Curriculum Vitae

NAME: Peter H. Brubaker

ADDRESS:

Residence: 5478 Heritage Oaks Lane

Winston-Salem, NC 27109

Business: Box 7868 Department of Health & Exercise Science

Wake Forest University

Winston-Salem, NC 27109

PERSONAL INFORMATION:

Birthplace: Westhampton Beach, NY

Birthdate: December 27, 1961

Marital Status: Lisa Bross Brubaker

Children: Ryan Bross Brubaker (7/24/92)

Ashley Nicole Brubaker (9/23/94)

Colin Peter Brubaker (10/6/98)

EDUCATION:

Temple University, Philadelphia, PA.

Ph.D. in Exercise Physiology/Cardiovascular Pathophysiology

(May 1991).

Wake Forest University, Winston-Salem, NC.

M.A. in Health and Exercise Science (Aug. 1986).

East Stroudsburg University, E. Stroudsburg, PA.

B.S. in Exercise Physiology (May 1984).

PROFESSIONAL EXPERIENCE:

Department Chair, Department of Health and Sport Science, Wake Forest University, Winston-Salem, NC. July 2017 – present.

Faculty Athletic Representative, Wake Forest University. Winston-Salem, NC. August 2016 – present.

Graduate Program Director, Department of Health and Sport Science, Wake Forest University, Winston-Salem, NC. December 2013 – June 2017.

Professor, Department of Health and Sport Science, Wake Forest University, Winston-Salem, NC. July 2006 - present.

Associate Professor, Department of Health and Sport Science, Wake Forest University, Winston-Salem, NC. July 1998 – June 2006.

Assistant Professor, Department of Health and Sport Science, Wake Forest University, Winston-Salem, NC. July 1993 – June 1998.

Adjunct Assistant Professor, Department of Health and Sport Science, Wake Forest University, Winston-Salem, NC. January 1991 - June 1993.

Executive Director, <u>Healthy Exercise & Lifestyle Programs</u> (HELPS), Department of Health and Exercise Science, Wake Forest University, Winston-Salem, NC. July 2004 – May 2015

Director, Wake Forest Cardiac Rehabilitation Program, Departments of Medicine and Health & Exercise Science, Wake Forest University, Winston-Salem, NC. July 1991 – June 2004.

Research Associate and Exercise Testing Coordinator, Heart Failure/Transplant Exercise Laboratory, Temple University Hospital, Philadelphia, PA. June 1989 - June 1991.

Director of Human Performance Laboratory, Moss Rehabilitative Hospital, Philadelphia, PA. June 1990 - June 1991.

Teaching Assistant, Department of Physical Education, Temple University, Philadelphia, PA. August 1987 - May 1990.

Research Assistant, Cardiovascular Research Laboratory, Temple University School of Medicine, Philadelphia, PA. June 1989 - June 1989.

Laboratory Coordinator, Human Performance Laboratory, (DUPAC) Duke University Medical Center, Durham, NC. July 1986 - July 1987.

Graduate Assistant, Wake Forest University, Department of Health and Exercise Science, Winston-Salem, NC. August 1984 - July 1986.

PROFESSIONAL MEMBERSHIPS:

American Association of Cardiovascular and Pulmonary Rehabilitation (Fellow)

American College of Sports Medicine (National and Southeast Chapter) (Fellow)

American Heart Association (Member)

Heart Failure Society of America (Member)

North Carolina Cardiopulmonary Rehabilitation Association (Member)

HONORS:

WFU Faculty Athletic Representative to NCAA and ACC- Aug. 2016-present

Denton Family Faculty Fellowship Wake Forest University 2013-2015

Trident Professor (Teaching Excellence) from Delta Delta Delta Sorority, Wake Forest University 2010-2011.

Excellence in Research Award. Wake Forest University Feb., 1999

Distinguished Service Award. North Carolina Cardiopulmonary Association, 1998

Nominee, Graduate Student Association Faculty Excellence Award, 2002, 2009. Wake Forest University

Resident Faculty Director, Casa Artom, Venice Italy. Fall 2003, Summer 2016

Westhampton Beach High School Hall of Fame: Inducted 2005

EXTERNAL PROFESSIONAL COMMITTEES AND SERVICE:

Associate Editor (Literature Update), Journal of Cardiopulmonary Rehabilitation and Prevention (2013-2022).

American Heart Association's Behavioral Science Peer Review Study Section (2011-2015)

Associate Editor, Medicine and Science in Sports and Exercise (2005-2013)

International Relations Ad-Hoc Committee, American Association of Cardiovascular and Pulmonary Rehabilitation (2011- 2013)

Scientific Advisory Committee, American Association of Cardiovascular and Pulmonary Rehabilitation (2006-2009).

Annual Program Planning Committee, American College of Sports Medicine (2006-2009)

Clinical Section Editor, American College of Sports Medicine Guidelines for Exercise Testing and Prescription. 7th Edition (2005)

International Subcommittee, Committee on Certification Registry Board, American College of Sports Medicine (2002-2005)

Treasurer/Secretary, American Association of Cardiovascular and Pulmonary Rehabilitation. (2001-2003)

Cardiovascular Disease Section Editor, Exercise and the Management of Patients with Chronic Disease and Disability. 2002. Human Kinetics Publisher

Vice President, American Association of Cardiovascular and Pulmonary Rehabilitation. (1999-2001)

Past-President, North Carolina Cardiopulmonary Rehabilitation Association (1998/1999)

President, North Carolina Cardiopulmonary Rehabilitation Association (1997/1998)

President Elect, North Carolina Cardiopulmonary Rehabilitation Association (1996/1997)

Research Committee, American Association of Cardiovascular and Pulmonary Rehabilitation. (1997-2000)

Board of Directors, American Association for Cardiovascular and Pulmonary Rehabilitation. 1994-1996)

Committee for Certification and Education (chair, ETT Ed. Materials), American College of Sports Medicine. (1993-96)

Certification Director, American College of Sports Medicine Exercise Test

Wake Forest University. (1991- 2005)

Technologist & Specialist,

Regional Vice President for Certification, North Carolina Cardiopulmonary Rehabilitation Association. (1993-96)

Executive Committee, Board of Directors, and Chair of Continuing Education Committee, North Carolina Cardiopulmonary Rehabilitation Association. (1991-1997)

WFU INTERNAL COMMITTEE SERVICE

Search Committee – Vice President for Admissions (2018-19)

Faculty Athletics Committee (2012-2016)

Steering Committee – University Wellbeing (2014-present)

Faculty Advisor for;

WFU Chapter of Health Occupation Students of America (HOSA) (2010-17).

WFU Running Club (2010-17)

Institutional Review Board (2008 – 2013)

University-Wide Tenure and Promotion Advisory Panel (2010-2012)

Leadership Development Program (2011-2012)

Research Advisory Committee (2005-2008)

COURSES TAUGHT AT WFU (1-2 per semester)

HES 350 Human Physiology (undergraduate)

HES 352 Human Gross Anatomy (undergraduate)

HES 354 Exercise Physiology (undergraduate)

HES 353 Assessment Techniques in Exercise Science (undergraduate)

HES 760 Cardiopulmonary Disease Management (graduate)

HES 765 Clinical Exercise Testing and Prescription (graduate)

MANUSCRIPT REVIEWER:

Medicine and Science in Sport and Exercise (Editorial Board

American Journal of Cardiology (Editorial Board 2005-2010)

Journal of Cardiopulmonary Rehabilitation and Prevention (Editorial Board 2010-22)

ACSM's Health & Fitness Journal (Editorial board 2010-2014)

American Journal of Medicine and Sports (2001-2003 -Editorial Board)

Journal of Clinical Exercise Physiology (1999-2002 – Editorial Board)

Circulation

Circulation - Heart Failure

International Journal of Cardiology

International Journal of Sports Medicine

ACSM's Guidelines for Exercise Testing and Prescription 8th Edition

EXTERNAL/INTERNAL FUNDING:

Active (needs updating)

PALS R33 (Sept. 2022)

MoTrPAC (July 2022)

BEACON R21 (Aug. 2022)

Photobiomodulation (July 2022) WFU Pilot Research Grant

Completed

NIH R21 CA226960 (PI Hundley)

IMPROVING EXERCISE CAPACITY WITH A TAILORED PHYSICAL ACTIVITY INTERVENTION IN LYMPHOMA PATIENTS UNDERGOING TREATMENT

Period of Support: 12/01/2018 - 11/30/2023

Direct Cost: 532,738

Objective

This project will test the efficacy of the patient developed exercise physical activity intervention for preventing left ventricular dysfunction and exercise intolerance among patients with lymphoma treated with potentially cardiotoxic chemotherapy.

NIH/NHLBI R01 (PI Hundley)

Cardiovascular Injury, Exercise Intolerance and Fatigue after Adjuvant Chemotherapy for Stage I-III Breast Cancer

Co-Investigator (Co-Director CPX Core lab) 15%

Period of Support: 07/01/2015-06/30/2022

Director Cost \$8,600,000

<u>Objective</u>: The purpose of this multi-center cohort study is to determine the time course and interrelationship of abnormalities of cardiovascular function, exercise capacity and fatigue in 1,000 women (and 500 controls) receiving adjuvant chemotherapy for the treatment of Stage I-III breast cancer.

NIH/NIDDK 2U01DK057136-17 (PI Espeland)

Action for Health in Diabetes (LOOK AHEAD-E) Extension Study Biostatistics Research Center

Co-Investigator (Accelerometry Core-Lab)

Period of support 09/30/20016 - 01/31/2021

Direct Cost (subcontract): \$43,286

<u>Objective</u>: This extension of the Look AHEAD study will follow approximately 3800 overweight and obese subjects with type 2 diabetes for an additional 4.5 years to determine whether random assignment to an intensive lifestyle intervention focused on weight loss achieved through healthy eating and increased physical activity, relative to a control group, leads to improved long-term health in later life.

NIH/NHLBI R01 HL127028 (PI Bertoni)

Transition from risk factors to heart failure: Prevalence, pathogenesis, and phenomics (MESA-ancillary)

Co-Investigator

Period of Support 07/01/15 - 06/30/19

Direct Costs: \$92,370 (sub-award)

Objective: The goals of this study are to determine the prevalence of early heart failure (HF); elucidate the pathogenesis of early HF; and delineate the key antecedent risk factor combinations associated with the

transition from Stage B to Stage C HF among 3,500 older adults attending the year-15 examination of the Multi-Ethnic Study of Atherosclerosis (MESA).

NIH/NIA R01 AG018915 (PI Kitzman)

Study of the effects of caloric restriction and exercise training II (SECRET II)

Co-Investigator

Period of Support: 04/01/15-3/31/20

Direct Cost: \$210,770 (sub-award)

Objective: The primary aim of this study is to conduct a randomized, single-blinded 24-week intervention trial of resistance training (RT) added to caloric restriction (CR) + aerobic exercise training (AT) in 100 overweight/obese (BMI > 28), heart failure with preserved ejection fraction (HFpEF) patients age >60 years

WFU Comprehensive Cancer Center

Understanding Exercise Intolerance After Treatment for Cancer

Co-Principle Investigator (Hundley)

Period of Support: 1/1/16-12/31/17

Direct Costs: \$40,000.

Objective

This pilot application will provide the preliminary data necessary to submit the renewal of NIH grant R01CA167821. This renewal seeks to investigate the effects of cancer treatment on vascular and skeletal muscle dysfunction and their relationship to exercise intolerance. An MRI exercise stress protocol that simultaneously assesses cardiac, vascular, and skeletal muscle function at rest and after upright treadmill exercise in 16 patients receiving treatment for cancer and 16 healthy control subjects.

Maya Angelou Center for Health Equity (MACHE).

Exercise Intervention with Cocaine-Addicted Homeless Men

Co-Principle Investigator (Arnold)

Period of Support: 7/1/16-06/30/17

Direct Costs:\$24,624

Objective

This proposal will focus on homeless, cocaine abusing men who are living in a homeless shelter in Forsyth County, NC. We will recruit a sample of homeless men who self-report crack cocaine use (N=10) to participate in a pilot study of the feasibility and acceptability of implementing a standardized, 6 week exercise intervention. The Specific Aims are as follows: 1) to assess the feasibility and acceptability of our approach to recruiting homeless men from a local homeless shelter; 2) to assess the feasibility and acceptability of our proposed physical assessment and other outcome measurements; and 3) to examine adherence and retention rates for this pilot study. This study will provide important data to support our R21 (and later R01) proposal to NIDA. In addition, this project will establish a new multi-disciplinary translational science team

NIH/NHLBI R18 HL076441 (PIs Rejeski and Marsh)

Cooperative Lifestyle Intervention Programs (CLIP-II)

Co-investigator

Period of Support 03/1/12 - 02/28/17

Direct Cost: \$493,070

<u>Objective</u>: The major goal of this project is to contrast the effects of exercise only and a combined diet and exercise intervention on physical function on underserved older adults with CVD or the metabolic syndrome.

Wake Forest University Science Research Fund

Assessing Longitudinal Changes in Bone Mineral Density of Collegiate Distance Runners

Principal Investigator

Period of Support: Funded for 07/13 - 7/15

Direct Costs: \$10,000

<u>Objective</u>: To assess longitudinal changes in male and female distance runners at WFU during one year of training and competing in cross-country and track. In addition to changes in bone density, body composition, diet and sex hormones will be assessed as potential predictors of bone changes.

Wake Forest University Translational Science Center

Exercise and Coagulation I, II, III

Co-Principal Investigator (w/Martin Guthold Physics)

Period of Support: Funded for 07/12 - 7/15

Direct Costs: I = \$21,000, II = \$22,000, III = \$17,300

<u>Objective</u>: To examine the effects of acute exercise on markers of coagulation and fibrin fiber properties in young healthy men versus older man at risk for cardiovascular disease

Boston Scientific

NECTAR HF – Neural Cardiac Therapy for Heart Failure (NECTAR)

Director, Core Laboratory

Period of Support: Funded for 06/11 - 7/14

Direct Costs: \$73,000

<u>Objective</u>: To standardize and process cardiopulmonary exercise testing data for a European multi-center feasibility trial designed to evaluate the application of right vagal nerve stimulation, also referred to as NeuroCardiac Therapy (NCT). It is hypothesized that vagal stimulation will attenuate cardiac remodeling, improve cardiac function and increase exercise capacity.

National Institute of Health / National Institute on Ageing

Lifestyle Intervention and Independence For Elders (LIFE-M)

Co-Investigator (15%)

Period of Support: 01/09-12/14

Direct Cost: \$93,000,000

<u>Objective</u>: A multi-center RCT of 1,600 patients to evaluate the effects of a lifestyle physical activity program (vs. successful aging control) on major mobility disability in older adults. My role is implementation and monitoring of accelerometry derived measures of physical activity.

Boston Scientific

Restoration of Chronotropic Incompetence in HF and Preserved Systolic Function

Director, Core Laboratory

Period of Support: Funded for 08/05 - 5/10

Direct Costs: \$53,000

<u>Objective</u>: To standardize and process cardiopulmonary exercise testing data for a multi-center trial evaluating the effects of rate-adaptive pacing old elderly diastolic heart failure patients with chronotropic incompetence.

National Institute of Health (RO1 HLO76441-01)

Cooperative Lifestyle Intervention Program (CLIP)

Co-Investigator – 10% (PI: Rejeski)

Period of Support: Funded for 08/05 - 5/10

Direct Costs: \$478,049 (WFU Campus) <u>Objective</u>: To contrast the effects of exercise only and a combined diet and exercise intervention on physical function on underserved older adults with CVD or the metabolic syndrome.

Wake Forest University Science Research Fund

Assessing Cardiovascular Risk in Athletes (ACRA)

Principal Investigator (with Co-Is Rosenbaum and Dobrosielski) – no salary support

Period of Support: 7/1/08 - 6/31/09

Direct Costs: 16,000

<u>Objective</u>: This small cross-sectional study of collegiate football players and students will assess structural and functional differences in cardiovascular system and risk factors that may be altered by lifestyle behaviors and mode of exercise training.

Wake Forest University Cross-Campus Collaborative Research Fund

Effect of Exercise Training in Patients Receiving Anthracycline Drugs

Co- Principal Investigator (with G. Wells MD)

Period of Support: 7/1/08 - 6/31/09

Direct Costs: \$16,000

Objective: A pilot study to determine the feasibility of exercise training patients during Anthracycline chemotherapy

National Institute of Aging

Lifestyle Intervention and Independence For Elders (LIFE)

Co-Investigator – 15% (PIs: Pahor and Guralnik)

Period of Support: Funded for 01/04 - 10/08

Direct Costs: \$ 188,383 (WFU Campus)

<u>Objective</u>: A multi-center pilot study (Wake Forest, Stanford, Pittsburg, Cooper Aerobics Institute) to evaluate the effects of a lifestyle physical activity program (vs. healthy living control) in the prevention of disability of frail, older adults.

National Institute of Health

Heart Failure - A CHF Trial Investigating Outcomes of Exercise Training (HF- ACTION)

Co-Investigator – 7.5% (PI: Delane Kitzman MD)

Period of Support: Funded for 9/30/02 - 10/08.

Direct Costs: \$ 677,158 (WFU)

<u>Objective</u>: A multi-center (Duke is coordinating center) trial of 3,000 CHF patients to determine the effect of exercise training on morbitity and mortality.

National Institute of Health/NIA (RO1)

Exercise Training on Diastolic Dysfunction (PARIS II)

Co-Investigator - 10% (PI: Delane Kitzman, MD)

Period of Support: 07/01/97 - 6/30/01

Direct Costs: \$823,182

Objective: To examine the effects of exercise training on endothial function in elderly patients

with primary diastolic dysfunction.

National Institute of Health/NIA (Pepper Center)

Cardiovascular Health Activity Maintenance Program (CHAMP)

Co-Investigator - 10% (PI: W. Jack Rejeski, PhD)

Period of Support: 01/01/98 - 6/30/02

Direct Costs: \$585,852

<u>Objective</u>: To examine the effects of two different models of exercise prescription (traditional vs. general activity) in patients with cardiovascular disease. Main outcome will be retention of physical activity habits but will also examine changes in functional capacity, blood lipids, and body composition

Fukuoka University Collaborative Grant (Japan)

Prescription of Exercise for Health and Disease Prevention

Co-Investigator (PI: Hiroaki Tanaka)

Period of Support: 7/1/97 - 6/30/99

Direct Cost: \$8,000

<u>Objective</u>: To examine new methods of anaerobic threshold determination (double product breakpoint) and to explore their application to exercise prescription in patients with cardiovascular disease.

NIH/National Institute of Aging (RFA)

Effects of Exercise Training on Diastolic Dysfunction (PARIS I)

Co-Investigator - 10% (PI: Delane Kitzman, MD)

Period of Support: 07/01/94 - 6/31/97

Direct Costs: \$ 589,620

<u>Objective</u>: To compare and contrast the effects of aerobic exercise training on ventricular function, neurohormones, functional capacity and quality of life in older patients with systolic vs. diastolic dysfunction.

Claude D. Pepper Independence Center For Older Americans

Prospective, Randomized, Controlled Trial of Exercise Conditioning in Elderly Patients With Congestive Heart Failure (PARIS I)

Co-Investigator (PI: Dalane Kitzman, MD)

Period of Support: 07/01/93 - 6/31/94

Direct Costs: \$40,000

<u>Objective</u>: To study the effects of aerobic exericise training on ventricular function, functional capacity, and quality of life in elderly patients with congestive heart failure.

Hoffman-LaRouch Pharmaceuticals

Open Label, Long Term Safety of Ro-5967 (Mibefridil-Posicor) in the Treatment of Chronic Stable Angina.

Co-Investigator (PI: Henry S. Miller Jr.)

Period of Support: 01/01/94 - 6/31/95

Direct Costs: \$43,440

Objective: To examine the safety and efficacy of a new calcium antagonists in patients with coronary artery disease and angina

Gensia Pharmaceuticals

A Multicenter Study to Describe the Effect of the ESA (Arbutamine) System and Exercise Stress Testing on Selected Hormones and Substrates, Oxygen Uptake and Ventilatory Parameters"

Co-Investigator (PI: Henry S. Miller Jr.)

Period of Support: 10/01/93 - 6/31/94

Direct Costs: \$ 19,760

<u>Objective</u>: To compare the effects of an Arbutamine to conventional exercise stress testing in patients with documented coronary artery disease.

Pfizer Pharmaceuticals

Amlodipine (Norvasc) Study of the Angina Population

Co-Investigator (PI: Henry S. Miller Jr., MD)

Period of Support: 6/01/93 - 3/31/94

Direct Costs: \$15,000

Objective: To provide data on the safety and effectiveness of amlodipine (a calcium entry

blocker)

Gensia Pharmaceuticals

Grant Entitled: "A Multinational, Multicenter Study to Evaluate the Efficacy and Safety of the ESA (Arbutamine) System and Exercise Stress Testing to Produce Diagnostic Electrocardiographic Signs of Myocardial Ischemia in Patients with Cornary Artery Disease"

Co-Investigator (PI: Henry S. Miller Jr., M.D.)

Period of Support: 4/01/92 - 12/31/92

Direct Costs: \$21,600

<u>Objective</u>: To compare the sensitivity and specificity of an exercise simulating agent, Arbutamine, to conventional exercise stress testing in patients with angiographically documented coronary artery disease.

American Heart Association (Deleware Affiliate)

Grant # 44-0553-111: "Metabolic Response to Acute Exercise in Cardiac Transplant Patients"

Co-Investigator (PI: Susan C. Brozena, M.D.)

Period of Support: 7/01/89 - 6/31/90. Direct Costs: \$ 14,807

BIBLIOGRAPHY:

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- 143. Kitamura M, Izawa KP, Ishihara K, **Brubaker PH**, Matsuda H, Okamura S, Fujioka K. Differences in Health-Related Quality of Life in Older People with and without Sarcopenia Covered by Long-Term Care Insurance. Eur J Investig Health Psychol Educ. 2022 May 26;12(6):536-548. PMID: 35735461
- 142. German CA, Fanning J, Singleton MJ, Shapiro MD, **Brubaker PH**, Bertoni AG, Yeboah J. Physical Activity, *Coronary Artery Calcium, and Cardiovascular Outcomes in the Multi-Ethnic Study of Atherosclerosis (MESA)*. Med Sci Sports Exerc. 2022 May 1;54(5):800-806. PMID: 34967800
- 141. Justice JN, Pajewski NM, Espeland MA, **Brubaker P**, Houston DK, Marcovina S, Nicklas BJ, Kritchevsky SB, Kitzman DW. Evaluation of a blood-based geroscience biomarker index in a randomized trial of caloric restriction and exercise in older adults with heart failure with preserved ejection fraction. Geroscience. 2022 Jan 10. PMID: 3501390
- 140. Kubo I, Izawa KP, Kajisa N, Ogura A, Ogawa M, Kanai M, **Brubaker PH**, Sato S. *Impact of cardiac surgery-associated acute kidney injury on activities of daily living at discharge in elderly cardiac surgery patients*. Rev Cardiovasc Med. 2021 Dec 22;22(4):1553-1562. PMID: 34957795
- 139. Kaminsky LA, German C, Imboden M, Ozemek C, Peterman JE, **Brubaker PH**. *The importance of healthy lifestyle behaviors in the prevention of cardiovascular disease*. Prog Cardiovasc Dis. 2021 Dec 16:S0033-0620(21) PMID: 34922952
- 138. Singleton MJ, Nelson MB, Samuel TJ, Kitzman DW, **Brubaker P**, Haykowsky MJ, Upadhya B, Chen H, Nelson MD. Left Atrial Stiffness Index Independently Predicts Exercise Intolerance and Quality of Life in Older, Obese Patients With Heart Failure With Preserved Ejection Fraction. <u>J Card Fail</u>. 2021 Nov 10:S1071-9164(21) PMID: 3477474
- 137. Amjad A, **Brubaker PH**, Upadhya B. Exercise training for prevention and treatment of older adults with heart failure with preserved ejection fraction. Exp Gerontol. 2021 Nov;155:111559. PMID: 34547406
- 136. **Brubaker PH**, Keteyian SJ, Tucker WJ. Effect of Training on Peak Oxygen Consumption in Patients With Heart Failure With Preserved Ejection Fraction. <u>JAMA</u>. 2021 Aug 24;326(8):770. PMID: 34427609
- 135. Sullivan SW, Fleet NA, Brooks VA, Bido J, Nwachukwu BU, **Brubaker PH**. Comparison of Different Functional Tests for Leg Power and Normative Bilateral Asymmetry Index in Healthy Collegiate Athletes. <u>J Sports Med</u>. 2021 Aug 6;12:119-128. PMID: 34393525

- 134. German CA, **Brubaker PH**, Nelson MB, Fanning J, Ye F, Kitzman DW. Relationships Between Objectively Measured Physical Activity, Exercise Capacity, and Quality of Life in Older Patients With Obese Heart Failure and Preserved Ejection Fraction. <u>J Card Fail</u>. 2021 Jun;27(6):635-641.PMID: 34088379
- 133. Ogura A, Izawa KP, Sato S, Tawa H, Kureha F, Wada M, Kanai M, Kubo I, **Brubaker PH**, Yoshikawa R, Matsuda Y. *Relationship of end-tidal oxygen partial pressure to the determinants of anaerobic threshold in post-myocardial infarction patients*. <u>Heart Vessels</u>. 2021 May 14. PMID: 33990894
- 132. O'Doherty AF, Humphreys H, Dawkes S, Cowie A, Hinton S, **Brubaker PH**, Butler T, Nichols S. *How has technology been used to deliver cardiac rehabilitation during the COVID-19 pandemic? An international cross-sectional survey of healthcare professionals conducted by the BACPR.* BMJ Open. 2021 Apr 21. PMID: 33879492
- 131. Smart NA, Clark H, **Brubaker PH**, Witte Kk, Jamil H, Gierula J, Patel HC, Pearson MJ Effects of chronotropic incompetence on exercise capacity in people with heart failure versus age-matched controls. Heart Fail Rev. 2021 Apr 19. PMID: 33871758
- 130. Aladin AI, Whellan D, Mentz RJ, Pastva AM, Nelson MB, **Brubaker PH**, Duncan P, Reeves G, Rosenberg P, Kitzman DW. *Relationship of physical function with quality of life in older patients with acute heart failure*. <u>J Am Geriatr Soc</u>. 2021 Apr 10.PMID: 33837953
- 129. Ye F, Yale S, Zheng Y, Hu H, Zhou L, Fanning J, Yeboah J, **Brubaker PH**, Bertoni AG. *Trends in Physical Activity Among US Adults With Heart Failure*, 2007-2016. <u>J</u> <u>Cardiopulm Rehabil Prev</u>. 2021 Mar 19. PMID: 33758154
- 128. Qian J, Walkup MP, Chen SH, **Brubaker PH**, Bond DS, Richey PA, Jakicic JM, Hu K, Scheer FAJL, Middelbeek RJW; Look AHEAD Research Group. *Association of Objectively Measured Timing of Physical Activity Bouts With Cardiovascular Health in Type 2 Diabetes*. <u>Diabetes Care.</u> 2021 Apr;44(4):1046-1054. PMID: 33597215
- 127. Samuel TJ, Kitzman DW, Haykowsky MJ, Upadhya B, **Brubaker PH**, Nelson MB, Hundley WG, Nelson MD. *Left ventricular diastolic dysfunction and exercise intolerance in obese heart failure with preserved ejection fraction*. Am J Physiol Heart Circ Physiol. 2021 Apr 1;320(4):H1535-H1542. PMID: 33577436
- 126. **Brubaker PH**, Avis T, Rejeski WJ, Mihalko SE, Tucker WJ, Kitzman DW. Exercise Training Effects on the Relationship of Physical Function and Health-Related Quality of Life Among Older Heart Failure Patients With Preserved Ejection Fraction. J Cardiopulm Rehabil Prev. 2020 Nov;40(6):427-433. PMID: 32604218
- 125. **Brubaker PH**, Tucker WJ, Haykowsky MJ. Clinical Considerations and Exercise Responses of Patients with Heart Failure and Preserved Ejection Fraction: What Have We Learned in 20 Years? Journal of Clinical Exercise Physiology, Vol. 9, No. 1, 2020
- 124. Maldonado-Martín S, **Brubaker PH**, Ozemek C, Jayo-Montoya JA, Becton JT, Kitzman DW. *Impact of β-Blockers on Heart Rate and Oxygen Uptake During Exercise and Recovery in Older Patients With Heart Failure With Preserved Ejection Fraction*. <u>J Cardiopulm Rehabil Prev</u>. 2020 May;40(3):174-177. PMID: 31899703

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- 122. Franklin BA, **Brubaker P**, Harber MP, Lavie CJ, Myers J, Kaminsky LA. *The Journal of Cardiopulmonary Rehabilitation and Prevention at 40 yr and Its Role in Promoting Preventive Cardiology: Part 2*. <u>J Cardiopulm Rehabil Prev</u>. 2020 Jul;40(4):209-214. PMID: 32604250
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- 15. **Brubaker PH**. Exercise intolerance in congestive heart failure: A lesson in exercise physiology. Journal of Cardiopulmonary Rehabilitation 1997 17: 217-221.
- 14. **Brubaker PH**, Kiyonaga A, Matrazzo BA, Pollock WE, Miller HS, Tanaka H. *Identification of the anaerobic threshold using double product in patients with coronary artery disease*. American Journal of Cardiology 1997 79: 360-362.
- 13. **Brubaker PH**, Warner JG, Rejeski WJ, Edwards D, Matrazzo BA, Ribisl PM, Miller HS, Herrington DM. *Comparison of standard and extended participation in cardiac rehabilitation on body composition, functional capacity, and blood lipids*. <u>American Journal of Cardiology</u> 1996 78: 769-773
- 12. Berry MJ, **Brubaker PH**, O'Toole ML, Rejeski WJ, Soberman J, Ribisl PM, Miller HS, Afable RF, Applegate RF, Ettinger WH. *Estimation of VO2 in older individuals with osteoarthritis of the knee and cardiovascular disease*. Medicine and Science in Sports and Exercise, 1996 28, 808-814.
- 11. Warner JG, **Brubaker PH**, Zhu Y, Morgan TM, Ribisl PM, Miller HS, Herrington, DM. Long-term (5 year) changes in HDL-Cholesterol in cardiac rehabilitation patients: Do gender differences exist? Circulation 1995 92, 773-777.
- 10. Rejeski WJ, Neal KM, Wurst ME, **Brubaker PH**. Walking, but not weight training, acutely reduces systolic blood pressure in older sedentary men and women. <u>Journal of Aging and Physical Actrivity</u> 1995 3, 163-177.
- 9. **Brubaker PH**, Rejeski WJ, Law HC, Pollock WE, Wurst ME, and Miller HS. Cardiac patients' perception of work intensity during graded exercise testing: Do they generalize to field settings? Journal of Cardiopulmonary Rehabilitation: 1994 14, 127-133.

- 8. Berry MJ, van Nieuwenhuizen K, Pollock W, and **Brubaker PH**. *The effects of aero style handlebars during prolonged exercise*. <u>International Journal Of Sports Medicine</u>, 1994 15, 16-20.
- 7. Morley DL, Boigon M, Fesniak H, **Brubaker PH**, Walter JD, Fitzpatrick J, Chojnowski D, Smith AL, Alpern J, and Brozena SC. *Post-transplant hemodynamics and exercise function are not affected by body size matching of donor and recipient.* The Journal of Heart and Lung Transplantation: 1994 12, 770-778.
- 6. **Brubaker PH**, Berry MJ, Brozena SC, Morley DL, Walter JD, Paolone AM, and Bove, AA. *Lactate and gas exchange thresholds in cardiac transplant patients*. Medicine and Science in Sports and Exercise, 1993 25(2), 191-196.
- 5. Rejeski WJ, Thompson A, **Brubaker PH**, and Miller HS. *Acute exercise: Buffering psychophysiologic stress in women.* Journal of Health Psychology, 1992 11(6), 355-362.
- 4. Weyrich AS, Rejeski WJ, **Brubaker PH**, and Parks JS. *The effects of testosterone on circulating lipids and eicosanoids in cynomologus monkeys*. Medicine and Science in Sports and Exercise, 1992 24(3), 333-338.
- 3. Blumenthal JA, Rejeski WJ, Walsh-Riddle M, Emery CF, Miller HS, Roark S, Ribisl PM, Morris PB, **Brubaker PH**, and Williams RS. *Comparison of high and low intensity exercise training early after acute myocardial infarction*. The American Journal of Cardiology, 1988 61, 26-30.
- 2. Rejeski WJ, **Brubaker PH**, Herb RA, Kaplan JR, and Manuck SB. *The role of anabolic steroids on baseline heart rate in cynomolgus monkeys*. <u>Journal of Health Psychology</u>, 1988 7(4), 299-307.
- 1. Rejeski WJ, **Brubaker PH**, Herb RA, Kaplan JR, Koritnik D. (1988). *Anabolic steroids and aggressive behavior in cynomolgus monkeys*. <u>Journal of Behavioral Medicine</u>, 1988 11(1), 95-105

BOOKS

- 2. Whaley MH, **Brubaker PH**, and Otto RM, editors. <u>American College of Sports Medicine's Guidelines for Exercise Testing and Prescription</u>. 7th Edition 2005. Lippincott Williams & Wilkins (ISBN # 0-7817-4506-3)
- 1. **Brubaker PH**, Kaminsky LA, & Whaley MH. <u>Coronary Artery Disease: Essentials of Prevention and Rehabilitation Programs</u>. 2001 Human Kinetics (ISBN # 0-7360-2795-5)

BOOK CHAPTERS

- 14. **Brubaker PH**, Peterson M, Harpening M. Cardiovascular Physiology. <u>ACSM's Clinical Exercise Physiology</u>. 2nd edition. Wolters Kluwer. 2022
- 13. **Brubaker PH**, Peterson M. Cardiovascular Physiology. <u>ACSM's Clinical Exercise Physiology</u>. Wolters Kluwer. 2019

- 12. **Brubaker PH** & Ross JH. Exercise Prescription for the Coronary Artery Disease Patient. <u>Lifestyle Medicine</u> (2nd edition). Taylor and Francis 2013
- 11. **Brubaker PH**. Exercise Testing. Encyclopedia of Exercise Medicine in Health and Disease. Springer 2012 Mooren, Frank C. (Ed.) 2012, XXXII, 898 p. 500 illus.
- 10. **Brubaker PH**. Contemporary Approaches to Coronary Artery Disease Diagnosis.

 Pollock's Book on Cardiovascular Disease Prevention and Rehabilitation.. Human Kinetics 2008 (ISB # 13-978-0-7360-5967-1)
- 9. **Brubaker PH** & Miller HS. Exercise and the Revascularized Cardiac Patient. Pollock's Book on Cardiovascular Disease Prevention and Rehabilitation.. Human Kinetics 2008 (ISB # 13-978-0-7360-5967-1)
- 8. **Brubaker PH**. Special Considerations for Persons with Heart Disease. Adequacy of Evidence for Physical Activity Guidelines Development. National Academies Press 2007 (ISB # 13-978-0-309-10402-9)
- 7. Myers JN & **Brubaker PH**. Congestive heart failure. ACSM Exercise in the Management of Persons With Chronic Disease and Disability, 2nd Edition. 2002 Human Kinetics
- 6. Moore GE & **Brubaker PH**. *Bleeding Disorders*. <u>ACSM Exercise in the Management of Persons With Chronic Disease and Disability</u>, 2nd Edition. 2002 Human Kinetics
- 5. Moore GE & **Brubaker PH**. Aneurysms and Marfan's Syndrome. ACSM Exercise in the Management of Persons With Chronic Disease and Disability, 2nd Edition. 2002 Human Kinetics
- 4. **Brubaker PH** & Myers JN. *Cardiorespiratory assessmant in high risk and diseased populations*. ACSM Resource Manual for Exercise Testing and Prescription, 4rd edition. Williams & Wilkins 2001.
- 3. **Brubaker, PH**. Exercise training patients with left ventricular dysfunction: Harmful or helpful? Proceedings from the International Symposium on Optimal Exercise for the Prevention and Treatment of Chronic Disease. Tanaka and Shindo (eds.) Springer 2000
- 2. **Brubaker PH** & Myers JN. *Cardiorespiratory assessment in high risk and diseased populations*. ACSM Resource Manual for Exercise Testing and Prescription, 3rd edition. Williams & Wilkins 1998
- 1. **Brubaker PH**, Fox JL, Miller HS. *Principles of exercise testing and training in a cardiac population*. Exercise and the Heart in Health and Disease, 2nd edition. Marcel Dekker 1998.

PROFESSIONAL/PEER PRESENTATIONS (100 + that were invited [I] and submitted [S] around the world):

Exercise Management of Cardiovascular Risk in Cancer Populations Symposium. June 2021. American College of Sports Medicine. Virtual [S]

Montoye Scholar Keynote Lecture: Prescribing Exercise for Patients with Failing Hearts.....Is There a Limit??. February 2021. Southeast Chapter of the American College of Sports Medicine. [I]

Dr. Bortz Keynote Lecture: *HIIT for Patients with Heart Failure..... Are you Crazy?* April 2021. American College of Sports Medicine Health and Fitness Summit. Virtual [I]

Prescribing Exercise for Patients with Failing Hearts.....Is There a Limit??. March 2021. Myocardial Ischemia Conference. Virtual [I]

High Intensity Interval Training for HF Patients. October 2020. Symposium at the American Association of Cardiovascular and Pulmonary Rehabilitation. Virtual [S]

Contemporary Cardiac Rehabilitation: The Evolution Continues. August 2020. Myocardial Ischemia Conference. Seoul, Korea Virtual [1]

Contemporary Cardiac Rehabilitation: The Evolution Continues. October 2019. Korean Society of Cardiology. Seoul, Korea. [1]

Is it Time for Heart Failure Patients to HIIT the Weights? June 2019. Canadian Association of Cardiac Rehabilitation and Prevention. Saskatoon, Canada. [I]

Is it Time for Heart Failure Patients to HIIT the Weights? March 2019 Moritz Lecture at the University of Texas-Arlington. [I]

Relationship between Health Related Quality of Life and Physical Function in HFpEF patients. March 2019. American College of Cardiology. New Orleans LA [I]

Patient Relevant Outcomes in Heart Failure: The Relationship Between Quality of Life and Exercise Capacity in Heart Failure Patients. Nov. 2018. Merck Research Group. Newark, NJ. [I]

Is it Time for Heart Failure Patients to HIIT the Weights? Nov. 2018. Mid-Atlantic Chapter of the American College of Sports Medicine. Harrisburg, PA. [I]

Emerging Strategies for Prescribing Exercise in Heart Failure Patients. Oct. 2018. Israel Society of Sports Medicine. Haifa, Israel. [I]

Presidential Lecture: Is it Time for Heart Failure Patients to HIIT the Weights? June 2018. National Meeting of the American College of Sports Medicine. [I]

Is it Time for Heart Failure Patients to HIIT the Weights. British Association of Cardiac Prevention and Rehabilitation May 2018. Birmingham, England.[I]

Emerging Strategies for Prescribing Exercise in Heart Failure Patients. Nov. 2016. Webinar for the American Association of Cardiovascular and Pulmonary Rehabilitation. [I]

Assessing Physical Activity as a Core-Component. Symposium at the American Association of Cardiovascular and Pulmonary Rehabilitation. Sept. 2016 New Orleans, LA. [S]

The Art of Prescribing Exercise For Chronic Disease Patients. April 2016. Keynote Speaker at ACSM Cancer Exercise Trainer Course. Samsung Hospital, Seoul Korea. [I]

High Intensity Interval Training (HIIT) in Heart Disease Patients: "Friend" or "Foe"? April 2016. Myocardial Ischemia Symposium. Seoul, Korea. [I].

From Cardiac Rehabilitation to Chronic Disease Presentation: The Evolution Continues. Keynote Speaker at Beijing Sport University Sport Science Research Center. November 2015. Beijing China [I].

Exercise in the Management of Heart Failure: What's New? and High Intensity Interval Training in Cardiac Patients: Friend or Foe. July 2015. Keynote Speaker at Japanese Association of Cardiac Rehabilitation Annual Conference. Fukuoka Japan. [I]

Exercise is Good Medicine – But What is The Right Dose in CVD Management? July 2015. Keynote Speaker at Emerging Topics in Sport Science Conference to Celebrate 30th anniversary of Exercise/Sport Science Department of Mahidohl University. Bangkok Thailand. [I]

The Exercise Intensity Continuum: From Stand Up to HIIT. (organized and chaired colloquim). June, 2015. American College of Sports Medicine. San Diego CA. [S]

Exercise For Cardiovascular Disease Prevention/Rehabilitation: Are They Getting the Right "Dose" Exercise Professionals Group Working Day of British Association of Cardiac Prevention and Rehabilitation (BACPR). Birmingham, England May 2014 [I]

Chronotropic Incompetence: Prevalence and Impact on Exercise Tolerance In Heart Failure. April 2014. Myocardial Ischemia Symposium. Seoul, Korea. [I]

Exercise is Good Medicine – But What is The Right Dose. April 2014. Seowon University. Seoul, Korea. [I]

Emerging Exercise Strategies for Heart Failure Patients. (organized and chaired symposium). June, 2013. American College of Sports Medicine. Indianapolis, IN. [S]

Exercise For Cardiovascular Disease Management: Are We Giving Them The Right Dose? May 2013, Keynote Speaker at National Heart Center of Singapore [I]

What Have We Learned From HF ACTION? Exercise Professionals Group Working Day of British Association of Cardiac Prevention and Rehabilitation. Birmingham, England May 2013

High Intensity Interval Training: Is It Ready For Prime Time? Exercise Professionals Group Working Day of British Association of Cardiac Prevention and Rehabilitation. Birmingham, England May 2013 [I]

Exercise For Cardiovascular Disease Management: Are We Giving Them The Right Dose? Keynote Speaker at Fukuoka University Institute of Physical Activity. Sept. 2012. Fukuoka Japan [I]

Exercise is Good Medicine – But What is the Right Dose? Keynote speaker at International Conference on Exercise Testing and Prescription. August 2012. Manipal University, Manipal India [I]

Measuring Cardiac Function During Exercise: Established and Evolving Techniques (organized and chaired conversational forum. June, 2012. American College of Sports Medicine. San Francisco, CA. [S]

Exercise For Cardiovascular Disease Management: Are We Giving Them The Right Dose? April 2012, Keynote Speaker at Exercise Sport Science Australia National Conference. Gold Coast Australia [I].

Cardiopulmonary Core Laboratory Overview. February 2012. Boston Scientific Corp. launch of NECTAR study. Barcelona, Spain.

Physical Activity in Cardiac Rehabilitation – How Can We Get Them to Do More? Sept. 2011. American Association of Cardiovascular and Pulmonary Rehabilitation. Anaheim, CA [I]

Exercise Is Medicine!. August 2011. National Heart Center, Singapore General Hospital. [I]

Physical Activity Interventions and Prevention of Mobility Disability in Older Adults – What's The Evidence? (organized and chaired symposium. June, 2011. American College of Sports Medicine. Denver, CO. [S]

Tranforming Cardiac Rehabilitation into Chronic Disease Prevention Programs: One Programs Story. April 2011. Asian Pacific TCI Summit, Seoul Korea. [I]

Chronotropic Incompetence in Heart Disease: Prevalence and Impact (part of symposium I organized and chaired entitled "Exercise Heart Rate Response and Recovery – Simple But Important Clinical Measures!"). June, 2010. American College of Sports Medicine. Baltimore, MD. [S]

Why The "Resistance" To Weight Training in Heart Failure?. August 2010. National Heart Center, Singapore General Hospital. [I]

Exercise for Heart Failure Patients: Time to Take ACTION. August 2009. National Heart Center, Singapore General Hospital. [I]

Contemporary Cardiac Rehabilitation: More than Just Exercise. April 2009. Asian Pacific TCI Summit, Seoul Korea. [I]

Exercise and Heart Failure: Time for ACTION. Feb. 2009.

North Carolina Cardiopulmonary Rehabilitation Association. Charlotte, NC [I]

Exercise in the Management of Patients with Heart Failure. Dec. 2008. Cardiology Grand Rounds. Winthrop University Hospital, Mineola, NY [I]

Physical Activity Interventions In Cardiac Rehabilitation Programs – What's New? (part of symposium on cardiac rehabilitation with Kaminski, Thomas, Kraus). Nov. 2008. American Heart Association, New Orleans LA [S]

Contemporary Cardiac Rehabilitation: The Evolution Continues. International Congress on Cardiovascular Disease Prevention and Rehabilitation. Oct. 2008 University of the Basque Country, Vitoria, Spain [I]

Exercise and Heart Failure: What's New? Sept. 2008. American Association of Cardiovascular and Pulmonary Rehabilitation. Indianapolis, IN [S]

Exercise and Heart Failure. June 2008. Georgia Cardiopulmonary Rehabilitation Association. Atlanta GA [I]

The Evolution of Cardiac Rehabilitation: From Secondary Prevention to Chronic Disease Management. Symposium at the American College of Sports Medicine. June 2008. Indianapolis, Indiana [S]

Contemporary Cardiac Rehabilitation: Rationale and Components. April 2008. Asian Pacific TCI Summit. Seoul, Korea. [I]

Physical Activity - the Unfilled "Prescription" for Managing the Metabolic Syndrome. March 2008. National Heart Center, Singapore. [I]

Contemporary Cardiac Rehabilitation: Rationale and Components. December 2007. Korean Conference on Cardiac Rehabilitation, Asan Medical Center, Seoul, Korea. [I]

Exercise Therapy in the Management of Heart Failure Patients. December 2007. Korean Conference on Cardiac Rehabilitation, Asan Medical Center, Seoul, Korea. [I].

Physical Activity: The "Unfulfilled" Prescription for Managing the Metabolic Syndrome. November 2007. Tackling the Metabolic Syndrome and Cardiovascular Risks, Wake Forest University Baptist Medical Center. [I]

Exercise Therapy for Heart Failure Patients: Harmful or Helpful? June 2007. 24th Kokura Live Demonstration (Cardiology Conference). Kitakyushu, Japan [I]

Exercise Therapy for Heart Failure Patients: Harmful or Helpful? June 2007. Cardiology Grand Rounds, Kyushu Medical Center, Kyushu, Japan. [I].

From Chronic Disease Prevention to Rehabilitation: The Role of Physical Activity. May 2007. National Heart Center, Singapore General Hospital. [I]

Exercise is Good Medicine – But How Much is Enough? March 2007. Public Health Department, Singapore General Hospital. [I]

Physical Activity Assessment: Tools of the Trade. February 2007. North Carolina Cardiopulmonary Rehabilitation Association Symposium. Charlotte, NC [I].

The Other Heart Failure: Exercise and Clinical Considerations for Diastolic Heart Failure. August 2006. Guidant/Boston Scientific, Minneapolis, MN [I]

Physical Activity Assessment for Research and Practical Application. June 2006. International Conference on Health and Physical Activity. Seowon University, Chongju, South Korea. [I]

The Other Heart Failure: Exercise and Clinical Considerations for Diastolic Heart Failure. May 2006. National Heart Center. Singapore.[I]

The Other Heart Failure: Exercise and Clinical Considerations for Diastolic Heart Failure. May 2006. Royal Perth Hospital, Perth, Australia. [I]

The Other Heart Failure: Exercise and Clinical Considerations for Diastolic Heart Failure. May 2006. American College of Sports Medicine, Denver, CO. [S]

ACSM Guidelines for Exercise Testing & Prescription: What's New in the 7th Edition?. February 2006. Southeast Chapter of the American Collage of Sports. Charlotte, NC. [S]

Exercise Testing and Training Heart Failure Patients: What's New?. Dec. 2005 Visiting Professor, University of North Carolina's Cardiovascular Medicine and Science Grand Rounds. Chapel Hill, NC. [I]

ACSM Guidelines for Exercise Testing & Prescription: What's New in the 7th Edition?. Sept 2005. Midwest Chapter of the American Collage of Sports. Muncie, IN. [I]

ACSM Guidelines for Exercise Testing & Prescription: Update and Analysis. May 2005. American Collage of Sports Medicine Annual Meeting. Nashville, TN. [S]

Exercise Testing Heart Failure Patients: What's New? January 2005. Asian-Pacific Congress on Heart Failure and Transplantation. Singapore. [I]

*Update on Exercise Testing and Training Patients with Systolic and Diastolic Heart Failure.*January 2005. National Heart Center, Singapore General Hospital, Singapore. [I]

Lifestyle Lessions Learned Living in Italy. October 2004. (part of a symposium entitled "International Perspectives on Heart Disease"). American Association of Cardiovascular and Pulmonary Rehabilitation. Long Beach, California. [S]

Update on Exercise Training Patients With Heart Failure.. September 2004. 5th Master Course in Cardiac Disease Prevention and Rehabilitation. Riccione, Italy. [I]

Exercise and the Elderly. July 2004. Aumni Day - Keynote Speaker, Seowon University, Cheongju, South Korea. [I]

Strategies to Enhance Exercise Adherence in Cardiac Rehabilitation Patients. November 2003. 4th Master Course in Cardiac Disease Prevention and Rehabilitation. Rimini, Italy. [I]

Physical Inactivity: A Preventable Risk Factor in the Elderly. August 2003 Congress of the European Union of Geriatric Medicine. Florence, Italy. [I]

Clinical considerations and Exercise Responses of Patients with Left Ventricular Diastolic Dysfunction. February 2002. American Collage of Sports Medicine (Southeast). Atlanta, GA. [S]

Exercise Testing and Training Patients With Diastolic Heart Failure. May 2002. International Congress on Cardiac Rehabilitation. Sydney, Australia. [I]

Core Components of Cardiac Rehabilitation Programs. June 2002 . Korean Association of Clinical Exercise Physiologists, Seoul Korea. [I]

Mechanisms of Exercise Intolerance in Older Patients With Diastolic Heart Failure. October 2002. American Association of Cardiovascular and Pulmonary Rehabilitation. Charlotte, NC. [S]

Coronary Artery Disease: Can It Be Reversed? June 2001. Korean Association of Clinical Exercise Physiologists, Seoul Korea. [I]

Cardiac Rehabilitation in US – Past, Present, Future ?? June 2001. Fukuoka University School of Medicine, Fukuoka, Japan. [I]

The Other Heart Failure: Clinical Considerations and Exercise Responses of Patients with Left Ventricular Diastolic Dysfunction. February 2001. North Carolina Cardiopulmonary Rehabilitation Symposium, Greensboro, NC [I]

Clinical Considerations and Exercise Responses of Patients with Left Ventricular Diastolic Dysfunction. (part of symposium entitled "Advanced Concepts in Exercise Physiology"). Sept, 2000. American Association of Cardiovascular and Pulmonary Rehabilitation. Tampa, FL. [S]

Prescribing Exercise Based on METs...Revisited. (part of symposium entitled "History and Current Use of METs in Exercise Science"). June, 2000. American College of Sports Medicine. Indianapolis, IN. [S]

Cardiac Rehabilitation: Past, Present and Future. May 2000. Wake Forest Baptist Medical Heart Center: Healthy Hearts 2000. Clemmons, NC. [I]

Exercise Training in Patients With Left Ventricular Systolic and Diastolic Dysfunction: How to Make it Helpful, not Harmful. Sept. 1999. Kentucky Cardiopulmonary Rehabilitation Association Conference. Louisville, KY [I]

Exercise and Left Ventricular Dysfunction. March 1999. Tele-medicine conference of the North Carolina Cardiopulmonary Rehabilitation Association. Winston-Salem, NC (broadcast to eight sites in NC) [I]

Exercise Training for Congestive Heart Failure Patients: How to Make it Helpful, not Harmful. Feb. 1999. Mardi Gras Cardiology Symposium, Baton Rouge, Louisiana. [I]

Basics of Cardiac Rehabilitation: Exercise Testing & Prescription. Oct. 1998. American Association of Cardiovascular and Pulmonary Rehabilitation. Denver, CO. [S]

Exercise Training in Patients with Left Ventricular Dysfunction: Harmful or Helpful? Invited presentation at "International Symposium on Optimal Exercise for Preventing Chronic Disease" in July, 1998. Fukuoka, Japan [I]

Exercise Training in Patients with Diastolic Heart Failure (part of symposium entitled "Recent Advances in Exercise Physiology of Heart Failure and Transplant Patients). June, 1998. American College of Sports Medicine. Orlando, FL. [S]

Design and Implementation of Home-based Cardiac Rehabilitation Programs. Nov. 1997. American Association of Cardiovascular and Pulmonary Rehabilitation. Dallas, TX [S]

Prognostic and Functional Applications of Cardiopulmonary Exercise Testing. Sept. 1997. Association of Cardiovascular Professionals. Dallas, TX [I]

Home-based Cardiac Rehabilitation Programs. Feb. 1997. North Carolina Cardiopulmonary Rehabilitation Association. Greensboro, NC. [I]

Alternative Models in Cardiac Rehabilitation: Home-based Programs. Jan. 1997. American College of Sports Medicine (Southeast), Atlanta, GA. [S]

Metabolic Testing in Cardiopulmonary Rehabilitation. Sept. 1997. American Association of Cardiovascular and Pulmonary Rehabilitation, Baltimore, MD. [S]

Exercise Training Patients with Congestive Heart Failure: Harmful or Helpful? July 1996. Pacific Rim Conference on Exercise Science, Seoul, Korea. [I]

1. Risk Stratification, 2. Exercise Testing Patients with Congestive Heart Failure, 3. Home-based Exercise Programs. February 1996. Cardiopulmonary Rehabilitation Symposium: Status 1996. Orlando, FL. [I]

New Methods of Exercise Prescription in Cardiac Patients. Oct. 1995, Tokyo (Fukuda Denshi Co.), Kyoto (Cardiology Division of Kyoto Univ. School of Medicine), & Fukuoka (Fukuoka University) Japan. [I]

Past, Present, and Future Research in the Wake Forest Cardiac Rehabilitation Program. April, 1995. Leroy "Bud" Getchell Lecture in Exercise Physiology, Ball State University, Muncie, IN. [I]

1. Exercise Testing and Training of Heart Failure Patients; 2. Licensures and Certifications in Cardiopulmonary Rehabilitation; 3. Incorporating Research into Clinical Rehabilitation Programs. February 1995. North Carolina Cardiopulmonary Rehabilitation Association. Pinehurst, NC. [S]

Cardiac Arrest in Outpatient Cardiac Rehabilitation Programs: The Wake Forest Experience. February 1994. North Carolina Cardiopulmonary Rehabilitation Association. Pinehurst, NC [S]

Interpreting Exercise Test Results for Patients. October 1993. American Association of Cardiopulmonary Rehabilitation. Orlando, FL. [S]

Clinical Exercise Testing Update. January 1993. American College of Sports Medicine (Southeast Chapter). Norfolk, VA. [S]

Health Implications of Anabolic Steroid Use. November 1992. North Carolina Alliance for Health, Physical Education, Recreation, and Dance. Greensboro, NC. [I]

PROFESSIONAL WORKSHOPS

Workshop Director, American College of Sports Medicine Exercise Specialist (2008). Rimini, Italy. [I]

Workshop Director, American College of Sports Medicine Exercise Specialist (2007, 2008, 2009, 2010, 2011, 2013). National Heart Center, Singapore. [I]

<u>Certification Director</u>, American College of Sports Medicine Exercise Test Technologist (1992,1993,1994,1995) & Exercise Specialist (1996,1997,1998,1999,2000, 2001,2002,2003, 2004). Wake Forest University, Winston-Salem, NC.

<u>Certification Director</u>, American College of Sports Medicine Exercise Specialist (2005 & 2006). National Heart Center, Singapore. [I]

<u>Certification Director</u>, American College of Sports Medicine Exercise Test Technologist (1995,1996) and Exercise Specialist (2002, 2004, 2005,). Seoul, Korea

<u>Lecturer</u>, Rehabilitation and Healthy People 2000: Workshop For Cardiac Rehabilitation Specialists and Managers (1993, 1994). Virginia Tech University, Blacksburg, VA. [I]

<u>Lecturer</u>, American College of Sports Medicine Exercise Specialist Workshop (1991,1993,1994,1995) E. Stroudsburg University, E. Stroudsburg, PA [I]

CONSULTING

<u>Protocol Driven Health Care Incorporated.</u> Produced exercise and healthy lifestyle content/articles for consumer website (1997-2002).

<u>Guidant/Boston Scientific Corporation</u>. Provide support (CPX Core-Lab) for clinical trials in heart failure. (2006- 2015).

<u>CVRx Inc.</u> Provide Educational Support and clinical trial design (2008 – 2009)

<u>National Healthcare Group Polyclinics of Singapore</u>. Assist physicians and other health providers in primary care settings to develop and implementation lifestyle intervention programs to reduce chronic disease and manage weight (2007 - 2009).

<u>Corvia Medical</u>. Provide support (CPX Core-Lab) for clinical trials in heart failure. (2015-present).

Merck. Advisory Board, Patient Relevant Outcomes in Heart Failure. 2018

New Oceans Health Care Solutions, Scientific Advisory Board 2017-present