

Brooks A. Hibner

UIC College of Applied Health Sciences

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Education:

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| 2023 | Ph.D., Kinesiology and Nutrition
University of Illinois at Chicago, Chicago, IL |
| 2009 | B.S., Exercise Science
Western Michigan University, Kalamazoo, MI |
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Professional Experience:

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| 2023 – Present | Clinical Assistant Professor, Director of Clinical Exercise Physiology Master's Program
University of Illinois at Chicago <ul style="list-style-type: none">Teaching, developing, and directing master's program in Clinical Exercise Physiology |
| 2022 – 2023 | Adjunct Faculty
Loyola University Chicago <ul style="list-style-type: none">Lead instructor of lecture and laboratory section, <i>Cardiac and Pulmonary Disease and Rehabilitation, EXCM 458</i>, Parkinson School of Health Sciences and Rehabilitation. |
| 2017 – 2023 | Research Assistant / Graduate Teaching Assistant
University of Illinois at Chicago <ul style="list-style-type: none">Conducted research projects in the Integrative Physiology Laboratory, focused on arterial, micro-vascular, and cardiac responses to exercise. Responsibilities included data collection, reduction, and analysis. Additionally, coordinating recruitment, regulatory maintenance for Department of Defense funded grant.Served as teaching assistant and Lead Teaching assistant in Department of Kinesiology and Nutrition |
| 2013 – 2017 | Exercise Physiologist
University of Chicago Medicine <ul style="list-style-type: none">Responsible for design and implementation of comprehensive programs for cardiac and pulmonary rehabilitation patients. |
| 2010 – 2013 | Exercise Physiologist
Henry Ford Health System <ul style="list-style-type: none">Conduct cardiopulmonary exercise tests in high-risk cardiac patients.Recruit, monitor, and provide education to individuals in cardiac rehabilitation. |

Scholarly Activity

Peer-Reviewed Manuscript Publications

1. G Grigoriadis, Sherman SR, Lima NS, Lefferts EC, **Hibner BA**, Ozemek HC, Danciu OC, Kanakoupitis D, Fernhall B, Baynard T. Breast Cancer survivors with preserved or rescued cardiorespiratory fitness have similar cardiac, pulmonary and muscle function compared to controls. *Eur J Appl Physiol*. 2022 Oct; 122(10):2189-2200
2. Beck VDY, Wee SO, Lefferts EC, **Hibner BA**, Burton LC, Baynard T, Fernhall B, Hilgenkamp TIM. Comprehensive cardiopulmonary profile of individuals with Down syndrome. *J Intellect Disabil Res*. 2022 Dec; 66(12): 978-987.
3. Hwang CL, Muchira J, **Hibner BA**, Phillips SA, Piano MR. Alcohol Consumption: A New Risk Factor for Arterial Stiffness? *Cardiovascular Toxicology*. 2022; 22: 236-245
4. **Hibner BA**, Lefferts EC, Yan H, Horn GP, Smith DL, Rowland T, Fernhall B. Effect of live-fire training on ventricular-vascular coupling. *Eur J Appl Physiol*. 2022; 122(3): 591-597.
5. Lefferts WK, Lefferts EC, **Hibner BA**, Smith KJ, Fernhall B. Impact of acute changes in blood pressure and arterial stiffness on cerebral pulsatile hemodynamics in young and middle-aged adults. *Exp Physiol*. 2021; 106(7): 1643-1653.
6. Beck VDY, Baynard T, Lefferts EC, **Hibner BA**, Fernhall B, Hilgenkamp TIM. Anthropometry does not fully explain low fitness among adults with Down Syndrome. *J Intellect Disabil Res*. 2021; 65(4):373-379
7. Lefferts EC, **Hibner BA**, Lefferts WK, Lima NS, Baynard T, Haus JM, Lane-Cordova AD, Phillips SA, Fernhall B. Oral vitamin C restores endothelial function during acute inflammation in young and older adults. *Physiological reports*. 2021;9:e15104.
8. **Hibner BA**, Hilgenkamp TIM, Schroeder EC, Motl RW, Bollaert RE, Griffith G, Grigoriadis G, Baynard T, Fernhall B. Physical activity and peak oxygen consumption are associated with walking in multiple sclerosis. *Mult Scler Relat Disord*. 2020;40(January):101941.
9. Turksoy K, Hajizadeh I, Hobbs N, Kilkus J, Littlejohn E, Samadi S, Feng J, Sevil M, Lazaro C, Ritthaler J, **Hibner B**, Devine N, Quinn L, Cinar, A. Multivariable Artificial Pancreas for Various Exercise Types and Intensities. *Diabetes Technol Ther*. 2018; 10: 662-671.
10. Turksoy K, Frantz N, Quinn L, Dumin M, Kilkus J, **Hibner B**, Cinar A, Littlejohn E., Automated Insulin Delivery- the light at the end of the tunnel. *J Pediatr*. 2017; 186: 17-28.
11. Keteyian SJ, **Hibner BA**, Bronsteen K, Kerrigan D, Aldred HA, Reasons LM, Saval MA, Brawner CA, Schairer JR, Thompson TM, Hill J, McCulloch D, Ehrman JK. Greater improvement in cardiorespiratory fitness using higher - intensity interval training in the standard cardiac rehabilitation setting. *J Cardiopulm Rehabil Prev*. 2014 34(2):98-105
12. Pack QR, Mansour M, Barboza JS, **Hibner BA**, Mahan MG, Ehrman JK, Vanzant MA, Schairer JR, Keteyian SJ. An Early Appointment to Outpatient Cardiac Rehabilitation at Hospital Discharge Improves Attendance at Orientation: A Randomized, Single-Blind, Controlled Trial. *Circulation* 2013; 127(3): 349-55.

13. Keteyian SJ, Pina IL, **Hibner BA**, Fleg JL. Clinical role of exercise training in the management of patients with chronic heart failure. *J Cardiopulm Rehabil Prev.* 2010; 30(2): 67-76

Book Chapter

Chapter 34: Role of the arterial tree in Physiologic Adaptations to exercise. Lefferts WK, Lefferts EC, **Hibner BA**, Fernhall B. In: Textbook of Arterial Stiffness and Pulsatile Hemodynamics in Health and Disease, 1st Edition. Academic Press, 2022.

Grant Funding

2022 American College of Sports Medicine Foundation Doctoral Student Research Grant (\$5,000.00). *Ventricular-Vascular Coupling in Individuals with Multiple Sclerosis*. PI: Brooks Hibner, Sponsor: Fernhall B. **Funded.**

Refereed Scientific Abstracts

1. **[Oral Presentation] Hibner BA**, Lima NS, Sherman SR, et al. Ventricular-Vascular Coupling Before and After Maximal Exercise Testing in Individuals with Multiple Sclerosis. North American Artery. 2023 Annual Meeting, Iowa City, IA.
2. Lima NS, Jackson R, **Hibner BA**, et al. Comparison of Contraction Versus Compression on Arterial Stiffness. American College of Sports Medicine Annual Meeting, Denver, CO, May 30 – June 2, 2023.
3. **Hibner BA**, Lima NS, Sherman SR, et al. Cardiovascular Hemodynamic Response to Peak Exercise in Individuals with Multiple Sclerosis. American Physiological Summit, Long Beach, CA, April 20-23, 2023.
4. Chang KY, **Hibner BA**, Phillips SA, et al. Effect of Aging on Aortic Arterial Stiffness and Wave Reflection in Healthy Mid-life Adults. *Submitted* American Physiological Summit, Long Beach, CA, April 20-23, 2023. American Physiological Summit, Long Beach, CA, April 20-23, 2023
5. Lima NS, Jackson R, Sherman SR, **Hibner BA**, et al. Reduction In Arterial Stiffness Is Related To Exercise Intensity. American Physiological Summit, Long Beach, CA, April 20-23, 2023
6. Sherman SR, Grigoriadis G, Lima NS, **Hibner BA**, et al. Preserved hemodynamics in breast cancer survivors not a function of cancer, but fitness. American Physiological Summit, Long Beach, CA, April 20-23, 2023
7. Grigoriadis G, Sherman SR, **Hibner BA**, et al. High Fit Breast Cancer Survivors Have Greater Cardiac, Pulmonary and Muscle Function Compared to Low Fit. American College of Sports Medicine Annual Meeting, San Deigo, CA, May 31 – June 4, 2022.
8. Pusec CM, **Hibner BA**, Drab Y, et al. Effect of Repeated Binge Drinking in Mid-life Adults on Vascular Function. Scientific Sessions 2022: American Heart Association, Chicago, IL, November 5-7, 2022
9. **Hibner BA**, EC Lefferts, Lima NS, et al. Aerobic Fitness as a Predictor of Conduit, Resistance and, Microvascular Arterial Function. Experimental Biology Annual Meeting, Philadelphia, PA, April 2-5, 2022.
10. Sherman SR, **Hibner BA**, DeJonge SR, et al. Rapid Onset Vasodilation: Impact of Cardiorespiratory Fitness. Experimental Biology Annual Meeting, Philadelphia, PA, April 2-5, 2022.

11. Beck VDY, Wee SO, Lefferts EC, **Hibner BA**, et al. Lower Oxygen Uptake Efficiency Slope with Similar V_E/VCO_2 Slope in Individuals with Down Syndrome. American College of Sports Medicine Annual Meeting 2021, Virtual, June 1-5, 2021.
12. Baynard T, Grigoriadis G, Sherman SR, Lefferts EC, **Hibner BA**, et al. Physiological Factors Related to Cardiorespiratory Fitness are Similar Between Breast Cancer Survivors and Controls. Experimental Biology Annual Meeting 2021, Virtual, April 27-30, 2021.
13. **Hibner BA**, Lane-Cordova AD, Ranadive SM, Yan H, Cook MD, Fernhall B. Ventricular-Vascular Coupling Before and After Exercise Training in African American and Caucasian Women. North American Artery. 2021 Annual Meeting, (Virtual).
14. **Hibner BA**, Schroeder EC, Lefferts WK, Lane-Cordova AD, Horn GP, Smith DL, Fernhall B. Effect of Live-Firefighting on Ventricular-Vascular Coupling in Middle-Aged Firefighters. 2019 Artery Annual Meeting, Budapest, Hungary.
15. **Hibner BA**, Hilgenkamp TIM, Schroeder EC, Fernhall B. Feasibility of Stroke Volume Measurement during Treadmill Exercise in Adults with Down syndrome. American College of Sports Medicine 66th Annual Meeting, Orland, FL, May 28-June 1, 2019.
16. **[Oral Presentation] Hibner BA**, Schroeder EC, Lane-Cordova AD, Lefferts WK, Hilgenkamp TIM, Fernhall B. Effect of Cardiorespiratory Fitness on Ventricular-Vascular Coupling During Acute Inflammation in Young Healthy Adults. North American Artery. 2019 Annual Meeting, Iowa City, IA.
17. Grigoriadis G, **Hibner BA**, Schroeder EC, Rosenberg AJ, Griffith G, Sardeli AV, Danciu OC, Fernhall B, Baynard T. Acute Effect of Aerobic Exercise on Arterial Stiffness in Breast Cancer Survivors: Preliminary Results. American College of Sports Medicine 66th Annual Meeting, Orland, FL, May 28-June 1, 2019.
18. **Hibner BA**, Hilgenkamp TIM, Schroeder EC, Lefferts WK, Fernhall B. Validity of Stroke Volume and Cardiac Output Measurement between Finger Photoplethysmography and Continuous Wave Echocardiography during Treadmill Exercise in Adults with and without Down syndrome. Experimental Biology, Orlando, FL, April 6-9, 2019.
19. Grigoriadis G, **Hibner BA**, Schroeder EC, Rosenberg AJ, Danciu OC, Fernhall B, Baynard T. Breast Cancer Survivors Improved Forearm Blood Flow Following a Single Bout of Aerobic Exercise: Preliminary Results. Experimental Biology, Orlando, FL, April 6-9, 2019.
20. **[Oral Presentation] Hibner BA**, Griffith G, Schroeder EC, Bollaert R, Motl RW, Baynard T, Fernhall B. Aerobic Capacity is Associated with Vascular Function in Persons With Multiple Sclerosis. North American Artery. 2018 Annual Meeting, Chicago IL.
21. **Hibner BA**, Griffith G, Schroeder EC, Rosenberg AJ, Bollaert R, Motl RW, Kick AM, Baynard T, Fernhall B. Physical Activity is Associated with Walking Capacity in Persons with Multiple Sclerosis. American College of Sports Medicine 65th Annual Meeting, Minneapolis, MN, May 29-June 2, 2018.
22. **Hibner BA**, Griffith G, Schroeder EC, Rosenberg AJ, Hilgenkamp TIM, Bollaert R, Motl RW, Baynard T, Fernhall B. Impact of Aerobic Capacity, Age and Duration of Disease on Arterial Function in Individuals with Multiple Sclerosis. Experimental Biology, San Diego, CA, April 21-25, 2018.
23. Littlejohn E, Turksoy K, Feng J, Quinn L, Fruecht M, Ritthaler J, **Hibner BA**, Kilkus J, Zaharieva D, Wroblewski K, Cinar A. Blood Glucose Nadirs Do Not Differ Significantly after Various Exercise Bouts under Closed-Loop Conditions. American Diabetes Association 76th Scientific Sessions, New Orleans, LA, June 10-14, 2016.
24. Pack QR, Mansour M, Barboza JS, **Hibner BA**, Mahan MG, Ehrman JK, Vanzant MA, Schairer JR, Keteyian SJ. An Early Appointment to Outpatient Cardiac Rehabilitation at Hospital Discharge Improves Attendance at Orientation: A Randomized, Single-Blind, Controlled Trial. Scientific Session 2012: American Heart Association, Los Angeles, CA, November 4-6, 2012.

25. Mansour M, Pack QR, Assaad MC, Barboza JS, Shah SS, Rothberg M, **Hibner BA**, Mahan MG, Keteyian SJ. Lifestyle Readiness to Change is a Predictor of Cardiac Rehabilitation Participation. Scientific Session 2012: American Heart Association, Los Angeles, CA, November 4-6, 2012.
 26. Barboza JS, Pack QR, Monsour M, Assaad MC, El-Rafai M, **Hibner BA**, Mahan MG, Keteyian SJ. Predictors of Attendance to Cardiac Rehabilitation in a Diverse Urban Population. Scientific Session 2012: American Heart Association, Los Angeles, CA, November 4-6, 2012.
 27. Charles R C Marks CR, Bronsteen K, **Hibner BA**, Ehrman JK, Kerrigan DJ, Keteyian SJ. Cardiorespiratory Responses of Cardiac Rehabilitation Participants to Stability Ball Sitting During Arm Ergometry. 40th Annual Meeting of the Midwest Chapter of the American College of Sports Medicine, Oregon OH, November 1-3, 2012.
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Committee Involvement

2020 – 2023 Member of Organizing Committee, Your Future in Science

Honors/Awards

2023 North American Artery Young Investigator Award, Iowa City, IA.
2019 Artery Conference Bursary Award
2019 Artery 2nd best Poster, Budapest Hungary
2018 Health Professionals Student Council Travel Grant, University of Illinois at Chicago

Professional Organizations

American College of Sports Medicine

North American Artery

American Physiological Society

American Heart Association

Licensure and Certifications

2014 – present	Certified Clinical Exercise Physiologist, American College of Sports Medicine
2018 – present	Certified Basic Life Support for Healthcare Providers, American Heart Association
2009 – 2008	Certified Advanced Cardiac Life Support, American Heart Association