Curriculum Vitae

Mark J. Haykowsky, PhD, FACC, FAHA, FACSM

Google Scholar h-index: 90; i-10 index 282; Citations: 29,289

ACADEMIC QUALIFICATIONS

Institution	Specialty	Degree	Year Completed
University of Alberta, Faculty of Medicine (Cardiology)	Heart Failure: Heart-Lung Interactions	Postdoctoral Fellow	6/1/99
University of Alberta	Cardiovascular Exercise Physiology	PhD	11/19/98
University of Alberta	Exercise Physiology Geriatric Rehabilitation	MSc	6/9/94
University of Alberta	Athletic Therapy	BPE	11/23/91
Royal Alexandra Hospital School of Nursing	Geriatrics, Emergency	Nursing Diploma	1/18/90

ACADEMIC POSITIONS

Position	University	Dates
Visiting Professor	Hochgebirgsklinik Davos, Switzerland	1/25 - Present
Professor, Research Chair in Aging and Quality of Life	College of Health Sciences, Faculty of Nursing, University of Alberta.	1/20 - Present
Associate Dean Research	College of Health Sciences, Faculty of Nursing, University of Alberta.	1/20 - 5/22
Professor, Moritz Chair in Geriatrics	College of Nursing and Health Innovation University of Texas Arlington.	8/15 - 2/19
Full Professor	Department of Physical Therapy, Faculty of Rehabilitation Medicine, University of Alberta.	7/7 - 7/15
Adjunct Professor	Division of Cardiology, Faculty of Medicine, University of Alberta.	1/10 - 7/15
Associate Professor	Department of Physical Therapy, Faculty of Rehabilitation Medicine, University of Alberta.	7/4 - 6/7
Assistant Professor	Department of Physical Therapy, Faculty of Rehabilitation Medicine, University of Alberta.	7/99 - 6/4

RESEARCH

Director: Integrated Cardiovascular Exercise Physiology and Rehabilitation (iCARE) Laboratory: The overarching theme of my research program is to examine the biological mechanisms underpinning the decline in cardiovascular health and fitness across the healthy aging and heart failure continuum, and role of lifestyle interventions to improve cardiac, peripheral vascular and skeletal muscle function, physical function and quality of life. A second research focus is in the CardioOncology field with specific focus on the role of lifestyle interventions to prevent cardiovascular toxicity and deconditioning across the breast cancer survivorship continuum. A final focus is sport cardiology and cardiac mechanics and ventricular interaction during exercise in athletes.

PHILOSOPHY OF TEACHING

My goal as a teacher is to equip students with the theoretical foundations and critical thinking skills essential for becoming lifelong learners and socially accountable healthcare professionals. I embrace a student-centered educational model, where learners actively shape their own academic journeys through collaboration and engagement. By integrating real-world, community-based experiences into my teaching, I help students connect classroom learning to the diverse needs of the populations they will serve. I emphasize interdisciplinary collaboration and reflective practice to foster the development of professional competencies required for effective team-based care. My teaching environment prioritizes cultural safety, equity, and inclusion, ensuring that every student feels respected, valued, and heard. Ultimately, I aim to guide future healthcare providers toward becoming adaptable, empathetic leaders who are deeply committed to the well-being of their communities.

TEACHING:

UNIVERSITY OF ALBERTA (JANUARY 2020):

NURS 512 - QUANTITATIVE RESEARCH: The focus of this course is on quantitative research methods and on the nature and characteristics of the most commonly used statistical techniques in health research. Emphasis is given to the selection of appropriate methods and statistics to answer research questions; to data collection, analysis and interpretation of results; and to the appraisal of quantitative research literature. Attention is also given to knowledge synthesis, mixed method, ethics in research, and knowledge translation in advanced nursing practice.

NURS 311 – Winter 2022 to Present: EVIDENCE INFORMED NURSING PRAC: The course provides a hands-on approach to evidence-informed nursing practice. This includes formulating clinical questions, systematic searching of electronic databases, reading, interpreting and critically appraising health research. Emphasis is on developing thinking and information literacy skills necessary to be an astute research consumer and using evidence to inform clinical decision making.

NURS 596 – Fall 2022 – RESEARCH FOUNDATIONS: Explore diverse methods and approaches to formal research inquiry, including Indigenous research approaches. Compare and contrast research methods and practices, including approaches to framing of the research question, generating, and analyzing data, presenting and disseminating findings. Increase understanding of research literacy, appraisal of rigor, and roles of research team members leading and participating in research endeavors.

***UNIVERSITY OT TEXAS ARLINGTON* (August 2015 – December 2019):**
NURS 6308. STATE OF THE SCIENCE: BACKGROUND IN RESEARCH (2019).
Application of criteria for appraising strengths and weaknesses of published studies; Synthesis of research literature on a selected topic.

NURSING 5390: HEART FAILURE PATHOPHYSIOLOGY AND EXERCISE REHABILITATION (2017- 2019). The goal of this course is to provide students with fundamental knowledge related to heart failure (HF) pathophysiology. This course will also provide students the opportunity to gain specialized knowledge regarding the physiological mechanisms responsible for the reduced exercise tolerance in HF with reduced or preserved ejection fraction (HFREF and HFPEF, respectively) and the role of exercise rehabilitation to improve overall health related physical fitness and quality of life. Lastly, the students will learn how to critically evaluate scientific literature related to HF pathophysiology and exercise rehabilitation.

UNIVERSITY OF ALBERTA (JUNE 1999 – JULY 2015):
PRIMARY INSTRUCTOR

PTHER 504. **Clinical Exercise Physiology** (2012-2015, 110 graduate physical therapy students). This course examines the acute and chronic physiological responses to exercise and explores the use of exercise in the management of chronic diseases and disabilities.

PTHER 395: Therapeutic exercise. I taught this course from 2000 to 2002 and was the course coordinator in 2003 (final year the course was offered). This class included 66-72 second year PT students. The goal of this course was to introduce the theoretical basis and application of therapeutic exercise for individuals with impairments, functional limitations and disabilities. Prior to teaching this class for the first time, I re-designed the course content and added additional material that focused on: 1) the effects of bedrest / deconditioning on cardiac, skeletal, bone, ligament, and tendon morphology and function. I also discussed the role that therapeutic exercise plays in attenuating the decline in the above systems; 2) the role that aerobic, strength and hydrotherapy interventions play in improving functional capacity in individuals with impairments, functional limitations and disabilities; 3) the effect of aging on cardiovascular and musculoskeletal performance and the role of exercise rehabilitation training to improve functional capacity. As part of this course, I designed three new laboratory experiences (aerobic testing

and prescription lab, strength testing and prescription lab, and a hydrotherapy lab) that provided the students with the background knowledge and skills necessary to assess aerobic endurance and muscle strength as well as to design safe and effective exercise programs using aerobic and/or strength interventions on land or in water. Finally, to increase the clinical relevance of the laboratory experiences, I invited a number of participants from my research studies (i.e., healthy older women, post-cardiac transplant recipients or lymphedema patients) to be participants for the labs during which time the students assessed their aerobic capacity, muscular strength and endurance.

PTHER 481-581: Cardiac (Cardiopulmonary) rehabilitation. I developed and taught this course from 2000-2003. This class included 10 undergraduate students (4th year PT elective) and 5 graduate students. This course provided the students with a greater understanding of the beneficial role of cardiac rehabilitation in maintaining functional independence in individuals with cardiovascular disease. A secondary aim was to provide the students with a greater understanding of the major risk factors for coronary artery disease (CAD) and the role of a comprehensive cardiac rehabilitation program to modify these risk factors. In addition, the common cardiology tests used to diagnose CAD as well as the treatment of various cardiac diseases are also discussed. Finally, students were provided with the essential theoretical and clinical "hands on" experience necessary to design and implement safe and effective exercise training programs for individuals participating in a cardiac rehabilitation program.

TEAM TEACHING

PTHER 547 (Movement analysis III). My content focused on the effect that aging has on skeletal and cardiac morphology and function and the beneficial role of therapeutic exercise to attenuate the decline in overall health related physical fitness.

PTHER 544 (Cardiorespiratory 1). My course content was in the area of cardiac physiology, pathophysiology of acute coronary syndromes and cardiac rehabilitation post myocardial infarction (MI). An important objective is to provide the students with background knowledge and "hands on" skills necessary to perform a basic cardiac auscultation assessment and blood pressure measurement. The initial focus is on the cardiac cycle using pressure-volume analysis which provides the students with a greater awareness of cardiac hemodynamics associated with the opening and closing of the heart valves. I also discuss the pathophysiology of acute MI and cardiac exercise rehabilitation post MI.

PTHER 548 (Long-Term Conditions). My content area for this course included the pathophysiology of heart failure and cardiac rehabilitation for individuals with heart failure. I also lecture about cardiac transplantation (indications, contra-indications, special considerations, post-transplant morbidity/mortality, exercise physiology post- transplant) and

the benefits of cardiac rehabilitation post cardiac transplantation.

PTHER 536. Integrated practice III. My content consisted of a virtual/hands on cardiovascular exercise physiology laboratory.

PTHER 561. Physical Therapy in Long Term Conditions II. I lectured about pathophysiology and rehabilitation of heart failure. **Secondary instructor/guest lecturer**: I have been a guest lecturer at the University of Alberta, Faculty of Rehabilitation Medicine (Rehab 380, 463, 603), and Physical Education and Recreation (PAC 390, PEDS 412, 484, 517, 610) courses. Also, I have lectured at the University of Calgary, Faculty of Medicine (MED SCI 629)

COURSE COORDINATOR:

PTHER 504: CLINICAL EXERCISE PHYSIOLOGY: This course examines the acute and chronic physiological responses to exercise and explores the use of exercise in the management of chronic diseases and disabilities.

PTHER 561. Physical Therapy in Long Term Conditions II. Study of the theory and application of physical therapy in clients with selected musculoskeletal, cardiovascular, and integumentary conditions of a long-term nature.

ADMINISTRATION

UNIVERSITY OF ALBERTA *(JAN 2020 – MAY 2022):*

Faculty of Nursing, Associate Dean Research: Provided strategic research leadership to support the development, capacity and excellence in achieving the Faculty of Nursing research goals, objectives, and vision. Core responsibilities included providing research leadership, research strategic direction and planning, research operations, faculty (research) development, and faculty representation at the University level, and liaise with the College of Health Sciences and Vice President Research Offices to develop Health College and inter-university interdisciplinary health research initiatives.

Research Advisory Committee – CHAIR - January 2020-May 2022).
Graduate Education Committee: January 2020-May 2022).
College of Health Sciences ADR Working Group - January 2021-May, 2022.
University Research Policy Committee – January 2020-May 2022.
University (ADR) SSHRC Committee-.

Faculty of Nursing Committees:

Deans Advisory Committee: January 2020-2024; 2025-Present.
Faculty Evaluation Committee – July 2023-2024; 2025-Present.
CRC Renewal review Committee: March 2024

***UNIVERSITY OF TEXAS ARLINGTON* (August 2015 – December 2019):**
COLLEGE OF NURSING AND HEALTH INNOVATION COMMITTEES

08/1/15 – 12/19/19: College of Nursing Doctoral Committee

06/1/16 to 06/1/18: Chair - Tenure Track Faculty Search Committee: 7 faculty searches, Assistant Professor to Associate Dean Graduate Studies.
09/1/16 to 12/19/19: Promotion and Tenure Committee (Graduate Nursing level & College Level).

UNIVERSITY COMMITTEES

09/3/2015 to 12/19/19: Institutional Review Board (IRB) committee.

03/01/2017 to 4/21/2017: Interdisciplinary Research Program (IRP) Review Committee.
03/01/2017 to 5/17/2017: Comprehensive Endowed Chair Committee.
09/23/2017 to 12/19/19: Vice President - Research Advisory Committee.
12/7/2018 to 12/19/19: College of Business Endowed Chair Committee.

UNIVERSITY OF ALBERTA (JUNE 1999 – JULY 2015):
DEPARTMENT COMMITTEES:

1999 to 2008: MScPT (thesis based) Graduate program committee member. 1999-2004, Member of the following committees for the MScPT (course based) program: Curriculum development committee; Major project design committee; Block 2 committee; Block 5 (long-term conditions) committee; Course design member for PTHER 459**,** 534, 544, 548.
2001-2002 First year coordinator (undergraduate program). 2003-2004, PT Chair selection committee.

FACULTY COMMITTEES:

1999-2000, Faculty consultant for the interdepartmental (Inter-D) innovative teaching learning activity.
2000 to 2006: Library committee member.

2004: Practice Review Board committee (Faculty of Rehabilitation Medicine representative).
2007- Present: Faculty Evaluation Committee.

2008- Faculty of Rehabilitation Medicine Space Allocation Committee. 2010- Faculty of Rehabilitation Medicine Internal Research Grant Review Committee.

2011-Deans Senior Advisory Committee.

UNIVERSITY COMMITTEES:

1999: University of Alberta human vascular biology research steering committee. 2000-

2001: Capital Health cardiac center of excellence research and education committee.
2001-2002: Mazankowski Alberta Heart Institute steering committee.
2001 to 07/31/15: Mazankowski Alberta Heart institute cardiac rehabilitation sub-committee.
2002- 2009**:** Associate Mentor for the Tomorrows Research Cardiovascular Health Professionals (TORCH) program. The goal of this AHFMR/Heart and Stroke Foundation of Canada and CIHR funded strategic training program is to develop the next generation of cardiovascular health research leaders. In addition, I was the TORCH Mentor for S. Mandic.
2006: Faculty of Physical Education Selection Committee for cardiopulmonary exercise physiologist Assistant Professor Tenure Track Faculty position.
2007: Faculty of Physical Education Selection Committee for High Performance and Disability Sport (Academic Search) Faculty position.
2008 –2010: Mazankowski Alberta Heart Institute Strategic Management Council member.
2009 – 2010: Research Leadership Council for the Mazankowski Alberta Heart Institute. 2010-ABACUS Operations Committee.
2012-Research ethics committee (Panel B)
2013-Women and Children's Health Research Institute (WCHRI)-Grant Reviewer and Co-chair.

LOCAL, NATIONAL & INTERNATIONAL COMMITTEES:

2006 - 2009: Canadian Association of Cardiac Rehabilitation (CACR): Board Member 2005 -
2007: Scientific Review Committee Heart and Stroke Foundation of Alberta, NWT & Nunavut.
2006 - 2008: Canadian Institutes for Health Research-Peer Review Committee - Allied Health Professionals - New Investigators (AHP).
2010 - 2011 Heart and Stroke Foundation of Canada: Doctoral Research Awards Scientific Review Committee.
2009 - 2011-Heart and Stroke Foundation of Alberta, NWT and Nunavut: Executive Board Member.
2010 to 2012 - Heart and Stroke Foundation of Alberta, NWT and Nunavut: Advisory Board Member.
2010 - 2012 Canadian Society for Cardiovascular Magnetic Resonance, Board of Trustees.
2012 - National Heart Lung Blood Institute-National Institute of Health: Heart Failure and Exercise Working Group.
2013 - Alberta Innovates Health Solutions ACTION committee (Vascular Risk Reduction Project).
2017- American Heart Association (AHA) Planning Committee on the association between cardiovascular disease and HIV.

2018 - 2020 NIA/NIH Observational Study Monitoring Board (OSMB) Member- Study of Muscle, Mobility and Aging (SOMMA).
2019 – Present - Member on the AHA - CLCD Exercise, Cardiac Rehabilitation, and Secondary Prevention Committee of the Council on Clinical Cardiology.
2019 - NIA/NHLBI - A Gerocentric Approach to Heart Failure with Preserved Ejection Fraction (HFpEF) in Older Adults: Elucidating and Targeting Extra-Cardiac Mechanisms - Expert Working Group Member:
2022 – Present: Cardio-Oncology Rehabilitation and Exercise (CORE) working group on behalf of the International Cardio-Oncology Society (IC-OS), Senior Advisor.
2022 (August) – Present: Canadian Institutes of Health Research Clinical Trials Projects Review Committee.
2023 – Present: NIH, Data Safety Monitoring Board Member for Dr. Y. Reddys K23 Award (Mayo Clinic, Rochester).
2024 – Present: NIH/NHLBI, NIH, Data Safety Monitoring Board Member for Dr. J. Smith RO1 Award (Mayo Clinic, Rochester).
2026 CIHR Clinical Investigation - D: Cardiovascular Systems (CID) committee.

WORK EXPERIENCE

Clinical Exercise Physiologist (Adult Cardiology): Department of Medicine, Division of Cardiology, University of Alberta, Edmonton, Alberta

January 1992 – 2006: Responsible for conducting graded exercise stress/VO_{2peak} tests, maximal muscular strength assessments and exercise prescription for ongoing studies assessing the effects of exercise training on cardiorespiratory fitness and muscle strength in patients with NYHA class II - III congestive heart failure.

Research Associate

Department of Medicine, Division of Cardiology, University of Alberta, Edmonton, Alberta
May 1996 – 1998: Responsible for performing and analyzing body surface potential mapping exercise stress tests for the multi-center Simvistatin Coronary Artery Disease Trial.

Exercise Rehabilitation Consultant

Division of Oncology, Cross Cancer Institute, Edmonton, Alberta

January 1993 - June 1994: Responsible for conducting graded exercise stress tests in a study that assessed the effects of various pharmacological agents on overall fitness in patients with small cell lung cancer.

Registered Nurse

Emergency Department, Royal Alexandra Hospital, Edmonton, Alberta

January 1990 - June 1992: Employed as a staff nurse in an emergency/trauma center. Duties

included assessment and treatment of patients with a wide range of diseases in an acute care hospital setting.

GRADUATE AND POST-DOCTORAL TEACHING EXPERIENCES

Sessional Instructor- Exercise Physiology

Faculty of Physical Education and Recreation, University of Alberta, Edmonton, Alberta January 1999 - April 1999: Lectured about the physiological adaptations to the stress of exercise and training to undergraduate Physical Education students.

Sessional Instructor- Bioacoustics of Human Hearing

Department of Bioacoustics, Grant MacEwan Community College**,** Edmonton, Alberta
September 1996 **-** December 1996: Sessional instructor for bioacoustics of human hearing.

Lecturer- Human Physiology (Cardiovascular Physiology section)

Faculty of Physical Education and Recreation, University of Alberta, Edmonton, Alberta January 1996 - February 1996: Taught the cardiovascular physiology section of a human physiology course to undergraduate Physical Education students.

Teaching Assistant- Health Education

Faculty of Physical Education and Recreation, University of Alberta, Edmonton, Alberta January 1995 - April 1995: Taught the health education laboratory section to undergraduate Physical Education students.

Teaching Assistant-Exercise Physiology

Faculty of Physical Education and Recreation, University of Alberta, Edmonton, Alberta
September 1992 - April 1995: Taught the exercise physiology laboratory section to undergraduate Physical Education students.

Sessional Instructor-Anatomy

Grant MacEwan Community College, Edmonton, Alberta
September 1991 - December 1991: Taught the anatomy laboratory section to undergraduate Physical Education students.

Teaching Assistant-Anatomy

Faculty of Physical Education and Recreation, University of Alberta, Edmonton, Alberta
September 1991 - December 1991: Taught an anatomy laboratory section to undergraduate Physical Education students.

AWARDS & ACHIEVEMENTS

TEACHING

- 2000: University of Alberta, Rehabilitation Medicine Students Association- *Teacher of the year award.*
- 2002-2009: Tomorrow's Research Cardiovascular Health Professionals (TORCH) Mentor.

RESEARCH

- July 2004 – June 2009: Canadian Institute of Health Research New Investigator Career Award.
- August 2015 – December 2019: Moritz (Endowed) Chair in Geriatrics, College of Nursing and Health Innovation, The University of Texas Arlington.
- May 1, 2018 – Present: Fellow of the American College of Cardiology (FACC). The Fellowship is one of the most distinguished designations the College offers its members and is the ultimate recognition of professional achievement. It is based on outstanding credentials, achievements, and community contributions to cardiovascular medicine, those who are elected to Fellowship signal to peers and patients their commitment to quality cardiovascular care through use of the FACC designation.
- September 9, 2018 – Present: Fellow of the American Heart Association.
- October 25, 2019 - Recipient of the 2019 Canadian Association of Cardiovascular Prevention and Rehabilitation 2019 Terry Kavanagh Award.
- May 10, 2023 – Present: Fellow of The American College of Sports Medicine (FACSM). FACSM is the most prestigious distinction within the College.
- July 1, 2025 – American Association of Cardiovascular and Pulmonary Rehabilitation (AACVPR) – Michael L. Pollock Established Investigator Award.

MEMBERSHIPS

- *College of Registered Nurses of Alberta (CRNA); American College of Cardiology; American College of Sports Medicine; American Heart Association; American Physiological Society; European Society of Cardiology.*

AD HOC JOURNAL REVIEWER:

American Heart Journal; American Journal of Cardiology; American Journal of Physiology-Heart & Circulatory Physiology; American Journal of Physiology-Regulatory, Integrative and Comparative physiology; Applied Physiology, Nutrition and Metabolism; British Medical Journal; British Journal of Sports Medicine; Canadian Journal of Cardiology; Canadian Journal of Physiology and Pharmacology; CHEST: The Cardiopulmonary and Critical Care journal; Circulation; Circulation Heart Failure; European Heart Journal; European Heart Journal

Cardiovascular Imaging; European Journal of Applied Physiology; European Journal of Sports Sciences; Experimental Physiology; Experimental Gerontology; Hypertension; Journal of American Society of Echocardiography; Journal of Applied Physiology; Journal of Cardiac Failure; Journal of Clinical Hypertension. Journal of Transplantation; Journal of the American College of Cardiology (JACC); JACC: Heart Failure; JACC: Imaging; Mayo Clinic Proceedings; Medicine Science and Sports in Exercise; New England Journal of Medicine; Scandinavian Journal of Medicine and Science in Sports; Sports Medicine; The Journal of Physiology; Transplantation.

REVIEWER (NATIONAL FUNDING AGENCIES):

- Heart and Stroke Foundation of Canada External Reviewer.
- Scientific Review Committee Heart and Stroke Foundation of Alberta, NWT & Nunavut.
- Canadian Breast Cancer Foundation.
- CIHR Allied Health Professionals-New Investigators Peer Review Committee.
- Heart & Stroke Foundation of Canada Doctoral Research Awards Peer review Committee.
- Wake Forest Claude D. Pepper OAIC Pilot Project competition, Wake Forest School of Medicine.
- Australian Academy of Health and Medical Sciences.
- AHA - Abstract Reviewer for Scientific Sessions 2023.
- 2022 (August) – Present: Canadian Institutes of Health Research Clinical Trials Projects Review Committee.

STUDENT SCHOLARSHIPS/AWARDS

- Canadian Association of Cardiac Rehabilitation *PhD Scholarship*, 1997-1998.
- Heart & Stroke Foundation of Canada/National Health Research and Development
- Program, *PhD Studentship in cardiovascular and cerebrovascular research*, 1996-98.
- Walter H Johns *Graduate Fellowship*, University of Alberta, 1996-1998.
- Mary Louise Imrie *Graduate Student Award*, University of Alberta, 1996.
- University of Alberta *PhD Scholarship*, 1994-1996.
- Royal Alexandra School of Nursing, Eva Nowakowsky Memorial Award for Excellence in Geriatric Nursing, 1990.

PUBLICATIONS

DISSERTATIONS:

1. Haykowsky MJ. Effects of resistance training on left ventricular morphology. Ph.D. Thesis, University of Alberta, 1998.

2. **Haykowsky MJ**. Physiological responses to combined aerobic and resistance training in elderly sedentary males. MSc Thesis, University of Alberta, 1994.

EXPERT OPINION:

1. **Haykowsky M**, Clark A, Block PC. A meta-analysis of the effect of exercise training on left ventricular remodeling in heart failure patients: The benefit depends on the type of training performed. *ACC Cardiosource Review Journal*. 2007,16(10):33-37.

REPORTS:

1. Clark AM, **Haykowsky MJ**, McAlister FA. A systematic review of non-provider based secondary prevention programs for coronary heart disease. A final report for Public Health Agency Canada, March 2008.

BOOK CHAPTERS:

1. Gutierrez R, **Haykowsky M**, Hill L, Cluett L, Ignaszewski A, Teo K, Humen D. Combined aerobic and strength training in congestive heart failure patients: Pilot project on safety and feasibility. In: *Mechanisms of Heart Failure*. Singal P, Dixon I, Beamish R, Dhalla N (eds.), Kluwer Academic Publishers, Boston, USA, 1995.

2. Teo KK, **Haykowsky M**, Demers C, McKelvie RS. Benefits of exercise in patients with congestive heart failure. In: Dhalla NS, Chockalingam A, Berkowitz HI, Singal PK, ed. *Frontiers in Cardiovascular Health*. Kluwer Academic Publishers, Boston 2003 Chapter 37, pg. 507-518.

3. Haennel RG, C Tomczak C, **Haykowsky M**, Cerato L, Krishnan B. Special Populations Canadian Guidelines for Cardiac Rehabilitation and Cardiovascular Disease Prevention. 2nd edition. J Stone and H Arthur Editors. *Canadian Association of Cardiac Rehabilitation* 2004*. (Updated in 2008).*

4. Haykowsky, MJ. Cardiac Effects of Strength Training. In Muscle Strength, Kumar, S. (ED). Chapter 4, pg. 33-44, Taylor Francis, New York, 2004*.*

5. **Haykowsky M**. *Cardiovascular Integration in Musculoskeletal Rehabilitation in Scientific Foundations and Principles of Practice*. D. Magee, Editor, Elsevier Science, 2007.

6. Stone J, Hauer T, **Haykowsky M**, Aggarwal S. Exercise Therapy for Heart Failure patients in Canada. *International Encyclopedia of Public Health* (2nd Edition). 2017:66-69.

7. Kitzman DW, Upadhya B, **Haykowsky M**, Taffet G. Effects of Aging on Cardiovascular Structure and Function. In: Halter JB, Ouslander JG, Studenski S, et al. *Hazzard's, Geriatric Medicine and Gerontology*, 7th ed. New York, NY: McGraw-Hill; 2017:1129-1144.

8. **Haykowsky MJ**, Beaudry R, Tucker WJ. Exercise rehabilitation for Older Breast Cancer Survivors. In: Gatchell R, Schultz IZ, Ray CT (Editors). *Handbook of Rehabilitation in Older Adults*. Springer. 2018.371-381.

9. Eric J Stöhr, Lauren K Truby, Veli Topkara, Gordon McGregor, **Mark J Haykowsky**. Exercise Testing in Heart Failure. In Sport and Exercise Physiology Testing Guidelines.

Routledge. Davison R, Smith PM, Hopker J, Price MJ, Hettinga F, Tew G, Bottoms L. (Editors). 2022:307-316.

10. Tucker W, **Haykowsky MJ**, Kitzman DW, Angadi S. Alterations in Skeletal Muscle in Heart Failure. In A Companion to Braunwald's Heart Disease, 5th Edition. Mann D. (Editors). Elsevier. 2025.

INVITED REVIEWS:

1. ***Haykowsky MJ,*** McGavock J, Taylor D. Effects of resistance training on left. ventricular morphology and systolic function. *Federacion Argentina de Cardiologia, 2nd Virtual Congress of Cardiology* (Sep 1 – Nov 30, 2001).

2. Dressendorfer R, **Haykowsky MJ**. Eves N. Exercise for Persons with COPD. *American College of Sports Medicine, Current Comment*, October, 2002.

3. Haykowsky MJ. Effects of Exercise Training on Left Ventricular Morphology and Systolic Function: From Athletes to Cardiac Transplant Recipients. *3rd Master Heart and Physical Exercise: Prevention and Rehabilitation*, 2003.

4. Haykowsky M, Tomczak C. Riess K, Warburton D. Aerobic fitness in transplant recipients: A Canadian Perspective. Transworld: *The Journal of the World Transplant Games Federation*. 2007;(1):14-15.

5. Haykowsky M, Pituskin E, Paterson I. Physical Health and Exercise in Cancer. *http://www.acc.org*. Aug. 31, 2016.

LETTERS TO EDITOR:

1) Pituskin E, Kirkham A, Thompson R, **Haykowsky MJ**, Paterson DI. Reply: Impact of Cardiac Rehabilitation on Cardiotoxicity Reduction. *JACC Adv*. 3(3):100848. 2024.

2) LaGerche A, Foulkes SJ, **Haykowsky MJ**. Reply: Heart Failure With Preserved Ejection Fraction: Exercise Deficiency or Ventricular Maladaptation to Metabolic Demands? *JACC: Cardiovascular Imaging.* 2023.16(9):1236-1237.

3) Samuel JT, **Haykowsky MJ**, Sarma S, Nelson MD. Diastolic stress testing: Have you considered isometric handgrip echocardiography? *JACC: Cardiovascular Imaging*. 2019.12(10):2035-2037.

4) Scott JM, Tucker WJ, **Haykowsky MJ**. Lamina Cribrosa Pore Diameter and Spaceflight-Associated Neuro-ocular Syndrome-Reply. JAMA Ophthalmology. 2019 Aug 29. doi: 10.1001/ jamaophthalmol.2019.3322. [Epub ahead of print].

5) Kitzman DW, Upadhya B, Brubaker P, **Haykowsky MJ**, Nelson MD. REPLY: Heart Failure with Preserve Ejection Fraction: Types 1 and 2. *JACC: Heart Failure*. 2019. 7(7):632-633.

6) Beaudry RI, **Haykowsky MJ**, Nelson MD. Reply to "Letter to the Editor: Exercise MRI in healthy individuals-will the outlier please stand up? *Am J Physiol Regul Integr Comp Physiol*. 2019 Mar 1;316(3):R300.

7) Kitzman D, **Haykowsky M**, Kraus W. Diet and exercise for obese patients with heart failure-In Reply. *JAMA*. 2016.315(23):2619-20.
8) Tomczak CR, Halle M, Nelson MD, **Haykowsky MJ**. Acute high-intensity interval training confers a short-term reduction in systemic vascular resistance and increase in ejection fraction in clinically stable systolic heart failure patients. *J Physiol.* 2016.9.
9) Scott JM and **Haykowsky MJ**. Can Intensive Exercise Harm the Heart? *Circulation.* Online June, 2015;131(23):e523.
10) Scott J and **Haykowsky M**. Cardiovascular Function and Exercise Capacity in Patients with Colorectal Cancer: Does Anti-Cancer Therapy Matter? *J Am Coll Cardiol.2015;*65(13):1380-1381.
11) Scott J and **Haykowsky MJ**. Exercise is still medicine: transient alterations are critical for adaptation. *J Physiol*. 2014:4-5.
12) Tomczak C and **Haykowsky MJ**. Discrepancy Between Cardiac and Physical Functional Reserves in Stroke. *Stroke*. 2012 Sep;43(9):e91.
13) Kitzman D, Morgan T, **Haykowsky M**, Brubaker P: Determinants of Exercise Intolerance in Heart Failure with Preserved Ejection Fraction: Reply. *J Am Coll Cardiol*. 2011;58:2548-2549.
14) Jones L, **Haykowsky M**, Swartz J, Douglas P, Mackey J. "Early Breast Cancer Therapy and Cardiovascular Injury" – *Reply*. *J Am Coll Cardiol* 2008;51(12):1235
15) Haykowsky M, Liang Y, Pechter D, Jones L, McAlister F, Clark A. Exercise in chronic heart failure: Does it need to be "Anti-Remodeling" – *Reply*. *J Am Coll Cardiol*. 2007:50(24): 2356.
16) ALa Gerche A, Foulkes SJ, **Haykowsky MJ**. Reply: Heart Failure with Preserved Ejection Fraction: Exercise Deficiency or Ventricular Maladaptation to Metabolic Demands? *JACC Cardiovascular Imaging. 2023.* 16 (9):1236-1237.
17) Impact of cardiac rehabilitation on cardiotoxicity reduction: Reply. Pituskin E, Kirkham A, Thompson R, **Haykowsky M**, Paterson DI. Accepted December 22, 2023.
18) Thomczak CR, Skow R, Tandon P, **Haykowsky MJ**. Response to: Distinguishing pharmacological from peripheral limitation in the six-minuten walk test in cirrhosis. Liver Transplantation. Accepted June 23, 2026.

INVITED EDITORIAL:

1. Tomczak CR, Skow RJ, Tandon P, **Haykowsky MJ.** Distinguishing pharmacological from peripheral limitation in the six-minute walk test in cirrhosis. *Liver Transpl.* 2026 Jul 10. doi: 10.1097/LVT.0000000000000961. Online ahead of print.
2. Foulkes S, Nelson MD, **Haykowsky MJ**. Musclin and HFpEF: Unlocking Skeletal Muscle Potential to Improve Exercise Tolerance. *Circ Heart Fail.* 2025 May 6:e013130. doi: 10.1161/CIRCHEARTFAILURE.125.013130. Online ahead of print. PMID: 40326355
3. Tucker W, Brubaker P, **Haykowsky MJ**. Improving Exercise Capacity in Recent Heart Transplant Recipients: Can a "HIT" Result in a Home Run? *Circulation*. 2019.7;139 (19):2212-

2214.
4. Halle M, **Haykowsky M**. Atrial fibrillation: A preventable lifestyle disease! *Eur J Prev Cardiol*. 2018. 25(15):1642-1645.
5. Tucker W, **Haykowsky MJ**. Predictors of Cardiorespiratory Fitness Improvements with Cardiac Rehabilitation: Lower Baseline Fitness with the Most to Gain, Gains the Most. *Can J Cardiol.* 2018. Volume 34(7):819-820.
6. Lavie CJ, **Haykowsky MJ**, Ventura HO. Rehabilitating Cardiac Rehabilitation After Heart Transplantation. *J Heart Transplant*. 2017.37(4):437-438.
7. Kitzman DW, **Haykowsky MJ**, Tomczak CR. Case for Skeletal Muscle Myopathy and Its Contribution to Exercise Intolerance in HFpEF. *Circulation Heart Failure*. 2017 Jul;10(7).pii: e004281.
8. Kitzman D, **Haykowsky MJ**. Vascular Dysfunction in heart failure with preserved ejection fraction. *J Card Fail*. 2016;22:12-6.
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ABSTRACTS:

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INVITED PRESENTATIONS

1. Aorta in Sports Cardiology. European Association of Preventive Cardiology: Sports Cardiology Course 2026. Munich Germany. September 1, 2026
2. Aortic Aneurysms and Exercise. Aortic Athletes. Aortic health YouTube Channel. January 21, 2026 (Virtual)
3. Accelerated Aging in Breast Patients Receiving Breast Cancer Therapy. Canadian Cardiac Oncology Newtwork Symposium. November 21, 2025.
4. Evaluation Exercise Limitations Along the Oxygen cascade: Role of Exercise MRI. Centre for heart Lung Innovation. UBC - St. Pauls Hospital, Vancouver, Canada. November 15, 2025.
5. The Athletes Paradox: can you run your heart into Failure? College of kinesiology, University of Saskatchewan.Saskatoon, Saskatchewan. October 31, 2025.
6. Exercise Oxygen Uptake and Recovery Kinetics. Hochgebrinksklinik Cardiac rehabilitation Rounds. Davos, Switzerland, September 19, 2025.
7. Exercise and Thoracic Aortopathy: When Might an Aneurysm Go Pop?"**.** UBC Cardiology Grand Rounds. Vancouver, Canada. May 29, 2025.
8. Exercise limits in a patient with aortic disease. 2025 European Society of Preventive Cardiology Congress. Milan, Italy. April 5, 2025.
9. Adipose tissue deposits: What do they tell us about heart failure outcome? 2025 European Society of Preventive Cardiology Congress. Milan, Italy. April 4, 2025.
10. Aortic Wall Stress and Remodeling: From Healthy Aging to Athletic Adaptation and Pathological Dilation. Moritz Speaker Series. College of Nursing and Health Innovation, University of Texas Arlington. Arlintgton, Texas. March 26, 2025.
11. Mechanisms of exercise intolerance in breast cancer: Similarities between HFpEF. Barbara Ell Seminar. Victor Chang Research Institute. Sydney Australia. March 14, 2025.
12. Under Pressure: Impact of Exercise on Cardiac Function and Aortic Wall Stress in Thoracic Aortic Disease. Baker Heart & Diabetes Institue. Melbourne Australia. March 12, 2025.
13. Exercise, will the dilated aorta ‘Go Pop”? In the session titled “Kick to kick – sports med

and sports cardiol". Sports and Cardiac Arrest Australia 2025 Symposium. Mantra Lorne, Australia. March 8, 2025.

14. Rewinding the clock with Exercise: Never to late to modify your biological age. College of Health Sciences, Research and Innovation Advisory Council Meeting. Edmonton, AB. March 4, 2025.

15. Vigorous exercise is safe in patients with genetic aortopathy (Debate). 2025 Rare Cardiac Conditions Conference, Ottawa Heart Institute. February 28, 2025. Vitual Conference.

16. Under Pressure: The Impact of Exercise on Cardiac Function and Aorta Wall Stress in Thoracic Aorta Disease. Aortic Institue Rounds. Yale University School of Medicine. (Virtual). January 13, 2025.

17. Under Pressure: The Impact of Exercise on Cardiac Function and Aorta Wall Stress in Thoraccic Aorta Disease. Institut universitaire de cardiologie et de pneumologie de Québec University of Laval. Quebec City, Canada. January 9, 2025.

18. Under Pressure: The Impact of Exercise on Cardiac Function and Aorta Wall Stress in Thoraccic Aorta Disease. Ottawa Heart Institute Weekly Research Conference (In Person & Virtual). January 6, 2025.

19. Exercise limitations in breast cancer: Similarities with HFpEF. Cardiology Rounds. Hochgebirgsklinik Davos, Medicine Campus Davos, Switzerland. October 24, 2024.

20. Upper limits of human performance post heart transplant. University of Innsbruck, Innsbruck Austria. October 18, 2024.

21. Exercise testing, training and frailty assessmrnt. RECOVER Congress. Hochge-birgsklinik Davos, Medicine Campus Davos, Switzerland. October 16, 2024.

22. Exercise training in older heart failure patients. Bestform Congress. Technical University Munich. Munich, Germany. October 13, 2024.

23. Pathophysiology of Exercise Intolerance in HF: Role of Sex, Age, Rate, and Weight. Massachusetts General Hospital Cardiology Seminar. Boston, MA. September 19, 2025.

24. Pathophysiology of exercise intolerance in breast cancer: Similarities between HFpEF. Womens health Seminar. University of Calgary, October 2, 2024. Calgary, AB.

25. Pathophysiology of exercise intolerance post heart transplant: From bedside to Ironman triathlon. Cardiac Rehabilitation Rounds. Hochgebirgsklinik Davos, Medicine Campus Davos, Switzerland. July 25, 2024.

26. Unlocking the secrets of longevity: Can exercise outrun the grim reaper? Edmonton Rotary Club. Edmonton, AB. July 15, 2025.

27. Impact of peripheral limitations to exercise in heart failure. Korean Vascular Society (KOVAS) Summer Conference. Seoul, South Korea. July 12, 2024.

28. Upper limits of human performance post heart transplant: Legacy effect of prior endurance training. Texas Women's University. Houston, TX, April 23, 2024. Virtual Presentation.

29. Pathophysiology of exercise intolerance in breast cancer. Cancer Care Alberta Provincial Rehabilitation Rounds April 11, 2023. Virtual Presentation.

30. Keynote Speaker. Pathophysiology of exercise intolerance in older breast cancer

survivors: Similarities between heart failure and preserved ejection fraction Inaugural Clinical Exercise Physiology UK Annual Conference. Manchester, UK. April 5, 2024.

31. Upper limits of human performance post heart transplant: Legacy effect of prior endurance training. Department of Health & Exercise Science, Wake Forest University. Winston Salem, USA. November 9, 2023.

32. Benefits of Exercise: Taking care of your heart so your heart can take care of you. Canadian Medical Hall of Fame: Discovery Days in Health Sciences: Dr. Lorne Tyrell Keynote Lecture. Edmonton, Canada. November 2, 2023.

33. Ironman after heart transplantation: Is it possible? Sport Cardiology Congress. Technical University Munich (TUM), Munich, Germany. October 21, 2023.

34. Exercise performance in heart transplant recipients – Legacy effect of prior endurance training – In the Mini Symposium titled 'Exercise Limitations in Heart Failure'. Hartcentrum Hasselt – University of Hasselt, Hasselt, Belgium. August 31, 2023.

35. How to adapt Exercise prescription in elderly and frail patients – In the Session "How to provide personalized exercise prescription for a patient with heart failure". European Society of Cardiology 2023. Amsterdam, Netherlands. August 27, 2023.

36. Fat accumulation in the musculature in HFpEF: role for exercise intolerance. In the session titled "Weight loss as a therapeutic target in HFpEF: dawn of an new era?

37. How to adapt Exercise prescription in elderly and frail patients – In the Session "How to provide personalized exercise prescription for a patient with heart failure". European Society of Cardiology 2023. Amsterdam, Netherlands. August 26, 2023.

38. Exercise limitations in older breast cancer survivors: Similarities between HFpEF. Department of Preventative Sports Medicine & Sports cardiology Research Rounds. Technical University Munich, Munich, Germany. July 14, 2023.

39. Upper limits of human performance post heart transplant. Medizinische Universitat / Universitatsklinik Innere Medizin III, University of Innsbruck Innsbruck, Austria. July 13, 2023.

40. Upper limits of human performance post heart transplant. Department of Preventative Sports Medicine & Sports Cardiology Research Rounds. Technical University Munich, Munich, Germany. July 3, 2023.

41. Mechanisms of persistent impairment in cardiorespiratory fitness post heart transplant: Role of cardiac exercise rehabilitation to improve health related fitness and function. 3rd Jim Pattison Cardiac Rehabilitation Symposium. Banff, Canada, April 2, 2023.

42. The role of exercise training to prevent cardiovascular and skeletal muscle deconditioning across the breast cancer survivorship continuum. CardioOncology Information Evening. Baker Heart and Diabetes Institute. Melbourne, AU. March 30, 2023.

43. Focus on cardiac arrest: Honey, it's not funny. International Sudden Cardiac Arrest and Sports Symposium. Lorne, AU. March 26, 2023.

44. Life as a champion triathlete after cardiac arrest and transplant – physiology and psychology (keynote speaker). International Sudden Cardiac Arrest and Sports Symposium.

Lorne, Au. March 24, 2023.
45. Exercise limitations in breast cancer across the survivorship continuum. Camosun College, School of Health and Human Services. Faculty Development Rounds. Victoria, BC. February 17, 2023.
46. Pathophysiology of exercise intolerance in breast cancer: Similarities between HFpEF; Ottawa Heart Institute. Ottawa, ON. February 8, 2023
47. Taking care of your heart so your heart can take care of you. University of Alberta Alumni-Phoenix Chapter. Phoenix, AZ, February 4, 2023.
48. Mechanisms of exercise intolerance in older breast cancer survivors: Similarities between HFpEF. UBC Exercise, Kinesiology & Health Seminar. Kelowna, BC. Nov 21, 2022.
49. Health Benefits of Exercise. University of Alberta Alumni-Vancouver Chapter. Victoria, BC. November 19, 2022.
50. Health Benefits of Exercise. University of Alberta Alumni-Victoria Chapter. Victoria, BC. November 19, 2022.
51. Exercise limitations in HFpEF and breast cancer: Central role of the periphery. Muscle Health Research Centre (MHRC) Seminar Series, York University, Virtual, Nov 11, 2022.
52. The Key to Health Aging: Upper limits of human performance post heart transplant surgery. University of Alberta, Faculty of Nursing, Alumni. Edmonton, AB, Nov 1, 2022.
53. Curing Cancer and killing the Heart. DR Barry McKeown Lecture, College of Nursing and Health Innovation, University of Texas Arlington. Arlington, TX, October 5th, 2022.
54. Mechanisms of Exercise Intolerance in Older Women at risk for or with HFpEF. In the Session “Secondary Prevention of Diverse Women with CVD: From Challenges to Innovations”. AACVPR 37th Annual Meeting, West Palm Beach, FL. September 22, 2022.
55. Is Weightlifting and Resistance Training a Treatment for HFpEF? Session LF.CVS.248 - Adiposity and Activity: Cause and Cure for HFpEF? American Heart Association 2021 Scientific Sessions (Virtual Meeting). Boston, MA, November 14, 2021.
56. Pathophysiology of Exercise Intolerance in the Older Adult with HFPEF. 1st University Forum of The Americas on Health Aging (Virtual Meeting), UNINASSAU, SOBRAL, Brazil - Keynote Speaker. November 11, 2021.
57. Meet the Experts – The ‘how-to’ of exercise prescrption in cardiovascular disease. European Society of Cardiology Congress 2021 – The Digital Experience. August 29, 2021.
58. The Importance of Skeletal Muscle in heart Failure Patients with Preserved Ejection Fraction. In the symposium titled “Cardiac Function: Beyond Cardiac Output and VO_2max”. 2021 American College of Sports Medicine Annual Meeting (Virtual Meeting). June 5, 2021.
59. Cardiovascular Pathophysiology in Breast Cancer Patients and Implications for Exercise. In the symposium titled “Exercise Management of Cardiovascular Risk in Cancer Populations”. 2021 American College of Sports Medicine Annual Meeting (Virtual Meeting). June 2, 2021.
60. Pathophysiology of Exercise Intolerance in the Older Adult with HFpEF. University of Texas

Arlington, Gero Confereence: Nursing Excellence in Care of the Older Adult. A Virtual Conference in Gerontology Nursing. Arlington TX, April 10, 2021.

61. Taking Care of Your Heart so Your Heart will Take Care of You. Faculty of Nursing Research Chair in Aging and Quality of Life Virtual Presentation. Edmonton, AB, December 17, 2021.

62. Role of Exercise to Prevent Deconditioning during COVID-19: How to Stay Active while Social Distancing. In the University of Alberta Alumni live webinar titled “Adapting to the new normal: A practical guide for seniors. Edmonton, AB, May 12, 2020.

63. The importance of skeletal muscle. In the symposium titled “Cardiac Function: Beyond Cardiac Output and VO_2max”. American College of Sports Medicine. May 26, 2020. San Francisco, CA, USA. *Conference was cancelled because of COVID-19.*

64. Exercise in heart failure: Benefits in the heart and beyond. European Society of Cardiology Preventative Cardiology. April 2, 2020. Malaga, Spain. *Conference was cancelled because of COVID-19.*

65. Upper Limits of Aerobic Fitness and Performance in Heart Transplant Recipients. Heart Failure Rounds. Massachusetts General Hospital. February 27, 2020. Boston, MA

66. Pathophysiology of exercise intolerance in HFpEF: Central role of the periphery. Cardiology Grand Rounds, Boston University Medical Centre. February 26, 2020. Boston, MA, USA.

67. Upper limits of Human Performance in heart Transplant recipients. This is an invited talk at the 2019 Fall Canadian Association of Cardiovascular Prevention and Rehabilitation conference as the recipient of the ***Terry Kavanagh award in recognition of my achievements in the field of cardiovascular prevention and rehabilitation***. October 25, 2019, Montreal Canada.

68. Upper limits of power and performance in heart transplant triathletes. School of Kinesiology. Ball State University. October 14, 2019. Muncie, IN, USA

69. Impact of Aging Skeletal Muscle Changes on Exercise Intolerance and HFpEF. In workshop titled “A Gerocentric Approach to Heart Failure with Preserved Ejection Fraction (HFpEF) in Older Adults: Elucidating and Targeting Extra-Cardiac Mechanisms”. NIA/NHLBI - Expert Working Group Meeting. September 12-13, 2019. Bethesda, MD, USA.

70. Is a diseased and aging heart trainable? In the symposium titled “Preventative Cardiology In All Stages of Life: What do we know?” European Society of Cardiology (ESC) Congress 2019. September 3, 2019. Paris, France.

71. Heart Failure: HFpEF vs HFrEF – Differences From the Exercise Physiologist Perspective. Canadian Association of Cardiovascular Prevention and Rehabiliation Spring Annual Meeting and Symposium. June 14, 2019. Saskatoon, Saskatchewan, Canada.

72. “Determinants of exercise intolerance in HFpEF along the oxygen cascade” In the symposium titled “Role of Exercise in HFpEF: an update”. EuroPrevent. April 11, 2019. Lisbon, Portugal.

73. “Mechanisms of Exercise Intolerance in the Heart Failure Patient: Why is My Patient So

Tired?" In the session titled "Exercise Training in Heart Failure: Our Call to Action". American College of Cardiology, ACC 19. 68th Annual Scientific Session. New Orleans, LA, USA. March 16, 2019.

74. Exercise in Breast Cancer. College of Applied Health Sciences. University of Chicago Illinois. March 12, 2019.

75. Upper Limits of Human Performance in Heart Transplant Ironman Triathletes. 2018 Ironman Sports Medicine Conference. Kona, Hawaii, USA. October 7-11, 2018.

76. "Peripheral Skeletal muscle dysfunction in HFpEF" In the session titled "An Integrated Approach to Understanding Physiologic Sub phenotypes and their Impact on Functional Capacity and Outcomes in HF with Preserved Ejection Fraction" Heart Failure Society of America. Nashville, TN, USA. September 16th, 2018.

77. "Importance of exercise training to improve exercise capacity and cardiac function in heart failure" In the Hands-On Workshop titled "Cardiopulmonary Exercise Testing basics – Unexplained Dyspnea". Heart Failure Society of America. Nashville, TN, USA. September 16th, 2018.

78. Exercise strategies in chronic heart disease. In the session titled "Exercise therapy in internal medicine options for a multi-drug". 17th European Congress of Internal Medicine, European Federation of Internal Medicine, Wiesbaden, Germany. August 31, 2018.

79. Keynote Speaker. Upper limits of power and performance in heart transplant traithletes. European Association of Preventative Cardiology (EAPC) Sports Cardiology Course. German Hearts Centre. Munich, German. August 29-30, 2018.

80. Exercise in cardio-oncology: The relationship between exercise and cancer related cardiotoxicity. Exercise is Medicine Tutorial, American College of Sports Medicine (65th) Annual Meeting. Minneapolis, Mn, USA. May 30, 2018.

52. 7th Seminar on Exercise in Medicine. NTNU & CERG. "Curing breast cancer and dying of heart failure: Role of exercise to reverse cardiac dysfunction". Trondheim, Norway. December,14-15, 2017.

53. Upper limits of Human performance post heart transplant. School of Physical Therapy, Annual Research Day, Texas Womens University. Houston, Texas, USA. November 30th, 2017.

54. "What is the Role of Lifestyle Modification in the Care of HFpEF Patients?" In Cardiovascular Seminar entitled "Does the Obesity Paradox in Heart Failure Really Exist?" American Heart Association Scientific Sessions 2017. Anaheim, CA. November 13, 2017.

55. "Pitfalls in exercise intervention studies" (Invited international speaker and chair of the session) In the symposium "Diastolic Heart Failure: From Bench to Bedside". Munich, Germany. September 22, 2017.

56. "How does cardiac rehabilitation help? In the session titled "Cardiac Rehabilitation and Exercise Training in Patients with Heart Failure". 21st Annual Scientific Meeting of the Heart

Failure Society of America. Dallas, TX. September 17, 2017.

57. Interntaionl/keynote speaker. Revisiting the Morganroth hypothesis 40 years later. The first Baker Sports cardiology conference. Baker Heart and Diabetes Institute. Melbourne, Australia. June 24, 2017.

58. Interntaionl/keynote speaker. The worlds fittest heart transplant recipients. Sport Cardiology Seminar for athletes. Baker Heart and Diabetes Institute. Melbourne, Australia. June 24, 2017.

59. "Exercise Physiology in Breast Cancer Patients", and Chair of the session titled "Lifestyle Interventions to Reduce Toxicity and Breast Cancer Recurrence: What's the Evidence? American Society for Clinical Oncology Annual Scientific Meeting. Chicago, IL. June 3, 2017.

60. "Pathophysiology of exercise intolerance in heart failure with preserved versus reduced ejection fraction" In symposium entitled "Exercise Limitations in Heart Failure" American College of Sports Medicine 64th Annual Meeting. May 31, 2017, Denver, Co.

61. Cardiac complications of breast cancer Therapy. Science and Health Innovation: Advancing Clinical Practice Research Symposium. 2017 Nursing Research Symposium Sigma Theta Tau (Delta Theta Chapter), University of Texas Arlington, Arlington, Texas, USA. April 21, 2017.

62. Role of exercise to prevent cardiac dysfunction and toxicity during and after cancer therapy. University of Utah Vascular Research Laboratory's Colloquium Series. April 21, 2017, Salt Lake City, UT.

63. Pathophysiology of exercise intolerance in HFPEF: Central role of the periphery. Virginia Commonwealth University (VCU) Medical Centre, VCU Pauley Heart Center. Richmond, Virginia. February 28, 2017.

64. Benefits of Exercise: A healthy heart takes care of you. The University of Texas Retirees Club. Arlington, Texas. January 10, 2016.

65. Advances in exercise training for heart failure-Exercise training in HFrEF and HFpEF: similarities and differences. American Heart Association Annual Scientific Session. New Orleans, Louisiana, Nov 15 2016.

66. Heart transplant Ironman: Upper limits of human performance post heart transplant. The Annette Caldwell Simmons School of Education and Human Development. Southern Methodist University (SMU). Dallas, Texas, September 30, 2016.

67. Upper limits of Human performance post heart transplant. 14th Annual Centre for Heart Failure Research (CHFR), South-Eastern Norway Research Groups. Oslo, Norway, September 22nd, 2016.

68. Management of HFpEF in 2016: Surviving in a Data-Free World. Is cardiac rehab the answer? Heart Failure Society of America Annual Scientific Meeting. Orlando, Florida, September 18th, 2016.

69. Heart transplant Ironman: Upper limits of human performance post cardiac transplantation. 64th Annual Scientific meeting of the Cardiac Society of Australia & New Zealand. Adelaide,

Australia, August 5th, 2016.

70. Pathophysiology of exercise intolerance in heart failure and preserved ejection fraction. 64th Annual Scientific meeting of the Cardiac Society of Australia & New Zealand. Adelaide, Australia, August 5th, 2016.

71. Pathophysiology of exercise intolerance in heart failure and preserved ejection fraction. Australian Cardiovascular Health and Rehabilitation Association. August 2nd, 2016. Adelaide, Australia.

72. Upper limits of human performance post-cardiac transplant. Australian Cardiovascular Health and Rehabilitation Association. August 2nd, 2016. Adelaide, Australia.

73. Exercise Rehabilitation for Heart Failure: Who, when and How intense? University of Saskatchewan, Saskatoon Saskatchewan, Canada, June 27, 2016.

74. Exercise Rehabilitation for Heart Failure: Who, when and How intense? Jim Pattison Cardiac Rehabilitation Symposium-Mazankowski Alberta heart Institute. Banff, AB, Canada, April 9th, 2016.

75. Pathophysiology of Exercise Intolerance in heart failure with preserved ejection fraction: is it time to focus on the periphery? Cardiology Grand Rounds. Baker IDI Heart and Diabetes Institute. Melbourne, Australia, March 1, 2016.

76. Cardiac consequence of cancer therapy: Can exercise reverse dysfunction. Peter MacCullum Cancer Centre. Melbourne, Australia March 2nd, 2016.

77. Cardiac consequence of cancer therapy: Can exercise reverse dysfunction. Baker IDI Heart and Diabetes Institute. Cardiooncology research seminar. Melbourne, Australia March 4th, 2016.

78. Pathophysiology of exercise intolerance in heart failure with preserved ejection fraction: is it time to focus on the periphery? Kansas State University. Anatomy & Physiology Research Seminar. Manhattan Kansas, USA. February 8, 2016,

79. Heart failure with preserved ejection fraction-What we know and what do we need to know? 6th Seminar on Exercise in Medicine. NTNU & CERG, Trondheim, Norway. December 17th, 2015.

80. Exercise intolerance in heart failure with preserved ejection fraction: is it time to focus on the periphery? Department of Prevention, Rehabilitation and Sports Medicine, University of Munich. December 13, 2015, Munich, Germany.

81. Challenges and tips for the novice grant writer. Excellence in Nursing Pre- Conference (The Honor Society of Nursing, Sigma Theta Tau International, 43rd Biennial Convention). November 6, 2015, Las Vegas, USA.

82. Exercise as Medicine Across the Heart Failure Continuum. College of Nursing and Health Innovation Seminar Series. Arizona State University. Phoenix Arizona. October 22, 2015.

83. Keynote speaker - Early exercise training in decompensated heart failure patients. British

Association of Cardiovascular Prevention and Rehabilitation annual conference. October 1-2, 2015. Manchester, UK.

84. Benefits of exercise for your heart. Edmonton Rotary club. June 8, 2015. Edmonton, AB, Canada.

85. Muscle metabolic changes in heart failure with preserved (HFPEF) versus reduced (HFREF) ejection fraction. In the symposium "The Two Faces of Heart Failure: Exercise Intolerance in HFrEF vs HFpEF patients". 62nd American College of Sports Medicine Conference. May 27th 2015. San Diego, CA, USA.

86. Keynote Speaker- Benefits of exercise training to prevent cardiac dysfunction in cancer patients during adjuvant therapy. British Association of Cardiovascular Prevention and Rehabilitation (BACPR) Exercise Professionals Group. Aston University, Birmingham, UK. May 15, 2015.

87. Keynote Speaker- Role of cardiac (exercise) rehabilitation to prevent ventricular remodeling post myocardial infarction. British Association of Cardiovascular Prevention and Rehabilitation (BACPR) Exercise Professionals Group Annual conference. Coventry, UK. May 15, 2015.

88. Pathophysiology of exercise intolerance in heart failure with preserved ejection fraction. Cardiac Exercise Research Group, Norwegian University of Science and Technology-Trondheim. April 10, 2015.

89. Cardiovascular limits to Exercise Performance in heart failure with preserved or reduced ejection fraction. In the symposium "Treating cardiovascular disease with exercise: Mechanistic insight translated from animal models". Experimental Biology, 2015. Boston Massachusetts, USA. March 33, 2015.

90. Ventricular-arterial coupling in heart failure with preserved and reduced ejection fraction. University of Missouri-Veterinary Sciences, Department of Biological Sciences, Seminar Series. Columbia Missouri. March 19th, 2015.

91. Acute effects of aerobic and resistance exercise on intracranial and intraocular pressure: Implications for astronaut exercise training at the International Space Station. NASA. February 23, 2015. Houston, Texas.

92. Determinants of exercise intolerance in heart failure and preserved ejection fraction. University of Texas at Arlington. January 20, 2015. Arlington, Texas, USA.

93. Upper limits of human performance post heart transplant. Cardiac Exercise Research Group (CRG) Norwegian University of Science and Technology-Trondheim. Trondheim, Norway. January 8, 2015.

94. Women's secrets? Exercise training in breast cancer survivors and heart failure with preserved ejection fraction (HFPEF) in the symposium titled "Efficacy and Adherence to Exercise Training in Heart Failure". Cardiac Exercise Research Group (CRG) Norwegian University of Science and Technology-Trondheim, and St. Olavs Hospital. Trondheim, Norway. January 6, 2015.

95. Determinants of exercise intolerance in heart failure with preserved ejection fraction. Cedars

Sinai Heart Institute. Las Angeles, CA, USA. November 23, 2014.

96. Pathophysiology of exercise intolerance in heart failure patients with preserved ejection fraction. Montefiore Einstein Centre for Heart and Vascular Care. Faculty of Medicine (Department of Cardiology), Albert Einstein College of Medicine of Yeshiva University. Bronx, New York, October 31, 2014.

97. Finding a Research Supervisor That's Right for You. Canadian Cardiovascular Society (CCS) Trainee Day. Canadian Cardiovascular Society Annual meeting. Vancouver, BC. October 25, 2014.

98. Acute cardiac adjustments to high-intensity interval training in heart failure. In the symposium titled “Sprinting Towards Changes in the Heart and Blood Vessels”. 61st Annual American College of Sports Medicine/5th World Congress on Exercise is Medicine/World Congress on the role of Inflammation in Exercise, Health and Disease. Orlando, FL. May 27, 2014.

99. Anti-remodeling benefits of high intensity Interval training for heart failure patients. Cardiff School of Sport, University of Wales Institute Cardiff, April 10, 2014, Cardiff Wales.

100. Cardiovascular consequences of cancer therapy and the role of exercise to prevent cardiotoxicity. Cardiff School of Sport, University of Wales Institute Cardiff, April 10, 2014, Cardiff Wales.

101. Benefits of marathon running on cardiovascular health across the age and fitness continuum. London Marathon Medicine Conference. April 12, 2014. London, England.

102. Cirrhosis: The role of exercise and nutrition. Gastrointestinal Grand Rounds, University of Alberta. Edmonton, AB, Canada. March 17, 2014.

103. High intensity interval training for heart failure patients. Australian Catholic University. March 6, 2014. Melbourne, Australia.

104. Cardiovascular consequences of cancer therapy. St. Vincent’s hospital, Melbourne Australia. March 3, 2014.

105. High-intensity interval training for cardiac patients. Conference theme: Exercise as Medicine: Beyond Pills and Procedures. Arizona Sate University. February 7-8th, 2014. Tempe, Arizona.

106. Heart failure and preserved ejection fraction: Is it time to target the skeletal muscles? Cardiology divisional rounds, University of Alberta, Edmonton, AB. November 27,2013.

107. Benefits of exercise on the heart: Take care of your heart so your heart will take care of you. University of Alberta Alumni-Victoria. Victoria, BC. November 16, 2013.

108. High-intensity training for the older adult. Physiotherapy Alberta conference. Edmonton, AB. October 26, 2013.

109. Cardiovascular Response to Exercise in Breast Cancer Patients. Cross Cancer Institute, Edmonton, AB. October 10, 2013.

110. Benefits of exercise on the heart: taking care of your heart so your heart will take care of you. University of Alberta Alumni Educated Luncheon. Edmonton, AB. October 9, 2013.

111. Cardiovascular consequences of cancer care. Canadian Cardiovascular Congress. Montreal Canada. October 18, 2013.
112. Acute effects of resistance exercise alone or with a Valsalva maneuver on intracranial pressure. Effects of spaceflight, measurement and countermeasures across Sensorimotor/Exercise/VIIP themes: National Space Biomedical Research Institute Conference. Houston, USA. August 29, 2013.
113. High-intensity interval training in heart failure: Friend or Foe? Emerging Exercise Strategies for Heart Failure Symposium, 60th Annual American College of Sports Medicine Meeting. Indianapolis, USA. May 29, 2013.
114. Cardiovascular responses to exercise in cancer patients. Exercise and Training in Cancer Patients: Physiological-Psychological Implications Symposium, 60th Annual American College of Sports Medicine Meeting. Indianapolis, USA. May 29, 2013.
115. Benefits of Exercise Training for Heart Transplant Recipients. Exercise and Solid Organ Transplant Meeting. University of Toronto, Toronto, ON, April 19, 2013.
116. Upper limits of human performance three decades post cardiac transplant. Cardiology Grand Rounds, Massachusetts General Hospital/Harvard Medical School, Boston, MA, USA. April 10th, 2013.
117. Exercise intolerance in older heart failure patients: is skeletal muscle the heart of the matter? DUKE University School of Nursing. Durham, NC, USA. March 6, 2013.
118. Benefits of exercise for heart failure patients. 1st Saudi Heart Failure Group Conference. December 5-6, Riyadh, Saudi Arabia.
119. Determinants of exercise intolerance in heart failure and preserved ejection fraction. Cardiology rounds, Royal Alexandra Hospital. Edmonton Alberta, October 25, 2012.
120. Effects of high-intensity interval training in heart failure. Canadian Society for Exercise Physiology Annual Conference. Regina, October 11, 2012. (Session Chair “Advances in cardiac Rehabilitation”)
121. CardioOncology: Role of exercise in the treatment of breast cancer. International Convention on Science, Education and Medicine in Sport (ICSEMIS) Glasgow Scotland, July 22, 2012. (Invited Keynote Speaker)
122. Expectations of physical fitness after transplant. International Transplant Nurses Association. Edmonton, Alberta, June 15, 2012.
123. Physical fitness after transplant. International Transplant Nurses Association. Edmonton, Alberta, June 15, 2012.
124. Evolving, innovative new exercise training modalities and combinations. NHLBI Working Group: Exercise Training as Therapy for Heart Failure.National Heart, Lung and Blood Institute. Bethesda MN, June 11, 2012.
125. Upper limits of human performance 3 decades post heart transplant. Veteran Affairs Palo Alto Hospital. Palo Alto, CA, June 7, 2012.
126. Contribution of Cardiac and Conduit Artery Function to Exercise Capacity

In Older Persons. Faculty of Medicine Grand Medical rounds. Edmonton, Alberta, April 27, 2012.

127. Contribution of Cardiac and Conduit Artery Function to Exercise Capacity In Older Persons. Claude D. Pepper Older Americans Independence Centre Annual Meeting, Bethesda, MN, April 17, 2012.

128. Pathophysiology of exercise intolerance post heart transplantation. Alberta Transplant Institute. University of Alberta, April 4, 2012. Edmonton, AB.

129. Heart failure with preserved ejection fraction: More than a pump problem. Cardiology Divisional rounds, Montreal Heart Institute. March 22, 2012, Montreal, QC.

130. Heart failure with preserved ejection fraction: More than a pump problem. Cardiology Divisional rounds, Mazankowski AB Heart Institute. February 22, 2012. Edmonton, AB.

131. Cardiovascular Exercise Physiology Research Program. Mazankowski Alberta Heart Research Symposium. December 19, 2011. Edmonton, AB.

132. Determinants of exercise intolerance in heart failure and preserved ejection fraction: More than a pump problem. Alberta Heart training program seminar series. December 8, 2011. Edmonton, AB.

133. Upper limits of human performance: 25 Years Post Heart Transplantation: Ironman Journey Begins with a Single Step. School of Nutrition and Human performance, Arizona State University. Phoenix, Arizona, USA, November 19, 2011.

134. Acute effects of high-intensity interval exercise on biventricular function: A view from the athletic to the failing heart. Exercise Physiology of Western Canada, Keynote speaker for August, 11, 2011. Edmonton, AB. Canada.

135. Pathophysiology of Exercise intolerance in heart transplant recipients: Role of high-intensity training. 16th Annual Congress of the European College of Sports Sciences, Liverpool UK, July 7th, 2011.

136. Update from the Inaugural Canadian Cardiac Oncology Network meeting. Cross Cancer Institute breast cancer rounds. June 8th, 2011, Edmonton, AB.

137. "Cancer and Heart Disease: How to Beat a Cruel Hand in the Game of Life" Quality & Cardiac Service Integration Rounds, Mazankowski Alberta Heart Institute, Alberta Health Services, University of Alberta. May 25, 2011.

138. Cardiotoxicity of anti-cancer therapy: Can exercise reverse dysfunction? Department of Exercise Science, Concordia University. March 17th, 2011.

139. Role of exercise training to prevent cardiovascular dysfunction in women with breast cancer: bench to bedside. Grand Oncology Rounds, Cross Cancer Institute, Edmonton, Alberta, Canada. February 15th, 2011.

140. Identifying your Tormentor. Mentoring Heart & Stroke Researchers Workshop. Jasper, AB. February 2011.

141. Exercise limitations and benefits for heart failure patients with preserved and reduced

ejection fraction. Canadian Association of Cardiac Rehabilitation (CACR) Webinar. November 2010.

142. Cardiotoxicity of anti-cancer therapy: Can exercise reverse dysfunction? Seminars in Rehabilitation Science, University of Alberta

143. Anti-Cancer Therapy and Ventricular Remodeling: Can Exercise Reverse Dysfunction? Meet the Researchers (Focus on Heart Failure/Heart Transplantation) Mazankowski Alberta Heart Institute. Edmonton, AB, October 2010.

144. Cardiac Complications Associated with Biological Therapy for Breast Cancer. Cardiology Divisional Rounds, University of Alberta, Edmonton, AB, June 2010.

145. Pathophysiology of exercise intolerance in heart failure and benefits of cardiac exercise rehabilitation. Saskatchewan Kinesiology and Exercise Science Association Annual Meeting. Saskatoon, Saskatchewan, May 2010.

146. Exercise limitations and benefits for heart failure patients with preserved or impaired ventricular function. University of Alberta, Faculty of Rehabilitation Medicine Seminars in Rehabilitation Science (Webinar). Calgary, Alberta, February 2010.

147. High-intensity aerobic interval training in heart failure: Is it ready for prime time? Department of Health Sciences, Wake Forest University. Winston Salem, USA, January 2010.

148. Anti-remodeling benefits of exercise training in heart Failure. CSEP Annual Scientific Congress, Vancouver, Canada. November, 2009.

149. Acute Effects of High-Intensity Exercise on Biventricular Function in Endurance Athletes. XIV Congresso Nazionale dela Societa Italiana di Cardiologia dello Sport, Rome Italy, September 2009.

150. Cardiac function in endurance trained athletes: Can the heart fatigue with exercise. University of Rome Sapienza, September 2009. University of Rome Sapienza, Sept, 2009.

151. Twist mechanics of the left ventricle in health and heart transplantation. University of Rome Sapienza, September 2009.

152. Assessment of ventricular twist with echocardiography in elite athletes. Institute of Sports Medicine and Science, Italian National Olympic Committee (CONI), Rome, Italy

153. Impaired cardiovascular reserve post heart transplant: Why it sucks to be in diastole. Cardiology. Vancouver Costal Research Health Institute. Vancouver, July 2009.

154. Cardiac fatigue: It sucks to be in diastole. Cardiology Rounds Dalhousie University, Halifax, Nova Scotia, July 2009.

155. Impaired cardiovascular reserve post heart transplant. Transplant Research group. University of Alberta Hospital. June 2009.

156. Benefits of exercise in pulmonary hypertension. University of Alberta Pulmonary Hypertension Program. Edmonton, Alberta, March 20th, 2009.

157. Exercise performance post heart transplant. 2009 Canadian Association of Transplantation Scientific Congress. Banff Alberta, March 6th, 2009.

158. Prolonged strenuous exercise and cardiac fatigue. Northern Alberta Institute of Technology

(NAIT) Personal Trainers Program, Edmonton, Alberta, December 1st, 2008.
159. Ventricular-vascular coupling during exercise post heart transplant. Cardiovascular Research Group, University of Alberta. November 20th, 2008.
160. Interval training for cardiac transplant recipients. Canadian Association for Cardiac Rehabilitation Annual Scientific Session. October 26, 2008.
161. Cardiac Fatigue: A historical perspective. Canadian Society for Exercise Physiology Annual Scientific Session. October 16, 2008.
162. Benefits of exercise training for transplant recipients. "Living well with transplants 2nd annual patient education day" International Transplant Nurses Society, Capital Health and Good Hearts Mentoring Foundation. Edmonton, Alberta, June 20th, 2008.
163. Impaired cardiovascular reserve post heart transplant: Why it sucks to be in diastole. Inaugural Mazankowski Alberta Heart Institute, Edmonton, Alberta, June 6th, 2008.
164. ABC's of cardiac remodeling. Cardiac Magnetic Resonance Journal Club, University of Alberta Hospital, Edmonton, Alberta, April 11, 2008.
165. Cardiovascular Function and Risk Post Kidney Transplant: Role of Exercise Training. 2008 Caritas Research Days, Edmonton, Alberta, January 31, 2008.
166. Exercise training in heart failure and post heart transplant. Northern Alberta Institute of Technology (SPFT 324), Edmonton, Alberta, November 26, 2007.
167. Ventricular remodeling and Herceptin in women with HER2+ breast cancer. Seminars in Rehabilitation Science, Faculty of Rehabilitation Medicine, University of Alberta, November 2007.
168. Reverse ventricular remodeling in heart failure: Role of exercise training. University of Calgary, Division of Cardiology Rounds, Calgary, Alberta, November 2007.
169. Cardiac exercise physiology. Medical Science 629, Faculty of Medicine, University of Calgary, Calgary Alberta, November 2007.
170. Cardiac exercise rehabilitation in individuals with heart failure and heart transplant recipients. Department of Rehabilitation Science, Hong Kong Polytechnic University, October 2007.
171. Evaluation of cardiovascular fitness and limits to exercise in health and disease. Department of Rehabilitation Science, Hong Kong Polytechnic University, October 2007.
172. Meta-analysis of the effects of exercise training on left ventricular remodelling in heart failure. City wide (Edmonton) heart failure rounds, September 2007.
173. Exercise in Organ Transplant recipients: The Sky is the Limit. Canadian Transplant Association, Alberta region. April, 2007.
174. Effects of exercise training on ventricular remodelling in heart failure. Cardiovascular nurse research rounds. March, 2007.
175. Physical fitness and vascular function in organ transplant recipients competing at the 2006 Canadian Transplant Games. University of Alberta, Transplant Nurses Research rounds,

March, 2007.

176. Benefits of exercise for transplant recipients. Healthy Hearts (Transplant) Mentoring Support group. January, 2007.

177. Ventricular function post heart transplant. Seminars in Rehabilitation Science. Faculty of Rehabilitation Medicine, October, 2006.

178. Exercise Cardiovascular Function in heart failure & Transplant. Healthy Heart Academic Rounds. St. Paul's Hospital, Vancouver, BC, February, 2006.

179. Benefits of Exercise Training in heart failure. Heart Failure Awareness Week (RAH Heart Function Clinic). Edmonton, AB, February, 2006.

180. Your Heart & Exercise: Taking care of your heart, so it will take care of you. University Hospital Foundation Health Talks. Edmonton, AB, October, 20th, 2005.

181. Benefits of exercise training for individuals with heart failure: Does etiology matter? Cardiology divisional rounds. Royal Alexandra Hospital, Edmonton, AB, June, 2005.

182. Fitness versus fatness: Is the current CVD epidemic due to obesity or sedentary lifestyle? Debate: Cardiology update for general practitioners & internists. Edmonton, AB, June 2005.

183. Benefit of exercise training for transplant recipients. Saskatoon Organ Transplant Support Group 'Gift of Life' conference. April, 2005.

184. Exercise Gerontology: Benefits of exercise training on cardiovascular function. Geriatric Grand Rounds, University of Alberta, Edmonton. March, 2005.

185. Benefit of exercise training for transplant recipients. Canadian Association of Transplantation annual scientific session. March, 2005.

186. Heart health benefits of exercise. Jamie Platz YMCA, Edmonton, AB. February, 2005.

187. Resistance exercise, LV remodeling, blood pressure and arterial compliance. Healthy Heart Rounds, St. Paul's hospital, Vancouver, BC, February, 2005.

188. Exercise training in heart failure and post cardiac transplantation: Does etiology matter? Division of Cardiology Rounds, St. Paul's Hospital, Vancouver, BC, February, 2005.

189. Pathophysiology of heart failure. Northern Alberta Cardiac Rehabilitation Program. Edmonton, AB, November, 2004.

190. Exercise VO_{2max} Testing: Effects of Aging Disuse and Cardiovascular Disease. Canadian Society of Cardiology Technologists. Calgary, AB, October 24th, 2004.

191. Cardiac adaptation to exercise training in individuals with heart failure and cardiac transplant recipients in the Symposium titled " Cardiac adaptation to exercise" at the 2004 Canadian Society for Exercise Physiology Annual Scientific Session, Saskatoon, Saskatchewan, October 15th, 2004.

192. Effects of aging on peak aerobic power (VO_{2peak}). Cardiac Rehabilitation Rounds, Division of Cardiology, University of Alberta, September, 2004.

193. Exercise training post renal transplantation. Department of Nephrology research in progress round. July, 2004.

194. Exercise training improves leg press strength and distance walked in six minutes in cardiac

transplant recipients. 8th World congress of Cardiac rehabilitation and Secondary Prevention. Dublin, Ireland, May, 2004.

195. VO_{2max} testing: Why, When and How. Alberta Society of Cardiology Technicians conference. Edmonton, Alberta, May, 2004.

196. Ventilatory efficiency is improved in cardiac transplant recipients following 12 weeks of combined aerobic and strength training. International Society for Heart and Lung Transplantation Annual Conference, San Francisco, California, USA. April, 2004.

197. Benefits of cardiac rehabilitation: Cardiology residents core curriculum. Faculty of Medicine, University of Alberta, Edmonton, Alberta, March, 2004.

198. Exercise rehabilitation for individuals with cystic fibrosis. Canadian Cystic Fibrosis Association, Alberta Chapter Annual meeting. Edmonton, March 2004.

199. Exercise and heart failure: Special attention to older women. Royal Alexandra Cardiac Science Nursing Rounds. Edmonton, Alberta, February, 2004.

200. Ventriculoarterial coupling during exercise in cardiac transplant recipients. Cardiovascular research group, University of Calgary, Calgary Alberta, November, 2003.

201. Cardiac exercise physiology, Medical Science 629, Faculty of Medicine, University of Calgary, Calgary Alberta, November, 2003.

202. Exercise and Heart Failure. Western Canadian CHF Nurses Network, Kananaskis, AB.

203. Exercise in the Elderly: It's never too late. University of Alberta, Gerontology Student Association, Edmonton, Alberta, November, 2003.

204. Pathophysiology of heart Failure. PTHER 380, Department of Physical Therapy, University of Alberta, Edmonton, 2003.

205. Benefits of exercise training for individuals with heart failure (Invited presentation). Canadian Cardiovascular Congress. Toronto, Ontario, Canada, October, 2003.

206. Effects of exercise training on LV morphology and function: From athletes to cardiac patients. II International Symposium: Trends in exercise physiology and cardiac rehabilitation. Rome, Italy, September, 2003.

207. Ventriculoarterial coupling during exercise in recent cardiac transplant recipients. University of Alberta, Cardiology Divisional Rounds, Edmonton, AB, 2003.

208. Acute and chronic effects of exercise training on cardiac performance: From athletes to cardiac transplant recipients. 2003, Pacific North West Exercise Group Annual Graduate Student Conference (Keynote Speaker), Abbotsford, BC.

209. Effects of exercise training for older women with cardiovascular disease. 2003, St. Paul's Hospital Healthy Heart Cardiac Rehabilitation Rounds, Vancouver, BC.

210. Effects of exercise training on ventricular-arterial coupling in healthy older women. 2003, Kinesiology Rounds, University of British Columbia, Vancouver, BC.

211. Pathophysiology of heart failure, PTHER 380, Department of Physical Therapy, University of Alberta, Edmonton, 2002.

212. Exercise training in cardiac transplant recipients: An integrated clinical and research

perspective. Sharing the care conference, Capital Health, Edmonton, 2002.
213. Athletes Heart: Effects of Resistance and Aerobic Training on Left ventricular Morphology and Systolic Function. PEDS 412, University of Alberta, Edmonton, 2002.
214. Effects of Prolonged Strenuous Exercise on Left Ventricular Systolic Function. PEDS 412, University of Alberta, Edmonton, 2002.
215. Benefits Of Exercise For Women: Its Never Too Late. University of Alberta Hospitals Foundation, Edmonton, 2002.
216. Exercise and Heart Failure: Why, When and How. Canadian Association of Cardiac Rehabilitation Annual Scientific Conference. Edmonton, 2002.
217. Exercise Prescription for Healthy Older Adults and Cardiac patients. PFLCA/CSEP Annual Conference. Kananaskis, 2002.
218. The effect of exercise training on left ventricular morphology and systolic function: From athletes to heart transplant recipients. 2002, IMOLA, Italy, 3rd Master Heart and Physical Exercise: Prevention and Rehabilitation.
219. Exercise and chronic heart failure: Why, how and when. University of Alberta Hospitals, Health Talks. Edmonton, 2002.
220. "To transplant or not to transplant: That is the heart of the question" Cardiology Divisional Rounds, University of Alberta, Edmonton, 2002.
221. Athletes Heart: Do Big Hearts Win Races? Sports Medicine group, Faculty of Medicine, University of Alberta, Edmonton, 2002.
222. Effects of resistance training on left ventricular morphology and systolic function.
223. Federacion Argentina de Cardiologia, 2nd Virtual Congress of Cardiology (International Congress of Cardiology on the Internet, http://www.fac.org.ar/scvc/ index2.htm), 2001.
224. The role of therapeutic exercise in CHF. Recent advances in congestive heart failure 2nd biannual workshop for nurses. Edmonton, 2001.
225. Exercise prescription in older individuals and cardiac patients. To boldly go…Focusing on the Future: AFLCA Trainers biennial conference. Red Deer, 2001.
226. Cardiology in the classroom. As part of this lab/seminar series, I lecture to High school students about the acute cardiovascular responses during exercise. In addition, I lecture about the benefits of exercise in improving overall health and fitness. Edmonton, 2001.
227. Exercise and heart failure. University of Alberta, Cardiology divisional rounds. Edmonton, 2001.
228. Cardiac fatigue associated with prolonged strenuous exercise. Alberta rehabilitation continuous learning network (ARCLN). Edmonton, 2001.
229. Exercise physiology and functional assessment. Core curriculum for cardiology residents. Edmonton, 2001.
230. Exercise and heart failure, Canadian Cardiovascular Nurses Annual Conference. Vancouver, 2000.

231. Exercise and heart failure, Canadian Society For Exercise Physiology/FACA Annual Scientific Conference, Canmore 2000.
232. Does exercise (Resistance) training result in an increase in LV mass? Cardiology Regional Rounds, McMaster University (Hamilton General Hospital), 2000.
233. Effects of CPAP on exercise capacity in heart failure. Resident Research Rounds.
234. McMaster University (Hamilton General Hospital), 2000.
235. Therapeutic exercise for individuals with heart failure. Phyiscal Therapy Department, Royal Alexandra Hospital. Edmonton, 2000.
236. Therapeutic exercise for older adults and the frail elderly. Northern Alberta Geriatric Rehabilitation "Gerontology Rounds. Edmonton, 2000.
237. Pathophysiology of exercise intolerance in heart failure. Parke-Davis pharmaceutical research meeting. Denver, 1998.
238. Left ventricular wall stress during exercise. St. Pauls' Hospital, Division of Cardiology rounds. Vancouver, 1998.
239. Effects of resistance exercise on left ventricular systolic and diastolic function in healthy older males. St. Paul's Hospital, Healthy Heart Cardiac Rehabilitation program. Vancouver 1998.
240. Cardiac function in elite athletes: University of Alberta, Division of Cardiology rounds and Grand Medical rounds**.** Edmonton**,** 1998.
241. Exercise and heart failure. University of Alberta Foundation Health Talks series, Edmonton, 1998.
242. Exercise and heart failure: A Canadian Perspective. Irish Cardiac Rehabilitation Society Annual meeting. Dublin 1997.
243. Exercise and the elderly: It's never too late to strength train. University of Alberta Foundation Health Talks series. Edmonton 1997.
244. Athlete's Heart: Big hearts win races. Canadian Sonographers Association Annual Meeting. Edmonton 1997.
245. Exercise and left ventricular dysfunction. Cardiac care unit nursing research rounds. University of Calgary, Foothills Hospital. Calgary 1996.
246. Exercise post heart and lung transplantation. Saskatoon transplant group. Saskatoon 1996.
247. Exercise Rehabilitation Post Orthotopic Heart Transplantation**.** Cardiovascular Surgery/ Cardiology Research Rounds. St. Paul's Hospital/University British Columbia**.** Vancouver 1996.
248. Left ventricular hypertrophy secondary to athletic training: Fact or fallacy? Cardiology Rounds. St. Paul's Hospital/University of British Columbia**.** Vancouver 1996.
249. Secondary Prevention: Exercise guidelines post myocardial infarction or coronary artery bypass surgery. Heart and Stroke '95 Symposium. University of British Columbia and Heart and Stroke Foundation of B.C and Yukon. Vancouver 1995.
250. Athletes Heart. Cardiology-Cardiovascular research rounds, University of British Columbia- St. Paul's Hospital. Vancouver 1994.

251. Role of exercise in the reduction of cardiovascular disease. Lipid Research Group, Division of Cardiology, University of Alberta Hospital. Edmonton 1993.
252. Resistance training in the elderly and patients with CHF/LV dysfunction. Cardiology Clinical Trial Research Rounds, Division of Cardiology, UAH, Edmonton 1992.

GRADUATE STUDENT SUPERVISION

University of Alberta (JANUARY 2020 – PRESENT):

Post-Doctoral Fellows (PDF):

1. Steve Foulkes, PhD. College of Health Sciences, Faculty of Nursing, University of Alberta.
2. R. Skow, PhD. College of Health Sciences, Faculty of Nursing, University of Alberta.
3. N. Weeldreyer, PhD. College of Health Sciences, Faculty of Nursing, University of Alberta.

Doctoral Students:

1. T. Dorfman, Faculty of Nursing, University of Alberta (Supervisory Committee member).
2. M. Azhda, Faculty of Rehabilitation Medicine, University of Alberta (Supervisory Committee member).
3. K. Dmytriiev. Faculty of Medicine, University of Alberta (Supervisory Committee member).

Master of Nursing (NP Program):
Master of Science (Medicine)

1. Chandu Sadasivan, Department of Medicine (Cardiology), University of Alberta (Committee member).
2. Amandeep Kaur, Faculty of Nursing, University of Alberta (Supervisory).
3. Fedrica Williams, Faculty of Nursing, University of Alberta (Supervisory).
4. Sarah Kratina, Faculty of Nursing, University of Alberta (Supervisory).

University of Texas Arlington (August 2015 – December 2019): Post-doctoral Fellows (Completed)

1. W. Tucker, College of Nursing and Health Innovation (Co-supervised with Dr. Nelson, Department of Kinesiology, UTA, June 2016-June 2019).
- Dr. Tucker is an Assistant Professor, Department of Nutrition & Food Sciences. Texas Womens University, Houston, TX.

Supervision of students who completed their Ph.D.

1. R. Beaudry. Department of Kinesiology, College of Nursing and Health Innovation (Supervisor).
- Dr. Beaudry is Project Coordinator, Cumming School of Medicine, University of Calgary.

2. J. Samuels. Department of Kinesiology, College of Nursing and Health Innovation

(Committee member).
- Dr. Samuels is a PDF at Johns Hopkins (Medicine), Baltimore, MD.

Master's students (completed)

3. S. Chung. Department of Kinesiology, College of Nursing and Health Innovation, University of Texas Arlington (Committee member).
4. S. Zamani. Department of Kinesiology, College of Nursing and Health Innovation, University of Texas (Committee member).

University of Alberta (JUNE 1999 – JULY 2015):

Supervision of students who completed their Ph.D.

1. J. Pagano. MD, FRCPC, Department of Biomedical Engineering, University of Alberta (Committee member and AIHS Co-mentor). *Dr. Pagano received a Alberta Health Sciences clinical investigator training award.*
- Dr. Pagano is an Assistant Professor in Pediatrics, Division of Pediatric cardiology at University of Alberta.

2. M. Yavari, Faculty of Rehabilitation Medicine (Supervisory committee member).
3. Stephanie Thompson, Faculty of Public Health, University of Alberta (Supervisory committee member and AIHS Co-mentor).
-Dr. Thompson is an Assistant professor in the Division of Nephrology, Faculty of Medicine at University of Alberta.
4. A. Ramadi, Faculty of Rehabilitation Medicine (Supervisory committee member).
5. K. Chow, Department of Biomedical Engineering, University of Alberta (Committee member).
6. E. Pituskin, Ph.D. Student (ANP, MScN,RN) , Faculty of Rehabilitation Medicine (Supervisor).
-Dr Pituskin is an Associate Professor in the Faculty of Nursing, University of Alberta.
7. J. Chang-Baron, Department of Biomedical Engineering, Faculty of Medicine (Supervisory committee member).
8. V. Kandalam, Department of Physiology, University of Alberta (Examining committee member).
9. R. Basu, Department of Physiology, University of Alberta (Examining committee member).
10. K. Riess, Ph.D. Candidate, Faculty of Rehabilitation Medicine (Supervisor).
-Dr. Riess is an instructor in the personal trainer fitness program at Northern Alberta Institute of Technology.
11. C. Tomczak, PhD student, Faculty of Rehabilitation Medicine, University of Alberta. (Supervisory committee member).
-Dr. Tomczak is an Assistant Professor in the College of Kinesiology at the University of Saskatchewan.

12. M. Nelsen, Ph.D. student, Faculty of Physical Education and Recreation (Supervisory committee member).
Dr. Nelsen is Assistant Professor at Department of Kinesiology, UTA, Arlington, Texas, USA.
13. M. Crocker, Faculty of Medicine, University of Calgary (Supervisory committee member).
14. B. Esch, Ph.D. student, Department of Human Kinetics, University of British Columbia, (Supervisory committee member; Supervised training while at U of A).
-Dr. Esch graduated from the Faculty of Law at University of Alberta in 2012, and is currently Legal Council in the Office of the General Counsel at University of Alberta.
15. J. Scott, Ph.D. student, Department of Human Kinetics, University of British Columbia, (Supervisory committee member; Supervised training while at U of A).
-Dr. Scott is a Research Scientist at Memorial Sloan Kettering Cancer Centre. Dr. Scott was previously a senior research scientist in the Exercise Physiology and Countermeasures NASA Johnson Space Center, Houston, Texas.
16. M. McNeely PhD Candidate, Faculty of Physical Education and Recreation (Committee member).
-Dr McNeely is a Professor, Department of Physical Therapy, University of Alberta.
17. S. Butcher, Ph.D. Candidate, Faculty of Medicine (Supervisory committee member).
-Dr. Butcher is an Associate Professor, Department of Physical therapy, University of Saskatchewan, Saskatoon, Saskatchewan.
18. A. Lee, PhD Candidate, Faculty of Rehabilitation Medicine. (Committee member).
19. M. Kennedy, PhD Candidate, Faculty of Rehabilitation Medicine (Supervisor). Dr. Kennedy received the following awards:
Dr. Kennedy is an Associate Professor, Faculty of Physical Education and recreation, University of Alberta.
20. R. Kell, PhD student, Faculty of Rehabilitation Medicine (Committee member).
21. N. Eves, PhD candidate, Faculty of Physical Education and Recreation (Supervisory committee member).
-Dr. Eves is a Professor, Faculty of Human and Social development, University of British Columbia-Okanagan.
22. M. Stickland, PhD, Faculty of Physical Education and Recreation (Supervisory committee member). *Dr. Stickland is a Professor of Pulmonary Medicine, Department of Medicine, University of Alberta.*
23. J. McGavock, PhD, Faculty of Physical Education and Recreation (Supervisor). *- Dr. McGavock is the Robert Wallace Cameron Chair in Evidence Based Child Health.*
24. S. Manidic, PhD, Faculty of Physical Education and Recreation (Supervisor). Dr. Mandic is an Adjunct Professor at Auckland University of Technology.
25. E. Gilles, PhD candidate, Faculty of Physical Education and Recreation (Committee member).

Supervision of students who completed their PhD (2000 to present)

26. S. Zamani. Department of Kinesiology, College of Nursing and Health Innovation (Supervisory Committee member).
27. C. Cunningham, Faculty of Nursing, University of Alberta (Supervisory Committee member).

Supervision of students who completed their MSc (Course Based or Thesis Based) or MN (NP Program)

28. E. Warmington, Faculty of Nursing, University of Alberta (Supervisor).
29. K. Brown, Faculty of Nursing, University of Alberta (Supervisor).
30. L. Brugger, Faculty of Nursing, University of Alberta (Supervisor).
31. T. Li, Faculty of Nursing, University of Alberta (Supervisor).
32. C. Kruger, Faculty of Rehabilitation Medicine, University of Alberta (Supervisory committee member).
33. A. McComb, Faculty of Rehabilitation Medicine, University of Alberta (Supervisory committee member).
34. R. Beaudry, Faculty of Rehabilitation Medicine, University of Alberta (Supervisory committee member).
35. B. McLean, Faculty of Physiology Supervisory committee member and AIHS Co- mentor.
36. N. Meena, Faculty of Rehabilitation Medicine, University of Alberta (Supervisor).
37. K. Mathewson Department of Biomedical Engineering, Faculty of Medicine, University of Alberta (supervisory committee member).
38. L. Zenith, Faculty of Medicine, University of Alberta (Co-supervisor).
39. D. Bujis. Faculty of Rehabilitation Medicine, University of Alberta (Supervisory committee member).
40. A. Ryniak (**Supervisor**). Systematic review of the role of exercise to prevent cardiac dysfunction following anti-cancer therapy.
41. K. Carter (**Supervisor**). Systematic review of the role of exercise to prevent cardiac dysfunction following anti-cancer therapy.
42. J. Barnett (**Supervisor**). Systematic review of the role of exercise to prevent cardiac dysfunction following anti-cancer therapy.
43. S. Best (**Supervisor**). Systematic review of the role of exercise to prevent cardiac dysfunction following anti-cancer therapy.
44. S. MacDonald (**Supervisor**). Systematic review of the role of exercise to prevent cardiac dysfunction following anti-cancer therapy.
45. A. Prefontaine (**Supervisor**). Systematic review of the role of exercise to prevent cardiac dysfunction following anti-cancer therapy.
46. J, Smirl, MSc student (**supervisory committee member**). Human Kinetics, University of British Columbia Okanagan. Arterial-cardiac baroreflex and dynamic cerebral autoregulation following heart transplantation.
47. T. McClure, MSc student (**supervisory committee member**). Faculty of Nursing,

University of Alberta.
48. J. Mayne, Faculty of Physical Education and Recreation (**Supervisory committee member**).
49. L. Savard, Faculty of Nursing (**Supervisory committee member**).
50. H. Sawitsky (Patient education handbook for individuals post atrial septal defect repair, **Supervisor**).
51. C. Thomas (Patient education handbook for individuals post atrial septal defect repair, **Supervisor**).
52. L. Thompson (Patient education handbook for individuals post atrial septal defect repair, **Supervisor**).
53. B. Wortuing (Patient education handbook for individuals post atrial septal defect repair, **Supervisor**).
54. C. Staenes (Development of a patient Education handbook for kidney transplant recipients, **Supervisor**).
55. A. Mattson (Development of a patient Education handbook for kidney transplant recipients, **Supervisor**).
56. E. Mccabe (Development of a patient Education handbook for kidney transplant recipients, **Supervisor**).
57. A. Webb (Development of a patient Education handbook for kidney transplant recipients, **Supervisor**).
58. N. Jendzjowsky, Faculty of Rehabilitation Medicine (**Supervisor**).
59. A. Kwok (Development of a patient Education handbook for Adolescents with Cystic Fibrosis, **MScPT Project Reader**).
60. M. Padilla (Development of a patient Education handbook for Adolescents with Cystic Fibrosis**, MScPT Project Reader**).
61. E. Paul (Development of a patient Education handbook for Adolescents with Cystic Fibrosis, **MScPT Project Reader**).
62. K. Oglinski (Development of a patient Education handbook for Adolescents with Cystic Fibrosis, **MScPT Project Reader**).
63. K. MacKenzie (Development of a patient Education handbook for Adolescents with Cystic Fibrosis, **MScPT Project Reader**).
64. L. Carlyle, Faculty of Physical Education and Recreation (**Committee member**).
65. S. Dhillon, Department of Physical Therapy, Faculty of Rehabilitation Medicine (**Supervisory Committee Member**).
66. J. Huang, Department of Physical Therapy (**MScPT Project Supervisor**).
67. K. Lobb, Department of Physical Therapy (**MScPT Project Supervisor**).
68. J. Carey, Department of Physical Therapy (**MScPT Project Supervisor**).
69. J. Bealer, Department of Physical Therapy (**MScPT Project Supervisor**).
70. M.Bissada, Department of Physical Therapy (**MScPT Project Supervisor**).

71. M. Jenkins, Department of Physical Therapy (**MScPT Project Supervisor**).

72. A. Olsen, Department of Physical Therapy (**MScPT Project Supervisor**).

73. A. Patil, Department of Physical Therapy (**MScPT Project Supervisor**).

74. R. Packer, Department of Physical Therapy (**MScPT Project Supervisor**)

75. B. Esch, Department of Human Kinetics, University of British Columbia, (**Supervisory committee member**).

76. J. Scott, Department of Human Kinetics, University of British Columbia, (**Supervisory committee member**).

77. A. Oreopoulos, Department of Physical Therapy, Faculty of Rehabilitation Medicine (**Supervisor**). *-Dr. Oreopoulos completed her Ph.D in Clinical Epidemiology.*

78. R. Malik, Department of Occupational Therapy, Faculty of Rehabilitation Medicine (**Committee member**).

79. M. Kelly, Department of Physical Therapy, Faculty of Rehabilitation Medicine (**Committee member**).

80. C. Hung, MSc PT, Department of Physical Therapy, Faculty of Rehabilitation Medicine (**Supervisor**)..

81. G. Hansen, MSc (2001), Faculty of Physical Education and Recreation (**Committee member**).

82. L. Sim-Anderson, MSc (2000), Faculty of Physical Education and Recreation (**Committee member**).

83. M. McNeely, MSc PT, Department of Physical Therapy, Faculty of Rehabilitation Medicine (**Committee member**).

84. G. duManoir, MSc, Faculty of Physical Education and Recreation (**Committee member**).

85. K. Macfadyen, MSc, Faculty of Physical Education and Recreation. (**Committee member**).

86. D. Dibski. MSc, Faculty of Kinesiology, University of Calgary. (**Committee member**).

87. M. Pulickal, Department of Physical Therapy, Faculty of Rehabilitation Medicine (**Committee member**).

External Examiner

88. M. Black. MSc, Faculty of Kinesiology, University of Calgary**.**

89. F. Jalali. MSc, Faculty of Medicine, University of Calgary.

90. T. Hobson, MSc, Faculty of Medicine, University of Calgary.

91. J. Mitchell, Ph.D. Faculty of Medicine, University of Calgary.

92. M. Rakabochuk, Ph.D. Faculty of Kinesiology, McMaster University.

93. A. Spence, Ph.D. School of Sport Science, Exercise and Health. University of

Western Australia. Crawley, Australia.
94. H. Ismail, Ph.D. School of Science and Technology, University of New England, Armidale, Australia.
95. J. Moreira, Ph.D. Faculty of Medicine, Norwegian University of Science and Technology.
96. S. Murch, Ph.D. Faculty of Medicine, University of Melbourne, Melbourne, Australia.
97. M. Peter Wallen, Ph.D. School of Human Movement and Nutrition Sciences University of Queensland, Brisbane, Queensland, Australia.
98. S. Bucher Sandbakk, Ph.D.Faculty of Medicine and Health Sciences, Department of Circulation and Medical Imaging, Norwegian University of Science and Technology, Trondheim, Norway.
99. M. Glibbery, MSc, Exercise Sciences, University of Toronto. Toronto, Canada.
100. M. Abdul Selam Altaha, MSc, Institute of Medical Science, University of Toronto.
101. S. Allana, Faculty of Nursing, University of Alberta (Internal Examiner).
102. J. Ariyaratnam, Ph.D. Health and Medical Sciences. University of Adelaide.

University of Alberta

Supervision of Residents/Clinical Fellows

1. Dr. I. Voder Muhll, MD, FRCP(C) (2001, Research Supervisor).

Dr. Vonder Muhll received the 2001 Key Pharmaceuticals University of Alberta Dr. Vonder Muhll is currently an Associate Professor of Medicine, University of Alberta and staff cardiologist at the University of Alberta Hospital.

2. Dr. L. Altamirano-Diaz. Pediatric Cardiology Fellow, Division of Pediatric Cardiology, University of Alberta (2011, Research Supervisor).
-Dr. Altamirano-Diaz is a Professor in Pediatrics (Cardiology) in the Department of Pediatrics at Western University, and Associate Scientist, Division of Children's Health & Therapeutics, Children's Health Research Institute (CHRI).
3. I. Fegers-Wustrow, MD (Senior Physician), Department of Prevention, Sports Medicine and Sports Cardiology, School of Medicine, University Hospital Klinikum rechts der Isar, Technical University Munich (PDF Mentor; TUM Mentoring Program, June 2023 – January 2024).
4. A. Peters MD, Division of Cardiology, Duke University (Exercise Physiology Advisor for K23 award submission, 2022-2023).

Supervision of Undergraduate Practicum, Summer, Honours Students

1. B. Roberts. Faculty of Physical Education and Recreation. Practicum supervisor. Area of clinical interest: Exercise rehabilitation for recent cardiac transplant recipients.
2. N. Jendzjowsky. Faculty of Physical Education and Recreation. Practicum supervisor: Exercise rehabilitation for individuals with heart disease.
3. S. Nessim (Physiology student, University of Alberta). Accuracy of impedance

cardiography with two-dimensional echocardiography for measuring exercise stroke volume and cardiac output in heart transplant recipients.

4. C. Krueger (Faculty of Science undergraduate student) spring/summer 2011, 2012.

5. M. Thomas. (Faculty of Science undergraduate student) spring/summer 2012.

6. B. Berger. College of Nursing and Health Innovation, University of Texas at Arlington, 2016-2017.

7. E. Fyfe. College of Health Sciences Faculty of Nursing, University of Alberta, 2022- 2023.

8. K. Weinkauff. College of Health Sciences Faculty of Nursing, University of Alberta, 2022-2023.

9. S. Paterson. Faculty of Science (Honors Physiology, Summer student), University of Alberta. 2023 & 2024.

10. D. Walesiak. Faculty of Science (Honors Physiology, Summer student), University of Alberta. 2024.

11. C. Weinkauff. College of Health Sciences, Faculty of Kinesiology, University of Alberta, 2022-2023.

12. D. Walesiak. Honors Research practicum – 09, 2024 – 04, 2025.Faculty of Science (Honors Physiology, Summer student), University of Alberta. 2025.

Heritage Youth Researcher Summer Program (HYRS)

13. H. Wong, Grade 11 student, Old Strathcona High School (Supervisor).

-*Dr. Wong completed a radiology residency at University of Alberta.*

RESEARCH GRANTS

CURRENT

1. Aortic Wall Stress and Remodeling: From Healthy Aging to Athletic Adaptation and Pathological Dilation. Canadian Institutes of Health Research (PI, $634,950, 2026 -2031)

2. Influence of Aging and Physical Activity on Thoracic Aortic Wall Stress, Aortic Remodeling and Dissection. University of Alberta, Faculty of Medicine & Dentistry 2025 Transformational Medical Research Grant-River Philip Foundation (PI, 243,800, 2025-2028).

3. Understanding the Impact of Exercise on Cardiovascular Function in Patients with Aortic Disease. Heart and Stroke Foundation of Canada (PI, $379,707 2025-2029).

4. Novel Imaging Approaches for Measuring Oxygen Utilization Across the Oxygen Cascade. American Heart Association (Co-PI, $10,000 US, 2025-2026).

5. Phenotyping cardiotoxicity and heart failure risk in breast cancer survivors: Moving beyond resting ejection fraction. (PI, $128,600: CIHR - $64,000; 2024-2026)

6. Phenotyping cardiotoxicity and heart failure risk in breast cancer survivors: Moving beyond resting ejection fraction Cancer Research Society (PI, $64,600, 2024-2026).

7. Imaging of Long-Term Tissue Damage from COVID-19 and Cardiometabolic Disease. CIHR Project Grant (Co-Investigator, $887,400; 2024-2029).

8. Neuromuscular dysfunction in women receiving taxane-based chemotherapy. 2024 Cross Cancer Institute Investigator Initiated Trial Grant Funding Competition (CO-I, 132,792; 2024-2026).

9. Living with aortic disease. SSHRC Institutioanl GHrants FoN, Ualberta (CO-I, $3000, 2025-2026)

10. Cardiac, cerebral and skeletal muscle hemodynamics and oxygenation in Post-Acute COVID-19 Syndrome, Postural Orthostatic Tachycardia Syndrome and Healthy Controls. Ward Estate Chronic Fatigue Research Competition, Neuroscience and Mental Health Institute, University of Alberta (Co-PI: 150,000; 2024-2026).

11. A novel remote intervention to decelerate the age-related decline and disease development among older breast cancer survivors. Canadian Institutes of Health Research (CIHR) - Biological and Clinical Aspects of Aging (Co-Investigator, $895,050; 2023-2028).

12. Management of Impaired Functional Capacity in Older Breast Cancer Survivors. CIHR Project Grant - Biological and Clinical Aspects of Aging (PI: $577,576; 2022-2027).

13. Quantitative Imaging of the Evolution of the Whole-Body Fat Profile in Breast Cancer Survivors. CIHR Project Grant (Co-PI, $755,440; 2021-2026).

COMPLETED GRANTS

1. APOLLO: Personalized rehAbilitation PrOgram in aLLOgeneic bone marrow transplantation Team. The Leukemia & Lymphoma Society of Canada's Blood Cancer/ The Canadian Cancer Society Quality of Life Grant Competition (Co-investigator, $150,000, 2023-2025)

2. Dapagliflozin for long COVID syndrome. CIHR Bridge Grant (CO-I:$100,000; 2024-2025).

3. Dapagliflozin for long COVID syndrome. Long COVID Web (CO-I: $100,000; 2024-2025).

4. Utilizing Exercise Cardiovascular and Skeletal Magnetic Resonance Imaging to Evaluate Factors Associated with Cardiorespiratory Fitness in Pediatric Heart Transplant Recipients. Canadian Donation and Transplantation Research Program and Big Gifts for Little Lives (Co-Investigator: $30,000; 2023-2025).

5. Impact of exercise on the heart and aorta in people with aortic dissection. Dr. Margaret "Marmie" Perkins Hess Heart Research Pilot Grant-Cardiovascular Research Institute, University of Alberta (PI: $50,000; 2024-2025).

6. A novel remote intervention to decelerate the age-related decline and disease development among older breast cancer survivors. CIHR Women's Health Research - Early Career Researcher Grant - Project Grant Priority Announcement (Co-Investigator: $100,000, 2 years).

7. Mechanisms of Exercise Intolerance in Heart Failure with Preserved Ejection Fraction: Precision Therapy Based on Patient Specific Pathophysiology (National Heart, Lung, and Blood

Institute, National Institutes of Health (02-09, 2019 to 01- 31, 2024) total: $11,357,558 US, *Co-investigator*; Program PI: B. Levine; *My Role: PI, Project 2 (02-09, 2019 – 12-31-2019: $374,628 US): "Targeting skeletal muscle to improve exercise capacity in heart failure with preserved ejection fraction").*

8. Mechanism and Modulation of Sex Differences in Myocardial Steatosis Induced Left Ventricular Dysfunction. National Heart, Lung, and Blood Institute, National Institutes of Health (Co-investigator, $3,335,850 US).

9. Effect of early access cardiac rehabilitation on ventricular remodeling and exercise adherence: A pilot-feasibility study ($120,000, Co-applicant, Saskatchewan Health Research Foundation). *This grant was ranked 1st out of 25 submitted grants.*

10. Preventing functional disability in breast cancer survivors – A randomised controlled exercise intervention. World Cancer Research Fund International, 2019-2022. ($362,041. Co-investigator).

11. Skeletal muscle metaboreflex as a mechanism of exercise intolerance in heart failure with preserved ejection fraction (2018-2019, AHA Postdoctoral Fellowship awarded to Dr. Wesley Tucker; Supervisors: Drs. Haykowsky and Nelson; College of Nursing & Health Innovation, UTA, fellow; $106,532)

12. Defining specific mechanisms limiting oxygen delivery and utilization in heart failure with preserved ejection fraction: Novel insight from Near-Infrared Diffuse Correlation Spectroscopy. National Heart, Lung, and Blood Institute, National Institutes of Health (Co-investigator, $441,020 US).

13. Faculty Science and Technology Acquisition and Retention (STARS) Program. The University of Texas System (PI, $500,000 US).

14. Mechanisms and management of exercise intolerance in older heart failure patients with preserved ejection fraction (HFpEF). National Institute of Health, National Institute of Nursing Research (PI, $308,416 US).

15. Stollery Single Ventricle Outcomes Team. Women and Childrens Health Research Institute (WCHRI) Clinical Research Capacity Building Award. ($200,000, Co-Applicant- Exercise physiology team leader).

16. AMAZON: Multidisciplinary support And exerciZe during Adjuvant endOcriNe therapy. Alberta Cancer Foundation ($68,000, Co-applicant).

17. CROSSFIT: CROSS sectional study of cardiovascular Function and risk profiles In BRCA muTation carriers. Women & Children's Health Research Institute (WCHRI, $15,000. Co-Applicant).

18. Influence of exercise modality on cerebral-ocular hemodynamics and pressures. NASA Johnson Space Center: Omnibus. ($100,000, Co-investigator).

11. A randomized controlled trial of twelve weeks of home-based exercise training in patients with Child Pugh class A and B cirrhosis. American College of Gastroenterology Clinical Research Award Competition ($35,000, Co-PI).

12. Identification of chemotherapy-induced cardiac damage using novel exercise magnetic resonance imaging in breast cancer patients. St. Vincent's Hospital research endowment fund ($20,000, Co-investigator).
13. Mechanisms and functional significance of enhanced carotid chemosensitivity in health and heart failure. Heart & Stroke Foundation of Canada ($165,000, Co-applicant).
14. Aerobic training in patients with cirrhosis. University of Alberta Hospitals Foundation (30,000, Co-PI).
15. Cardiology Oncology Research. 2011 Mazankowski Alberta Heart Institute/University of Alberta Foundation Innovative Team Grant Competition ($300,000, Co-applicant, *Exercise Physiology Section Leader*).
16. Multidisciplinary Approach to Novel Therapies in Cardiology Oncology Research. CIHR, 2010 Breast Cancer Priority Announcement ($336,627, *Co-applicant*).
17. Multidisciplinary approach to novel therapies in cardiology-oncology research. CIHR Strategy on Patient Oriented Research Program (*$100,000, Co-applicant*).
18. Multidisciplinary Approach to Novel Therapies in Cardiology Oncology Research. Alberta Cancer Research Initiative ($261**,**000, *Co-applicant*).
19. Imaging the Mechanisms of Diastolic Dysfunction and their Role in Cardiovascular Performance (CIHR, Co-applicant, $281,097).
20. Imaging the mechanisms of Diastolic Dysfunction and their Role in Cardiovascular Performance. Heart and Stroke Foundation *($171,000, Co-applicant*).
21. Understanding and Treating Diastolic Heart Failure: Novel Mechanisms, Diagnostics and Potential Therapeutics. Alberta Heritage Foundation for Medical Research- Interdisciplinary Team Grant ($5,000,000, *Co-applicant* & *Exercise Physiology Section Leader*).
22. Carotid Chemoreception and Exercise in Health and Chronic Heart Failure. Heart & Stroke Foundation ($118,044, co-applicant).
23. Novel imaging techniques to determine the late effects of anthracycline toxicity on myocardial function in cancer survivors. Women and Children's Health Research Institute, Alberta Health Services, University of Alberta. ($26,200, Co-applicant).
24. Acute Effects of Aerobic Interval Exercise on LV Function in Heart Failure. Faculty of Rehabilitation Medicine Small Faculties Grants Competition ($9,300, Primary investigator).
25. Oxygen Kinetics and Cardiovascular Responses Associated with Physiological Mechanisms of Acu-TENS in Health and Patients with Cardiopulmonary Dysfunction. Hong Kong Polytechnic University-Development of Niche Areas Funding ($72,362, Co- applicant).
26. The effects of Tai Chi training in the sitting position on indices of wellbeing in institutionalized older adults. Hong Kong Polytechnic University-Development of Niche Areas Funding ($77,306, Co-applicant).
27. The effect of cardiac resynchronization therapy on oxygen uptake kinetics in heart failure. St. Jude Medical ($58,000, Co-applicant).
28. Cardiovascular Fitness and Function in Kidney transplant Recipients: Role of Exercise Training. M.S.I. Foundation ($40,000, Primary Investigator).

29. Effect of aerobic training on LV systolic function in women with HER2 positive breast cancer. Canadian Breast Cancer Research Alliance Developmental and Exploratory Grant ($43,918, Primary investigator).
30. The influence of opioid analgesia on functional work ability. WCB Research Program ($10,000, Co-applicant).
31. Randomized Controlled Trial of Progressive Resistance Exercise Training for Spinal Accessory Neurapraxia/Neurectomy in Head and Neck Cancer Survivors. Physiotherapy Foundation of Canada (Co-applicant, $9,602).
32. Cardiopulmonary Responses to Exercise in Firefighters. Canadian Forces Personnel Support Agency, Department of National Defence (Co-applicant, $150,000).
33. Determining the Feasibility of Pre-Operative Exercise Training for Patients Undergoing Surgery for Non-Small Cell Lung Cancer. Funded by the Alberta Cancer Board-Pilot Project Grant, 1 year (Co-applicant, $33,956).
34. Canadian Institute of Health Research *New Investigator Award*, 01/07/2004 - 30/06/2009. ($295,689).
35. Effects of exercise training on VO_{2peak}, cardiovascular and musculoskeletal performance and quality of life in cardiac transplant recipients. Heart and Stroke Foundation of Alberta, NWT & Nunavut. (Primary investigator, $147,000).

36. Cardiovascular translational research center (Co-applicant). CFI: $5,687,178; ASRIP: $2.5 million; Alberta Heart Institute: $2 million; U of A: $572,518; Alberta Infrastructure: $1.88 million; In-kind donations: $ 1.9 million; *Total amount awarded* = *$14,502,518*.

37. Determining the Prognostic of symptom limited exercise testing on survival in metastatic breast cancer patients. Canadian Breast Cancer Research Alliance - Developmental and Exploratory Grants (Co-Applicant, $45,008).
38. Exercise capacity, vascular and left ventricular function in heart failure patients: Effects of cardiac rehabilitation training. University of Alberta, SAS, Small faculties Grant. (PI, $5,000).
39. Effects of 12 weeks of exercise training on cardiorespiratory fitness, muscle strength and left ventricular function in older women with congestive heart failure. 2001, University of Alberta, SAS Small Faculties Research Grants Program. (Primary investigator: $4,966).
40. Effects of 12 weeks of aerobic, resistance or combined aerobic and resistance training on maximal aerobic power, muscle strength, left ventricular morphology and systolic function in healthy older women (PI). 2001, Internal research grants competition, Faculty of Rehabilitation Medicine, University of Alberta. (Primary investigator: $6,000).
41. The effect of an exercise program on the maintenance and recovery of ability to perform activities of daily living in tetraplegia. Spinal Cord Research Foundation. (Co- applicant, $101,605.22).
42. Tomorrow's Research Cardiovascular Health Care Professionals. 2002-2008. Alberta

Heritage Foundation for Medical Research; Heart and Stroke Foundation of Canada; CIHR-Institute of Circulatory and Respiratory Health and Institute of Gender and Health. (Co-investigator, $1,266,739).

43. The efficacy of manual lymph drainage in the reduction of arm volume in breast cancer related lymphedema. 2001, Canadian Breast Cancer Foundation-Alberta Chapter/Alberta Cancer Board Clinical Trials Committee grant. (Co-applicant, $20,589).

44. Differences in cardiac function between physically active and sedentary women with diabetes. 2001, University of Alberta, SAS Small Faculties Research Grants Program. (Co-applicant, $5,000).

45. Effect of an off-season training program for Edmonton rowers and its effects on cardiovascular adaptations. 2001-2002, Universiade' 83 Foundation($2,000, Co-applicant).

46. The effects of high intensity rowing exercise combined and combined strength and endurance training on cardiovascular responses. 2001-2002, Sports Sciences Association of Alberta. (Co-applicant, $3,600).

47. Does narcotic analgesia improve exercise test performance in chronic low back pain? 1999-2000, University Hospital Foundation/Alberta Health Sciences Research Institute. (Co-applicant, $19,988).