, K, Jae, SY, Echols, G, Krull, G, Fernhall, B. Cardiovascular responses to static exercise in boys: insights from tissue Doppler imaging. *Eur. J. Appl. Physiol.* 97:637-642, 2006.
102. Jae, SY, Fernhall, B, Lee, M, Heffernan, KS, Lee, MK, Choi, YH, Hong, KP, Park, W. Exaggerated blood pressure response to exercise is associated with inflammatory markers. *J. Cardiopulm Rehabil.* 26:145-149, 2006.
101. Jae, SA, Fernhall, B, Heffernan, KS, Jeong M, Chun, EM, Sung J, Lee SH, Lim YJ, Park, WH. Effect of lifestyle modification on C-reactive protein: contribution of weight loss and aerobic capacity. *Metabolism* 55:825-831, 2006.
100. Goulopoulou, S, Heffernan, KS, Fernhall, B, Yates, G, Baxter-Jones, AD, Unnithan, VB. Heart rate variability during recovery from a Wingate test in adolescent males. *Med Sci Sports Exerc.* 38:875-881, 2006.
99. Jae, SY, Fernhall, B., Heffernan, KS, Kang, M.m Lee, MK. Choi, YH., Hong, KP, Ahn, ES, Park, WH. Exaggerated blood pressure response to exercise is associated with carotid atherosclerosis in apparently healthy men. *J Hypertens.* 24(5):881-887. 2006
98. Jae, SY, Fernhall, B., Heffernan, KS, Kang, M.m Lee, MK. Choi, YH., Park, WH. Chronotropic response to exercise testing is associated with carotid atherosclerosis in healthy middle-aged men. *Eur Heart J.* 27(8):954-9. 2006.
97. Clark, BC, Fernhall, B., Ploutz-Snyder, LL. Adaptations in human neuromuscular function following prolonged unweighting: Part I. Skeletal muscle contractile properties & applied ischemia efficacy. *J. Appl. Physiol.*, 101:2556-263, 2006.
96. Goulopoulou S, Baynard T, Collier S, Giannopoulou I, Figueroa A, Beets M, Pitetti K,

- Fernhall B. Cardiac autonomic control in individuals with Down syndrome. *Am J Ment Retard.* 111:27-34, 2006.
95. Heffernan, KS., Kelly, EE, Collier, SR, Fernhall, B. Cardiac autonomic modulation during recovery from acute endurance versus resistance exercise. *Eur. J. Cardiovasc. Prev Rehabil.*, 13:80-86, 2006.
94. Heffernan KS, Baynard T, Goulopoulou S, Giannopoulou I, Collier SR, Figueroa A, Fernhall B. Baroreflex sensitivity during static exercise in individuals with Down syndrome. *Med Sci Sports Exerc.* 37:2026-2031, 2005
93. Giannopoulou, I, B. Fernhall, R. Carhart, R. S. Weinstock, T. Baynard A. Figueroa, J. A. Kanaley. Effects of diet and/or exercise on the adipocytokine and inflammatory cytokine levels of postmenopausal women with type 2 diabetes. *Metabolism*, 54:866-875, 2005.
92. Fernhall, B., Figueroa, A., Collier, S., Goulopoulou, S., Giannopoulou, I., Baynard, T. Resting Metabolic Rate is Not Reduced in Adult Obese Individuals with Down Syndrome. *Mental Retardation*, 43:391-400, 2005.
91. Szymanski, LM, Kessler, C, and Fernhall, B. Relationship between physical fitness, hormonal replacement therapy and hemostatic risk factors in postmenopausal women. *J Appl. Physiol.* 98:1341-1348, 2005.
90. Giannopoulou, I., L.L. Ploutz-Snyder, R. Carhart, R. S. Weinstock, B. Fernhall, S. Goulopoulou, J.A. Kanaley. Exercise is required for abdominal fat loss in postmenopausal women with type 2 diabetes. *J. Clin Endocrin. Metabolism*, 90:1511-1518, 2005.
89. Figueroa, A., Collier, SR., Baynard, T., Giannopoulou, I., Goulopoulou, S., Fernhall, B. Impaired vagal modulation of heart rate in individuals with Down syndrome. *Clin. Autonomic Res.* 15:45-50, 2005.
88. Fernhall, B., Figueroa, A., Collier, S., Baynard, T, Giannopoulou, I., and Goulopoulou, S. Blunted Heart Rate Response to Upright Tilt in Individuals with Down Syndrome. *Arch. Phys. Med Rehabil.* 86:813-818, 2005.
87. Beets, MW., Pitetti, KH., Fernhall, B. Peak heart rates in youth with mental retardation; Pacer vs treadmill. *Pediatr. Exerc. Sci*, 17:51-61, 2005.
86. Hall, C, Figueroa-Galvez, A, Fernhall, B, Kanaley, J. The energy expenditure of walking and running on a track and treadmill: comparison to prediction equations. *Med Sci Sports Exerc* 36:2228-2234, 2004.
85. Baynard, T., Guerra, M., Pitetti, KH., Fernhall, B. Heart rate variability at rest and exercise in persons with Down syndrome. *Arch. Phys. Med. Rehabil.* 85:1285-1290, 2004.
84. Baynard, T., Unnithan, VB., Pitetti, KH., Fernhall, B. Determination of ventilatory threshold

in adolescents with mental retardation with and without Down syndrome. *Pediatr. Exerc. Sci.* 16:126-137, 2004.

83. Pitetti, KH., and Fernhall, B. Comparing run performance in in adolescents with mental retardation with and without Down syndrome. *Adapted Physical Activity Quarterly*, 21:219-228, 2004.

82. Guerra, M., Llorens, N., Fernhall, B. Chronotropic incompetence in Down syndrome. *Arch. Phys. Med. Rehabil.* 84:1604-1608, 2003.

81. Santa-Clara, H., Fernhall, B., Baptista, F., Mendes, M., Sardinha, LB. Effect of a one year combined exercise training program on body composition in men with coronary artery disease. *Metabolism* 52:1413-1417, 2003.

80. Fernhall, B., Otterstetter, M. Attenuated responses to sympathoexcitation in individuals with Down syndrome. *J. Appl. Physiol.* 94:2158-2165, 2003.

79. Fernhall, B., Pitetti, K., Guerra, M. Impact of obesity and Down syndrome on maximal heart rate and work capacity in youth with mental retardation. *Portugese Journal of Sport Science*, 3(2):89-91, 2003.

78. Baynard T, Miller WC, Fernhall B. Effects of exercise on vasodilatory capacity in endurance- and resistance-trained men. *Eur J Appl Physiol.* 89(1):69-73, 2003.

77. Santa-Clara H, Szymanski L, Fernhall B. Effect of exercise training on blood pressure in postmenopausal Caucasian and African-American women. *Am J Cardiol* 91(8):1009-11, 2003.

76. Guerra, M., Pitetti, K., Fernhall, B. Cross validation of the 20-m shuttle run test for adolescents with Down syndrome. *Adapted Physical Activity Quarterly*, 20:70-79, 2003.

75. Fernhall, B., and Unnithan, V.B. Physical activity, metabolic issues, and assessment. *Phys. Med. Rehabil. Clin. N. Am.* 13:925-947, 2002.

74. Santa-Clara H, Fernhall B, Mendes M, Sardinha LB. Effect of a 1 year combined aerobic- and weight-training exercise programme on aerobic capacity and ventilatory threshold in patients suffering from coronary artery disease. *Eur J Appl Physiol*, 87:568-75, 2002.

73. Kokkinos, PF, Andreas, PE, Coutoulakis, E, Colleran, J, Narayan, P, Dotson, CO, Choucair, W, Farmer, C, Fernhall, B. Determinants of exercise blood pressure response in normotensive and hypertensive women: role of cardiovascular fitness. *J. Cardiopulmonary Rehabil.* 22:178-183, 2002.

72. Pitetti, KH, Fernhall, B, Figoni, S. Comparing two regression formulas that predict VO_2 peak using the 20-m shuttle run for children and adolescents. *Pediatr. Exerc. Sci.*

14:125-134, 2002.

71. Rowland, T., Unnithan, V.B., Fernhall, B., Baynard, T., Lange, C. Left ventricular response to dynamic exercise in young cyclists. *Med. Sci. Sports Exerc.* 34:637-642, 2002.

70. Vescovi, J.D., Zimmerman, S.L., Miller, W.C. Fernhall, B.. Effects of clothing on accuracy and reliability of air displacement plethysmography. *Med Sci Sports Exerc*, 34:282-285, 2002.

69. Glass, J.N., Miller, W.C., Szymanski, L.M., Durstine, J.L. & Fernhall, B.. Physiological responses of obese African-American and Caucasian women to a weight-loss intervention. *J. Sports Med. Physical Fitness* 42:56-64, 2002.

68. Fernhall, B., K. Pitetti. Limitations to work capacity in individuals with intellectual disabilities. *Clin. Exerc. Physiol.* 3:176-185, 2001.

67. Vescovi, J.D., S.L. Zimmerman, W.C. Miller, L. Hildebrandt, R.L. Hammer, B. Fernhall. Validity of the BOD POD® for measuring percent body fat in a heterogenous group of adults. *European J. Appl. Physiol.* 85:326-332, 2001.

66. Sculco, A.D., Paup, D.C., Fernhall, B., Sculco, M.J. Effects of aerobic exercise on low back pain patients in treatment. *The Spine Journal*, 1:95-101, 2001.

65. Fernhall, B, McCubbin, J, Pitetti, K, Rintala, P, Rimmer, J, , Millar, AL, de Silva, A. Prediction of maximal heart rate in individuals with mental retardation. *Med. Sci. Sports Exerc.*, 33:1655-1660, 2001.

64. Keeler, L.K., Finkelstein, L.H., Miller, W., Fernhall, B. Early phase adaptations of traditional-speed vs superslow resistance training on strength and aerobic capacity in sedentary individuals. *J. Strength Cond. Res.*, 15:309-314, 2001.

63. Pitetti, KH, Yarmer, DA, and Fernhall, B. Cardiovascular fitness and body composition of youth with and without mental retardation. *APAQ* 18:127-141, 2001.

62. Fernhall, B, Szymanski, LM, Gorman, P, Kamimori, G. Both atenolol and propranolol blunt the fibrinolytic response to exercise but not resting fibrinolytic potential. *Am. J. Cardiol.* 86:1398-1400, 2000.

61. Fernhall, B., Pitetti, K., Millar, L., Hensen, T., Vukovich, M. Cross validation of the 20 m shuttle run in children with mental retardation. *APAQ* 17:402-412, 2000.

60. Vescovi, J., and Fernhall, B. Cardiac rehabilitation and resistance training: Are they compatible? *J. Strength Cond. Res.* 14:241-247, 2000.

59. Pitetti, KH, Millar, AL, and Fernhall, B. Reliability of a peak performance treadmill test for children and adolescents with and without mental retardation. *APAQ*, 17:322-332, 2000.

58. Guerra, M, Geronimo, C, Cuadrado, E, Fernhall, B. Physical fitness levels of sedentary and active individuals with Down syndrome. *APAQ*, 17:310-321, 2000.
57. Fernhall, B., Pitetti, K.H. Leg strength is related to endurance run performance in children and adolescents with mental retardation. *Ped. Exerc. Sci.* 12:324-333, 2000.
56. Kokkinos, P.F., Fernhall, B. Physical activity and high density lipoprotein cholesterol levels. *Sports Medicine*, 28:307-314, 1999.
55. Otterstetter, R, Szymanski, LM, Kamimori, GH, Kessler, CM, Gold, MR, Fernhall, B. Effect of maximal exercise on hemostatic markers in users and nonusers of oral contraceptives. *Am. J. Obstet. Gynecol.*, 181:958-963, 1999.
54. Pitetti, K, Yongmans, B, and Fernhall, B. Reliability of peak exercise testing in youths with multiple disabilities. *APAQ*, 16:362-371 1999.
53. Granat-Steffan, H, Elliott, W., Miller, W, Fernhall, B. Ability to predict substrate utilization during exercise in obese and nonobese women. *Eur. J. Appl. Physiol.* 80:233-239, 1999.
52. Horvat, M., Croce, R., Pitetti, K., Fernhall, B. Comparison of isokinetic peak force and work parameters in youth with and without mental retardation. *Med. Sci Sports Exerc.* 31:1190-1195, 1999.
51. Thomas, D.Q., Fernhall, B., Granat, H. Changes in running economy during a 5 km run in trained male and female runners. *J. Strength and Conditioning Res.*, 13:162-167, 1999.
50. Fernhall, B, Szymanski, LM, Gorman, PA, Milani, J, Paup, DC, and Kessler, CM. Fibrinolytic activity is not dependent upon exercise mode in post-myocardial infarction patients. *Eur. J. Appl. Physiol.* 78:247-252, 1998.
49. Klebanoff, R, Miller VT, and Fernhall, B. Effects of exercise and estrogen therapy on lipid profiles of postmenopausal women. *Med. Sci. Sports Exerc.* 30:1028-1034, 1998.
48. Milani, J, Fernhall, B., Gorman, P., Paup, D. Impact of steady state and exercise modality on estimating oxygen consumption in men with and without coronary artery disease. *J. Cardiopulmonary Rehabil.* 18:129-138, 1998.
47. Forman, JN, Miller, WC, Szymanski, LM, Fernhall, B. Differences in resting metabolic rates of inactive obese African-American and Caucasian women. *Int. J. Obesity.* 22:215-221, 1998.
46. Fernhall, B., Pitetti, KH, Vukovich, MD, Stubbs, N, Hensen, T, Winnick, JP, Short, FX. Validation of cardiovascular fitness field tests in children with mental retardation. *Am. J. Ment, Retard.* 102:602-612, 1998.

45. Emerick, P., Teed, K., Rusk, G., Fernhall, B. Predictors of marathon performance in female runners. *Sports Med. Training Rehabil.* 8:23-36, 1997.
44. Fernhall, B., Szymanski, L., Gorman, P., Milani, J., Paup, D., Kessler, CM. Fibrinolytic activity is similar in physically active men with and without a history of myocardial infarction. *Arterioscler. Thromb. Vasc. Biol.* 17:1106-1113, 1997.
43. Pitetti, KH, Fernhall., B., Stubbs, N., Stadler, LV. A step test for evaluating aerobic fitness in children and adolescents with mental retardation. *Ped. Exerc. Sci.*, 9:127- 135, 1997.
42. Pitetti, KH, Fernhall, B. Aerobic capacity as related to leg strength in youths with mental retardation. *Ped. Exerc. Sci.*, 9:223-236, 1997.
41. Cosmas, AC, Kernan, K., Buck, E., Fernhall, B., Manfredi, TG. Exercise and dietary cholesterol alter rat myocardial ultrastructure. *Eur. J. Appl. Physiol.* 75:62-67, 1997.
40. Milani, J. Fernhall, B., Manfredi, T. Estimating oxygen consumption during treadmill and arm ergometry activity in males with coronary artery disease. *J. Cardiopulmonary Rehabil.*, 16:394-401, 1996.
39. Connolly, D., Fernhall, B., McHugh, M. Reliability of the rating of perceived exertion scale in a population with coronary heart disease. *Sports Med. Training and Rehabil.*, 7:7-16, 1996.
38. Fernhall, B., Pitetti, K., Stubbs, N., and Stadler, L. Validity and reliability of the 1/2 mile run-walk as an indicator of aerobic fitness in children with mental retardation. *Ped. Exerc. Sci.*, 8:130-142, 1996.
37. Fernhall, B., Pitetti, K., Rimmer, J., McCubbin, J., Rintala, P., Millar, L., Kittridge, J., and Burkett, L. Cardiorespiratory capacity of individuals with mental retardation including Down syndrome. *Med. Sci. Sport. Exerc.* 28:366-371, 1996.
36. Fernhall, B., Kohrt, W., Burkett, L., and Walters, S. Relationship between the lactate threshold and cross-country run performance in high school male and female runners. *Ped. Exerc. Sci.* 8:37-47, 1996.
35. Thomas, D.Q., Fernhall, B., Blanpied, P., and Stillwell, K. Changes in running economy and mechanics during a submaximal 5-km run. *J. Strength Conditioning Res.*, 9:170-175, 1995.
34. Sewall, K., and Fernhall, B. Physiological characteristics and their relationship to performance in off-road cycling. *Sports. Med. Training & Rehabil.*, 6:89-95, 1995.
33. Santoro-Loose, M. and Fernhall, B. Differences in quality of life among male and female cardiac rehabilitation participants. *J. Cardiopulmonary Rehabil.*, 15:225-231, 1995.

32. Rajotte, R., Manfredi, T.G., Fernhall, B., and Iacobucci, R.P. Laterality and severity of peripheral vascular disease of males and females. *J. Vascular Tech.* 19:11-15, 1995.
31. Fernhall, B. Physical fitness and exercise training of individuals with mental retardation. *Med.Sci. Sports Exerc.* 25:442-450, 1993.
30. Tefft, L.R., Fernhall, B. Lack of acute blood lipid changes following prolonged exercise in subjects with and without coronary heart disease. *J. Cardiopulmonary Rehabil.* 13:432-438, 1993.
29. Riebe, D., Fernhall, B. Left ventricular function and blood CK levels during exercise in anabolic steroid users and non-users. *Sports Med. Training Rehabil.* 4:57-65, 1993.
28. Pitetti, K.H., Rimmer, J.H., Fernhall, B. Physical fitness and adults with mental retardation-an overview of current research and future directions. *Sports Med.* 16:23-56, 1993.
27. Millar, L.A., Fernhall, B., Burkett, L.N. Effects of aerobic training adolescents with Down syndrome. *Med Sci. Sports Exerc.* 25:270-274, 1993.
26. Riebe, D., Fernhall, B., Thompson, P.D. The blood pressure response to exercise in anabolic steroid users. *Med. Sci. Sports Exerc.*, 24:633-637, 1992.
25. Fernhall, B., Manfredi, T., and Congdon, K. Prescribing water-based exercise from treadmill and arm ergometry in cardiac patients. *Med. Sci. Sports Exerc.*, 24:139-143, 1992.
24. Fernhall, B. Using water exercise with cardiac patients. *AACVPR Syllabus*, November:425-435, 1991.
23. Schwartz, S., Fernhall, B., and Plowman, S.A. The effect of music on exercise performance. *Journal of Cardiopulmonary Rehabilitation*, 10:312-316, 1990.
22. Riebe, D., Fernhall, B. Anabolic steroids: effects and side effects. *Arizona Journal of Health, Physical Education, Recreation and Dance*, 28: 24 - 26, 1990.
21. Fernhall, B., Congdon, K., Manfredi, T. ECG response to water and land based exercise in patients with cardiovascular disease. *Journal of Cardiopulmonary Rehabilitation*, 10: 5 - 11, 1990.
20. Fernhall, B., Millar, L.A., Tymeson, G., and Burkett, L.N. Reliability of maximal exercise testing of mentally retarded adolescents and adults. *Archives of Physical Medicine and Rehabilitation*, 71: 1065-1066, 1990.
19. Fernhall, B., Kohrt, W. The effect of training specificity on maximal and submaximal physiological responses to treadmill and cycle ergometry. *Journal of Sports Medicine and*

Physical Fitness, 30: 268 - 275, 1990.

18. Burkett, L., Chisum, J., Stone, W., Fernhall, B. Exercise capacity of untrained spinal cord injured individuals and the relationship of peak oxygen uptake to level of injury. *Paraplegia*, 28: 512-521, 1990.

17. Beasley, J., Fernhall, B., Plowman, S.A. Effect of optimized and standard bicycle ergometry on VO₂max in trained runners and cyclists. *Research Quarterly for Exercise and Sport*, 60: 373-378, 1989.

16. Buck, E., Fernhall, B., Manfredi, T. Effects of exercise and cholesterol feeding in rats. *Journal of Sports Medicine and Physical Fitness*, 29: 71-76, 1989.

15. Fernhall, B., Tymeson, G., Millar, L. and Burkett, B. Cardiovascular fitness testing and fitness levels of adolescents and adults with mental retardation including Down Syndrome. *Education and Training in Mental Retardation*, 24:133-138, 1989.

14. Fernhall, B., Fox, C. Physical fitness: The problem-a solution. *Arizona Journal of Physical Education, Recreation, and Dance*, 28: 12 - 13, 1988.

13. Vehrs, P., Plowman, S.A., and Fernhall, B. Physiological responses and adaptations to inversion. *Archives of Physical Medicine and Rehabilitation*. 69: 950-954, 1988.

12. Fernhall, B., Tymeson, G., Webster, G. Cardiovascular fitness of the mentally retarded: a critical review. *Adapted Physical Activity Quarterly*, 5: 12-28, 1988.

11. Fernhall, B., Tymeson, G. Validation of cardiovascular fitness field tests for persons with mental retardation. *Adapted Physical Activity Quarterly*, 5: 49-59, 1988.

10. Szymanski, L., Fernhall, B., Plowman, S.A. Graded exercise testing in hypertensive and normotensive subjects: a hemodynamic and electrocardiographic comparison. *Journal of Cardiopulmonary Rehabilitation*, 10: 360 - 370, 1988.

9. Fernhall, B., Tymeson, G. Status of cardiovascular fitness among individuals with mental retardation. *Illinois Journal of HPER*. 23: 20-21, 1987.

8. Fernhall, B., and Tymeson, G. Graded exercise testing of mentally retarded adults. *Archives of Physical Medicine and Rehabilitation*, 68: 363-365, 1987.

7. Fernhall, B. A scientific rationale for exercise. *Thresholds in Education*, 12: 2-4, 1986.

6. Fernhall, B., and Tymeson, G. The relationship between cardiovascular laboratory and field tests with mild and moderately mentally retarded adults. In: *Proceeding of the Fifteenth National Conference on Physical Activity for the Exceptional Individual*. Woodland Hills, CA, October, 1986. pp. 147-153.

5. Fernhall, B. Exercise and coronary heart disease: an historical perspective. *Arizona Journal of Physical Education, Recreation and Dance*. 28: 18-23, 1986.
4. Fernhall, B., Burkett, L, and Walters, S. The effect of training on exercise induced R-wave amplitude in young females. *Medicine and Science in Sports and Exercise*, 18: 128-133, 1986.
3. Burkett, L., Fernhall, B., and Walters, S. Physiologic effect of distance running training on teenage females. *Research Quarterly for Exercise and Sport*, 56: 215-220, 1985.
2. Fernhall, B., Burkett, L. and Walters, S. Exercise induced R-wave amplitude changes in adolescent females. *Arizona Journal of Physical Education, Recreation, and Dance*. 26: 13-18, 1984.
1. Fernhall, B., Manfredi, T., and Rierson, H. Effect of ten weeks of cardiac rehabilitation on blood clotting and risk factors. *Physician and Sportsmedicine*, 12: 85-96, 1984.

Books and Book Chapters:

Fernhall, B., and Baynard, T. Intellectual Disability, In: Clinical exercise Physiology, 3rd Ed. Ehrman, Gordon Visich and Keteyian, Eds. Human Kinetics, Champaign, IL, pp. 617-631, 2013.

Fernhall, B. Intellectual Disability, In: ACSM's Guidelines for Exercise Testing and Prescription, 9th ed. Wolters Kluwer/Lippincott, Williams and Wilkins. In chapter 10, 2013.

Fernhall, B. Arterial Function in Children: Effect of Exercise and Lifestyle. In: Lifestyle Medicine, 2nd ed. Rippe, Ed. CRD Press, Boca Raton, FL. Pp. 1141-1153, 2013.

Smith, D.L. and Fernhall, B. Advanced cardiovascular exercise physiology. Human Kinetics, 2011.

Fernhall, B. and Heffernan, KS. Resistance training strategies for individuals with mental retardation. In: Resistance Training for Special Populations, Swank and Hagerman, Eds. Delmar, Clifton Park, 2010, pp. 289-304.

Fernhall, B. The Young Athlete with a Mental Disability. In: The Young Athlete, The Encyclopaedia of Sports Medicine, An IOC Medical Commission Publication. Hebestreit, H., and Bar-Or, O., Eds. Blackwell Publishing, Oxford, 2008, pp. 403-412.

Fernhall, B. Mental Retardation. In: Clinical Exercise Physiology: application and physiological principles. LeMura and von Duvillard, Eds. Lippincott, Williams and Wilkins, Philadelphia, 2004, pp.617-627.

Pitetti, KH., and Fernhall, B. Mental Retardation. In: Exercise Testing and Prescription for Special Cases. Skinner, J. Ed. Lippincott, Williams and Wilkins, Philadelphia, 2005, pp. 392-403.

Fernhall, B. Mental Retardation. In: *Exercise Management for Persons with Chronic Disease and Disabilities, 2nd. Edition*, Durstine and Moore, Eds. Human Kinetics, 2003, pp.

Paup, D.C. and Fernhall, B. *Skills, Drills and Strategies for Badminton*. Holcomb Hathaway Publishers, Scottsdale, AZ. 2000.

Fernhall. Mental Retardation. In: *Exercise Management for Persons with Chronic Disabilities*. American College of Sports Medicine, Human Kinetics Publishers, 1997. 221-226.

Porcari, Fernhall and Wilson. Water based exercise in cardiac rehabilitation. In: *Training Techniques in Cardiac Rehabilitation*, Human Kinetics Publishers, 1997, pp. 88-105.

Fernhall. Exercise for special populations. In: *Current Therapy in Sports Medicine*, Shephard and Torg (eds), Mosby, 1995, pp.570-573.

Editorial Boards and Associate Editorships:

| | |
|-----------------|--|
| 2014 to present | Associate Editor, Exercise and Sport Science Reviews |
| 2010 to 2011 | Associate Editor, Adapted Physical Activity Quarterly |
| 2005 to present | Associate Editor, Medicine and Science in Sports and Exercise |
| 2002 to 2010 | Consulting Editor, Mental Retardation |
| 2000 to 2012 | Adapted Physical Activity Quarterly (Editorial Board) |
| 1991 to 1998 | Sports Medicine, Training and Rehabilitation (Editorial Board) |
| 2001 to present | Journal of Cardiopulmonary Rehabilitation (Editorial Board) |
| 1994 – 1998 | Journal of Cardiopulmonary Rehabilitation (Editorial Board) |

Ad hoc Journal Reviewing:

The Lancet

Diabetes
Diabetes Care
Acta Physiologica
American Journal of Cardiology,
Archives of Childhood Diseases
Archives of Physical Medicine and Rehabilitation
European Journal of Applied Physiology
European Journal of Clinical Nutrition
American Journal of Physiology
Journal of Applied Physiology
Metabolism
Pediatric Exercise Science
Pediatric Rehabilitation
Exercise and Sport Science Reviews
Adapted Physical Activity Quarterly
Medicine and Science in Sport and Exercise
Sports Medicine
Research Quarterly for Exercise and Sport
Journal of Cardiopulmonary Rehabilitation
Sports Medicine, Training and Rehabilitation
Mental Retardation
American Journal on Mental Retardation
International Journal of Sports Medicine

Invited Presentations (past 5 years)

Does exercise promote or prevent arterial aging? Invited lecture at Erasmus University, Rotterdam, The Netherlands, February, 2017.

Inflammation, exercise and arterial function. Invited lecture at Radboud University, Nijmegen, The Netherlands, February, 2017.

Effect of Inflammation on Arterial Function: impact of age, exercise and physical activity. Presented at Pulse of Asia, Seoul, South Korea, October 2016.

Inflammation, vascular function and exercise. Invited lecture at North American Artery Society, Chicago, IL, September 2016.

Exercise and Multiple Sclerosis. Invited lecture at Murdoch University, Perth, Australia, August, 2016.

Exercise, vascular function and inflammation. Invited lecture at Western Australia University, Perth, Australia, August 2016.

Energy expenditure, physical activity and field testing performance in people with intellectual disabilities. Invited lecture at the International Association for the Scientific Study of Intellectual and Developmental Disabilities, Melbourne, Australia, August 2016.

Resistance exercise and arterial aging. Invited lecture at the University of Lisbon, Lisbon, Portugal, December 2014.

Does exercise promote arterial aging? Invited lecture at Mahidol University, Bangkok, Thailand, October, 2014.

Arterial stiffness, exercise and chronic kidney disease: is exercise training beneficial? Invited lecture at Pulse of Asia, Athens, Greece, June, 2014.

Does resistance exercise promote premature arterial aging? Invited key note at the International Conference on Sport and Health, Guangzhou, China, June 2014.

Exercise and arterial function. Invited lecture at Appalachian State University, Boone NC, March 2014.

Resistance exercise and arterial function. Invited lecture at Bern University of Applied Sciences, Bern, Switzerland, January, 2014.

Physical activity in individuals with intellectual disabilities: where are we and where are we going? Invited lecture at the American Heart Association Scientific Session, Dallas, TX, November, 2013.

Developing a career in physical activity: is funding available? Invited lecture at the American Heart Association Scientific Session, Dallas, TX, November, 2013.

Does resistance exercise promote premature arterial aging? Invited lecture at Pulse of Asia, Seoul, South Korea, April, 2013.

Exercise and Multiple Sclerosis. Invited lecture at Karolinska Institute, Stockholm, Sweden, October 2013.

Arterial function in cardiac patients. Invited lecture at the European College of Sports Science, Bruges, Belgium, July 2012.

Does resistance exercise promote premature arterial aging? Invited lecture at University of Dublin, Dublin, Ireland, July 21012.

Two "Hot" topics in Exercise and Cardiovascular Research: Disability and Resistance Exercise Training. Invited lecture, Bern University of Applied Sciences, Bern, Switzerland, January 2012.

Does exercise improve arterial function in cardiac patients? Invited lecture at the World congress of Physical Therapy, Amsterdam, The Netherlands, July 2011.

Resistance training and vascular reactivity/endothelial function. Invited lecture as part of a symposium on resistance training and vascular disease risk. American College of Sports Medicine, Denver, CO, May, 2011.

Young body, old arteries: a cause of increased cardiovascular risk in African-Americans? King James McCristal Distinguished Scholar Lecture, UIUC, August 2010.

Heart rate recovery: a measure of fitness or health? Invited lecture as part of a symposium on heart rate recovery. American College of Sports Medicine, Baltimore, MD, June 2010.

Differential changes in arterial stiffness following aerobic and static exercise in boys vs men. Presented at the North American Society for Pediatric Exercise Medicine, Niagara-on-the-Lake, Canada, September 2010.

Hot topics in exercise research. Invited lecture at Ramon Llull University, Barcelona, Spain, Dec 2010.

Exercise and arterial function. Invited lecture: William Duquet Lecture, Thim van der Laan International Academy of Physiotherapy, Landquart, Switzerland, Jan, 2010.

Obesity Is Associated With Arterial Diameter and Stiffness In Young Men. Presented at the NPAMC AHA conference, San Francisco, CA, March, 2010.