

Curriculum Vitae

John J. Durocher, Ph.D., ACSM EP-C, CSCS

Assistant Professor of Physiology

Director of Pre-Health Programs

Director of Clinical and Applied Human Physiology Laboratory

Department of Biological Sciences

Michigan Technological University

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Education:

2008	Doctor of Philosophy • Exercise Physiology	Department of Biological Sciences Michigan Technological University
2006	Master of Science • Exercise Science	Department of Health, P.E. and Recreation Northern Michigan University
2004	Bachelor of Science • General Biology (<i>Cum Laude</i>)	Department of Biological Sciences Michigan Technological University
1996	Associate in Applied Science • Forest Technology	School of Technology Michigan Technological University

Professional Experience:

2012-Pres.	Assistant Professor	Biological Sciences Michigan Technological University
2012-Pres.	Adjunct Assistant Professor	Kinesiology and Integrative Physiology Michigan Technological University
2011-2012	Research Assistant Professor	Kinesiology and Integrative Physiology Michigan Technological University
2011-2012	Adjunct Assistant Professor	Biological Sciences Michigan Technological University
2010-2011	Postdoctoral Fellow	Integrative Physiology Laboratory Michigan Technological University
2009-2010	Assistant Professor	Physical Therapy Saint Francis University
2008-2009	Assistant Professor	Health, Exercise Science & Sport Mgmt. University of Wisconsin - Parkside

Professional Experience Continued:

2007-2008	Graduate Research Assistant and Instructor	Exercise Science, Health and P.E. Michigan Technological University
2007-2008	Clinical Exercise Physiologist	Cardiopulmonary Services Portage Health
2006-2007	Graduate Teaching Assistant	Exercise Science; Biological Sciences Michigan Technological University
2004-2005	Graduate Teaching Assistant and Instructor	Health, P.E. and Recreation Northern Michigan University
2003	Teaching Assistant	Biological Sciences Michigan Technological University

Research Interests:

- Clinical & Applied Human Physiology
- Metabolic Syndrome
- Obesity and Cardiovascular Disease
- Autonomic Regulation of Blood Pressure
- Physiological Responses to Stress & Exercise
- Specificity of Exercise Testing and Prescription

Teaching Experience:**Michigan Technological University:**

- BL1590: Intro to Health Professions
- BL1800: Biochemistry Orientation (Guest Lecturer)
- BL 2010: Anatomy and Physiology I
- BL 2011: Anatomy and Physiology I Laboratory
- BL 2020: Anatomy and Physiology II
- BL 2021: Anatomy and Physiology II Laboratory
- BL 2940: Human Nutrition (Guest Lecturer)
- BL 3000: Job Shadow Health Professions
- BL 3990: Bio Sci Teaching Experience
- BL 4000: Research in Biology
- BL 4044 / 5044: Human Pathophysiology (started as BL4100 in spring 2017)
- BL 4470: Analysis of Biological Data (Co-Instructor)
- BL 5350: Special Topics in Physiology (ex. Work Physiology; Exercise Metabolism)
- BL/EH 4211: Exercise Physiology Laboratory
- EH 3100: Exercise Assessment and Prescription (Guest Lecturer)
- EH 3100: Exercise Assessment and Prescription Laboratory
- EH 3700: Lifetime Fitness (Guest Lecturer)
- EH 4200: Sports Nutrition Seminar
- EH 4210: Exercise Physiology (Guest Lecturer)
- EH 4990: EKG Interpretation (Guest Lecturer and Laboratory Demonstrations)
- EH 5920: Graduate Seminar in Kinesiology & Integrative Physiology (Guest Lecturer)
- PE 0156: Beginning Mountain Biking

Saint Francis University:

- EXPH 102: Introduction to Strength Training
- EXPH 103: Introduction to Physical Conditioning
- EXPH 250: Functional Anatomy
- EXPH 310: Exercise Physiology II: Nutrition, Bioenergetics, Performance & Body Comp.
- EXPH 330: Neuromuscular Principles of Strength and Conditioning
- EXPH 398/399: Internship / Practicum
- EXPH 400: Advanced Laboratory and Field Methods in Exercise Physiology
- EXPH 410: Environmental Exercise Physiology
- PHTH 300: Exercise Physiology

University of Wisconsin – Parkside:

- AHS 101: Introduction to Applied Health Sciences (Guest Lecturer)
- HESM 196: Weight Training
- HESM 280: Sport and Fitness Nutrition
- HESM 353: Biomechanics
- HESM 354: Physiology of Exercise
- HESM 410: Fitness Assessment and Prescription

Northern Michigan University:

- GETFIT: Adult Fitness Program
- HP 200: Physical Well-Being
- HP 216: Beginning Skating
- HP 233: Snowshoeing
- HP 245: Weight Training and Conditioning
- PE 315: Physiology of Exercise Laboratory
- PE 317: Anatomical Kinesiology Laboratory

Grants and Equipment:**Awarded:**

Project Title	Award Organization	Dates	Amount
Psychophysiological Benefits of Acute Mindfulness Meditation Practice Role: Undergraduate Mentor	Portage Health Foundation through the Pavlis Honors College Undergraduate Research Internship	10/16 to 3/17	\$1,600 <i>(total)</i> \$800 <i>(direct)</i>
Fitness vs. Fatness and the Cardiovascular Responses to Acute Stress Role: Undergraduate Mentor	Portage Health Foundation through the Pavlis Honors College Undergraduate Research Internship	10/15 to 3/16	\$1,600 <i>(total)</i> \$800 <i>(direct)</i>

Awarded Grants Continued:

Project Title	Award Organization	Dates	Amount
Blended and Active Learning for Health Sciences at Michigan Tech Role: Co-PI with BE Morin	The William G. Jackson Center for Teaching and Learning	02/15 to 12/15	\$9,700 <i>(total)</i> \$5,000 <i>(direct)</i>
The Effect of Diet or Exercise on Visceral Obesity, Neural Cardiovascular Reactivity and Arterial Stiffness in Obese Humans Role: PI	Michigan Tech Research Excellence Fund – Seed Grant	07/13 to 05/16	\$31,600 <i>(total)</i> \$26,000 <i>(direct)</i>
Promoting Wellness at Michigan Tech through Physical Activity Monitored with Wireless Accelerometers Role: PI	Michigan Tech Century II Campaign Endowed Equipment Fund (C ² E ²)	11/12 to 06/15	\$8,825 <i>(total)</i> \$4,000 <i>(direct)</i>
The Influence of Aerobic and Anaerobic Fitness on Cross-Country Mountain Biking Performance Role: Undergraduate Mentor	Michigan Tech – Summer Undergraduate Research Fellowship (SURF) To: Marie Mets	05/13 to 09/13	\$3,300 <i>(total)</i>
Research Career Enhancement Award - Evaluation of Vascular Function in Humans Role: PI	The American Physiological Society	11/12 to 5/13	\$2,000 <i>(direct)</i>
The effect of cognitive stress on orthostatic tolerance during lower body negative pressure Role: PI	Michigan Space Grant Consortium <i>(Seed Grant)</i>	05/11 to 04/12	\$10,000 <i>(total)</i> \$5,000 <i>(direct)</i>
Human gross anatomy experience Role: PI	Michigan Tech Center for Teaching, Learning, and Faculty Development <i>(Mini Teaching Grant)</i>	11/10 to 06/11	\$500 <i>(direct)</i>
Training to improve the hockey snap and wrist shot with resistance training and the SuperShooter2© Role: Co-PI with J Erickson	Miken MV 3 Pro Hockey Sticks <i>(Gift in Kind Equipment Grant)</i>	06/10	\$3,910 <i>(estimated value)</i>
Sport-specific research at Saint Francis University Role: PI	Portage Health <i>(Gift in Kind Equipment Grant)</i>	10/09	\$14,928 <i>(estimated value)</i>

Awarded Grants Continued:

Project Title	Award Organization	Dates	Amount
Mental stress during acute loading of the baroreceptors Role: PI	Michigan Space Grant Consortium (Fellowship)	05/08 to 04/09	\$5,000 (direct)
Optimizing lactate clearance in collegiate athletes Role: Co-PI with JR Carter	Portage Sports Medicine Institute	08/07 to 07/08	\$2,500 (total) \$2,273 (direct)

Grants in Review:

Project Title	Award Organization	Dates	Amount
Sleep and Neural Cardiovascular Control in Humans Role: Co-PI with JR Carter	National Institutes of Health R-01	Submitted 02/17	\$3,502,411 (tot.) \$2,363,139 (dir.)

Peer-Reviewed Publications: (17 total)

Burr JF, Beck JL, and **Durocher JJ**. The Relationship of High-Intensity Cross-Training and Arterial Stiffness. *Journal of Sport and Health Science* In Press, Available online January 20, 2017.

Durocher JJ, Carter JR, Cooke WH, Young AH, and Harwood MH. Cerebral blood flow velocity during combined lower body negative pressure and cognitive stress. *Aerospace Medicine and Human Performance* 86(8): 688-692, 2015.

Petushek EJ, Cokely ET, Ward P, **Durocher JJ**, Wallace S, and Myer GD. Injury Risk Prediction Expertise: Assessing ACL-IQ. *The American Journal of Sports Medicine* 43(7): 1640-7, 2015.

Yang H, **Durocher JJ**, Larson RA, and Carter JR. Role of the ovarian cycle on neural cardiovascular control in sleep deprived women. *Journal of Applied Physiology*, 118: 419-426, 2015.

Gorsuch J, Long, J, Miller K, Primeau K, Rutledge S, Sossong A, and **Durocher JJ**. The Effect of Squat Depth on Multiarticular Muscle Activation in Collegiate Cross-Country Runners. *Journal of Strength and Conditioning Research*, 27(9): 2619-25, 2013.

Yang H, **Durocher JJ**, Larson RA, DellaValla JP, and Carter JR. Total Sleep Deprivation Alters Cardiovascular Reactivity to Acute Stressors in Humans. *Journal of Applied Physiology*, 113(6): 903-8, 2012.

Carter JR, **Durocher JJ**, Larson RA, DellaValla JP, and Yang H. Sympathetic Neural Responses to 24-hour Sleep Deprivation in Humans: Sex Differences. *American Journal of Physiology: Heart and Circulatory Physiology*, 302: H1991-1997, 2012.

Durocher JJ, Lufkin KJ, King ME and Carter JR. Social technology restriction alters state-anxiety but not autonomic activity in humans. *American Journal of Physiology: Regulatory, Integrative and Comparative Physiology*, 301(6): R1773-1778, 2011.

Ebben WP, Wurm B, VanderZanden TL, Spadavecchia M, **Durocher JJ**, Bickham C, and Petushek EJ. Kinetic Analysis of Several Variations of Push-Ups. *Journal of Strength and Conditioning Research*, 25(10): 2891-2894, 2011.

Durocher JJ, Klein JC and Carter JR. Attenuation of sympathetic baroreflex sensitivity during the onset of acute mental stress in humans. *American Journal of Physiology: Heart and Circulatory Physiology*, 300(5): H1788-93, 2011.

Carter JR, Stream SF, **Durocher JJ**, and Larson RA. Influence of acute alcohol ingestion on sympathetic neural responses to orthostatic stress in humans. *American Journal of Physiology - Endocrinology and Metabolism*, 300: E771-E778, 2011.

Schwartz CE, **Durocher JJ**, and Carter JR. Neurovascular responses to mental stress in prehypertensive humans. *Journal of Applied Physiology*, 110: 76-82, 2011.

Durocher JJ, Guisfredi AJ, Leetun DT, and Carter JR. Comparison of on-ice and off-ice graded exercise testing in collegiate hockey players. *Applied Physiology, Nutrition, and Metabolism*, 35(1): 35-39, 2010.

Durocher JJ, Schwartz CE, and Carter JR. Sympathetic neural responses to mental stress during acute simulated microgravity. *Journal of Applied Physiology*, 107: 518-522, 2009.

Durocher JJ, Leetun DT, and Carter JR. Sport-specific assessment of lactate threshold and aerobic capacity throughout a collegiate hockey season. *Applied Physiology, Nutrition, and Metabolism*, 33(6):1165-1171, 2008.

Carter JR, **Durocher JJ**, and Kern RP. Neural and cardiovascular responses to emotional stress in humans. *American Journal of Physiology: Regulatory, Integrative and Comparative Physiology*, 295(6): R1898-1903, 2008.

Durocher JJ, Jensen D, Arredondo AG, Leetun DT, and Carter JR. Gender differences in hockey players during on-ice graded exercise. *Journal of Strength and Conditioning Research*, 22(4): 1327-1331, 2008.

Research in Progress:

Elmer SJ, Anderson DJ, Wakeham TR, Kilgas MA, **Durocher JJ**, Lindstedt SL, and LaStayo PC. Chronic Eccentric Arm Cycling Improves Maximum Upper-body Strength and Power. *European Journal of Applied Physiology* (submitted on January 20, 2017).

Abstracts and Conference Proceedings: (44 total)

Wakeham TR, Fonkoue IT, **Durocher JJ**, and Carter JR. Reliability of Heart Rate Variability as and Assessment of Sympathetic Activity in Humans. *Upper Peninsula Medical Conference*, Copper Harbor, MI, August 2016.

Wakeham TR, Carter JR, Wang M, and **Durocher JJ**. Predicting muscle sympathetic nerve activity and mean arterial blood pressure responses to mental stress. *The Michigan Physiological Society Annual Meeting*, Detroit, MI, May, 2016.

Marti HL, Wakeham TR, Revoyr MM, and **Durocher JJ**. The Effect of Changes in Fitness and Fatness on Aortic Pulsatile Load. *The Michigan Physiological Society Annual Meeting*, Detroit, MI, May, 2016.

Wakeham TR, Elmer SJ, and **Durocher JJ**. Concentric vs. Eccentric Arm Cycling: Acute Cardiovascular and Arterial Stiffness Responses. ACSM 2016, *American College of Sports Medicine*, Boston, MA, May 2016.

Wakeham TR, Carter JR, Wang M, and **Durocher JJ**. Predicting muscle sympathetic nerve activity and mean arterial blood pressure responses to mental stress. *Federation of American Societies for Experimental Biology*, San Diego, CA, April 2016.

Wakeham TR, Morin B, and **Durocher JJ**. A blended learning approach for human skeletal anatomy with undergraduate students. *Federation of American Societies for Experimental Biology*, San Diego, CA, April 2016.

Wakeham TR, Morin B, and **Durocher JJ**. The Influence of a Role-Play Membrane Transport Laboratory on Lecture Performance and Student Satisfaction. *Human Anatomy and Physiology Society Regional Meeting*, Milwaukee, WI, November 2015.

Petushek EJ, Cokely ET, Ward P, **Durocher J**, Wallace S, and Myer GD. Visual Estimation of ACL Injury Risk: Efficient Assessment Method, Group Differences, and Expertise Mechanisms. *Upper Peninsula Medical Conference*, Copper Harbor, MI, August 2015.

Durocher JJ, Wakeham TR, Dixon RA, and Harwood MH. The Influence of Acute Resistance and Aerobic Exercise Order on Arterial Stiffness. ACSM 2015, *American College of Sports Medicine*, San Diego, CA, May 2015.

Wakeham TR, Harwood MH, Carter JR, and **Durocher JJ**. Obesity and neural cardiovascular responses to mental stress in humans. *The Michigan Physiological Society Annual Meeting*, Boyne, MI, April, 2015.

Wakeham TR, Harwood MH, Carter JR, and **Durocher JJ**. Obesity and neural cardiovascular responses to mental stress in humans. *Federation of American Societies for Experimental Biology*, Boston, MA, March 2015.

Harwood MH, Wakeham TR, and **Durocher JJ**. Mean arterial pressure and wave reflection during the cold pressor test: the influence of trunk fat. *Federation of American Societies for Experimental Biology*, Boston, MA, March 2015.

Stream SF, **Durocher JJ**, Chen QH, and Carter JR. Acute Alcohol Consumption Elicits Augmented Sympathoexcitation in Prehypertensive Humans. Research Society on Alcoholism Scientific Meeting, Bellevue, WA, June 2014.

Durocher BE, Harwood MH, Drum SN, Watts PB, Moore MT, and **Durocher JJ**. The Acute Cardiovascular and Inflammatory Responses to Ultramarathon and Marathon. ACSM 2014, American College of Sports Medicine, Orlando, FL, May 2014.

Harwood MH, Mets MR, Hamlin BH, and **Durocher JJ**. Relationships of Maximal Oxygen Consumption, LT and Anaerobic Power to Performance in Adolescent Mountain Bikers. ACSM 2014, American College of Sports Medicine, Orlando, FL, May 2014.

Harwood MH, Durocher BE, Drum SN, Watts PB, Moore MT, and **Durocher JJ**. The Acute Cardiovascular Responses to Marathon and Ultramarathon Competition. *The Michigan Physiological Society Annual Meeting*, East Lansing, MI, May, 2014.

Fonkoue IT, King ME, **Durocher JJ**, and Carter JR. Mental stress and cardiovascular reactivity in humans: A time-dependent response. *The Michigan Physiological Society Annual Meeting*, East Lansing, MI, May, 2014 (oral presentation by Ida Fonkoue).

Durocher BE, Harwood MH, Edwards JC, Drum SN, and **Durocher JJ**. Influence of intensity on acute aortic pulse pressure and central arterial stiffness in long-distance runners. *Federation of American Societies for Experimental Biology*, San Diego, CA, April, 2014.

Harwood MH, Strong CR, De Cramer CK, Carter JR, and **Durocher JJ**. Reliability of finger blood pressures with simultaneous ipsilateral radial applanation tonometry. *Federation of American Societies for Experimental Biology*, San Diego, CA, April, 2014.

Larson RA, Yang H, **Durocher JJ**, and Carter JR. Total sleep deprivation and pain perception during cold noxious stimuli in humans: Role of sex. *Federation of American Societies for Experimental Biology*, San Diego, CA, April, 2014.

Fonkoue IT, King ME, **Durocher JJ**, and Carter JR. Mental stress and cardiovascular reactivity in humans: A time-dependent response. *Federation of American Societies for Experimental Biology*, San Diego, CA, April, 2014.

Yang H, **Durocher JJ**, Larson RA, King ME and Carter JR. Ovarian Cycle, Total Sleep Deprivation, and Cardiovascular Reactivity in Humans. *SLEEP 2013, Associated Professional Sleep Societies, LLC*, Baltimore, MD, June, 2013.

Carter JR, **Durocher JJ**, Yang H and Larson RA. Effects of the Ovarian Cycle on Sympathetic Neural and Cardiovascular Control during Total Sleep Deprivation in Humans. *SLEEP 2013, Associated Professional Sleep Societies, LLC*, Baltimore, MD, June, 2013.

Young AH, Strong CR, Cooke WH, Carter JR, and **Durocher JJ**. The influence of combined lower body negative pressure and mental stress on cerebral blood flow in men and women. *Federation of American Societies for Experimental Biology*, Boston, MA, April, 2013.

Carter JR, **Durocher JJ**, Larson RA, DellaValla JP, and Yang H. Sleep Deprivation and Neural Cardiovascular Reactivity in Humans. *SLEEP 2012, Associated Professional Sleep Societies, LLC*, Boston, MA, June, 2012.

Durocher JJ, Witting JL, Drummer TD, and Carter JR. Influence of Night Shift Work on Sleep-Wake Cycle, 24-hour Blood Pressure and State Anxiety. *SLEEP 2012, Associated Professional Sleep Societies, LLC*, Boston, MA, June, 2012.

Yang H, **Durocher JJ**, Larson RA, DellaValla JP and Carter JR. Influence of 24-Hour Sleep Deprivation on Sympathetic and Cardiovagal Baroreflex Function in Humans. *SLEEP 2012, Associated Professional Sleep Societies, LLC*, Boston, MA, June, 2012.

Larson RA, **Durocher JJ**, DellaValla JP, Yang H, and Carter JR. Influence of Sleep Deprivation on Cardiovascular Reactivity and Pain Perception to Cold Pressor Test. *SLEEP 2012, Associated Professional Sleep Societies, LLC*, Boston, MA, June, 2012.

Durocher JJ and Carter JR. Influence of body mass index on neural cardiovascular reactivity to mental stress in humans. *Federation of American Societies for Experimental Biology*, San Diego, CA, April, 2012.

Yang H, **Durocher JJ**, Larson RA, DellaValla JP, and Carter JR. Sex differences in sympathetic neural responses to 24-hour sleep deprivation in humans. *Federation of American Societies for Experimental Biology*, San Diego, CA, April, 2012.

Larson RA, **Durocher JJ**, Yang H, DellaValla JP, and Carter JR. Influence of 24-hour sleep deprivation on anxiety and cardiovascular reactivity in humans. *Federation of American Societies for Experimental Biology*, San Diego, CA, April, 2012.

Durocher JJ, Larson RA, DellaValla JP, and Carter JR. Influence of Sleep Deprivation on State-Anxiety and Arterial Blood Pressure in Humans. *SLEEP 2011, 25th Anniversary Meeting of the Associated Professional Sleep Societies, LLC*, Minneapolis, MN, June, 2011.

Gorsuch J, Long, J, Miller K, Primeau K, Rutledge S, Sossong A, and **Durocher JJ**. The Effect of Squat Depth on Multi Articular Muscle Activity in Collegiate Cross-Country Runners. *Saint Francis University Annual Research Day*, May, 2011.

Durocher JJ, Larson RA, and Carter JR. Acute alcohol ingestion lengthens sympathetic burst latency in humans. *Federation of American Societies for Experimental Biology*, Washington, DC, April, 2011.

Schwartz CE, Joyner MJ, **Durocher JJ**, and Carter JR. Influence of omega-3 fatty acids on neurovascular responses to mental stress in normotensive humans. *Federation of American Societies for Experimental Biology*, Washington, DC, April, 2011.

Carter JR, **Durocher JJ**, Schwartz CE, and Klein JC. Mental Stress Attenuates Sympathetic Baroreflex Sensitivity in Humans. *American Autonomic Society*, 2010.

Gorsuch J, Long, J, Miller K, Primeau K, Rutledge S, Sossong A, and **Durocher JJ**. The Effect of Squat Depth on Muscle Activation in Male and Female Cross-Country Runners. *International Society of Biomechanics in Sport*, 2010.

VanderZanden TL, Wurm B, **Durocher JJ**, Bickham C, Petushek EJ, and Ebben WP. The Effect of Reaching to an Overhead Goal While Performing the Countermovement Jump. *International Society of Biomechanics in Sport*, 2010.

Updated 2/3/2017

Wurm B, VanderZanden TL, Spadavecchia M, **Durocher JJ**, Bickham C, Petushek EJ, and Ebben WP. Kinetic Analysis of Several Variations of Push-Ups. *International Society of Biomechanics in Sport*, 2010.

Schwartz CE, **Durocher JJ**, and Carter JR. Prehypertension alters arterial pressure and forearm vascular responses to mental stress in humans. *Federation of American Societies for Experimental Biology*, Anaheim, CA, April, 2010.

Durocher JJ, Guisfredi AJ, Leetun DT, and Carter JR. Comparison of On-Ice and Off-Ice Graded Exercise Testing in Collegiate Hockey Players. *Mid-Atlantic Regional Conference of the American College of Sports Medicine*. Abstract P-7, November, 2009.

Durocher JJ, Schwartz CE, and Carter JR. Mental Stress During Acute Loading of the Baroreceptors. *Federation of American Societies for Experimental Biology* 23:786.9, 2009.

Durocher JJ, Bustos DJ, Schwartz CE, and Carter JR. Post-game cycling does not enhance blood lactate removal in collegiate hockey players. *The Physiologist* 51(6):22.13, 2008.

Durocher JJ, Kern RP, and Carter JR. Effects of emotional and mental stress on muscle sympathetic nerve activity in humans. *Federation of American Societies for Experimental Biology* 22:740.6, 2008.

Peer-Reviewer:

American Journal of Physiology: Heart and Circulatory Physiology

American Journal of Physiology: Regulatory, Integrative and Comparative Physiology

BMC Complementary & Alternative Medicine

Clinical Autonomic Research

Ergonomics

International Journal of Sports Medicine

Journal of Applied Physiology

Medicine & Science in Sports & Exercise

National Strength and Conditioning Association Wisconsin State Clinic

Physiology & Behavior

Physiological Reports

Sports Health

The Michigan Physiological Society (coordinator of abstract review, oral presentation judge, and poster judge)

Graduate Research Publications:

Durocher JJ. Aerobic Fitness and Lactate Metabolism in Collegiate Hockey Players. UMI Publishers (Microform 3339426), Doctoral Dissertation, Michigan Technological University, 2008.

Durocher JJ. Effects of Clipless Pedals on Ventilatory Threshold, EMG, and Economy during Cycle Ergometry. Master's Thesis, Northern Michigan University, 2006.

University Publications:

Harwood MH, Wakeham TR, Gratz RK, and **Durocher JJ**. Principles of Anatomy and Physiology Laboratory I, revised laboratory manual for BL 2011 Anatomy and Physiology Laboratory, Michigan Technological University, 2014.

Wakeham TR, Harwood MH, Gratz RK, Harris MA and **Durocher JJ**. Principles of Anatomy and Physiology Laboratory II, revised laboratory manual for BL 2021 Anatomy and Physiology Laboratory, Michigan Technological University, 2015.

Durocher JJ. Exercise Physiology Internship Manual, developed guidelines and evaluation tools for EXPH 398/399 internship/practicum, Saint Francis University, 2010.

Durocher JJ. Exercise Assessment and Prescription Laboratory Manual, developed entire laboratory course and manual for EH 3100 exercise assessment and prescription, Michigan Technological University, 2007.

Durocher JJ and Carter JR. Exercise Physiology Laboratory Manual, developed entire laboratory course and manual for EH 4211 exercise physiology lab, Michigan Technological University, 2006.

Invited Presentations:

“Assessing Arterial Stiffness in Humans: How Effective are Lifestyle Interventions?” Michigan Community College Biologists Conference, Roscommon, MI, May, 2016.

“Careers and Research in Clinical and Applied Human Physiology” Introduction to Health Professions course at Michigan Tech, October, 2015.

“Professional Sports Combines: How athleticism is measured” Keweenaw Science and Engineering Festival, August, 2015.

“Human Power Production: Concentric and Eccentric Cycling” Women in Engineering at Michigan Tech, July, 2015.

“Friday Night Fitness at Cross Country Sports” Western UP Health Department and Swedetown Trails Club, June and July 2015 (weekly presentations on topics that included: VO₂max, Lactate Threshold, Running Economy, Strength Training for Runners, Sports Nutrition, and Interval Training).

“Exercise and Nutritional Strategies to Reduce Arterial Stiffness” UP Health – Portage, Lunch and Learn, April, 2015.

“Strength and Conditioning Strategies for Reducing Arterial Stiffness in Humans” Michigan Tech Kinesiology and Integrative Physiology Seminar Series, January, 2015.

“Ethics Workshop – Human Participants” Michigan Tech Responsible Conduct for Research Course, May, 2014.

"Careers in Clinical and Applied Human Physiology" Michigan Tech Biochemistry Orientation, October, 2013 and 2014.

"An Introduction to MTU Anatomy & Physiology I & II" Finlandia University TRIO Upward Bound Students, July, 2013.

"Assessment of Anaerobic Power for Mountain Bikers" Michigan Tech Mountain Bike Camp, June, 2013.

"F.I.T.T.ness Recommendations for Phase III and IV Cardiopulmonary Rehabilitation" Portage Health Cardiopulmonary Services, March, 2013.

"Health Care Careers Related to Human Physiology and Kinesiology" Michigan Tech Summer Youth Program for Careers in Health Care, July, 2012.

"Scientific Assessment and Training for Cross-Country Mountain Bike Racing" Michigan Tech Mountain Bike Camp, June, 2012.

"Autonomic Regulation of Blood Pressure: non-pharmacological solutions for hypertension and orthostatic hypotension" Michigan Tech Department of Biological Sciences, March, 2012.

"Nutritional Recommendations for Military Training" Michigan Tech Air Force Reserve Officers' Training Corps, February, 2012.

"Sleep and Cardiovascular Control in Humans" Michigan Tech Department of Biological Sciences Seminar Series, December, 2011.

"Concurrent Training for Endurance Sports: Maximize Performance and Prevent Injury" Michigan Tech Mountain Bike Camp, June 2011.

"Endurance Physiology for Cross-Country Mountain Bikers" Michigan Tech Mountain Bike Camp, June 2010.

"The Fundamentals of Resistance and Endurance Training" Razor Sharp Fitness - Transitions Weight Management Group, Racine, WI, April 2009.

"The Basics of Biomechanics and Exercise Physiology" Introduction to Applied Health Science Course, University of Wisconsin – Parkside, February 2009.

"Training Safely and Effectively to Minimize Injury and Disease" Razor Sharp Fitness – Transitions Weight Management Group, Racine, WI, January 2009.

"Aerobic Fitness and Lactate Metabolism in College Hockey Players" National Strength and Conditioning Association – Wisconsin State Clinic, Oshkosh, WI, April 2008.

"Sport Specific Fitness Assessment, Autonomic Regulation of Arterial Blood Pressure, and Pursuing a Graduate Degree at Michigan Tech" Advanced Seminar in Exercise Science, Northern Michigan University, February 2008.

"Physiological Responses and Measurements during Aerobic Exercise" Michigan Technological University Bio-Athlon, May 2007.

"Gender Differences in Hockey Players during On-Ice Graded Exercise" Sigma Xi Multi-Disciplinary Student Research Colloquium, April 2007.

"Physiological Characteristics and Nutritional Guidelines for Cross-Country Mountain Bikers" Sports Nutrition Seminar Course, Michigan Technological University, March 2007.

Workshops Completed:

Diversity Literacy and Legal Aspects Certification. Michigan Tech ADVANCE Diversity Literacy Program, Houghton, MI, November, 2012.

The Basics of Sleep. Sleep Research Society. SLEEP 2011, 25th Anniversary Meeting of the Associated Professional Sleep Societies, LLC, Minneapolis, MN, June, 2011.

Visualizing the Future of Teaching Anatomy and Physiology. Wiley Faculty Network, Las Vegas, NV, March 2011.

Running on Empty: a conference on eating disorders that addresses issues regarding causes, effects and the search for solutions. UW-Parkside Center for Community Partnerships, Kenosha, WI, March 2009.

University Service:

2016-Pres: Director of Pre-Health Programs at Michigan Tech

2016: Awards Chair, Michigan Physiological Society Annual Meeting

2015-2016: Co-Chair of Health Science Faculty Search Committee, Michigan Tech Biological Sciences

2015: Chair of Oral Presentation Judging, Michigan Physiological Society Annual Meeting

2014: Review Committee, Michigan Tech applicants to the Central Michigan Doctor of Physical Therapy Program

2014: Internal Reviewer, Summer Undergraduate Research Fellowships, Michigan Tech

2013-Pres: Graduate Faculty Council, Alternate Representative for Biological Sciences

2013: Search Committee, Michigan Tech Biological Sciences (Medical Laboratory Science Lecturer)

2013: Search Committee, Michigan Tech Kinesiology & Integrative Physiology (Biomechanics)

- 2012-2015: Graduate Committee, Michigan Tech Biological Sciences
- 2012-Pres: Communications and Outreach Committee, Michigan Tech Biological Sciences
- 2012-2013: Safety Committee, Michigan Tech Biological Sciences
- 2012-2013: Search Committee, Michigan Tech Kinesiology & Integrative Physiology (Integrative Physiology)
- 2012: Bioathlon Dissection Designer, Michigan Tech Biological Sciences
- 2011-Pres: Graduate Curriculum Committee, Michigan Tech Department of Kinesiology and Integrative Physiology
- 2011: Internal Reviewer, Summer Undergraduate Research Fellowships, Michigan Tech
- 2010-2011: Curriculum Committee, Chair, Michigan Tech Department of Exercise Science, Health & Physical Education
- 2010: Internal Reviewer, Strategic Faculty Hiring Initiative in Health, Michigan Tech
- 2009-2010: Sport Management Committee, Saint Francis University
- 2009: Human Subjects Committee, University of Wisconsin – Parkside
- 2008-2009: Applied Health Science Steering Committee, Department of Biology and Department of Health, Exercise Science and Sport Management, UW - Parkside
- 2008-2009: Curriculum Committee, Department of Health, Exercise Science and Sport Management, UW - Parkside
- 2007-2008: MTU Graduate Student Council, Biological Sciences Representative and Lecture Committee Member
- 2007-2008: MTU Faculty Search Committee, Department of Exercise Science, Health & Physical Education
- 2007: Bioathlon Exercise Science Designer, Michigan Tech Biological Sciences

Professional Affiliations:

- 2014-present: Michigan Physiological Society
- 2008-present: The American Physiological Society, Professional Member
- 2004-present: American College of Sports Medicine, Certified Professional Member
- 2013-2014: The American Heart Association
- 2012-2014: The Human Anatomy and Physiology Society
- 2008-2009: Canadian Society for Exercise Physiology
- 2007-2014: National Strength and Conditioning Association

Professional Certifications:

- Certified Exercise Physiologist, American College of Sports Medicine
- Certified Strength & Conditioning Specialist, National Strength & Conditioning Assoc.
- Basic Life Support, American Heart Association

Honors and Awards:

2016: Top 10% Instructor, Michigan Tech
2016: Props for Profs Award, Michigan Tech
2015: Top 10% Instructor, Michigan Tech
2014: Certificate of Appreciation, Outstanding Contributions as a Faculty Member, Greek Life
2014: Props for Profs Award, Michigan Tech
2012: Research Career Enhancement Award, The American Physiological Society (APS)
2011: Caroline tum Suden / Frances Hellebrandt Professional Opportunity Award, The APS
2008: Biotechnology Research Center Travel Grant, Michigan Tech
2007: Proposal Incentive Award, Michigan Tech Graduate School
2007: 2nd Place Presentation, Sigma Xi Multi-Disciplinary Student Research Colloquium
2004: Graduated Cum Laude, Michigan Tech
2003: Certificate of Merit in Calculus for Life Sciences, Michigan Tech
2003: Nominated for Dean's Award for Service, Michigan Tech
2003: Departmental Scholar, Biological Sciences, Michigan Tech
2001: Firefighter I Certificate, Firefighter's Training Council, Michigan State Police

Graduate Student Advising:

Advisor: Aprille Hibbard, MS Peace Corps
Michigan Technological University
To defend around May, 2020

Advisor: Ian Greenlund, MS in Biological Sciences
Michigan Technological University
Will defend in May, 2018

Advisor: Travis Wakeham, MS in Biological Sciences
Michigan Technological University
Will defend in summer, 2017

Committee Member: Grace Parikh, PhD in Forest Resources &
Environmental Sciences
Michigan Technological University
Comprehensive Exam in Spring/Summer, 2017

Committee Member: Matthew Gage, MS in Kinesiology & Integrative Physiology
Michigan Technological University
Will defend in Spring/Summer, 2017

Committee Member: Zainab Ibrahim Alshong, PhD in Chemical Engineering
Michigan Technological University
Proposal Defense in 2017

- Committee Member: John Henderson, PhD Student in Forest Resources & Environmental Sciences
Michigan Technological University
Completed Comprehensive Exams in September, 2014
- Committee Member: Alex Van Der Merwe, MS in Human Factors
Michigan Technological University
Completed in April, 2016
- Committee Member: Grace Parikh, MS in Forest Resources & Environmental Sciences
Michigan Technological University
Completed Thesis Defense in April, 2015
- Committee Member: Erich Petushek, PhD in Human Factors
Michigan Technological University
Completed Doctoral Defense in August, 2014
- Committee Member: Kara Peltier, MS in Medical Informatics
Michigan Technological University
Completed Thesis Defense in August, 2014
- Committee Member: Huan Yang, PhD in Biological Sciences
Michigan Technological University
August, 2013
- Committee Member: Robert Larson, MS in Biological Sciences
Michigan Technological University
December, 2012
- Co-Advisor: Jennifer Witting, MS in Biological Sciences
Michigan Technological University
December, 2011

Completed Mentoring Experience:

Hannah Marti, undergraduate student at Michigan Technological University, “The Effect of Changes in Fitness and Fatness on Aortic Pulsatile Load,” 2015-2016.

- Portage Health Foundation Research Scholarship.
- 2016 Michigan Tech Undergraduate Research EXPO 2nd place poster award.
- 2016 Michigan Physiological Society poster presentation award.

Travis Wakeham, graduate student at Michigan Technological University, “Arterial Stiffness Following Acute and Chronic Upper-Body Eccentric Exercise,” spring 2016. **co-mentored with Dr. Steven Elmer from MTU Kinesiology & Integrative Physiology**

- 2016 Graduate Student Colloquium Best Oral Presentation.
- 2016 Graduate Student Colloquium Best Attended Oral Presentation.

Travis Wakeham, undergraduate student at Michigan Technological University, "Obesity and neural cardiovascular responses to mental stress in humans," spring 2015.

- David S. Bruce Outstanding Undergraduate Abstract Award.
- David S. Bruce Excellence in Undergraduate Research Award.

Ryan Dixon, undergraduate student at Michigan Technological University, "The Influence of Acute Resistance and Aerobic Exercise Order on Arterial Stiffness," spring 2015.

- Full Scholarship (WSU Board of Governors Merit Scholarship) to Wayne State University School of Medicine

Marie Mets, undergraduate student at Michigan Technological University, "Relationships of VO₂max, LT and Anaerobic Power to Performance in Adolescent Mountain Bikers," MTU SURF award (\$3,300) and presented a poster at the Undergraduate Research Expo, spring 2014.

Bridget Durocher, graduate student at Northern Michigan University, "Influence of Intensity on Acute Aortic Pulse Pressure and Central Arterial Stiffness in Long-Distance Runners," Northern Michigan University Spooner Grant (\$500), spring 2014.

Bridget Durocher, graduate student at Northern Michigan University, "Acute Effects of the Marquette 50 and Marquette Marathon on Cardiovascular Health," Northern Michigan University Excellence in Education Grant (\$1,500), spring 2013.

Angelea Young and Chelsea Strong, undergraduate students at Michigan Technological University, "The influence of combined lower body negative pressure and mental stress on cerebral blood flow in men and women," fall 2012.

Jennifer Witting, Master of Science Student at Michigan Technological University, "The Effects of Fixed Night Shift Work on 24 Hour Blood Pressure Regulation, State Anxiety Levels and Total Sleep Time," summer/fall 2011.

David Sproule, undergraduate student in Exercise Science at Michigan Technological University, "Training to Improve the Hockey Snap and Wrist Shot with Resistance Training and the SuperShooter2©," summer 2010.

Joshua Gorsuch, Janey Long, Katie Miller, Kyle Primeau, Sarah Rutledge, and Andrew Sossong, Doctor of Physical Therapy students at Saint Francis University, research assistants for "The Effect of Squat Depth on Multiarticular Muscle Activation in Collegiate Cross-Country Runners," 2009-2011.

- Joshua Gorsuch, DPT, 2011 Department of Physical Therapy Research Award, Saint Francis University

Angela Guisfredi, undergraduate student in Exercise Science at Michigan Technological University, Summer Undergraduate Research Fellowship award winner, research assistant for "Comparison of Sport-Specific and Laboratory Graded Exercise Testing in Collegiate Hockey Players," summer 2009.

- Angela Guisfredi, 2010 Michigan Tech Undergraduate Research EXPO, 3rd place award

Derek J. Bustos, undergraduate student in Exercise Science and Biological Sciences at Michigan Technological University, completed an internship in research for “Active Recovery and Blood Lactate Removal in Collegiate Hockey Players,” spring 2008.

Aaron G. Arredondo, undergraduate student in Biological Sciences at Michigan Technological University, completed senior essay course as a research assistant for “Gender Differences in Hockey Players during On-Ice Graded Exercise,” fall/spring 2006-2007.

Additional Work and Volunteer Experience:

2016-Pres: Copper Country Junior Hockey Assistant Coach (8U).

2015-2016: Co-Organizer of the Swedetown Trail Run (5k, 10k, 25k, and 50k).

2015-Pres: Owner and Operator, John Durocher Forestry, Atlantic Mine, MI.

2015: Volunteer for “Give Drugs the Boot” boot hockey tournament held at the Calumet-Laurium-Keweenaw School.

2014-2016: Co-Organizer of the Mount Bohemia Trail Running Festival (5k, 10k, half-marathon, and 50k).

2011-Pres: Coach and Instructor, Michigan Tech Mountain Bike Camp.

2011: Presenter, The Science of Hockey, in conjunction with Michigan Tech Mind Trekkers, Joe Louis Arena, Detroit, MI.

2010: Instructor, Sports Science, Summer Youth Program, Michigan Tech.

2007: Instructor, The Physics and Physiology of Sports, Summer Youth Program, Michigan Tech.

2007: Teaching Assistant, American Indian Workshop, Michigan Tech.

2002-2004, 2006: Certified Personal Trainer, Keweenaw Memorial Rehabilitation and Fitness, Houghton and Laurium, MI.

2005: Cardiopulmonary Intern, Marquette General Hospital, Marquette, MI.

2004: College Tutor, Exercise Physiology, Northern Michigan University, Marquette, MI.

2003-2004: Forest Research Technician and Site Supervisor, USDA Forest Service North Central Research Station, Houghton, MI.

2003-2004: Learning Center Coach, Department of Biological Sciences, Michigan Tech.

2003-2004: Physical Therapy Volunteer, Keweenaw Memorial Rehabilitation & Fitness Center and Portage Health, Houghton & Hancock, MI.

2003-2004: Security Clerk, Public Safety, Michigan Tech.

2002-2004: Undergraduate Teaching Assistant, Dept. of Biological Sciences, Michigan Tech.

2003: Undergraduate Research Assistant, Dept. of Biomedical Engineering, Michigan Tech.

2002-2008: Volunteer Firefighter, Stanton Township Fire Department, Houghton, MI.

1999-2001: Owner and Operator, John Durocher Logging, Atlantic Mine, MI.