Kathleen (Beehner) Lukaszewicz, PT, PhD

1515 East Lake Bluff Blvd. ~ Shorewood WI 53211 (414) 288-3382 ~ kathleen.lukaszewicz@marquette.edu

EDUCATION AND RESEARCH TRAINING

- 3/2012 6/2012 Postdoctoral Fellow, Physiology, Medical College of Wisconsin, Milwaukee, WI (P.I.: Julian Lombard, PhD)
 8/2007 3/2012 Ph.D. in Physiology, Medical College of Wisconsin, Milwaukee, WI
 - 72007 372012 Ph.D. In Physiology, Medical College of Wisconsin, Milwaukee, Wi Upregulation of cytochrome P450 4A ω -hydroxylase and subsequent overproduction of 20-HETE results in increased superoxide, reduced nitric oxide bioavailability, and impaired vascular relaxation in Dahl salt-sensitive rats.
- 8/2002 5/2004 MPT, Marquette University, Milwaukee, WI
- 8/1998 5/2002 B.A., Marquette University, Milwaukee, WI

FACULTY AND ADMINISTRATIVE APPOINTMENTS

8/2020 – Present	Associate Clinical Professor, Department of Physical Therapy, Marquette University
7/2019 – 7/2023	Director of Graduate Studies for the Exercise and Rehabilitation Science graduate program, Marquette University
1/2018 - 10/2020	Admissions committee member for the Interdisciplinary Graduate Program in Neuroscience, Marquette University
7/2018	Chair of search committee for Pharmacology position in the Physical Therapy department, Marquette University
5/2018	Academic Standards Committee Member for the department of Physical Therapy, Marquette University
3/2018 – 4/2018	Search committee for Clinical Assistant Professor for the Athletic Training Program in the Physical Therapy department, Marquette University
7/2015 – 6/2019	Assistant director for graduate studies for Clinical and Translational Rehabilitation Health Science (CTRH) graduate program, Marquette University
10/2013 – 7/2023	Program Assessment Leader (PAL) for Clinical and Translational Rehabilitation Health Science (CTRH) graduate program, Marquette University
7/2012 – 7/2020	Clinical Assistant Professor, Department of Physical Therapy, Marquette University
6/2011 – 5/2012	Adjunct Professor, Department of Human Movement Sciences, University of Wisconsin – Milwaukee
1/2009 – 5/2011	Adjunct Professor, Department of Natural Sciences and Department of Physical Therapy, Carroll University

PEER-REVIEWED PUBLICATIONS

- 1. Lukaszewicz, K, Parker, D, and Young-Brice A. Use of Interprofessional Simulation Experiences in Basic Science Courses: Implications on Physical Therapy Students Clinical Reasoning and Communication. Journal of Physical Therapy Education. *In Preparation.*
- Lukaszewicz K, Puthoff ML, and Hillegass E. The Role of Physical Therapists in the Management of Individuals at Risk for or Diagnosed with Venous Thromboembolism – A 2022 Evidence-Based Clinical Practice Guideline. *Phys Ther.* 2022 Aug 4;102(8).

- 3. Lukaszewicz K, Hillegass E, Puthoff ML, MacPhedran AK. Clinical Update for Physical Therapists: Coagulopathy and COVID-19. Phys Ther. 2020 Dec 7;100(12):2127-2133.
- 4. Senefeld JW, Limberg JK, **Lukaszewicz KM**, Hunter SK. Exercise-induced hyperemia is associated with knee extensor fatigability in adults with type 2 diabetes. *J Appl Physiol* (1985). 2019 Mar 1;126(3):658-667.
- 5. **Lukaszewicz KM**, Durand MJ, Priestley JRC, Schmidt JR, Allen LA, Geurts AM, Lombard JH. Evaluation of Vascular Control Mechanisms Utilizing Video Microscopy of Isolated Resistance Arteries of Rats. *J Vis Exp*. 2017 Dec 5;(130):56133.
- 6. Lukaszewicz KM, Paudyal MP, Falck JR, Lombard JH. Role of vascular reactive oxygen species in regulating cytochrome P450-4A enzyme expression in Dahl salt-sensitive rats. *Microcirculation*. 2016 Oct;23(7):540-548.
- 7. Lukaszewicz KM, Falck JR, Manthati VL, Lombard JH. Introgression of Brown Norway CYP4A genes on to the Dahl salt-sensitive background restores vascular function in SS-5(BN) consomic rats. *Clin Sci* (Lond). 2013 Mar;124(5):333-42.
- 8. Lukaszewicz KM, Lombard JH. Role of the CYP4A/20-HETE pathway in vascular dysfunction of the Dahl salt-sensitive rat. *Clin Sci* (Lond). 2013 Jun;124(12):695-700.

PEER-REVIEWED ABSTRACTS

- 1. Lukaszewicz KM. Introducing an IPE Simulation to Integrate Basic Science Content into Clinical Communication. *Educational Leadership Conference*. Atlanta, GA, 2021.
- 2. Senefeld J, **Lukaszewicz KM**, Limberg JK, and Hunter SK. Leg Blood Flow and Fatigability in People with Type 2 Diabetes. *American College of Sports Medicine*. Denver, CO, 2017
- 3. Eble C, Senefeld J, **Lukaszewicz KM**, Limberg J, and Hunter SK. Greater Fatigability of Lower Limb Muscles in People with Type 2 Diabetes: The Contribution of Blood Flow Kinetics. *Marquette University Biomedical Sciences Summer Research Program*, 2016
- 4. **Beehner K**, Falck JF, and Lombard J. *20-HETE and Vascular Dysfunction in the Dahl Salt-Sensitive Rat*. High Blood Pressure Research Conference 2011 Scientific Sessions, Orlando, FL, 2011.
- 5. **Beehner K**, Falck JR, and Lombard J. *The Effect of 20-HETE on the Vascular Dysfunction in the Dahl Salt-Sensitive Rat is a Result of Chronically Suppressed Angiotensin II Levels.* Experimental Biology, Washington DC, 2011.
- 6. **Beehner K**, Falck JR, and Lombard J. *Introgression of Brown Norway CYP4A Genes onto the Dahl Salt-Sensitive Genetic Background Restores Vascular Relaxation Mechanisms in SS.5^{BN} Consomic Rats.* Presented in the Best of AHA Specialty Sections at Scientific Sessions, Chicago, IL, 2010.
- 7. **Beehner K**, Falck JR, and Lombard J. *The Effect of a High Salt Diet on Vascular Regulation by 20-HETE*, Experimental Biology, Anaheim, CA, 2010.

PRESENTATIONS/INVITED LECTURES

- 2022 Lukaszewicz K, Puthoff ML, and Hillegass E. *HELP! My Patient May have a Venous Thromboembolism! What Do I Do?* APTA Combined Sections Meeting, San Antonia, NM.
- 2015 Lukaszewicz, KM. Understanding Pathophysiology for the Provision of Therapy. Continuing education for Health Care Professionals, Marquette University, Milwaukee, WI.
- 2011 Lukaszewicz, KM. 20-HETE and Vascular Dysfunction in the Dahl Salt-Sensitive Rat, in the department of Physical Therapy, Marquette University, Milwaukee, WI.

- 2011 **Beehner KM**, Falck JF, and Lombard J. *20-HETE and Vascular Dysfunction in the Dahl SS Rat*. High Blood Pressure Research Conference 2011 Scientific Sessions, Orlando, FL.
- 2010 **Beehner KM**, Falck JR, and Lombard J. Introgression of Brown Norway CYP4A Genes onto the Dahl Salt-Sensitive Genetic Background Restores Vascular Relaxation Mechanisms in SS.5^{BN} Consomic Rats. High Blood Pressure Research Conference 2010 Scientific Sessions, Washington DC.

SCHOLARLY CONTRIBUTIONS

1. *Content Expert*: Chapter 11, Kinesiology of Ventilation in: Neumann DA: Kinesiology of the Musculoskeletal System. Elsevier, Anticipated press release: 2023

MEDIA/PROMOTION CONTRIBUTIONS

- 1. PT Pintcast: Guest on podcast to discuss venous thromboembolism (VTE). January, 2022
- 2. Fox 6 News: Interviewed as pulmonary expert for segment on the health benefits of breathing. May, 2021
- 3. Cardiopulmonary APTA Newsletter: Featured section member. January, 2019
- 4. CBS 58 News: Mission to Mars (undergraduate honors course). October 14, 2018

NATIONAL COMMITTEES

10/2020 – Present	Education Leadership Partnership's Reactor Panel. The American Physical
	Therapy Association (APTA) Academy of Education.
10/2018 – Present	Oversight Development Committee for update of the Clinical Practice Guidelines
	for Venous Thromboembolism; Cardiovascular and Pulmonary (CVP) section of
	the American Physical Therapy Association (APTA).
2/2020	2020 Vital Sign Interpretation Reactor Panel for the Cardiovascular and
	Pulmonary Section and Academy of Acute Care. APTA Combined Sections
	Meeting; Denver CO.

FELLOWSHIPS/AWARDS

- 2023 John P. Raynor, S.J. Faculty Award for Teaching Excellence, Marquette University
- 2021 Education Innovation Award from the Physical Therapy Learning Institute (PTLI)
- 2021 Dorothy H. Wood Award for Teaching Excellence, Marquette University
- 2012 Medical College of Wisconsin Excellence in Physiology Award Summa Cum Laude
- 2011 Clinical Science Poster Prize at High Blood Pressure Research Conference 2011 Scientific Sessions, Orlando, FL
- 2011 High Blood Pressure Research Outstanding Trainee Award
- 2011 American Heart Association Pre-Doctoral Fellowship Midwest Affiliate
- 2011 Microcirculatory Society's Benjamin Zweifach Student Award
- 2010 Annual High Blood Pressure Research New Investigator Award

INVITED JOURNAL REVIEWER

2011 Hypertension

RESEARCH SUPPORT

4/22 – 3/27	National Institute of Health R01 [1R01AG077688-01] Hunter, Sundberg & Fitts (PIs)
	Mechanisms of Fatigability and the Protective Effects of Exercise in People with Diabetes To understand the role of vascular dysfunction in skeletal muscle fatigue in patients with pre-diabetes and type II diabetes (T2D) and test a novel training regime of blood flow restriction training in this patient population. Role: Co-I
9/20 – 8/25	National Institute of Health R01 [1R01AG048262] Hunter, Sundberg & Fitts (PIs) Fatigability of Limb Muscle in Older Adults: Protective Effects of Exercise. To understand the role of vascular and bioenergetic mechanisms of increased fatigability with advanced age and protective effects of a novel strength training regime. Role: Co-I
2018	Athletic and Human Performance Research Center Pilot Award Marquette University internal award to collaborative health/performance research. Role: PI Amount: \$15,000
7/11- 3/12	American Heart Association Pre-Doctoral Fellowship - Midwest Affiliate

1/08 – 6/11 National Institute of Health Training Grant (T-32)

GRADUATE STUDENT RESEARCH ADVISING

Master's Profession Project Committee
Charles Rydeski
Ph.D. Dissertation Committee
Blaine Arney
Master's Professional Project Committee
Kevin Ryan
Ph.D. Dissertation Committee
Jonathan Senefeld

GRADUATE STUDENT TEACHING MENTORSHIP

2021 – present Taylor Holmes

CERTIFICATION LICENSURE

2004 – Present	Physical Therapist – State of Wisconsin
2003 – 2004	Physical Therapist – State of Illinois

MEMBERSHIPS

2022 – present	APTA Academy of Education section member
2022 – present	American Council of Academic Physical Therapy member
2017 – present	Cardiovascular and Pulmonary Section member of the APTA
2016 – present	American Physical Therapy Association (APTA)

- 2010 2013 American Heart Association
- 2010 2013 Microcirculatory Society
- 2010 2013 American Physiological Society (APS)

TEACHING ACTIVITIES

Marguette University

07/2012 – present Clinical Assistant Professor, Department of Physical Therapy

- 08/2020 12/2022 Course director, Readings and Research I
- 01/2018 present Course director, Clinical Pathology and Pathophysiology
- 06/2017 present Course director, Cardiovascular and Pulmonary Physical Therapy
- 09/2014 present Invited lecturer (annually), **Applied Physiology** *Title:* Regulation of Microcirculation
- 08/2012 present Course director, Physiology of Activity
- 08/2018 12/2018 Co-course director, Capstone Seminar: Mission to Mars
- 06/2015 07/2018 Invited lecturer (annually), Physiology (HCOP program) Title: Exercise Physiology
- 01/2016 05/2017 Course director, Pathophysiology
- 01/2012 05/2017 Course director, Tests and Measures
- 07/2013 05/2016 Co-course director, Physical Technologies and Electrotherapy
- 08/2012 12/2015 Laboratory instructor, Advanced Exercise Physiology
- 01/2012 05/2015 Co-course director, Pathophysiology and Aging

University of Wisconsin – Milwaukee

08/2011 – 05/2012 Adjunct Professor, Department of Human Movement Sciences Course Title: Anatomical Kinesiology

06/2011 – 08/2011 Laboratory Instructor, Department of Physical Therapy Course Title: **Gross Anatomy**

Carroll University

01/2011 – 05/2011 Adjunct Professor, Department of Physical Therapy

Course Title Physical Therapy 401: Clinical Research I

01/2010 – 12/2011 Laboratory Instructor, Department of Health and Medicine

Course Title Human Physiology

Course Title Anatomy and Physiology

Medical College of Wisconsin

01/2008 – 05/2010 Laboratory Instructor, Department of Physiology Course Title: Medical Physiology

Laboratory Sessions: Skeletal muscle physiology, circulatory control.

08/2008 – 05/2009 Tutor for graduate students, Physiology Department

CONTINUING EDUCATION SUPPORTING CLINICAL PRACTICE

2023 Blurred Lines: Ethics at the Nexus of Science, Technology and Rehabilitation, Continuing Education course at Marquette University

- 2022 Educational Leadership Conference (APTA) October 2022; Milwaukee WI
- 2021 Educational Leadership Conference (APTA) October 2023; Atlanta, GA
- 2020 Combined Sections Meeting (APTA) February 13-15, 2020; Denver CO
- 2019 Combined Sections Meeting (APTA) January 23-26, 2019; Washington DC
- 2018 Combined Sections Meeting (APTA) February 21-24, 2018; New Orleans
- 2018 "Breaking Up is Hard to Do: Ethics of Maintaining vs. Ending Care", Continuing Education course at Marquette University
- 2017 Cardiovascular and Pulmonary Physical Therapy, Milestones Online Continuing Education
- 2017 "Best Practice Cardiopulmonary Physical Therapy" PT Cardiopulmonary Educators continuing education course (Ellen Hillegas and Rebecca Crouch); Lillington NC
- 2017 Clinical shadowing at Froedtert Medical Center in multiple intensive care units (cardiac, trauma, surgical, and medical) 18 hours of shadowing
- 2017 "Ethics and Jurisprudence, Deciding for Others", Continuing Education course at Marquette University
- 2014 "Clinical Updates and Practice Issues: Using Legal and Ethical Documents to Support Legal Practice"; Continuing Education course at Marquette University
- 2012 "Keeping Secrets: Confidentiality, Disclosure and the Duty to Report"; Continuing Education course at Marquette University

CLINICAL EXPERIENCE

7/2012 – 10/2014 Marquette Sports Rehabilitation Clinic, Milwaukee, WI		
5/2007 – 6/2009	Physical Therapist, Injury Rehabilitation Clinic, Brookfield, WI	
6/2005 – 5/2007	Physical Therapist, SPORT Clinic of Greater Milwaukee, Wauwatosa, WI	
6/2004 - 6/2005	Physical Therapist, Athletico, LLC, Bannockburn, IL	
2004	Physical Therapist Internship, Bellin Sports Medicine, Green Bay, WI	
2004	Physical Therapist Internship, St. Luke's Medical Center, Milwaukee, WI	
2003	Physical Therapist Internship, Concentra Medical Center, Winston-Salem, NC	
2002	Physical Therapist Internship, Zablocki VA Medical Center, Milwaukee, WI	