2015-2019

Erich J. Petushek, PhD

1400 Townsend Ave Houghton, MI 49931 (262) 470-7551 ejpetush@mtu.edu

Education

Postdoctoral Fellow in Coaching Cognition and Cognitive Engineering 2014-2015 University of Huddersfield, Huddersfield, United Kingdom Ph.D. in Applied Cognitive Science and Human Factors 2011-2014 Michigan Technological University, Houghton, MI M.S. in Exercise Science 2009-2011 Northern Michigan University, Marquette, MI B.S. in Exercise Science 2005-2008 Marquette University, Milwaukee, WI **Current Positions** Associate Professor—Tenured 2025-Present Department of Psychology and Human Factors, Michigan Technological University Houghton, MI

Adjunct Professor 2019-Present Department of Family Medicine, Michigan State University Upper Peninsula Regional Campus, Marquette, MI

Assistant Professor—Tenure Track 2019-2025 Department of Psychology and Human Factors, Michigan Technological University Houghton, MI

Academic Appointments

Assistant Professor—Non-tenure Track

College of Human Medicine, Michigan State University

Upper Peninsula Regional Campus, Marquette, MI Research Associate 2015-2019 School of Health and Human Performance, Northern Michigan University Marquette, MI

National Science Foundation Graduate Research Fellow 2011-2014 Cognitive and Learning Sciences Department Michigan Technological University Houghton, MI

Visiting Researcher for NSF Graduate Research Opportunity Worldwide 2013 Oslo Sports Trauma Research Center Oslo, Norway

Research Supervisor 2008-2009 College of Health Sciences Marguette University

Research Assistant 2008 College of health Sciences

Marquette University Milwaukee, WI

Milwaukee, WI

Professional Memberships and Activities	
Human Factors and Ergonomics Society	2013-Present
American College of Sports Medicine	2010-Present
National Strength and Conditioning Association	2008-2020
University/Institution Committees	
CLS Chair Advisor Committee	2023-Present
University Senate Committee for Promoting and Facilitating	
Equity and Understanding MTU IRB Board	2023-Present 2021-Present
Annual UP Medicine Conference Chair	2021-Present
Husky Innovate Advisory Board	2021-Present
University Senate Member	2021-Present
ACSHF Graduate Committee	2019-Present
University Research Advisory Council (Back-up)	2019-Present
Tenure Track Human Factors Hiring Committee	2022-2023
University Senate Research Policy Committee MTU Well-being Advisory Board	2021-2023 2021-2023
UI/UX Professor of Practice Hiring Committee	2021-2023
UPHS-Marquette IRB Board Member	2019-2021
MTU CLS Chair Review Committee	2019-2020
MSU Student Advising/Mentoring	
MSU Early Research Mentoring Program	
Kim Santiago	2023-Present
Madaline McNamara	2023-Present 2024-Present
Darby Dean Thomas Kelbel	2024-Present
Luke Terrian	2024-Present
Jon Novosel	2024-Present
Taylor Murphy	2025-Present
Laura Lyons	2025-Present
Bharath Yalavarthi	2025-Present
MSU ASK Research Mentoring	
Alexander Stamm	2023-2024
Olivia Wiese	2023-2024
Laura Weishan	2023-2024
Galloway Thurston Robert Dubinsky	2023-2024 2024-2025
Katrina Elzinga	2024-2025
Spencer Jessop	2024-Present
Mackenzie Suarez-Stankiewicz	2024-Present
MTU Student Advising/Mentoring	
Undergraduate	
Bailee Kimbel (Psychology)	2019-2020
Riley Stichter (Biology)	2022-2024
Drake Allen (Statistics)	2022-2024
Thomas Newton (Human Factors)	2025-Present
Graduate Advances Committee Marchan	
Masters Committee Member Alexandra Watral (Human Factors)	2019-2022
Lamia Alam (Human Factors)	2019-2022
Lisa Casper (Human Factors)	2020-2023
Isaac Lennox (Kinesiology)	2021-2023
Felix Cottet-Puinel (Kinesiology)	2020-2023
Masters Committee Chair	
Dana Anderson (Biology)	2020-2021
Doctoral Committee Member	2010 2022
Lamia Alam (Human Factors)	2018-2022

Tauseef Ibne Mamum (Human Factors) Isaac Wedig (Kinesiology) Catherine Tislar (Human Factors) Ashley Hawke (Kinesiology) Brandon Woolman (Human Factors) Kaitlyn Roose (Human Factors) Doctoral Committee Chair/Co-Chair Aditi Pradeep Vyas (Biology: Co-Chair) Brittany Nelson (Human Factors) Anne Inger Mørtyedt (Human Factors) Kyle Wehmanen (Kinesiology: Co-Chair)	2019-2023 2019-2023 2020-2025 2024-2025 2025-Present 2017-Present 2020-2022 2020-2024 2021-2024 2024-Present
Hanara and Awarda	
Honors and Awards Faculty Mentor for Undergraduate Research Internship Program (Thomas Newton) British Journal of Sports Medicine (IF 18.6) PhD Academy Award for my PhD Student Anne Inger Mørtyedt for her submission: Exploring Usability in Exercise Interventions: From Conceptualization to Measurement and Application	2025-2026 2024
Faculty Mentor for Undergraduate Research Internship Program DeVlieg Foundation Intern (Riley Stichter)	2023-2024
Two articles in the list of the top 100 most impactful articles on the anterior cruciate ligament: Civilette MD, Rate WR, Haislup BD, Cohen AS, Camire L, Bodendorfer BM, Gould HP. The top 100 most impactful articles on the anterior cruciate ligament: An altmetric analysis of online media.SAGE Open Med. Faculty Mentor for Undergraduate Research Internship Program DeVlieg Foundation Intern (Bailee Kimbel) U.P. Service Award for Volunteer Program—Start the Cycle Best Presentation Award—Upper Peninsula Medical Conference Biotechnology Research Travel Grant/Award (\$500) Outstanding Graduating Graduate Student—Northern Michigan University Technology Innovation Award—Northern Michigan University (\$750) ACSM Biomechanics Interest Group Student Travel Grant/Award (\$200) Student Research Award—Marquette University Ignatius Scholarship Recipient—Marquette University	2022 2020-2021 2018 2015 2012 2011 2011 2011 2011 2009 2006 2008
Education Activities University Courses Taught Michigan Technological University, Houghton, MI PSY-2000 Introduction to Psychology PSY- 2720 Statistics for the Behavioral Sciences HF 4999 Fourth Year Seminar: Culminating Experience Reflection HF-4/5880 Usability Assessment HF-3480 Human Factors Psychology HF-6991 Human Factors in Healthcare	2019-Present
Michigan State University—CHM Upper Peninsula Campus, MI HM652-Advanced Skills and Knowledge II – Research Methods/Statistics	2017-Present
Marquette Family Medicine Residency Program MSU CHM Upper Peninsula Campus, MI Research and Quality Improvement Processes	2019-Present
Northern Michigan University, Marquette, MI ES-417 Biomechanics ES-317 Anatomical Kinesiology Laboratory ES-315 Physiology of Exercise Laboratory HP-200 Physical Well Being	2009-2011

HP-245 Weight Training/Conditioning HL-495C Pediatric Health Research, Education, and Measurement	2019
s and Workshops Lecture—Hospital for Special Surgery Sport Safety Educator Certification Course Hospital for Special Surgery, New York, NY	2019
Workshop—Lower Extremity Injury Prevention: Tools and Tactics from the Experts Marquette Senior High School, Marquette, MI Negaunee Middle and High School, Negaunee, MI	2017 2017
Gwinn High School, Gwinn, MI	2017
Lecture—Stats and Research Primer for Medical Residents 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 Traumatic Knee Injury Proportion Sergening and Long Term Consequences	2016
Traumatic Knee Injury: Prevention, Screening, and Long-Term Consequences Calvin College, Grand Rapids, MI Lecture—Kinesiology and Integrative Physiology Seminar Series	2016
Injury Risk Estimation Expertise: Assessment, Group Differences, and	
Mechanisms of ACL-IQ Michigan Technological University, Houghton, MI Lecture—Injury Risk Estimation ExpertiseLeeds Becket University, Leeds, UK	2015 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 Lecture—Stressing Your Bones: The Best Exercises to Stimulate Bone Growth	2009
National Strength and Conditioning Association: Wisconsin Annual Clinic, Oshkosh, WI	2009
 s and Contract Awards Funding	
unding Co-Pl's: E. Petushek & T. Keirnan Cross-Departmental UX/HCD Curriculum Alignment and Strategic Planning \$3,000	2025
PI: E. Petushek Research and Quality Improvement Facilitator MSU College of Human Medicine, UP Health Education Corporation \$44,513	2025-2026
PI: E. Petushek, Co-I: Zhou Integrating Biopsychosocial Dynamics to Optimize ACL Injury Recovery: A Longitudinal Person-Centered Modeling Approach* MTU Research Excellence Fund Seed Grant \$51,000 *Top Ranked Proposal	2024-2026
nding PI: E. Petushek Research and Quality Improvement Facilitator MSU College of Human Medicine, UP Health Education Corporation \$39,597	2024-2025
PI: E. Petushek Research and Quality Improvement Facilitator MSU College of Human Medicine, UP Health Education Corporation \$37,007	2023-2024

PI: E. Petushek, Co-I: B. Nelson and Al Mortvedt 2024 Sampling Techniques for Usability Scale Development Research MTU Health Research Institute - Seed Funding \$5,000 E. Petushek and M. Rouleau 2023-2024 Campus Climate Scale Assessment MTU ADVANCE \$6,525.08 (Summer Support) PI: E. Petushek 2021-2022 Research and Quality Improvement Facilitator MSU College of Human Medicine, UP Health Education Corporation \$37,007 PI: E. Petushek* 2020-2021 Southern Michigan Opioid Consortium Planning Grant Branch Hillsdale St. Joseph Community Health Agency *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 2019 PI: E. Petushek 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 5th 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 AC₂ 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

MPI: J. Diekfuss, E. Petushek, & G. Myer

2025-2030

Biopsychosocial Profiling to Identify Patients at Risk for Poor Long-term

Outcomes Following Anterior Cruciate Ligament Reconstruction

National Institutes of Health - R01

Total Project: \$3,277,01

MTU Subcontract Cost: \$327,030

PI: M. Riley. Consultant: E. Petushek

2022

Virtual Reality Enabled Identification of Altered Motor Development

Trajectories that Propagate Increased Injury Risk for Sport-Specialized Youth

National Institutes of Health - R01

Total Project: \$3,277,01 Consulting Cost: \$29,000

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

2021-2022

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

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 Devises 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

Crow 1 Lood Community and Vouth Daysland

Grow & Lead: Community and Youth Development – Pass through from Michigan Health Endowment Fund

\$62,961 to MTU, \$506,420 total

*Responsible for program evaluation

Pl's: S Breen and B. Adeeko, Co-I: **E. Petushek** (20%) Adaptive Exomuscular Clinical Gait Rehabilitation Device

National Institute of Health - STTR

\$184,275

Pl's: B. Arnetz and E. Arble. Co-I: J. Arnetz. S. Counts. **E. Petushek** (10%)

2019-2022

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 5th Grade Public School Students and their Parents

US Department of Agriculture (AFRI)

\$2,500,000

Pl: J. Carlson. Co-I: **E. Petushek** (15%), B. Carlson, K. Pfeiffer, R. Ratan

Partners for Health: A School- and Web-based Nutrition and Physical Activity Program for Obesity Prevention and Promoting Health in 5th Grade Public School

2018-2020

Students and their Parents

Michigan Health Endowment Fund \$499,366

PI: E. Petushek (32%). Co-I: G. Myer, E. Cokely, M. Stoolmiller, C. Kirk

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

2017-2020

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

Editorial Board/Reviewer Appointments

Reviewer, Quality of Life Research	2024-Present
Reviewer, BMC Musculoskeletal Disorders	2024-Present
Reviewer, ACM CHI conference on Human Factors in Computing Systems	2023-Present
Reviewer, Journal of Orthopedic & Sports Physical Therapy	2021-Present
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	2010-2017
Conditioning Association	
Guest Associate Editor, Frontiers in Psychology–Research Topic:	2016-2017
Macrocognition: The Science and Engineering of Sociotechnical Work Systems	
Reviewer, Human Factors and Ergonomic Society 2014 Annual Meeting	2014
Co-Editor, XXVII th Symposium of the International Society of Biomechanics	2010
in Sports. Marquette, MI. 2010	
Reviewer, International Journal of Exercise Science	2008-2009

Publications

Peer Reviewed Articles

*Denotes students I have mentored

- Petushek, E.J., Harkey, M.S., Santiago, K.*, Stamm, A.*, Baez, S., Diekfuss, J., Myer, G.D., and Kuenze, C. (In Press) Biopsychosocial Profiles Following ACL Reconstruction: A Latent Class Analysis of Barriers to Return-to-Activity. *Physical Therapy in Sport*
- 2. Norman, D.*, Terrain, L.*, Novosel, J.*, Guzman, A.*, Montalvo, A., Myer, G.D., **Petushek, E.J.** (In Press) Anterior Cruciate Ligament Injury Incidence Across Sex, Sport, and Competition Level: A Systematic Review and Meta-Analysis. *Journal of Athletic Training*
- 3. **Petushek, E.J.,** Breen, S., Myer, G.D., Dupuis, B.*, Dorgo, S., Ebben, W., & Krosshaug, T. (In Press) Resistance exercise technique analysis competency and confidence among exercise professionals. *Journal of Strength and Conditioning Research*
- Wedig, I.*, Petushek, E.J., Durocher, J.J., McDaniel, J., Elmer, S.J. (2025) Development and usability testing of a preliminary web-based application for the clinical implementation of blood flow restriction: A mixed methods pilot study. Frontiers in Physiology. 16:1631562
- Lennox, I.*, Wedig, I., Kamm, K., Petushek, E.J., Elmer, S. (2025) Exercise is Medicine® On Campus: A National Analysis of the 2023 Recognized Programs. Translational Journal of the American College of Sports Medicine. 10(1):e000278

- 6. Lamplot, J., **Petushek, E.J.**, Petit, C.*, Warren, S.M., Barber-Foss, K., Slutsky-Ganesh, A.B., Valencia, M.*, Kenyon, C.D., McPherson, A., Xerogeanes, J.W., Myer, G.D., Deikfuss, J.A. (2025) Reason profiles for not returning to pre-injury activity level following ACL reconstruction— A latent class analysis with subgroup comparison of patient reported outcome measures. *Orthopedic Journal of Sports Medicine*, 19;13(2)
- 7. Mørtvedt, AI.*, Krosshaug, T., **Petushek, E.J.** (2025) Perspectives on Usability and Adoption of a New ACL Injury Prevention Program for Female Handball Players: A Mixed Methods Approach. *BMJ Open Sport and Exercise Medicine*, 11(1): e001965
- 8. Tabbaa, A., Atkins, M., Montalvo, A., Petit, C.*, White, M., **Petushek, E.J.,** Diekfuss, J., Myer, G.D. Lamplot, J., (2025) Lower ACLR Failure Rates in Bone-Soft Tissue vs Soft-Tissue Only Allografts in Adults: A Systematic Review and Meta-Analysis. *American Journal of Sports Medicine*. 53(3)734-744
- 9. Mørtvedt, Al.* (2024) PhD Academy Award: Exploring Usability in Exercise Interventions: From Conceptualization to Measurement and Application. *British Journal of Sports Medicine*, 58(18):1089-1090
- 10. Petit, C.*, Hussain, Z., McPherson, A., Lamplot, J., **Petushek, E.J.,** Montalvo, A., Tabbaa, A., White, M., Slone, H., Xerogeanes, J., Myer, G.D. (2024) Graft Failure in Pediatric Patients (≤18 years) following Bone-Patellar Tendon-Bone, Hamstring Tendon, or Quadriceps Tendon Autograft ACLR: A Systematic Review and Meta-analysis. *Orthopedic Journal of Sports Medicine*, 21;12(11)
- 11. Wedig, I. *, Lennox, I. *, **Petushek, E.,** McDaniel, J., Durocher, J., and Elmer, S. (2024) Development of a Prediction Equation to Estimate Lower-Limb Arterial Occlusion Pressure with a Thigh Sphygmomanometer. *European Journal of Applied Physiology*, 124, 1281-1295
- 12. **Petushek, E.J.,** Diekfuss, J., Lamplot, J., Mørtvedt, Al.*, Hoey, L*., Heo, K. *, Petit, C.*, Barber Foss, K., Warren, S., Slutsky-Ganesh, A., Kenyon, C., McPherson, A., Biller, M., Newsome, M., Jennings, B., Xerogeanes, J., & Myer, G.D. (2024) Usefulness of current patient-reported outcome scales for ACL injury useful? A mixed-methods evaluation of stakeholder-perceived utility of specific constructs and items across the rehabilitation timeline. *Orthopedic Journal of Sports Medicine*, 12(3).
- 13. Nelson, B.*, **Petushek, E.J.**, & Teising, S.* (2023) Knowledge and Barriers to a Healthy Lifestyle in Medical Students. *American Journal of Lifestyle Medicine*. 0(0)
- 14. Petit, C.*, Diekfuss, J., Warren, S., Barber Foss, K., Valencia, M.*, Thomas, S., **Petushek, E.J.**, Karas, S., Hammond, K., Pombo, M., Labib, S., Maughon, T., Whitfield, B., Myer, G.D., Xerogeanes, J., & Lamplot, J. (2023) Allograft Anterior Cruciate Ligament Reconstruction Fails at a Greater Rate in Patients Younger Than 34 Years. *Arthroscopy, Sports Medicine, Rehabilitation*, 5(4).
- 15. Alaqil, A. I.*, **Petushek, E. J.,** Gautam, Y. R., Pfeiffer, K. A., & Carlson, J. J. (2022). Determining independence and associations among various cardiovascular disease risk factors in 9-12 years old school-children: a cross sectional study. *BMC public health*, 22(1),1-9.
- 16. Nilstad, A., **Petushek, E.J.,** Mok, K.M., Bahr, R., and Krosshaug, T. (2021). Response to the letter to the editor about '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*, Sep 29:1-3 [Epub ahead of print]
- 17. Nilstad, A., **Petushek, E.J.,** Mok, K.M., Bahr, R., and Krosshaug, T. (2023). 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*, 22(1):65-79
- 18. **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
- 19. Jauhiainen, S.*, Krosshaug, T., **Petushek, E.J.,** Kauppi, J. and Äyrämö, S. (2021). Information extraction from binary skill assessment data with machine learning. *International Journal of Learning Analytics and Artificial Intelligence for Education*.3(1):20-35
- 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.
- 21. Richter, C., **Petushek, E.J.,** Franklyn-Miller, A., Grindem, H., and Krosshaug, T. (2023). 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*, 22(1):91-101
- 22. 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*
- 23. 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.
- 24. Mørtvedt, 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

- 25. **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. *American Journal of Sports Medicine*, 47(7), 1744-1753
- 26. 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).
- 27. 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.
- 28. 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.
- 29. 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.
- 30. **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.
- 31. **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.
- 32. **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.
- 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
- 34. **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.
- 35. 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.
- 36. 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.
- 37. 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.
- 38. 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.
- 39. 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.
- 40. 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.
- 41. 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.
- 42. Ebben, W.P., VanderZanden, T.*, Wurm, B.J.*, and **Petushek, E.J.** (2010). Evaluating plyometric exercises using time to stabilization. *The Journal of Strength and Conditioning Research*, 24(2), 300-306.
- 43. 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.
- 44. 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.
- 45. 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.
- 46. 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.

Journal Articles/Proceedings in Review

1. Wedig, I.*, Lennox, I.*, **Petushek, E.J.,** Durocher, J.J., McDaniel, J., Elmer, S.J. (In Review) Predictors of lower-limb arterial occlusion pressure across commonly used cuff widths. *Frontiers in Physiology*

 Mørtvedt, AI.*, Elmer, S., Trewertha, K., Ageberg, E., Petushek, E.J. (In Review) Evaluating The Pulse Of Exercise Programs: Developing And Validating The Intervention Usability Scale for Exercise (IUSE) To Enhance Implementation and Adherence. Submitted to Journal of Sport and Exercise Psychology

Books/Book Chapters

- 3. **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
- 4. **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.
- Ward, P., Belling, P., Petushek, E.J., & Ehrlinger, J. (2017) Does talent exist? A re-evaluation of the naturenurture debate. Chapter1.3: Routledge Handbook of Talent Identification and Development in Sport. Routledge. ISBN: 9781138951778
- 6. Jensen, R.L., Ebben, W.P., **Petushek, E.J.**, Richter, C., & Roemer, K, editors. (2010). *Proceedings of the 28th 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

- Mørtvedt, AI.*, Krosshaug, T., Petushek, E.J. (2024) Usability Considerations for Enhancing Exercise-Based Injury Prevention Interventions. In *Proceedings of the International Symposium on Human Factors* and Ergonomics in Health Care (Vol. 13, No. 1, pp. 236-241). Sage CA: Los Angeles, CA: SAGE Publications
- 2. Nelson, B.*, **Petushek, E.J.** (2024) Optimizing Health Interventions: A User-Centered Approach to Information Usability. In *Proceedings of the International Symposium on Human Factors and Ergonomics in Health Care* (Vol. 13, No. 1, pp. 163-168). Sage CA: Los Angeles, CA: SAGE Publications
- 3. 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. 37th International Symposium on Biomechanics in Sports, Miami, USA.
- 4. **Petushek, E.J.,** Ward, P., Cokely, E., & Myer, G. (2015). Cross professional differences in real-time assessment of ACL injury risk. *33rd International Symposium on Biomechanics in Sports*, Poitiers, France.
- 5. 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. *33rd International Symposium on Biomechanics in Sports*, Poitiers, France.
- 6. Carlson, B.R., **Petushek, E.J.,** Moore, M., & Dermyer, H. (2015). Effect of sauna therapy on overhead squat depth in elite weightlifters. 33rd International Symposium on Biomechanics in Sports, Poitiers, France.
- 7. 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*st International Symposium on Biomechanics in Sports, Taipei, Taiwan.
- 8. 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. *30th International Symposium on Biomechanics in Sports*, Melbourne, Australia.
- 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. 30th International Symposium on Biomechanics in Sports, Melbourne, Australia.
- 10. **Petushek, E.P.,** Richter, C., Donovan, D., Ebben, W.P., & Jensen, R.L. (2011). Comparison of tibial impact accelerations: Video vs. Accelerometer. *29th International Symposium on Biomechanics in Sports*, Porto, Portugal.
- 11. **Petushek, E.J.,** Ebben, W.P., VanderZanden, T., & Wurm, B. (2010). Comparison of jump height values derived from a force platform and vertec. *28th International Symposium on Biomechanics in Sports,* Marquette, USA.
- 12. **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. *28th International Symposium on Biomechanics in Sports*, Marquette, USA.
- 13. **Petushek, E.J.**, Garceau, L., & Ebben, W.P. (2010). The effect of remote voluntary contractions during fast stretch shortening cycle activity. *28th International Symposium on Biomechanics in Sports*, Marquette, USA.
- Petushek, E.J., Garceau, L., & Ebben, W.P. (2010). Force, velocity, and power adaptations in response to a periodized plyometric training program. 28th International Symposium on Biomechanics in Sports, Marquette, USA.
- 15. 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. *28th International Symposium on Biomechanics in Sports*, Marquette, USA.

- *Third place: International Society of Biomechanics in Sports New Investigator Award
- 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. 28th International Symposium on Biomechanics in Sports, Marquette, USA.
- 17. 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. *28th International Symposium on Biomechanics in Sports*. Marquette, USA.
- 18. Ebben, W.P., & **Petushek**, **E.J**. (2010). Reactive strength index modified: A new method of assessing explosive power. *28th International Symposium on Biomechanics in Sports*, Marquette, USA.
- 19. 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. *28th International Symposium on Biomechanics in Sports*, Marquette, USA.
- 20. Fauth, M., **Petushek**, **E.J.**, Kaufman, C., & Ebben, W.P. (2010). The effect of remote voluntary contractions on strength and power tasks of women. *28th International Symposium on Biomechanics in Sports*, Marquette, USA.
- 21. Ebben, W.P., VanderZanden, T., Wurm, B., Garceau, L., & **Petushek, E.J.** (2010). Kinetic quantification of plyometric take off, flight, and landing characteristics. *28th International Symposium on Biomechanics in Sports*, Marquette, USA.
- 22. Ebben, W.P., **Petushek, E.J.,** & Nelp, A. (2010). The effect of whole body vibration on the dynamic stability of women basketball players. *28th International Symposium on Biomechanics in Sports*, Marquette, USA.
- 23. Garceau, L., **Petushek, E.J.**, Fauth, M., & Ebben, W.P. (2010). The acute time course of concurrent activation potentiation. *28th International Symposium on Biomechanics in Sports*. Marguette, USA.
- 24. Garceau, L., **Petushek, E.J.**, Fauth, M., & Ebben, W.P. (2010). Gender differences in knee extensor and flexor performance. 28th International Symposium on Biomechanics in Sports, Marquette, USA.
- Leissring, S., Petushek, E.J., Stephenson, M., & Jensen, R. (2010). Relationship of Ground Reaction and Knee Joint Reaction Forces in Plyometric Exercises. 28th International Symposium on Biomechanics in Sports, Marquette, USA.
- 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. 28th International Symposium on Biomechanics in Sports, Marquette, USA.
- 27. 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. *28th International Symposium on Biomechanics in Sports*, Marquette, USA.
- Leissring, S.K., Ebben, W.P., Garceau, L., Petushek, E.J., & Jensen, R.L. (2009). Reliability of forces during variations of plyometric exercises. 27th International Symposium on Biomechanics in Sports, Limerick, Ireland.
- 29. 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. 27th International Symposium on Biomechanics in Sports, Limerick, Ireland.

Abstracts and Presentations

Under review

Oral Presentations

Invited/Keynote Lectures

- 1. Strength training technique expertise: Development of efficient assessment and training systems. *National Strength and Conditioning Association 41st 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 5th 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

Diekfuss, J. A., Petushek, E. J., Warren, S. M., Kember, L. S.*, Riehm, C. D., Schille, A., Slaton, J. A., Sengkhammee, L. M., Pradip, K., Hogg, J. A., Barber Foss, K. D., Lloyd, R. S., Serrano-Dennis, J. G., Lamplot, J. D., Xerogeanes, J. W., Biller, M., Newsome, M., Jennings, B., Danilkowicz, R. M., & Myer. G. D. Early biopsychosocial profiling predicts successful long-term outcomes in patients following anterior cruciate ligament reconstruction. 17th Annual Emory Sports Medicine Symposium, Flowery Branch, GA, National Conference, June 15, 2024, Podium Presentation.

- Petushek, E. J., Petit, C. B., Diekfuss, J. A., Warren, S. M., Barber Foss, K. D., Slutsky-Ganesh, A. B., Valencia, M., Kenyon, C., McPherson, A. L., Xerogeanes, J. W., Myer, G. D., & Lamplot, J. D. (2023) Why do individuals not return to their pre-injury levels of physical activity after ACL reconstruction? A latent class analysis with subgroup comparison of patient reported outcome measures. 16th Annual Emory Sports Medicine Symposium, Atlanta, GA, June 10-11, 2023. Podium Presentation.
- 3. **Petushek, E. J.,** Petit, C. B., Lamplot, J. D., Diekfuss, J. A., Myer, G. D., & Kuenze, C. (2023) Latent profile analysis of patient reported outcomes following ACL reconstruction. *16th Annual Emory Sports Medicine Symposium*, Atlanta, GA, June 10-11, 2023, *Podium Presentation*.
- 4. **Petushek**, **E.J.**, Lamplot, J., Diekfuss, J., Mortvedt, A., Biller, M., Newsome, M., Jennings, B., Petit, C., Barber Foss, K., Thomas, S., Xerogeanes, J., Myer, G. (2022) Perceived utility of patient reported outcome items for anterior cruciate ligament injury: Part 1- Evaluation across constructs, items, time and stakeholders. *15th Annual Emory Sports Medicine Symposium*. Online Virtual
- Lamplot, J., Petushek, E.J., Diekfuss, J., Mortvedt, A., Biller, M., Newsome, M., Jennings, B., Petit, C., Barber Foss, K., Thomas, S., Xerogeanes, J., Myer, G. (2022) Perceived utility of patient reported outcome items for anterior cruciate ligament injury: Part 2- Expert evaluation at the 2022 ACL Research Retreat IX. 15th Annual Emory Sports Medicine Symposium. Online Virtual
- Petit, C., Lamplot, J., Petushek, E.J., Diekfuss, J., Biller, M., Newsome, M., Jennings, B., Barber Foss, K., Thomas, S., Xerogeanes, J., Myer, G. (2022) How young can you safely use allograft for ACL reconstruction? 15th Annual Emory Sports Medicine Symposium. Online Virtual
- 7. **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 40th Annual Meeting,* Las Vegas, NV.
- 8. **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 33nd Annual Meeting*. Orlando, FL.
- 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 32nd 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 32nd Annual Meeting*. Las Vegas, NV.
- 11. 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
- 12. **Petushek**, **E.J.**, Garceau, L.R. & Ebben, W.P. (2009). Relationship between training status and concurrent activation potentiation. *11th American Society of Exercise Physiologist Annual Meeting*. Wichita Falls, TX.
- 13. 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.
- 14. 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. *10th American Society of Exercise Physiologists Annual Meeting*. Duluth, MN.
- 15. 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
- 2. **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

- 1. Nelson, B.*, Yalavarthi, B.*, **Petushek, E.** (2025) Measuring Usability of Information: The Information Usability Scale. In *HFES Aspire Conference, Chicago, IL*.
- 2. Petit, C.*, Hussain, Z., Boden, S., White, M. S., **Petushek, E.,** McPherson, A., Pradip, K., Montalvo, A. M., Lamplot, J., Xerogeanes, J., & Myer, G. D. (2025). Return-to-sport in young patients after bone-patellar tendon-bone, hamstring tendon, and quadriceps tendon autograft anterior cruciate ligament reconstruction: Systematic review and meta-analysis. Thematic poster presented at the 2025 ACSM Annual Meeting, Atlanta, GA. *Medicine & Science in Sports & Exercise*, 57(Suppl.).
- 3. Pressley HR, Parker LM, Ezell ER, Newman LD, Gray CE, Bill NM, **Petushek E**, Nelson B, Diekfuss JA, Hogg JA. (2025) Inclusion of motor learning strategies increase intrinsic motivation and quadriceps torque output in healthy individuals. NATA Annual Meeting and Clinical Symposia, Orlando, FL, USA. *Journal of Athletic Training*.
- Mørtvedt, Al*, Ägeberg, E., Elmer, S., Trewartha, K., & Petushek, EJ (2024). The Intervention Usability Scale for Exercise (IUSE). World Congress of Sports Physical Therapy, Oslo, Norway. Published in: International Journal of Sports Physical Therapy, 19(6)
- 5. **Petushek, EJ.,** Diekfuss, J., Baez, S., Myer, G., Harkey, M. & Kuenz, C. (2024) Psychological and Biomechanical Predictors of Fear of Reinjury Following ACL Injury A Hierarchical Regression Analysis. *European Society of Sports Traumatology, Knee Surgery, and Arthroscopy, Milan, Italy.*
- Nelson, B.* Petushek, E. & Teising, S. (2024) Enhancing Informed Decision-Making on Whole Grain Diets: A Patient-Centered Approach. *International Symposium on Human Factors and Ergonomics in Health Care*, Chicago IL.
- 7. Mørtvedt, AI.* & **Petushek**, **E** (2024) Usability Considerations for Enhancing Exercise-Based Injury Prevention Interventions. *International Symposium on Human Factors and Ergonomics in Health Care*, Chicago IL.
- 8. Hogg JA, Riehm CD, Bonnette S, Thomas S, DiCesare CA, Schille A, Slaton J, Anand M, Kiefer AW, Diekfuss JA, Gadd B, Barber Foss KD, Grooms DR, Simon JE, Hulburt T, McPherson A, **Petushek E**, Hill D, Jayanthi N, Riley MA, Myer GD. (2024) Neuromuscular training enhanced with self-guided interactive biofeedback technology improves biomechanical profiles in young soccer female athletes. Pediatric Research in Sports Medicine (PRiSM) 11th Annual Meeting, Anaheim, CA, USA
- 9. Wedig, I., Lennox, I., McDaniel, J., Durocher, J., **Petushek, E.,** and Elmer, S. (2023) Predictors of Arterial Occlusion Pressure in the Lower-Body Across Commonly Used Cuff Widths. *Annual Meeting of the American Physiological Society.*
- 10. Wedig, I., Lennox, İ., **Petushek, E.**, Durocher, J., McDaniel, J., and Elmer, S. (2023) Development and Validation Of a Prediction Equation for Practical Implementation of Blood Flow Restriction Exercise. Annual meeting of American College of Sports Medicine. *[Conference proceeding. Denver. CO. May 31st. 2023]*
- 11. Nelson, B., **Petushek, E**. & Teising, S. (2022) Measuring Knowledge of Behavior Risk and Perceived Barrier Identification in a Medical Student Sample. Society for Judgment and Decision-Making Conference, San Diego CA.
- 12. 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*.
- 13. 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*
- 14. **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.
- 15. 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 67th Annual Meeting.* San Francisco. CA.
- 16. 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 67th Annual Meeting*. San Francisco, CA.
- 17. **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 65th 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 65th Annual Meeting. Minneapolis. MN.
- 19. 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* 65th *Annual Meeting*. Minneapolis. MN.
- 20. 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 65th Annual Meeting. Minneapolis, MN.
- 21. 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 65th Annual Meeting*. Minneapolis, MN.
- 22. 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* 65th Annual Meeting. Minneapolis. MN.
- Petushek, E.J., Mørtvedt, 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.
- 24. 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*.
- 25. 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.
- 26. **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.
- 27. **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.
- 28. **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.
- 29. Ebben, W.P., **Petushek, E.P,** & Garceau, L.R. (2013). Head acceleration while driving a late model stock car. *National Strength and Conditioning Association 36rd Annual Meeting,* Las Vegas, NV.
- 30. **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.
- 31. **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 59th Annual Meeting.* San Francisco, CA.
- 32. 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 59th Annual Meeting*. San Francisco, CA.
- 33. 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* 59th Annual Meeting. San Francisco, CA.
- 34. 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 59th Annual Meeting*. San Francisco, CA.
- 35. 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 59th Annual Meeting*. San Francisco, CA.
- 36. 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 34rd Annual Meeting,* Las Vegas, NV.
- 37. 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 58th Annual Meeting.* Denver, CO.
- 38. **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 58th Annual Meeting*. Denver, CO.
- 39. 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 33rd Annual Meeting*. Orlando, FL.
- 40. 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 33nd Annual Meeting*. Orlando, FL.
- 41. **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 33nd Annual Meeting*. Orlando, FL.
- 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 32nd Annual Meeting*. Las Vegas, NV.

- 43. **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 32nd Annual Meeting*. Las Vegas, NV.
- 44. 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 32nd Annual Meeting*. Las Vegas, NV.
- 45. 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 32nd Annual Meeting*. Las Vegas, NV.
- 46. Lutsch, B., Feldmann, C.R., **Petushek, E.J.**, Fauth, M.L., & Ebben, W.P. (2009). The role of resistance training in ACL injury prevention. *11th American Society of Exercise Physiologist Annual Meeting*. Wichita Falls, TX.
- 47. VandenZanden, T, **Petushek, E.J.,** & Ebben, W.P. (2009). Program design for the optimal adaptation of bone. *11th American Society of Exercise Physiologist Annual Meeting*. Wichita Falls, TX.
- 48. 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 IVth International Conference on Strength Training*. Colorado Springs, CO.

Local/Regional Meetings

- Petushek, E.J, Nelson, and B. Teising, S., and. (2022) Measuring Knowledge of Behavior Risk and Perceived Barrier Identification in a Medical Student Sample. UP Medical Conference, Houghton, MI
- 2. 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.
- 3. 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.
- 4. **Petushek, E.J.**, Clarke, Ś., Carlson, B., Osterwald, K. and Richter, C. (2016) Reducing back injury in golf: Assessment of novel swing technique. *Keweenaw Medical Conference*, Copper Harbor, MI.
- 5. 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.
- 6. 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 Spots Medicine Annual Meeting*. St. Charles, IL.
- 7. 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
- 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/

Northern Michigan Opioid Response Consortium: https://erichpetushek.shinyapps.io/NMORC/

Community Research Partnerships

2015-Present
2016-Present
2017-Present
2008-Present
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** European Society of Sports Traumatology and Knee Arthroscopy, Milan, Italy 2024 16th Annual Emory Sports Medicine Symposium, Atlanta, GA 2023 UP Medical Conference, Houghton, MI 2023 IX ACL Research Retreat, High Point, NC 2022 UP Medical Conference, Houghton, MI 2022 15th Annual Emory Sports Medicine Symposium 2022 Michigan's 18th Annual World Usability Day Virtual Event 2020 International Symposium on Human Factors and Ergonomics in Health Care, Virtual 2020 12th Annual Conference on the Science and Dissemination and Implementation In Health, Arlington, VA 2019 American College of Sports Medicine 65th Annual Meeting, Minneapolis, MN 2018 National Strength and Conditioning Association 41st Annual Meeting, Indianapolis, IN. 2018 2017 Society for Judgment and Decision Making Annual Meeting, Vancouver, Canada. National Strength and Conditioning Association 40th Annual Meeting, Las Vegas, NV. 2017 Keweenaw Medical Conference, Copper Harbor, MI 2016 Hong Kong Association of Sports Medicine and Sport Science 5th 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 33rd 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 10th 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^h Annual Meeting, San Francisco, CA. 2012 National Strength and Conditioning Association: Wisconsin Annual Clinic, Waukesha, WI. 2012 American College of Sports Medicine 58th Annual Meeting, Denver, CO. 2011 Midwest Strength and Conditioning Clinic, McHenry, IL. 2011 28th Symposium of the International Society of Biomechanics in Sports, Marquette, MI. 2010 National Strength and Conditioning Association 33rd Annual Meeting, Orlando, FL. 2010 National Strength and Conditioning Association: Wisconsin Annual Clinic, La Crosse, WI. 2010 National Strength and Conditioning Association 32nd Annual Meeting, Las Vegas, NV. 2009 National Strength and Conditioning Association: Wisconsin Annual Clinic, Oshkosh, WI. 2009 American Society of Exercise Physiologist 11th Annual Meeting, Wichita Falls, TX. 2009 Midwest Strength and Conditioning Clinic, McHenry, IL. 2009 6th 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 10th Annual Meeting, Duluth, MN. 2008 Diversity, Equity, and Inclusion Building Supportive Communities: Clery Act and Title IX Full Course MSU 2025 High-Impact Strategies for Difficult Dialogue 2024 APA Essential Science Conversations Presents: Psychological Science Explains Why Some Feel Threatened by Equity, Diversity, and Inclusion Initiatives 2023 APA IPI Course Design Institute: Infusing diversity into Introductory Psychology, fostering belonging, and course engagement 2022 DEI Leadership Seminar 2021

DEIS in Research Proposals Seminar Bridges: Taking Action (Title IX and Sexual Harassment Online Training MTU) Legal Aspects in Faculty Hiring, MTU Diversity Literacy Full Course, MTU Online World Usability Day Presentations on Equity and Accessibility 1)Why Does Siri Sound White? 2)Infusing Accessibility Throughout the Whole Digital Creation Process	2021 2021 2020 2020 2020
Teaching/Innovation APA Introductory Psychology Course Design Institute MTU Idea Hub Session 3 – Develop Innovative Solutions, Design Thinking Workshop MTU ED 5101 Foundation of Online Teaching Course Diversity Literacy Full Course, MTU Online	2022 2020 2020 2020
Skills Training/Courses Regression Models – Johns Hopkins University via Coursera (4wks 1-4hrs/wk) Statistical Inference – Johns Hopkins University via Coursera (4wks 1-4hrs/wk) The Data Scientist's Toolbox – Johns Hopkins University via Coursera (14wks 1-4hrs/wk) R Programming – Johns Hopkins University via Coursera (4wks 1-4hrs/wk) Getting and Cleaning Data – Johns Hopkins University via Coursera (14wks 1-4hrs/wk) Exploratory Data Analysis – Johns Hopkins University via Coursera (4wks 1-4hrs/wk) Reproducible Research – Johns Hopkins University via Coursera (4wks 1-4hrs/wk)	2019 2018 2017 2017 2017 2017 2017