

Erich J. Petushek, PhD  
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## Education

Postdoctoral Fellow in Applied Cognition and Cognitive Engineering University of Huddersfield, Huddersfield, United Kingdom	2014-2015
Ph.D. in Applied Cognitive Science and Human Factors Michigan Technological University, Houghton, MI	2011-2014
M.S. in Exercise Science Northern Michigan University, Marquette, MI	2009-2011
B.S. in Exercise Science Marquette University, Milwaukee, WI	2005-2008

## Current Positions

Assistant Professor—Tenure Track Department of Cognitive and Learning Sciences, Michigan Technological University Houghton, MI	2019-Present
Adjunct Professor Department of Family Medicine, Michigan State University Upper Peninsula Regional Campus, Marquette, MI	2019-Present

## Academic Appointments

Assistant Professor—Non-tenure Track College of Human Medicine, Michigan State University Upper Peninsula Regional Campus, Marquette, MI	2015-2019
Research Associate School of Health and Human Performance, Northern Michigan University Marquette, MI	2015-2019
National Science Foundation Graduate Research Fellow Cognitive and Learning Sciences Department Michigan Technological University Houghton, MI	2011-2014
Visiting Researcher for NSF Graduate Research Opportunity Worldwide Oslo Sports Trauma Research Center Oslo, Norway	2013
Research Supervisor College of Health Sciences Marquette University Milwaukee, WI	2008-2009
Research Assistant College of Health Sciences Marquette University Milwaukee, WI	2008

## Professional Memberships and Activities

Human Factors and Ergonomics Society	2013-Present
American College of Sports Medicine	2010-Present
National Strength and Conditioning Association	2008-Present

## University/Institution Committees

MTU IRB Board	2021-Present
MTU Well-being Advisory Board	2021-Present
University Senate Member	2021-Present
UI/UX Professor of Practice Hiring Committee	2020-Present
Psychology Graduate Committee	2019-Present
University Research Advisory Council (Back-up)	2019-Present
UPHS-Marquette IRB Board Member	2019-2021
MTU CLS Chair Review Committee	2019-2020

## Honors and Awards

Faculty Mentor for Undergraduate Research Internship Program DeVlieg Foundation Intern (Bailee Kimbel)	2020-2021
U.P. Service Award for Volunteer Program—Start the Cycle	2018
Best Presentation Award—Upper Peninsula Medical Conference	2015
Biotechnology Research Travel Grant/Award (\$500)	2012
Outstanding Graduating Graduate Student—Northern Michigan University	2011
Technology Innovation Award—Northern Michigan University (\$750)	2011
ACSM Biomechanics Interest Group Student Travel Grant/Award (\$200)	2011
Student Research Award—Marquette University	2009
Ignatius Scholarship Recipient—Marquette University	2006
College of Health Sciences Scholarship—Marquette University	2008

## Education Activities

### University Courses Taught

<u>Michigan Technological University, Houghton, MI</u> PSY-6991 Human Factors in Healthcare PSY-4080 Usability Assessment (hybrid online)	2019-Present
<u>Marquette Family Medicine Residency Program</u> MSU CHM Upper Peninsula Campus, MI Research and Quality Improvement Processes	2019-Present
<u>Michigan State University—CHM Upper Peninsula Campus, MI</u> HM652-Advanced Skills and Knowledge II	2017-Present
<u>Northern Michigan University, Marquette, MI</u> ES-417 Biomechanics ES-317 Anatomical Kinesiology Laboratory ES-315 Physiology of Exercise Laboratory HP-200 Physical Well Being HP-245 Weight Training/Conditioning HL-495C Pediatric Health Research, Education, and Measurement	2009-2011      2019

### Lectures and Workshops

Lecture—Hospital for Special Surgery Sport Safety Educator Certification Course	2019
Hospital for Special Surgery, New York, NY	
Workshop—Lower Extremity Injury Prevention: Tools and Tactics from the Experts	
Marquette Senior High School, Marquette, MI	2017
Negaunee Middle and High School, Negaunee, MI	2017
Gwinn High School, Gwinn, MI	2017
Lecture—Stats and Research Primer for Medical Residents	2016
UP Health Systems Marquette, Marquette, MI	
Lecture—On Validity and Reliability	2016
Health Education Class, Northern Michigan University, Marquette, MI	
Lecture—MSU Your Health Lecture Series	2016
Traumatic Knee Injury: Prevention, Screening, and Long-Term Consequences	
Calvin College, Grand Rapids, MI	
*Lecture led to connection with Grace Smith who worked as a research assistant in my laboratory	
Lecture—Kinesiology and Integrative Physiology Seminar Series	
Injury Risk Estimation Expertise: Assessment, Group Differences, and Mechanisms of ACL-IQ	
Michigan Technological University, Houghton, MI	2015
Lecture—Injury Risk Estimation Expertise	
Leeds Beckett University, Leeds, UK	2015
Lectures—Predicting ACL Injury Risk: A Biomechanical and Human Factors Approach	
Brunel University, Uxbridge, UK	2013
Max Plank Institute for Human Development, Berlin, Germany	2013
Oslo Sports Trauma Research Center, Oslo, Norway	2013

Lecture—Practical Application of Exercise Science Research to Training  
Midwest Strength and Conditioning Clinic, McHenry, IL 2009  
Lecture—Stressing Your Bones: The Best Exercises to Stimulate Bone Growth  
National Strength and Conditioning Association: Wisconsin Annual Clinic,  
Oshkosh, WI 2009

## Grants and Contract Awards

### Pending Funding

#### Active Funding

PI: **E. Petushek** 2019-Present  
Research and Quality Improvement Facilitator  
MSU College of Human Medicine, UP Health Education Corporation  
Hourly contract work up to \$15,000 per year

#### Past Funding

PI: **E. Petushek\*** 2020-2021  
Southern Michigan Opioid Consortium Planning Grant  
Branch Hillsdale St. Joseph Community Health Agency  
\$6,000  
*\*Responsible for data analytics*

PI: B. Carlson. Co-I: **E. Petushek** (3%) \* C. Zenti 2016-2020  
Promising Futures Partnership  
Children's Trust Fund and the Michigan Department of Health and Human Services  
\$266,948  
*\*Responsible for needs assessment and program evaluation*

PI: **E. Petushek** 2019  
Oslo Sports Trauma Research Center Data Analyses Projects  
The Norwegian School of Sport Sciences  
\$17,500

PI: J. Carlson. Co-I: **E. Petushek** (10%) \* B. Carlson, K. Pfeiffer, R. Ratan 2016-2019  
SPartners for Health: A School- and Web-Based Nutrition and Physical Activity  
Program for Obesity Prevention and Promoting Health in 5<sup>th</sup> Grade Public School  
Students and their Parents  
Superior Health Foundation  
\$299,975  
*\*Responsible for data analytics*

PI: **E. Petushek\*** 2018-2019  
Rural Community Opioid Response Planning Grant  
Health Resources and Services Administration  
\$30,000  
*\*Responsible for data analytics*

PI: T. Krosshaug. Co-I: **E. Petushek** (0%) \* S. Clarke, S. Dorgo 2017-2018  
Development of a Test to Measure Knowledge of Strength Training Exercises with  
International Experts  
The Research Council of Norway  
\$24,086 (200,000 NOK)  
*\*Responsible for test development and evaluation*

PI: P. Ward. Co-I: **E. Petushek**, D. Peebles 2015  
Development of "The Applied Cognition and Cognitive Engineering Research Group"  
(The AC<sub>2</sub>E Group) within the Centre for Applied Psychological and Health Research  
University of Huddersfield Research Fund  
\$30,200 (£20,000 GB Pounds Sterling)

PI: **E. Petushek** 2013  
Development and validation of screening methods for anterior cruciate ligament injury  
in females

NSF Graduate Research Opportunity Worldwide—PN 230163  
\$16,421

PI: **E. Petushek** (100%) 2011-2014  
Effect of pediatric obesity on lower extremity biomechanics: Implications for injury risk  
assessment and screening  
NSF Graduate Research Fellowship  
\$130,000

PI: **E. Petushek** 2011  
Validation of electrogoniometry for the assessment of countermovement jump and  
landing knee angle  
Excellence in Education Research Grant—Northern Michigan University  
\$1,500

PI: **E. Petushek** 2010  
Validation of various instruments used to assess jumping performance and intensity  
Excellence in Education Research Grant—Northern Michigan University  
\$1,500

**Not Funded**

PI: **E. Petushek** 2021-2022  
Supporting Healthy Decision Making Through Usable Animated Video  
Blue Cross Blue Shield Michigan Foundation  
\$74,918

PI: G. Hembroff. Co-PI: **E. Petushek** 2021-2023  
Improving Fall Prevention Accessibility and Physical Activity Adherence in  
Low-Income Rural Older Adults: A mHealth Digital Behavior Change Intervention  
Pilot Study  
Agency for Health Research and Quality – R21  
\$298,592  
*\*Aid in application development and program evaluation*

PI: G. Meadows. Senior Personnel: **E. Petushek\*** 2021-2026  
Large-scale CoPe: A Prediction, Intervention, Education and Research (PIER)  
Hub for Reducing Drownings in the Great Lakes Region  
National Science Foundation (Proposal #2103863)  
\$18,676,768 Total Project, (Petushek: \$583,948)  
*\*Co-lead of Cognitive Science and Human Factors Theme*

PI: **E. Petushek** 2021-2022  
Development of an effective, efficient and enjoyable animation-based intervention  
to optimize injury prevention training delivery  
International Olympic Committee Medical and Scientific Research Fund  
\$99,777

PI: G. Hembroff. Co-PI: **E. Petushek\*** 2021-2022  
Maintaining Independence in Michigan's Older Adult Population by Preventing Future Falls: The Effects of  
Wearable Devices and mHealth Application Psychological Fall Factors  
Blue Cross Blue Shield of Michigan Foundation  
\$115,712  
*\*Aid in application development and program evaluation*

PI: G. Hembroff. Co-PI: **E. Petushek\*** 2020-2021  
Maintaining Independence in Older Adults by Preventing Future Falls: Development of a mHealth  
Intervention to Address Psychological Fall Factors  
Blue Cross Blue Shield of Michigan Foundation  
\$114,427  
*\*Aid in application development and program evaluation*

PI: **E. Petushek** 2021-2024  
Optimization and Evaluation of a Brief Online Intervention to Reduce Traumatic Knee Injuries in Sport

National Institutes of Health – R21  
\$566,575

PI: A. Quinn. Evaluator: **E. Petushek\*** 2020-2022  
SEling IT for Behavioral Health: Social Emotional Learning Integration  
and Transformation for Behavioral Health  
Grow & Lead: Community and Youth Development –  
Pass through from Michigan Health Endowment Fund  
\$62,961 to MTU, \$506,420 total  
*\*Responsible for program evaluation*

PI's: S Breen and B. Adeeko, Co-I: **E. Petushek** (20%) 2019-2022  
Adaptive Exomuscular Clinical Gait Rehabilitation Device  
National Institute of Health  
\$184,275

PI's: B. Arnetz and E. Arble, Co-I: J. Arnetz, S. Counts, **E. Petushek** (10%) 2019-2022  
Enhancing Decision-making Processes in Junior Law Enforcement Officers During  
Potentially Critical Incidents  
U.S. Department of Justice  
\$992,001

PI: J. Cheruvelil, Co-I's: B. Carlson, K. Evans, I. Galdamez, R. Harrison, 2019-2024  
S. Herbert, B. Neumann, **E. Petushek** (15%)  
Michigan State University Extension's Racial Ethnic Approaches to Community  
Health for Eastside Detroit  
Centers for Disease Control and Prevention  
\$899,879.91

PI: **E. Petushek** (32%) Co-I's: G. Myer, E. Cokely 2018-2020  
Traumatic injury prevention: Validating a novel high-impact online intervention  
National Institute of Health—R21: PAR 18-017  
\$364,576

PI: J. Carlson. Co-I: **E. Petushek** (15%), B. Carlson, K. Pfeiffer, R. Ratan 2017-2020  
SPartners for Health: A School- and Web-based Nutrition and Physical Activity  
Program for Obesity Prevention and Promoting Health in 5<sup>th</sup> Grade Public School  
Students and their Parents  
US Department of Agriculture (AFRI)  
\$2,500,000

PI: J. Carlson. Co-I: **E. Petushek** (15%), B. Carlson, K. Pfeiffer, R. Ratan 2018-2020  
Partners for Health: A School- and Web-based Nutrition and Physical Activity  
Program for Obesity Prevention and Promoting Health in 5<sup>th</sup> Grade Public School  
Students and their Parents  
Michigan Health Endowment Fund  
\$499,366

PI: **E. Petushek** (32%). Co-I: G. Myer, E. Cokely, M. Stoolmiller, C. Kirk 2017-2020  
Optimizing uptake, adherence, and efficacy of injury prevention practices through  
vulnerability modeling and education  
National Institute of Health—R21: PAR 14-192  
\$561,394

PI: **E. Petushek** (0%) \*. Co-I: T. Krosshaug, G. Woodward 2016  
Accelerating Strength Training Expertise: Understanding and Improving Exercise  
Technique Knowledge  
United Kingdom Strength and Conditioning Association  
£11,624 (GB Pound Sterling)  
*\*Equipment and supplies*

PI: **E. Petushek** (0%) \*. Co-I: T. Krosshaug 2016  
Accelerating Strength Training Expertise: Understanding and Improving Exercise  
Technique Knowledge  
National Strength and Conditioning Association  
\$32,284  
\*Equipment and supplies

#### Letters of Intent—Not Invited

PI: **E. Petushek** (15%) 2019-2021  
Validating a novel high-impact online intervention to prevent knee injuries  
Orthopaedic Research and Education Foundation  
\$150,000  
PI: **E. Petushek**. Co-I: M. Stoolmiller, C. Kirk, C. Ohstad 2017-2019  
Improving uptake, adherence, and efficacy of sport injury prevention practices  
Blue Cross Blue Shield Michigan Foundation—Invest in the UP  
\$65,000  
PI: S. Carlson. Co-I: **E. Petushek**, B. Carlson 2017-2019  
Start the Cycle—Supporting Resilience in at-risk Youth through Mountain Biking  
Blue Cross Blue Shield Michigan Foundation—Invest in the UP  
\$65,000  
PI: Q. Sha. Co-I: **E. Petushek** 2017-2019  
Reducing Upper Peninsula Hospital Readmissions  
Blue Cross Blue Shield Michigan Foundation—Invest in the UP  
\$65,000  
PI: C. Zenti. Co-I: **E. Petushek**, B. Carlson 2017-2019  
Promising Futures Partnership  
Blue Cross Blue Shield Michigan Foundation—Invest in the UP  
\$65,000

#### Editorial Board/Reviewer Appointments

Reviewer, Journal of Cognitive Engineering and Decision Making 2019-Present  
Reviewer, Sports Health 2019-Present  
Reviewer, Journal of Experimental Psychology: Applied 2016-Present  
Reviewer, Journal of Sports Science and Medicine 2015-Present  
Reviewer, Sports Medicine 2015-Present  
Reviewer, International Journal of Sport Science and Coaching 2010-Present  
Reviewer, Sport Biomechanics 2010-Present  
Research Committee and Consortium member, National Strength and  
Conditioning Association 2010-2017  
Guest Associate Editor, Frontiers in Psychology—Research Topic:  
Macrocognition: The Science and Engineering of Sociotechnical Work Systems 2016-2017  
Reviewer, Human Factors and Ergonomic Society 2014 Annual Meeting 2014  
Co-Editor, XXVII<sup>th</sup> Symposium of the International Society of Biomechanics  
in Sports. Marquette, MI. 2010 2010  
Reviewer, International Journal of Exercise Science 2008-2009

#### Publications

##### Peer Reviewed Articles

\*Denotes students I have mentored

1. **Petushek, E.J.**, Mørtyedt, A. \*, Nelson, B. \*, and Hamati, M.C\* (2021). The effect of a brief, web-based animated video for improving comprehension and implementation feasibility for reducing anterior cruciate ligament injury: A three-arm randomized controlled trial. *International Journal of Environmental and Public Health*. 18(17):9092
2. Jauhiainen, S. \*, Krosshaug, T., **Petushek, E.J.**, Kauppi, J. and Äyrämö, S. (2021). Information extraction from binary skill assessment data with machine learning. Accepted: *International Journal of Learning Analytics and Artificial Intelligence for Education*.
3. Richter, C., **Petushek, E.J.**, Franklyn-Miller, A., Grindem, H., and Krosshaug, T. (2021). Cross-validation of a machine learning algorithm that determines anterior cruciate ligament rehabilitation status and determination evaluation of its ability to predict future injury. *Sports Biomechanics*
4. Al-Farhan, A\*, Becker, T., **Petushek, E.J.**, Weatherspoon, L, and Carlson, J. (2021). Reliability of Block Food Frequency Questionnaire Translated to Arabic and Adapted for Kuwaiti Children. *Nutrition*

5. Nilstad, A., **Petushek, E.J.**, Mok, K.M., Bahr, R., and Krosshaug, T. (2021). Kiss goodbye to the “kissing knees”: No association between frontal plane inward knee motion and risk of future non-contact ACL injury in elite female athletes. *Sports Biomechanics*
6. **Petushek, E.J.**, Nilstad, A., Bahr, R. and Krosshaug, T (2021). Drop Jump? Single leg Squat? Not if you Aim to Predict ACL Injury from Real-time Clinical Assessment - a Prospective Cohort Study Involving 880 Elite Female Athletes. *Journal of Orthopedic and Sports Physical Therapy*, 51(7):372-378.
7. Suss, J. and **Petushek, E.J.** (2021). Tête, épaule ou poitrine: est-ce que le positionnement des caméras portatives a une incidence sur la visibilité d'informations cruciales? (English Translation) Head, shoulders, chest: Does mounting location affect visibility of key information in police body-worn-camera footage? *Criminologie*. 54(1), 97-133.
8. Mørtyedt, A.\*, Krosshaug, T., Bahr, R. and **Petushek, E.J.** (2020). Can I spy with my little eye...a knee about to go 'pop'? Can coaches and sports medicine professionals accurately screen female athletes' landings for ACL injury risk? *British Journal of Sports Medicine*. 54(3), 154-158
9. **Petushek, E.J.**, Sugimoto, D., Stoolmiller, M., Smith, G.\*, and Myer, G. (2019). Evidence based best-practice guidelines for preventing ACL injuries: A systematic review and Meta-analysis. 47(7), 1744-1753
10. Faude, O., Rössler, R., **Petushek, E.J.**, Roth, R., Zahner, L. and Donath, L. (2017) Neuromuscular adaptations to multimodal injury prevention programs in youth sports: A systematic review with meta-analysis of randomized controlled trials. *Frontiers in Physiology*, 8, 1-67.
11. Ward, P., Hoffman, R., Conway, G., Schraagen, J.M., Peebles, D., Hutton, R. and **Petushek, E.J.** (2017) Editorial—Macrocognition: The science and engineering of sociotechnical work systems. *Frontiers in Psychology*, 8 (515).
12. Mok, K.M.\*, Krosshaug, T.K., and **Petushek, E.J.** (2016) Reliability of knee biomechanics during a vertical drop jump in elite female athletes. *Gate and Posture*. 46, 173-178.
13. Raisbeck, L., Suss, J., Diekfuss, J., **Petushek, E.J.**, and Ward, P. (2016) Skill-based changes in motor performance from attentional focus manipulations: A kinematic analysis. *Ergonomics*, 1-9.
14. **Petushek, E.J.**, Ward, P., Cokely, E.T., and Myer, G.D. (2015) Injury risk estimation expertise: Interdisciplinary differences in ACL-IQ performance. *Orthopaedic Journal of Sports Medicine*. 3(11), 1-7.
15. **Petushek, E.J.**, Cokely, E.T., Ward, P., and Myer, G.D. (2015) Injury risk estimation expertise: Cognitive-perceptual mechanisms of ACL-IQ. *Journal of Sport and Exercise Psychology*, 37(3), 291-304.
16. **Petushek, E.J.**, Cokely, E.T., Ward, P., Wallace, S., Durocher, J.J., and Myer, G.D. (2015) Injury risk estimation expertise: Assessing the ACL injury risk estimation quiz. *American Journal of Sports Medicine*, 43(7), 1640-1647.
17. Garceau, L.R., **Petushek, E.**, Fauth, M.L., and Ebben, W.P. (2012). Effect of remote voluntary contractions on isometric prime mover torque and electromyography. *Journal of Exercise Physiology Online*, 15(4), 40-46.
18. **Petushek, E.**, Richter, C., Donovan, D., Ebben, W.P., Watts, P.B. and Jensen, R.L. (2012). Comparison of 2D video and electrogoniometry measurements of knee flexion angle during a countermovement jump and landing task. *Sports Engineering*, 1-8.
19. Ebben, W.P., Garceau, L.R., Wurm, B.J., Suchomel, T.J.\*, Duran, K.\*, and **Petushek, E.J.** (2012). The optimal back squat load for potential osteogenesis. *The Journal of Strength and Conditioning Research*, 26(5), 1232-1237.
20. Ebben, W.P., Fauth, M.L., Garceau, L.R. and **Petushek, E.J.** (2011). Kinetic quantification of plyometric exercise intensity. *The Journal of Strength and Conditioning Research*, 25(12), 3288-3298.
21. Ebben, W.P., Wurm, B.\*, VanderZanden, T.L.\*, Spadavecchia, M.L.\*, Durocher, J.J., Bickham, C.T., and **Petushek, E.J.** (2011). Kinetic analysis of several variations of push-ups. *The Journal of Strength and Conditioning Research*, 25(10), 2891-2894.
22. Ebben, W.P. and **Petushek, E.J.** (2010). Using the reactive strength index modified to evaluate plyometric performance. *The Journal of Strength and Conditioning Research*, 24(8), 1983-1987.
23. Ebben, W.P., Kaufmann, C.E.\*, Fauth, M.L., and **Petushek, E.J.**, (2010). Kinetic analysis of concurrent activation potentiation during back squats and jump squats. *The Journal of Strength and Conditioning Research*, 24(6), 1515-1519.
24. Fauth, M.L., **Petushek, E.J.**, Feldmann, C.R., Hsu, B.E.\*, Garceau, L.R., Lutsch, B.N.\*, and Ebben, W.P. (2010). Reliability of surface electromyography during maximal voluntary isometric contractions, jump landings, and cutting. *The Journal of Strength and Conditioning Research*. 24(4), 1131-1137.
25. Ebben, W.P., **Petushek, E.J.**, Fauth, M.L., and Garceau, L.R. (2010). EMG analysis of concurrent activation potentiation. *Medicine and Science in Sports and Exercise*, 42(3), 556-562.
26. Ebben, W.P., VanderZanden, T.\*, Wurm, B.J.\*, and **Petushek, E.J.** (2010). Evaluating plyometric exercised using time to stabilization. *The Journal of Strength and Conditioning Research*, 24(2), 300-306.
27. Ebben, W.P., Fauth, M.L., **Petushek, E.J.** Garceau, L.R., Hsu, B.E.\*, Lutsch, B.N.\*, and Feldmann, C.R. (2010). Gender-based analysis of hamstring and quadriceps muscle activation during jump landings and cutting. *The Journal of Strength and Conditioning Research*, 24(2), 408-415.

28. Ebben, W.P., Feldmann, C.R., VanderZanden, T.L.\*, Fauth, M.L. and **Petushek, E.J.** (2010). Periodized plyometric training is effective for women, and performance is not influenced by the length of post-training recovery. *The Journal of Strength and Conditioning Research*, 24(1), 1-7.
29. Ebben, W.P., Fauth, M.L., Kaufmann, C.E.\*, and **Petushek, E.J.** (2010). Magnitude and rate of mechanical loading of variety of exercise modes. *The Journal of Strength and Conditioning Research*. 24(1), 213-217.
30. Ebben, W.P., **Petushek, E.J.**, AND Clewien, R. (2009). A comparison of manual and electronic timing during 20 and 40 yd sprints. *Journal of Exercise Physiology Online*, 12(5), 34-38.

#### Peer Reviewed Articles – Under Review

##### Books/Book Chapters

1. **Petushek, E.J.**, & Donaldson, A. (2020) Injury Prevention in Sport- Design with Implementation in Mind. *Human Factors and Ergonomics in Sport: Applications and Future Directions*. CRC Press. 57-70
2. **Petushek, E.J.**, Arsal, G. Hoffman, R., Whyte, J., & Ward, P (2020) Learning at the edge: The role of mentors, coaches, and their surrogates in developing expertise. *The Oxford Handbook of Expertise*. Oxford University Press.
3. Ward, P., Belling, P., **Petushek, E.J.**, & Ehrlinger, J. (2017) Does talent exist? A re-evaluation of the nature-nurture debate. Chapter1.3: *Routledge Handbook of Talent Identification and Development in Sport*. Routledge. ISBN: 9781138951778
4. Jensen, R.L., Ebben, W.P., **Petushek, E.J.**, Richter, C., & Roemer, K, editors. (2010). *Proceedings of the 28<sup>th</sup> International Conference of the International Society of Biomechanics in Sports*. Marquette, MI: Northern Michigan University. ISSN 1999-4168. <http://w4.ub.uni-konstanz.de/cpa>

##### Peer Reviewed Conference Proceedings

1. Breen, S., Osterwald, K., Richter, C., & **Petushek, E.J.** (2019). A comparison between the modern and the lower body golf swing techniques – Pilot study with implications for lower back injury risk. *37<sup>th</sup> International Symposium on Biomechanics in Sports*, Miami, USA.
2. **Petushek, E.J.**, Ward, P., Cokely, E., & Myer, G. (2015). Cross professional differences in real-time assessment of ACL injury risk. *33<sup>rd</sup> International Symposium on Biomechanics in Sports*, Poitiers, France.
3. Krosshaug, T.K., **Petushek, E.J.**, Richter, C., Paulsen, G., & Faul, O. (2015). Effect of load and various equipment modalities on back squat biomechanics in elite powerlifters. *33<sup>rd</sup> International Symposium on Biomechanics in Sports*, Poitiers, France.
4. Carlson, B.R., **Petushek, E.J.**, Moore, M., & Dermeyer, H. (2015). Effect of sauna therapy on overhead squat depth in elite weightlifters. *33<sup>rd</sup> International Symposium on Biomechanics in Sports*, Poitiers, France.
5. Jensen, R.L., Ebben, W.P., **Petushek, E.J.**, Moran, K., O'Connor, N.E., & Richter, C. (2013). Continuous waveform analysis of force, velocity, and power adaptations to a periodized plyometric training program. *31<sup>st</sup> International Symposium on Biomechanics in Sports*, Taipei, Taiwan.
6. Stephenson, M.L., Leissring, S.K., Wolfe, A.R., Bellovary, B., Glendenning, C., Purdy, E., Hagner, B.M., **Petushek, E.J.**, & Jensen, R.L. (2012). Reliability of knee joint measures in a cutting movement. *30<sup>th</sup> International Symposium on Biomechanics in Sports*, Melbourne, Australia.
7. Jensen, R.L., Leissring, S.K., Stephenson, M.L., Wolfe, A.R., Bellovary, B., Glendenning, C., Purdy, E., Hagner, B.M., & **Petushek, E.J.** (2012). Effect of acute feedback on knee angle and moments during a horizontal land and cut maneuver. *30<sup>th</sup> International Symposium on Biomechanics in Sports*, Melbourne, Australia.
8. **Petushek, E.P.**, Richter, C., Donovan, D., Ebben, W.P., & Jensen, R.L. (2011). Comparison of tibial impact accelerations: Video vs. Accelerometer. *29<sup>th</sup> International Symposium on Biomechanics in Sports*, Porto, Portugal.
9. **Petushek, E.J.**, Ebben, W.P., VanderZanden, T., & Wurm, B. (2010). Comparison of jump height values derived from a force platform and vertec. *28<sup>th</sup> International Symposium on Biomechanics in Sports*, Marquette, USA.
10. **Petushek, E.J.**, Garceau, L.R., VanderZanden, T., Wurm, B., Feldmann, C., & Ebben, W.P. (2010). Dynamic stabilization during the landing phase of plyometric exercises. *28<sup>th</sup> International Symposium on Biomechanics in Sports*, Marquette, USA.
11. **Petushek, E.J.**, Garceau, L., & Ebben, W.P. (2010). The effect of remote voluntary contractions during fast stretch shortening cycle activity. *28<sup>th</sup> International Symposium on Biomechanics in Sports*, Marquette, USA.
12. **Petushek, E.J.**, Garceau, L., & Ebben, W.P. (2010). Force, velocity, and power adaptations in response to a periodized plyometric training program. *28<sup>th</sup> International Symposium on Biomechanics in Sports*, Marquette, USA.
13. VanderZanden, T., Wurm, B., Durocher, J., Bickman, C., **Petushek, E.J.**, & Ebben, W.P. (2010). The effect of reaching to an overhead goal while performing the countermovement jump. *28<sup>th</sup> International Symposium on Biomechanics in Sports*, Marquette, USA.

\*Third place: International Society of Biomechanics in Sports New Investigator Award



14. Ebben, W.P., Fauth, M., VanderZanden, T., Feldmann, C., Hsu, B., Vogal, C., Lutsch, B., & **Petushek, E.J.** (2010). The time course of recovery from periodized plyometric training. *28<sup>th</sup> International Symposium on Biomechanics in Sports*, Marquette, USA.
15. Garceau, L., **Petushek, E.J.**, Fauth, M., & Ebben, W.P. (2010). The effect of concurrent activation potentiation on the knee extensor and flexor performance of men and women. *28<sup>th</sup> International Symposium on Biomechanics in Sports*, Marquette, USA.
16. Ebben, W.P., & **Petushek, E.J.** (2010). Reactive strength index modified: A new method of assessing explosive power. *28<sup>th</sup> International Symposium on Biomechanics in Sports*, Marquette, USA.
17. Wurm, B., VanderZanden, T., Spadavecchia, M., Durocher, J., Bickham, C., **Petushek, E.J.**, & Ebben, W.P. (2010). Kinetic analysis of several variations of push-ups. *28<sup>th</sup> International Symposium on Biomechanics in Sports*, Marquette, USA.
18. Fauth, M., **Petushek, E.J.**, Kaufman, C., & Ebben, W.P. (2010). The effect of remote voluntary contractions on strength and power tasks of women. *28<sup>th</sup> International Symposium on Biomechanics in Sports*, Marquette, USA.
19. Ebben, W.P., VanderZanden, T., Wurm, B., Garceau, L., & **Petushek, E.J.** (2010). Kinetic quantification of plyometric take off, flight, and landing characteristics. *28<sup>th</sup> International Symposium on Biomechanics in Sports*, Marquette, USA.
20. Ebben, W.P., **Petushek, E.J.**, & Nelp, A. (2010). The effect of whole body vibration on the dynamic stability of women basketball players. *28<sup>th</sup> International Symposium on Biomechanics in Sports*, Marquette, USA.
21. Garceau, L., **Petushek, E.J.**, Fauth, M., & Ebben, W.P. (2010). The acute time course of concurrent activation potentiation. *28<sup>th</sup> International Symposium on Biomechanics in Sports*, Marquette, USA.
22. Garceau, L., **Petushek, E.J.**, Fauth, M., & Ebben, W.P. (2010). Gender differences in knee extensor and flexor performance. *28<sup>th</sup> International Symposium on Biomechanics in Sports*, Marquette, USA.
23. Leissring, S., **Petushek, E.J.**, Stephenson, M., & Jensen, R. (2010). Relationship of Ground Reaction and Knee Joint Reaction Forces in Plyometric Exercises. *28<sup>th</sup> International Symposium on Biomechanics in Sports*, Marquette, USA.
24. McGowan, B., Jensen, R., & **Petushek, E.J.** (2010). Differences in RSI and peak ground reaction force for drop rebound jumps from a hang and box for female subjects. *28<sup>th</sup> International Symposium on Biomechanics in Sports*, Marquette, USA.
25. Ebben, W.P., Flanagan, E., Sansom, J., **Petushek, E.J.**, & Jensen, R.L. (2010). Ground reaction forces of variations of plyometric exercises on hard surfaces, padded surfaces and in water. *28<sup>th</sup> International Symposium on Biomechanics in Sports*, Marquette, USA.
26. Leissring, S.K., Ebben, W.P., Garceau, L., **Petushek, E.J.**, & Jensen, R.L. (2009). Reliability of forces during variations of plyometric exercises. *27<sup>th</sup> International Symposium on Biomechanics in Sports*, Limerick, Ireland.
27. Jensen, R.L., Leissring, S.K., Garceau, L.R., **Petushek, E.J.**, & Ebben, W.P. (2009). Quantifying the onset of the concentric phase of the force-time record during jumping. *27<sup>th</sup> International Symposium on Biomechanics in Sports*, Limerick, Ireland.

## Abstracts and Presentations

### Oral Presentations

#### Invited/Keynote Lectures

1. Strength training technique expertise: Development of efficient assessment and training systems. *National Strength and Conditioning Association 41<sup>st</sup> Annual Meeting*, Indianapolis, IN. 2018.
2. Can you visually identify athletes at risk for ACL injury? Asian Federation of Sports Medicine Scientific Symposium—Sports Medicine in the Community. *Hong Kong Sports Institute*, Sha Tin, Hong Kong. 2016.
3. ACL injury prevention—From science to sustainable behavior change. Hong Kong Association of Sports Medicine and Sport Science 5<sup>th</sup> Student Conference on Sports Medicine, Rehabilitation and Exercise Science. *Hong Kong Sports Institute*, Sha Tin, Hong Kong. 2016.
4. Northern Michigan University Athletic Training Summer Conference. Title: ACL injury prevention—From science to sustainable behavior change. *Northern Michigan University*, Marquette, MI. 2016.

#### National/International Meetings

1. **Petushek, E.J.**, Stoolmiller, M., Smith, G., Sugimoto, D., & Myer, G. (2017) Meta-analytic drive best-practice checklist for preventing ACL injuries. *National Strength and Conditioning Association 40<sup>th</sup> Annual Meeting*, Las Vegas, NV.
2. **Petushek, E.J.**, Fauth, M.L., Hsu, B., Vogel, C., Lutsch, B., Feldmann, C.R., & Ebben, W.P. (2010). The effect resistance and plyometric training on hamstring and quadriceps activation and timing during simulated sports movement. *National Strength and Conditioning Association 33<sup>rd</sup> Annual Meeting*. Orlando, FL.
3. **Petushek, E.J.**, Fauth, M.L. & Ebben, W.P. (2009). Evaluation of concurrent activation potentiation during squats and jump squats. *National Strength and Conditioning Association 32<sup>nd</sup> Annual Meeting*. Las Vegas, NV.

- Garceau, L.R., Feldmann, C.R., **Petushek, E.J.**, Fauth, M.L., & Ebben, W.P. (2009). The effect of remote voluntary contractions on upper body force and muscle activation. *National Strength and Conditioning Association 32<sup>nd</sup> Annual Meeting*. Las Vegas, NV.
- Feldmann, C.R., Fauth, M.L., **Petushek, E.J.**, Hsu, B., Lutsch, B., & Ebben, W.P. (2009). The effect resistance training on hamstring and quadriceps activation and timing during movements that are similar to those that cause ACL injuries. 11th American Society of Exercise Physiologist Annual Meeting. Wichita Falls, TX.  
\*American Society of Exercise Physiologist Research Award
- Petushek, E.J.**, Garceau, L.R. & Ebben, W.P. (2009). Relationship between training status and concurrent activation potentiation. *11<sup>th</sup> American Society of Exercise Physiologist Annual Meeting*. Wichita Falls, TX.
- Fauth, M.L., Feldmann, C., **Petushek, E.**, Hsu, B., Lutsch, B., Vogel, C., Garceau, L., & Ebben, W.P. (2008). Reliability of surface electromyography during isometric and dynamic movements. In: *Proceedings of the IVth International Conference on Strength Training*. Colorado Springs, CO.
- Fauth, M., Feldmann, C.R., Hsu, B., Lutsch, B., **Petushek, E.**, Garceau, L., & Ebben, W.P. (2008). Gender differences in muscle activation during jump landings and cutting movements. *10<sup>th</sup> American Society of Exercise Physiologists Annual Meeting*. Duluth, MN.
- Garceau, L.R., Fauth, M.L., Feldmann, C., **Petushek, E.**, Hsu, B. & Ebben, W.P. (2008). Gender differences in concurrent activation potentiation. In: *Proceedings of the IVth International Conference on Strength*. Colorado Springs, CO.
- Petushek, E.J.**, Fauth, M.L., Feldmann, C.R., Hsu, B. & Ebben, W.P. (2008). Magnitude and rate of mechanical loading during walking, running, plyometrics, maximum power training and resistance training exercises. In: *Proceedings of the IVth International Conference on Strength Training*. Colorado Springs, CO.

#### Local/Regional Meetings

- Petushek, E.J.**, Smith, G., and Stoolmiller, M. (2017) What are the most effective exercises to prevent ACL injuries? Meta-analytic evidence. *Midwest Chapter of the American Society of Biomechanics*, Grand Rapids, MI.
- Petushek, E.J.**, Cokely, E.T., Ward, P., Durocher, J., Wallace, S., and Myer, G.D. (2015) Visual estimation of ACL injury risk: Efficient assessment method, group differences, and expertise mechanisms. *Keweenaw Medical Conference*, Copper Harbor, MI.  
\*Pecha Kucha presentation and Best Poster Award

#### Posters

##### National/International Meetings

- Alaqil, A., **Petushek, E.J.**, Gautam, Y., Carlson, J., & Pfeiffer, K. (2021) Correlation and principal component analysis of children's cardiovascular disease risk factors: Implications for risk assessment. *American College of Sports Medicine Annual Meeting*.
- Vyas, A, **Petushek, E.J.**, Durocher, J. (2021) Effect of 8-week active mindfulness and stress management on decentering and anxiety during the COVID-19 pandemic. *Experimental Biology*
- Petushek, E.J.**, Mattioli, E., and Jepkema, R. (2020) Evaluation of online information quality, usability, and readability for anterior cruciate ligament injury prevention. *HFES 2020 International Symposium on Human Factors and Ergonomics in Health Care*. Toronto, Canada.
- Drum, S., Bolduc, D., Ryan, C., and **Petushek, E.J.** (2020) Positive lifestyle enhancement in at-risk youth after a 16-wk mountain biking program. *American College of Sports Medicine 67<sup>th</sup> Annual Meeting*. San Francisco, CA.
- Bolduc, D., **Petushek, E.J.**, Ryan, C., and Drum, S. (2020) Psychosocial effects of a mentored-mountain biking group in adolescents in a rural midwestern community. *American College of Sports Medicine 67<sup>th</sup> Annual Meeting*. San Francisco, CA.
- Petushek, E.J.**, Clarke, S., Dorgo, S., Ebben, W., Myer, G.D., & Krosshaug, T. (2018) Development and validation of efficient assessment tool to quantify strength training technical expertise. *American College of Sports Medicine 65<sup>th</sup> Annual Meeting*. Minneapolis, MN.
- Carlson, J., Paulsen, N.A., Carlson, B., **Petushek, E.J.**, & Pfeiffer, K. (2018) The relationship between screen time and sleep duration in children. *American College of Sports Medicine 65<sup>th</sup> Annual Meeting*. Minneapolis, MN.
- Carlson, B., Carlson, J., **Petushek, E.J.**, Pfeiffer, K. (2018) Changes in perceived importance of physical activity and nutrition for health following (S)Partners intervention. *American College of Sports Medicine 65<sup>th</sup> Annual Meeting*. Minneapolis, MN.
- Weedon, R., **Petushek, E.J.**, Osterwald, K., Clarke, S., Dixon, J.B., and Richter, C. (2018) Reducing lower back injury in Golf: Cross-sectional assessment of novel swing technique. *American College of Sports Medicine 65<sup>th</sup> Annual Meeting*. Minneapolis, MN.
- Ricci, J., Carlson, J., **Petushek, E.J.**, & Pfeiffer, K. (2018) Differences in CVD risk factor status and micronutrient intakes by physical activity level in youth. *American College of Sports Medicine 65<sup>th</sup> Annual Meeting*.

- Meeting. Minneapolis, MN.
11. Jendro A., Carlson, B., **Petushek, E.J.**, Pfeiffer, K. & Carlson, J. (2018) The Association of Blood Lipids With Selected Other CVD Risk Factors In Michigan Adolescents. *American College of Sports Medicine 65<sup>th</sup> Annual Meeting*. Minneapolis, MN.
  12. **Petushek, E.J.**, Mørtsvedt, A. Cokely, E.T., & Krosshaug, T. (2017) Predicting Injury Risk in Elite Sport: A ROC Analysis of Observational Judgments. *Society for Judgment and Decision Making*, Vancouver, Canada.
  13. Faude O., Rössler R., **Petushek E.J.**, Roth R., Zahner L., and Donath L. (2017) Neuromuscular adaptations to exercise-based injury prevention programs in youth sports: A systematic review with meta-analysis of randomised controlled trials. *European College of Sport Science Congress*.
  14. Saswat, S., Dixon, B., & **Petushek, E.J.**, (2017) Short-term pain reduction using percutaneous tenotomy with TENEX., *American Medical Society for Sports Medicine Annual Meeting*, San Diego, CA.
  15. **Petushek, E.J.**, Cokely, E.T., Ward, P., Myer, G.D. & Wallace, S. (2014) Expert Injury Risk Assessment: Investigating the ACL-IQ. *Society for Judgment and Decision Making*, Long Beach, CA.
  16. **Petushek, E.J.**, Cokely, E.T., Ward, P., Krosshaug, T., & Myer, G.D. (2014) Visual assessment of ACL injury risk: Can expertise be achieved? IOC World Conference on Prevention of Injury and Illness in Sport, Monaco – Abstract published in: *British Journal of Sports Medicine*, 48(7), 652-652.
  17. **Petushek, E.J.**, Cokely, E.T., Ward, P., & Myer, G.D. (2013) A simple approach to predicting risk of ACL injury. *Society for Judgment and Decision Making*, Toronto, Canada.
  18. Ebben, W.P., **Petushek, E.P.** & Garceau, L.R. (2013). Head acceleration while driving a late model stock car. *National Strength and Conditioning Association 36<sup>th</sup> Annual Meeting*, Las Vegas, NV.
  19. **Petushek, E.J.**, Suss, J., Ward, P., & Roemer, K. (2012). The effects of attention resource allocation and skill level on performance and movement variability during a handgun shooting task. *North American Society for the Psychology of Sport and Physical Activity*. Honolulu, HI.
  20. **Petushek, E.J.**, Roemer, K., Hamlin, B., Ebben, W., Carlson, B., Mallo, C., Tysz, A., & Jensen, R.L. (2012). The effect of a dynamic and static start on snatch pull technique and performance. *American College of Sports Medicine 59<sup>th</sup> Annual Meeting*. San Francisco, CA.
  21. Regal, A. Roemer, K., Raisbeck, L., & **Petushek, E.J.** (2012). Influence of visual conditions and leg dominance on balance performance on unstable surfaces. *American College of Sports Medicine 59<sup>th</sup> Annual Meeting*. San Francisco, CA.
  22. Jensen, R.L., Leissring, S.K., **Petushek, E.J.**, Ebben, W.P., & Richter, C. Analysis of jumping technique via functional principal components data analysis versus peak ground reaction force. (2012). *American College of Sports Medicine 59<sup>th</sup> Annual Meeting*. San Francisco, CA.
  23. Bellovary, B., Glendenning, C., Wolfe, A., **Petushek, E.J.**, Leissring, S., Stephenson, M., Purdy, E., Hagner, B., & Jensen, R.L. (2012). Comparison of isotonic and isokinetic measurements of extension/flexion strength and quadriceps-hamstring ratio. *American College of Sports Medicine 59<sup>th</sup> Annual Meeting*. San Francisco, CA.
  24. Leissring, S., Stephenson, M., **Petushek, E.J.**, Bellovary, B., Wolfe, A., Glendenning, C., Purdy, E., Hagner, B., & Jensen, R.L. (2012). Effect of acute feedback on landing patterns in a horizontal land and cut maneuver. *American College of Sports Medicine 59<sup>th</sup> Annual Meeting*. San Francisco, CA.
  25. Ebben, W.P, **Petushek, E.J.**, & Garceau, L.R. (2011) Muscular demands of driving a late model stock car. (2011). *National Strength and Conditioning Association 34<sup>th</sup> Annual Meeting*, Las Vegas, NV.
  26. Garceau, L.R., **Petushek, E.J.**, Franche, C., & Ebben, W.P. (2011). Metabolic demands of a late model stock car driver. *American College of Sports Medicine 58<sup>th</sup> Annual Meeting*. Denver, CO.
  27. **Petushek, E.J.**, Richter, C., Donovan, C., Ebben, W.P., & Jensen, R.L. (2011). Validation of electrogoniometry for the assessment of countermovement jump and landing knee angle. *American College of Sports Medicine 58<sup>th</sup> Annual Meeting*. Denver, CO.
  28. Garceau, L.R., VanderZanden, T., Wurm, B.J., **Petushek, E.J.**, Spadavecchia, M., & Ebben, W.P. (2010). The effect of remote voluntary contractions on non-active muscles. *National Strength and Conditioning Association 33<sup>rd</sup> Annual Meeting*. Orlando, FL.
  29. Ebben, W.P., VanderZanden, T., Wurm, B.J., & **Petushek, E.J.** (2010). Quantification of the dynamic balance of women during plyometric landings. *National Strength and Conditioning Association 33<sup>rd</sup> Annual Meeting*. Orlando, FL.
  30. **Petushek, E.J.**, Fauth, M., Kaufmann, C., & Ebben, W.P. (2010). Effect of remote voluntary contractions on squat and jump squat kinetics. *National Strength and Conditioning Association 33<sup>rd</sup> Annual Meeting*. Orlando, FL.
  31. Ebben, W.P., Geiser, C., Fauth, M.L, **Petushek, E.J.**, Leigh, D.H. & Garceau, L.R. (2009). Electromyographic analysis of concurrent activation potentiation. *National Strength and Conditioning Association 32<sup>nd</sup> Annual Meeting*. Las Vegas, NV.
  32. **Petushek, E.J.**, Hilgendorf, J., Feldmann, C.R., Fauth, M.L. & Ebben, W.P. (2009). Hamstring to quadriceps timing and activation ratios of high school athletes during cutting and jumping. *National Strength and Conditioning Association 32<sup>nd</sup> Annual Meeting*. Las Vegas, NV.

33. Ebben, W.P., **Petushek, E.J.**, Fauth, M.L., Garceau, L.R., Millin, K., Spadavecchia, M., Petrauskas, K., & Feldmann, C.R. (2009). Do high hamstring to quadriceps activation ratios impair jumping performance? *National Strength and Conditioning Association 32<sup>nd</sup> Annual Meeting*. Las Vegas, NV.
34. Garceau, L.R., **Petushek, E.J.**, Feldmann, C.R., VanderZanden, T., Millin, K., Spadavecchia, M., Petrauskas, K., & Ebben, W.P. (2009). Resisted speed development methods: The effect of wind speed. *National Strength and Conditioning Association 32<sup>nd</sup> Annual Meeting*. Las Vegas, NV.
35. Lutsch, B., Feldmann, C.R., **Petushek, E.J.**, Fauth, M.L., & Ebben, W.P. (2009). The role of resistance training in ACL injury prevention. *11<sup>th</sup> American Society of Exercise Physiologist Annual Meeting*. Wichita Falls, TX.
36. VanderZanden, T, **Petushek, E.J.**, & Ebben, W.P. (2009). Program design for the optimal adaptation of bone. *11<sup>th</sup> American Society of Exercise Physiologist Annual Meeting*. Wichita Falls, TX.
37. Hsu, B., Fauth, M.L., **Petushek, E.**, & Ebben, W.P. (2008). The effect of resistance training on hamstring and quadriceps activation and timing during jump landings: a case study. In: *Proceedings of the IV<sup>th</sup> International Conference on Strength Training*. Colorado Springs, CO.

#### Local/Regional Meetings

1. Mroz, J., Cole, J., Brang, R., Brang, K., and **Petushek, E.J.** (2021) Influence of prenatal substance abuse on NICU admission secondary to NAS. *Michigan Rural Health Conference*, Virtual.
2. Lucas, A., Janish, T., Dixon, J.B., and **Petushek, E.J.**, (2021) Ultrasound guided percutaneous tenotomy for greater trochanter pain syndrome. *Michigan Rural Health Conference*, Virtual.
3. **Petushek, E.J.**, Clarke, S., Carlson, B., Osterwald, K. and Richter, C. (2016) Reducing back injury in golf: Assessment of novel swing technique. *Keweenaw Medical Conference*, Copper Harbor, MI.
4. Fauth, M.L., **Petushek, E.J.**, Garceau, L.R., Millin, K., Spadavecchia, M. Petrauskas, K., Feldmann, C.R., and Ebben, W.P. (2009). Is female athlete age or size related to quadriceps dominance during movements that are similar to those that cause ACL injuries? *Midwest Chapter of the American College of Sports Medicine Annual Meeting*. St. Charles, IL.
5. VanderZanden, T., Garceau, L.R., **Petushek, E.J.**, Feldmann, C.R., Kaufman, C., Kaufman, S., and Ebben, W.P. (2009). Effect of wind assistance on 10 and 40 yard running speed. *Midwest Chapter of the American College of Sports Medicine Annual Meeting*. St. Charles, IL.
6. Garceau, L.R., Fauth, M.L., **Petushek, E.J.**, and Ebben, W.P. (2009). Electromyographic analysis of concurrent activation potentiation during isometric exercise. *Midwest Chapter of the American College of Sports Medicine Annual Meeting*. St. Charles, IL.

### Computer Programming/Statistics Software Proficiency

1. R—R Foundation for Statistical Computing
2. IBM SPSS Statistics
3. MathWorks MATLAB

### Other Creative Products

1. Founder and creator of [www.ACL-IQ.org](http://www.ACL-IQ.org)
2. Author of ACL injury prevention animated videos  
Basketball: <https://vimeo.com/281734465>  
Soccer: <https://vimeo.com/281721823>
3. Michigan Opioid Data Surveillance:  
Michigan: [https://erichpetushek.shinyapps.io/Shiny\\_App/](https://erichpetushek.shinyapps.io/Shiny_App/)  
Northern Michigan Opioid Response Consortium: <https://erichpetushek.shinyapps.io/NMORC/>

### Community Research Partnerships

Advanced Center for Orthopedics and Plastic Surgery	2015-Present
*Conference presentations and grant letters of support	
UP Rehab Services	2016-Present
*Community injury prevention workshops and grant letters of support	
Marquette County Health Department	2017-Present
*Grant support/Data Visualization Aide	
Northern Michigan University	2008-Present
*Grant co-investigators, conference presentations, publications	
UP Health Systems Marquette	2015-Present
*Conference presentations, Quality improvement initiatives	
Marquette Alger Regional Education Service Agency	2016-Present
*Research support and grant site	
Marquette Area Public Schools	2016-Present
*Grant site	

Munising Public Schools	2017-Present
*Grant site	
Grow and Lead Community and Youth Development	2016-Present
*Grant support and fiduciary	

## Professional Development

### Conference Attendances

Michigan's 18 <sup>th</sup> Annual World Usability Day Virtual Event	2020
International Symposium on Human Factors and Ergonomics in Health Care, Virtual	2020
12 <sup>th</sup> Annual Conference on the Science and Dissemination and Implementation In Health, Arlington, VA	2019
American College of Sports Medicine 65 <sup>th</sup> Annual Meeting, Minneapolis, MN	2018
National Strength and Conditioning Association 41 <sup>st</sup> Annual Meeting, Indianapolis, IN.	2018
Society for Judgment and Decision Making Annual Meeting, Vancouver, Canada.	2017
National Strength and Conditioning Association 40 <sup>th</sup> Annual Meeting, Las Vegas, NV.	2017
Keweenaw Medical Conference, Copper Harbor, MI	2016
Hong Kong Association of Sports Medicine and Sport Science 5 <sup>th</sup> Student Conference on Sports Medicine, Rehabilitation and Exercise Science	2016
Asian Federation of Sports Medicine Scientific Symposium	2016
Northern Michigan University Athletic Training Summer Conference	2016
Keweenaw Medical Conference, Copper Harbor, MI	2015
33 <sup>rd</sup> International Symposium on Biomechanics in Sports, Poitiers, France	2015
Human Factors and Ergonomics Society Annual Meeting, Chicago, IL	2014
IOC World Conference on Prevention of Injury & Illness in Sport, Monaco	2014
Society for Judgment and Decision Making Annual Meeting, Toronto, Canada	2013
10 <sup>th</sup> Annual ACL Workshop, Cincinnati Children's Hospital, Cincinnati, OH.	2012
North American Society for the Psychology of Sport and Physical Activity, Honolulu, HI.	2012
American College of Sports Medicine 59 <sup>th</sup> Annual Meeting, San Francisco, CA.	2012
National Strength and Conditioning Association: Wisconsin Annual Clinic, Waukesha, WI.	2012
American College of Sports Medicine 58 <sup>th</sup> Annual Meeting, Denver, CO.	2011
Midwest Strength and Conditioning Clinic, McHenry, IL.	2011
28 <sup>th</sup> Symposium of the International Society of Biomechanics in Sports, Marquette, MI.	2010
National Strength and Conditioning Association 33 <sup>rd</sup> Annual Meeting, Orlando, FL.	2010
National Strength and Conditioning Association: Wisconsin Annual Clinic, La Crosse, WI.	2010
National Strength and Conditioning Association 32 <sup>nd</sup> Annual Meeting, Las Vegas, NV.	2009
National Strength and Conditioning Association: Wisconsin Annual Clinic, Oshkosh, WI.	2009
American Society of Exercise Physiologist 11 <sup>th</sup> Annual Meeting, Wichita Falls, TX.	2009
Midwest Strength and Conditioning Clinic, McHenry, IL.	2009
6 <sup>th</sup> International Conference on Strength Training, Colorado Springs, CO.	2008
National Strength and Conditioning Association: Wisconsin Annual Clinic, Oshkosh, WI.	2008
American Society of Exercise Physiologists 10 <sup>th</sup> Annual Meeting, Duluth, MN.	2008

### Diversity, Equity, and Inclusion

Bridges: Taking Action (Title IX and Sexual Harassment Online Training MTU)	2021
Legal Aspects in Faculty Hiring, MTU	2020
Diversity Literacy Full Course, MTU Online	2020
World Usability Day Presentations on Equity and Accessibility	2020
1)Why Does Siri Sound White?	
2)Infusing Accessibility Throughout the Whole Digital Creation Process	

### Teaching/Innovation

MTU Idea Hub Session 3 – Develop Innovative Solutions, Design Thinking Workshop	2020
MTU ED 5101 Foundation of Online Teaching Course	2020
Diversity Literacy Full Course, MTU Online	2020

### Skills Training/Courses

Regression Models – Johns Hopkins University via Coursera (4wks 1-4hrs/wk)	2019
Statistical Inference – Johns Hopkins University via Coursera (4wks 1-4hrs/wk)	2018
The Data Scientist's Toolbox – Johns Hopkins University via Coursera (14wks 1-4hrs/wk)	2017
R Programming – Johns Hopkins University via Coursera (4wks 1-4hrs/wk)	2017

Getting and Cleaning Data – Johns Hopkins University via Coursera (14wks 1-4hrs/wk)	2017
Exploratory Data Analysis – Johns Hopkins University via Coursera (4wks 1-4hrs/wk)	2017
Reproducible Research – Johns Hopkins University via Coursera (4wks 1-4hrs/wk)	2017