

CURRICULUM VITAE
JACOB A. SIEDLIK, Ph.D., CSCS

CONTACT INFORMATION

Department of Biology
University of West Florida
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EDUCATION

2016 Doctor of Philosophy with Honors, Exercise Physiology, University of Kansas, Lawrence, KS; Mentor - Dr. Philip M. Gallagher; Minor: Psychology - Quantitative Methodology

2011 Master of Arts, Applied Physiology, Teachers College, Columbia University, New York, NY; Mentor - Dr. Carol E. Garber

2003 Bachelor of Arts, Mathematics, Colorado College, Colorado Springs, CO

PROFESSIONAL EMPLOYMENT

2024 – Present Associate Professor, University of West Florida, Department of Biology, Pensacola, FL

2024 – Present Research Scientist, Florida Institute for Human and Machine Cognition, Pensacola, FL

2023 – 2024 Associate Director, Creighton University, Health Informatics, Omaha, NE

2022 – 2024 Associate Professor, Creighton University, Department of Exercise Science and Pre-Health Professions, Omaha, NE

2016 – 2022 Assistant Professor, Creighton University, Department of Exercise Science and Pre-Health Professions, Omaha, NE

2014 – 2016 Graduate Research Assistant, University of Kansas, Department of Health, Sport, and Exercise Sciences, Applied Physiology Laboratory, Lawrence, KS

2012 – 2014 Graduate Teaching Assistant, University of Kansas, Department of Health, Sport, and Exercise Sciences, Applied Physiology Laboratory, Lawrence, KS

2010 – 2012 Sergeant, New York City Police Department, New York, NY

2005 – 2010 Police Officer, New York City Police Department, New York, NY

PROFESSIONAL MEMBERSHIPS

2023 – Present American Medical Informatics Association

2023 – Present American Health Information Management Association

2023 – Present Health Information and Management Systems Society

2017 – Present	Nebraska Physiological Society
2016 – Present	American Association of Immunologists
2012 – Present	American Physiological Society
2010 – Present	National Strength and Conditioning Association, Certified Strength & Conditioning Specialist (CSCS)
2010 – Present	American College of Sports Medicine

HONORS AND AWARDS

- Haddix Pre-tenure Sabbatical Award. Unraveling patient characteristics to improve public health during the covid-19 pandemic. Creighton University, Omaha, NE, 2021.
- U.S. Army Cadet Command General William E. DePuy Award Nominee. Creighton University Reserve Officer Training Corps (ROTC), Creighton University, Omaha, NE 2021
- Teaching for Tomorrow Award Nominee, 2021 Founders Week Awards. Creighton Students Union, Creighton University, Omaha, NE, 2021
- Educator of the Year, Pharmacy Campus Class of 2023. School of Pharmacy and Allied Health Professions, Creighton University, Omaha, NE, 2020
- U.S. Army Cadet Command General William E. DePuy Award Nominee. Creighton University Reserve Officer Training Corps (ROTC), Creighton University, Omaha, NE 2020
- Department of Health, Sport and Exercise Sciences Wayne Osness Outstanding Doctoral Student Award, University of Kansas, Lawrence, KS, 2015
- Departmental Commendation for Intelligent Performance of Duty While Facing Grave Personal Danger, New York City Police Department, New York, NY, 2008
- Departmental Citation for Meritorious Police Duty (2 awards), New York City Police Department, New York, NY, 2007
- Departmental Citation for Excellent Police Duty (2 awards), New York City Police Department, New York, NY 2007

RESEARCH FUNDING

External Grants Awarded

2020	Mitchel Magrini, Principal Investigator, J. Siedlik, Co-investigator . National Strength and Conditioning Association, \$19,900. Need for Speed: The Effect of a Power-Focused Resistance Training Program on Neuromuscular Function, T-Cell Activation Rates, and Fall Risk in Older Adults.
2019	J. Siedlik, Principal Investigator . Casio Computer Co., Tokyo, Japan, \$28,974. Assessing the Validity and Reliability of Heart Rate Data Obtained from a Casio Smartwatch Prototype Device
2018	J. Siedlik, Principal Investigator . Casio Computer Co., Tokyo, Japan, \$45,075. Assessing the validity and reliability of heart rate data using a prototype device
2015	J.P. Vardiman, Principal Investigator, J. Siedlik, Graduate Student Co-investigator . Office of Naval Research (ONR), \$371,000. University of Kansas. <i>Expansion Proposal: Establishing Optimal Training Intervals for the Marine Corps Martial Arts Program (MCMAP) for Improvement in Physical Performance and Warrior Mindset.</i>
2014	J.P. Vardiman, Principal Investigator, J. Siedlik, Graduate Student Co-investigator . Office of Naval Research (ONR), \$711,519. University of Kansas. Establishing Optimal Training Intervals for the Marine Corps Martial Arts Program (MCMAP) for Improvement in Physical Performance and Warrior Mindset.

Internal Grants Awarded

- 2021 M. Belshan, Principal Investigator, **J. Siedlik, Co-Investigator**, Nebraska Cancer and Smoking Disease Research Program (LB 595), \$120,000.
Connections between SARS-CoV-2 evolution, patient comorbidities, and COVID-19 outcomes.
- 2017 **J. Siedlik, Principal Investigator**, M. Belshan, Co-investigator. Dr. George F. Haddix President's Faculty Research Fund. Creighton University, Omaha, NE, \$15,000.
Exercise induced T cell activation and its impact on HIV susceptibility.

Grants Pending

- 2024 M. Magrini, Principal Investigator, **J. Siedlik, Co-Investigator**, National Institute of Health, \$412,073 requested.
Evaluating the influence of a multicomponent rehabilitation protocol on physical, cognitive, and perceptual outcomes in a post-acute care facility.

Grants Submitted (not funded)

- 2023 M. Magrini, Principal Investigator, **J. Siedlik, Co-Investigator**, National Institute of Health, \$412,073 requested.
Evaluating the influence of a multicomponent rehabilitation protocol on physical, cognitive, and perceptual outcomes in a post-acute care facility.
- 2022 M. Belshan, Principal Investigator, **J. Siedlik, Co-Investigator**, American Lung Association, \$200,000 requested.
Multidimensional modeling of SARS-CoV-2 evolution and variant emergence.
- 2021 P. Gallagher, Principal Investigator, **J. Siedlik, Co-Investigator**, National Institute of Health, \$440,566 requested.
Understanding the mechanisms of how cardiorespiratory fitness affects T cell function in older adults
- 2021 M. Belshan, Principal Investigator, **J. Siedlik, Co-Investigator**, American Lung Association, \$200,000 requested.
Modeling COVID-19 patient and viral factors to disease outcome.
- 2021 M. Belshan, Principal Investigator, **J. Siedlik, Co-Investigator**, Nebraska Cancer and Smoking Disease Research Program (LB 506), \$50,000 requested.
Understanding SARS-CoV-2 evolutionary dynamics to improve treatment and vaccine development
- 2020 **J. Siedlik, Principal Investigator**, Dr. George F. Haddix President's Faculty Research Fund. Creighton University, Omaha, NE. \$5,000 requested.
Unlocking Objectivity: Graph Theoretic Modeling of Skeletal Muscle
- 2020 E. Bredahl, Principal Investigator, **J. Siedlik, Consultant**, National Institute of Health, \$434,558.
Minimizing doxorubicin-induced toxicities with creatine and exercise
- 2020 M. Belshan, Principal Investigator, **J. Siedlik, Collaborator**, National Institute of Health, \$416,920.
Discovery and multiplex quantification of HIV latency biomarkers
- 2019 M. Belshan, Principal Investigator, **J. Siedlik, Collaborator**, National Institute of Health, \$416,920.
Discovery and multiplex quantification of HIV latency biomarkers
- 2018 M. Khanna, Principal Investigator, **J. Siedlik, Co-investigator**. Dr. George F. Haddix President's Faculty Research Fund. Creighton University, Omaha, NE. \$11,476.
Establishing the EXaMPLe (Exercise and Mental Performance Lab experiments)
- 2017 **J. Siedlik, Principal Investigator**. Creighton University Summer Faculty Research Fellowship Program. Creighton University, Omaha, NE. \$10,000.

- Mechanisms of dual stress induced T cell activation.
2017 **J. Siedlik, Principal Investigator.** Nebraska EPSCoR First Award. \$19,584.
Mechanisms of T cell activation following acute bouts of exercise.
2017 **J. Siedlik, Principal Investigator,** M. Belshan, Co-investigator. American College of Sports
Medicine Research Endowment. \$10,000.
Exercise induced T cell activation and susceptibility to viral infection.
2017 **J. Siedlik, Principal Investigator,** E. Bredahl, Co-investigator. Nebraska INBRE Developmental
Research Project Program. \$196,425.
Mechanisms of increased T cell activation following repeated bouts of combined aerobic
and resistance training in human subjects.
2016 **J. Siedlik, Principal Investigator.** Nebraska EPSCoR First Award. \$21,700.
Quantification of T cell surface molecule kinetics following acute bouts of exercise.

Funded Undergraduate Research

- 2020 CURAS Summer Undergraduate Research and Creative Project Fellowship (SURF) Program.
Creighton University, Omaha, NE. Awarded to Boston Small
Biomarkers for stress and performance including immune response and T-cell activation in
division I cross country athletes
2019 Summer Research Institute – Undergraduate Biomedical Program
Creighton University, Omaha, NE. Awarded to Justin Jackson
Peak power in combat athletes during weight restrictive practices
2019 CURAS Summer Undergraduate Research and Creative Project Fellowship (SURF) Program.
Creighton University, Omaha, NE. Awarded to Michael Padgett
Is body fat weighing down the immune system?
2019 Haddix STEM Corridor Program. Creighton University, Omaha, NE. Awarded to Jitsel Martinez
CD8⁺ T cell responses relative to body composition and quality of life metrics
2018 CURAS – Central High School Program. Creighton University, Omaha, NE. Students: Elaine
Velez & Brianne Coleman
Effect of a pre-workout supplement on power and velocity
2018 Haddix STEM Corridor Program. Creighton University, Omaha, NE. Awarded to Alexandra
Griswold
Using bioelectrical impedance to measure hydration status of humans in real time: A pilot
study

PEER REVIEWED JOURNAL PUBLICATIONS *Indicates undergraduate co-author

1. J. Doll, A. Anzalone, M. Clarke, K. Cooper, A. Polich, and **J. Siedlik.** A call for a health data-informed workforce among clinicians. *JMIR Medical Education*, 2024, (In press).
2. M. Gonzalez, C. Jachino, B. Murphy, K. Heinemann, M. Magrini, E. Bredahl, J. Eckerson, and **J. Siedlik.** The effect of acute ketone supplementation on time to fatigue in NCAA Division I cross-country athletes. *Nutraceuticals*, 2024, Vol. 4(2), 232-240
3. M. Magrini, R. Hoffman, T. Barnett, J. Bruursema, and **J. Siedlik.** Effectiveness of a multicomponent rehabilitation protocol on outcomes following post-acute care. *Clin Biomech*, 2024, 111:106138. doi: 10.1016/j.clinbiomech.2023.106138.
4. M. Kelly, D. Emerson, B. McDermott, W. Atkins, C. Butts, R. Laursen, C. Troyanos, A. Duckett, and **J. Siedlik.** Gastrointestinal cell injury and perceived symptoms after running the Boston Marathon. *Front Physiol*, 2023, Vol.14, 1268306; <https://doi.org/10.3389/fphys.2023.1268306>
5. D. Law, M. Magrini, **J. Siedlik,** J. Eckerson, K. Drescher, and E. Bredahl. Creatine and resistance training: A combined approach to attenuate doxorubicin-induced cardiotoxicity. *Nutrients*, 2023, Vol.15(18), 4048; <https://doi.org/10.3390/nu15184048>

6. Z. Graham, **J. Siedlik**, C. Toro, L. Harlow, and C. Cardozo. Boldine alters serum lipidomics signatures after acute spinal cord transection in male mice. *Int J Environ Res Public Health*, 2023, Vol.20(16), 6591; <https://doi.org/10.3390/ijerph20166591>.
7. S.E. Sheppard, L. Bryant, R.N. Wickramasekara, C. Vaccaro, [and 120 others, including **J. Siedlik**]. Mechanism of KMT5B haploinsufficiency in neurodevelopment in humans and mice. *Science Advances*, 2023, Vol.9(10).
8. J. Pearson, N. Moodie, K. Stout, W. Hawkins, M. Matuszek, Z. Graham, **J. Siedlik**, J. Vardiman, and P. Gallagher. Similar responses in the Akt/Protein Kinase B signaling pathway following different lower-body exercise volumes in recreationally active men. *JSCR*, 2023, Vol.37(5), p. 1034 - 1041.
9. L. Barker, **J. Siedlik**, M. Magrini, S. Uesato, H. Wang, A. Sjøvold, G. Ewing, and J. Harry. Eccentric force velocity profiling: Motor control strategy considerations and relationships to strength and jump performance. *JSCR*, 2023, Vol.37(3), p. 574-580.
10. **J. Siedlik**, C. Watson, M. Raine, A. Cheng, R. Goering, H. Stessman, and M. Belshan. Epidemiologic and genomic analysis of the SARS-CoV-2 epidemic in the Nebraska region of the United States, March 2020 – March 2021. *Front Microbiol*, 2022, Vol.13, <https://doi.org/10.3389/fmicb.2022.878342>.
11. M. Magrini, R. Colquhoun, M. Ferrell, S. Fleming, N. Poidomani, J. Mota, **J. Siedlik**, N. Jenkins, and J. Defreitas. The influence of motor unit number and muscle activation on early phase rate of torque development in younger and older men. *J Mot Behav*, 2022, Vol.54(4), p. 422-428.
12. **J. Siedlik**, J. Deckert, A. Clopton, T. Herda, J. Weir, P. Gallagher, and JP Vardiman. Change in measures of moral function following acute bouts of Marine Corps Martial Arts Training. *Stress and Health*, 2022, Vol.38(3), p. 534-543.
13. K. Hammond, M. Magrini, **J. Siedlik**, C.S. Bickel, and M. Bamman. Influence of muscle fatigue on contractile twitch characteristics in persons with Parkinson’s disease and older adults: a pilot study. *Clinical Parkinsonism & Related Disorders*, 2021, <https://doi.org/10.1016/j.prdoa.2021.100103>.
14. H. Fye*, C. Pass*, K. Dickman*, E. Bredahl, J. Eckerson, and **J. Siedlik**. The effect of a multi-ingredient pre-workout supplement on time to fatigue in NCAA division I cross-country athletes. *Nutrients*, 2021, Vol.13(6), 1823; <https://doi.org/10.3390/nu13061823>.
15. R. Edmonds, R. Kraft*, M. Cantu*, E. Meister*, P.J. Huynh*, S. Bankers, and **J. Siedlik**. Does eligibility classification matter? Tracking cardiac autonomic function during a collegiate soccer season. *Sports*, 2021, Vol.9(74), <https://doi.org/10.3390/sports9060074>.
16. L. Barker, S. Bankers, B. Farmer, **J. Siedlik**, J. Harry, and T. Grindstaff. The influence of verbal cues on drop jump landing strategies in NCAA division I soccer players. *Am J Sports Sci*, 2021, Vol. 9(2), p. 37-42.
17. M. Belshan, A. Holbrook, J. George, H. Durant, M. Callahan II, S. Jaquet, J. West, **J. Siedlik**, and P. Ciborowski. Discovery of candidate HIV-1 latency biomarkers using an OMICs approach. *Virology*, 2021, Vol. 558, p. 86-95.
18. R. Edmonds, B. Schmidt, and **J. Siedlik**. Eligibility classification as a factor in understanding student-athlete response to collegiate volleyball competition. *Sports*, 2021, Vol.9(43), <https://doi.org/10.3390/sports9030043>.
19. F. Yue Tso, S. Lidenge, L. Poppe, P. Pena, S. Privatt, S. Bennett, J. Ngowi, J. Mwaiselage, M. Belshan, **J. Siedlik**, M. Raine, P. Kozlowski, J. Ochoa, J. Garcia, R. Nossaman, L. Buckner, W.M. Roberts, M. Dean, A. Ochoa, J. West, and C. Wood. Presence of antibody-dependent cellular cytotoxicity (ADCC) against SARS-CoV-2 in COVID-19 plasma. *PLoS ONE*, 2021, Vol.16(3), e0247640, <https://doi.org/10.1371/journal.pone.0247640>.
20. E. Bredahl, W. Najdawi*, C. Pass*, **J. Siedlik**, J. Eckerson, and K. Drescher. Use of creatine and creatinine to minimize doxorubicin-induced cytotoxicity in cardiac and skeletal muscle myoblasts. *Nutr Cancer*, 2020, Nov 2:1-8. doi: 10.1080/01635581.2020.1842893. Epub ahead of print.
21. L. Barker, **J. Siedlik**, and J. Mercer. The influence of countermovement strategy and external load on amortization forces during jump squats. *J Strength Cond Res*, 2021, Vol.35(2), p. 332-339.
22. E. Bredahl, S. Sharif, **J. Siedlik**, M. Wagner, M. Twaddell*, A. Tigner*, M. Dovgan*, W. Najdawi*, D. Hydock, J. Eckerson, and K. Drescher. Resistance training during chemotherapy with doxorubicin. *Med Sci Sports Exerc*, 2020, Vol. 52(12), p. 2529-2537.

23. A. Holbrook, H. Peterson*, S. Bianchi*, B. Macdonald*, E. Bredahl, M. Belshan, and **J. Siedlik**. CD4⁺ T cell activation and associated susceptibility to HIV-1 infection *in vitro* increased following acute resistance exercise in human subjects. *Physiol Rep*, 2019, Vol.7(18), e14234, <https://doi.org/10.14814/phy2.14234>.
24. Z. Graham, **J. Siedlik**, L. Harlow, K. Sahbani, W. Bauman, H. Tawfeek, and C. Cardozo. Key glycolytic metabolites in paralyzed skeletal muscle are altered 7 days after spinal cord injury in mice. *J Neurotrauma*, 2019, Vol.36(18), p. 2722-2731.
25. **J. Siedlik**, J. Deckert, S. Benedict, A. Bhatta, A. Dunbar, J.P. Vardiman and P. Gallagher. T cell activation and proliferation following acute exercise in human subjects is altered by storage conditions and mitogen selection. *J Immunol Methods*, 2017, Vol.446, p. 7-14.
26. A. Ciccone, **J. Siedlik**, J. Wecht, J. Deckert, N. Nguyen, and J. Weir. Reminder: RMSSD and SD1 are redundant heart rate variability measures. *Muscle Nerve*, 2017, Vol.56, p. 674-678.
27. M. Chan, C. Ciaccia, N. Gigliotti, M. Rezaiekhalthigh, **J. Siedlik**, K. Kennedy, and C. Barnes. DNA methylation levels associate with race and childhood asthma severity. *J Asthma*, 2017, Vol.54(8), p. 825-832.
28. **J. Siedlik**, S. Benedict, E. Landes, J. Weir, J.P. Vardiman and P. Gallagher. Acute bouts of exercise induce a suppressive effect on lymphocyte proliferation in human subjects: A meta-analysis. *Brain Behav Immun*, 2016, Vol.56, p. 343-351.
29. **J. Siedlik**, C. Bergeron, M. Cooper, R. Emmons, W. Moreau, D. Nabhan, P. Gallagher, and J.P. Vardiman. Advanced treatment monitoring for U.S. athletes using unsupervised modeling techniques. *J Athl Train*, 2016, Vol.51(1), p. 74-81.
30. **J. Siedlik**, J. Deckert, N. Gigliotti, M. Chan, S. Benedict, T. Herda, P. Gallagher and J.P. Vardiman. Immunoendocrine alterations following Marine Corps martial arts training are associated with changes in moral cognitive processes. *Physiol Behav*, 2016, Vol.154, p. 76-82.
31. **J. Siedlik**, S. Siscos, K. Evans, A. Rolf, P. Gallagher, J. Seeley, and J.P. Vardiman. Computerized neurocognitive assessments and detection of the malingering athlete. *J Sports Med Phys Fitness*, 2016, Vol.56(9), p. 1086-1091.
32. T. Herda, **J. Siedlik**, M. Trevino, M. Cooper, and J. Weir. Motor unit control strategies of endurance- versus resistance-trained individuals. *Muscle Nerve*, 2015, Vol.52(5), p. 832-843.
33. **J. Siedlik**, G. Harrison, R. Brigman, Z. Graham, J. Weir, P. Gallagher and J.P. Vardiman. Methods comparison: Assessing agreement of physiological parameters obtained from exercise on two different cycle ergometers. *J Strength Condition Res*, 2015, Vol.29(4), p. 1139-1145.
34. J.P. Vardiman, **J. Siedlik**, T. Herda, W. Hawkins, M Cooper, Z. Graham, J. Deckert, and P. Gallagher. Instrument assisted soft tissue mobilization: Effects on the properties of human plantar flexors. *Int J Sports Med*, 2015, Vol.36(3), p. 197-203.
35. J.P. Vardiman, N. Moodie, **J. Siedlik**, R. Kudrna, Z. Graham, and P. Gallagher. Short-wave diathermy pre-treatment attenuates inflammatory myokine response from high-intensity eccentric exercise. *J Athl Train*, 2015, Vol.50(6), p. 612-620.

BOOK CHAPTERS

1. J.P. Vardiman, P. Gallagher, and **J. Siedlik**. Potential cytoprotective effects of heat shock proteins to skeletal muscle. In Asea, Kaur, and Krishnan (Eds.), *Heat Shock Proteins-Based Therapies*, Heat Shock Proteins 9. Springer International Publishing Switzerland 2015.

NATIONAL PRESENTATIONS *Indicates undergraduate author

1. B. Murphy*, K. Hammond, L. Barker, M. Grahek*, M. Grocki*, **J. Siedlik**, J. Eckerson, M. Magrini. The effect of an 8-week high- vs low-velocity resistance training program on vastus lateralis and rectus femoris cross-sectional area and echo intensity in older adults. Accepted for presentation at the 2023 NSCA National Conference, Las Vegas, NV.

2. M. Grahek*, K. Hammond, L. Barker, M. Grocki*, B. Murphy*, **J. Siedlik**, J. Eckerson, M. Magrini. The effect of high- vs low-velocity resistance training on movement speed, maximal strength, and the load-velocity relationship in older adults. Accepted for presentation at the 2023 NSCA National Conference, Las Vegas, NV.
3. E. Choquette*, M. Magrini, M. Grahek*, **J. Siedlik**, K. Hammond. Effect of a fatiguing protocol on maximal and rapid force production in persons with Parkinson's disease and older adults. Accepted for presentation at the National Strength and Conditioning Association national conference, New Orleans, LA, July 2022.
4. B. Murphy*, R. Colquhoun, S. Fleming, N. Banks, E. Rogers, **J. Siedlik**, N. Jenkins, M. Magrini. Time-course recovery of early and late rate of torque development following maximal eccentric, maximal concentric, and submaximal eccentric resistance-exercise. Accepted for presentation at the National Strength and Conditioning Association national conference, New Orleans, LA, July 2022.
5. M. Grahek*, K. Hammond, L. Barker, M. Grocki*, B. Murphy*, **J. Siedlik**, M. Magrini. The effect of a 4-week power vs strength focused resistance training program on the load velocity curve, movement speed, and maximal strength in older adults. Accepted for presentation at the National Strength and Conditioning Association national conference, New Orleans, LA, July 2022.
6. A. Bercich*, K. Hammond, L. Barker, M. Grahek*, M. Grocki*, B. Murphy*, **J. Siedlik**, M. Magrini. The effect of a 4-week power- vs strength-focused resistance training program on the muscle size and quality in older adults. Accepted for presentation at the National Strength and Conditioning Association national conference, New Orleans, LA, July 2022.
7. M. Kleinsmith*, M. Magrini, M. Grahek*, E. Choquette*, **J. Siedlik**, K. Hammond. The reliability of and relationship between rate of muscle activation and rate of torque development in persons with Parkinson's Disease and Older Adults. Accepted for presentation at the National Strength and Conditioning Association national conference, New Orleans, LA, July 2022.
8. M. Grahek*, M. Magrini, K. Hammond, M. Grocki*, L. Barker, **J. Siedlik**. Effect of a four-week velocity-based power-focused resistance training protocol on maximal force and rate of force development in older adults. Accepted for presentation at the 2021 National Conference on Undergraduate Research, October 2021
9. M. Grahek, K. Hammond, M. Magrini, **J. Siedlik**, S. Bickel, M. Bamman. Influence of muscle fatigue on contractile twitch characteristics in persons with Parkinson's disease and older adults: A pilot study. Accepted for presentation at the National Strength and Conditioning Association national conference, Orlando, FL, July 2021. – *Awarded the Undergraduate Outstanding Poster Presentation Award*
10. M. Magrini, R. Colquhoun, M. Ferrell, S. Fleming, J. Mota, **J. Siedlik**, N. Poidomani*, N. Jenkins, J. DeFreitas. The influence of motor unit number and muscle activation on early phase rate of torque development in younger and older men. Accepted for presentation at the National Strength and Conditioning Association national conference, Orlando, FL, July 2021.
11. R. Edmonds, R. Kraft*, M. Cantu*, E. Meister*, P.J. Huynh*, and **J. Siedlik**. Examining the acute effect of a tabata workout on executive function. Accepted for presentation at the National Strength and Conditioning Association national conference, Orlando, FL, July 2021.
12. R. Edmonds, S. Bankers, R. Kraft*, M. Cantu*, E. Meister*, P.J. Huynh*, and **J. Siedlik**. Student-athlete eligibility classification as a factor in the cardia vagal response to collegiate competition. Accepted for presentation at the National Strength and Conditioning Association national conference, Orlando, FL, July 2021.
13. M. Padgett*, J. Sparks*, E. Bredahl, and **J. Siedlik**. The effect of body composition on CD4+ T cell activation: A pilot study. Accepted for presentation at the National Strength and Conditioning Association national conference, Las Vegas, NV, July 2020.
14. J. Sparks*, M. Padgett*, E. Bredahl, and **J. Siedlik**. The effect of body composition on cytotoxic T cell activation: A pilot study. Accepted for presentation at the National Strength and Conditioning Association national conference, Las Vegas, NV, July 2020.
15. H. Fye*, C. Pass*, K. Dickman*, J. Eckerson, and **J. Siedlik**. The effect of a multi-ingredient pre-workout supplement on time to fatigue in collegiate cross-country runners. Accepted for presentation at the National Strength and Conditioning Association national conference, Las Vegas, NV, July 2020.
16. C. Pass*, H. Fye*, K. Dickman*, J. Eckerson, and **J. Siedlik**. The effect of a multi-ingredient pre-workout supplement lactate concentrations and perceived exertion in collegiate cross-country runners. Accepted for

- presentation at the National Strength and Conditioning Association national conference, Las Vegas, NV, July 2020.
17. J. Gephart*, G. Kelly*, L. Barker, **J. Siedlik**, and R. Edmonds. Assessing the validity and reliability of heart rate data obtained using a smart watch prototype device against a reference standard. Accepted for presentation at the National Strength and Conditioning Association national conference, Las Vegas, NV, July 2020.
 18. S. Giacomini*, A. Kowalczyk*, G. Kelly*, L. Barker, **J. Siedlik**, R. Edmonds. Assessing heart rate data validity and reliability recorded using a prototype wrist worn heart rate monitor against a market comparison watch. Accepted for presentation at the National Strength and Conditioning Association national conference, Las Vegas, NV, July 2020.
 19. A. Kowalczyk*, S. Giacomini*, L. Barker, **J. Siedlik**, and R. Edmonds. Assessing the validity and reliability of heart rate data obtained using a smart watch prototype device against a reference standard. Accepted for presentation at the National Strength and Conditioning Association national conference, Las Vegas, NV, July 2020.
 20. K. Stout, J. Deckert, **J. Siedlik**, S. Graw, M. Bubak, J. Vardiman, D. Koestler, and P. Gallagher. Differentially expressed genes in CD8+ T cells following a dual-stress challenge. Accepted for presentation at the American College of Sports Medicine national conference, San Francisco, CA, May 2020. *Med Sci Sports Exerc*: 52(7S): 470, 2020.
 21. M. Padgett*, M. Sacco*, M. Glick*, E. Bredahl, M. Lane, and **J. Siedlik**. Dual stress warm-up protocol generates a differential effect in anaerobic performance based on sex. Accepted for presentation at the National Strength and Conditioning Association national conference, Washington D.C., July 2019.
 22. J. Eckerson, M. Turner, T. Hoang, **J. Siedlik**, and E. Bredahl. The relationship of maximal oxygen uptake and performance indices from a 3-minute all-out rowing test with 2000-M rowing time. Accepted for presentation at the National Strength and Conditioning Association national conference, Washington D.C., July 2019.
 23. M. Glick*, M. Sacco*, E. Bredahl, M. Lane, and **J. Siedlik**. Dual stress warm-up protocol does not significantly alter blood glucose concentrations. Accepted for presentation at the American College of Sports Medicine national conference, Orlando, FL, June 2019. *Med Sci Sports Exerc*: 51(6S): 326, 2019.
 24. M. Sacco*, M. Glick*, E. Bredahl, M. Lane, and **J. Siedlik**. Dual stress warm-up protocol does not significantly improve anaerobic performance. Accepted for presentation at the American College of Sports Medicine national conference, Orlando, FL, June 2019. *Med Sci Sports Exerc*: 51(6S): 943-944, 2019.
 25. C. Lee*, E. Bredahl, M. Lane, and **J. Siedlik**. Comparison of two training programs for improvement of muscular strength quantified via pull-ups. Accepted for presentation at the American College of Sports Medicine national conference, Orlando, FL, June 2019. *Med Sci Sports Exerc*: 51(6S): 965, 2019.
 26. A. Holbrook, M. Belshan, E. Bredahl, and **J. Siedlik**. The effect of exercise on CD4+ T cell activation and their susceptibility to HIV-1. Accepted for presentation at the American College of Sports Medicine national conference, Minneapolis, MN, June 2018. *Med Sci Sports Exerc*: 50(5S): 224, 2018.
 27. H. Peterson*, A. Holbrook, A. Ihlenfeldt*, B. Macdonald*, S. Bianchi*, E. Bredahl, M. Belshan, and **J. Siedlik**. Changes in functional activation of memory T cells following exercise: A pilot study. Accepted for presentation at the American College of Sports Medicine national conference, Minneapolis, MN, June 2018. *Med Sci Sports Exerc*: 50(5S): 4, 2018.
 28. **J. Siedlik**, J.P. Vardiman, J. Deckert, T. Herda, J.P. Weir, A. Clopton, and P. Gallagher. Change in measures of moral function following acute bouts of Marine Corps martial arts training. Accepted for presentation at the American College of Sports Medicine national conference, Minneapolis, MN, June 2018. *Med Sci Sports Exerc*: 50(5S): 734-735, 2018.
 29. S. Bianchi*, A. Holbrook, A. Ihlenfeldt*, B. Macdonald*, H. Peterson*, S. Bianchi*, E. Bredahl, M. Belshan, and **J. Siedlik**. CD28 expression on CD4+ T cells is not affected by strenuous exercise in untrained individuals. Accepted for presentation at the American College of Sports Medicine national conference, Minneapolis, MN, June 2018. *Med Sci Sports Exerc*: 50(5S): 473, 2018.
 30. B. Macdonald*, A. Holbrook, A. Ihlenfeldt*, H. Peterson*, S. Bianchi*, E. Bredahl, M. Belshan, and **J. Siedlik**. CD4+ T cell activation markers altered following resistance training in untrained subjects: A pilot study. Accepted for presentation at the American College of Sports Medicine national conference, Minneapolis, MN, June 2018. *Med Sci Sports Exerc*: 50(5S): 5, 2018.

31. Z. Graham, **J. Siedlik**, L. Harlow, H. Tawfeek, W. Bauman, and C. Cardozo. Key glycolytic metabolites in paralyzed skeletal muscle are altered 7 days after spinal cord injury in mice. Accepted for presentation at the American College of Sports Medicine national conference, Minneapolis, MN, June 2018. *Med Sci Sports Exerc*: 50(5S): 199, 2018.
32. M. Kaufenberg*, A. Tigner*, S. Hook*, M. Twaddell*, M. Wagner*, E. Bredahl, **J. Siedlik**, J. Eckerson, and K. Drescher. Effect of resistance training on contractile force production during doxorubicin-treatment. Accepted for presentation at the American College of Sports Medicine national conference, Minneapolis, MN, June 2018. *Med Sci Sports Exerc*: 50(5S): 185, 2018.
33. E. Bredahl, W. Najdawi*, S. Hook*, J. Eckerson, **J. Siedlik**, and K. Drescher. The effect of creatine and creatinine on myocellular injury in doxorubicin-treated skeletal muscle myoblasts. Accepted for presentation at the American College of Sports Medicine national conference, Minneapolis, MN, June 2018. *Med Sci Sports Exerc*: 50(5S): 185, 2018.
34. **J. Siedlik**, J. Deckert, A. Bahatt, A. Dunbar, N. Gigliotti, M. Chan, S. Benedict, J.P. Vardiman, and P. Gallagher. T cell responses to exercise stress do not adequately model those from tactical stress events. Accepted for presentation at the American Association of Immunologists annual meeting, Washington, D.C., May 2017. *J Immunol*, 2017, Vol.198(1S), p.220.
35. **J. Siedlik**, J. Deckert, S. Benedict, A. Bhatta, A. Dunbar, J.P. Vardiman, and P. Gallagher. T cell activation and proliferation following acute exercise in human subjects is altered by storage conditions and mitogen selection. Accepted for presentation at the Integrative Biology of Exercise national conference, Phoenix, AZ, November 2016.
36. J. Deckert, J. Ward, **J. Siedlik**, E. Barnes, E. Landes, J.P. Vardiman, and P. Gallagher. Marine Corps martial arts program does not cause global DNA methylation changes in female Marines. Accepted for presentation at the Integrative Biology of Exercise national conference, Phoenix, AZ, November 2016.
37. J. Sanfilippo, **J. Siedlik**, J. Weir, and B. Heiderscheit. Common jump force profiles of college athletes differ by sport, gender, and performance. Accepted for presentation at the American College of Sports Medicine national conference, Boston, MA, June 2016. *Med Sci Sports Exerc*: 48(5S): 741, 2016.
38. M. Chan, C. Ciaccia, N. Gigliotti, M. Rezaiekhaliq, **J. Siedlik**, K. Kennedy, and C. Barnes. Environmentally-induced epigenetic changes correlate with race and childhood asthma severity. Accepted for presentation at the American Academy of Allergy, Asthma & Immunology national conference, Los Angeles, CA, March 2016. *J Allergy Clin Immunol*: Vol.137(2), p.AB391, 2016.
39. **J. Siedlik**, J. Deckert, A. Clopton, T. Herda, J.P. Weir, P. Gallagher, and J.P. Vardiman. Impact of acute training stress on moral decision making following Marine Corps martial arts training. Accepted for presentation at the American College of Sports Medicine national conference, San Diego, CA, May 2015. *Med Sci Sports Exerc*: 47(5S): 807, 2015.
40. **J. Siedlik**, J. Deckert, N. Gigliotti, M. Chan, S. Benedict, P. Gallagher, and J.P. Vardiman. Peripheral immune response to Marine Corps martial arts training. Accepted for presentation at Experimental Biology, Boston, MA, March 2015. *The FASEB Journal*: 29(1): 675.1, 2015.
41. Z. Graham, P. Vardiman, **J. Siedlik**, W. Hawkins, and P. Gallagher. The effect of instrument-assisted soft tissue manipulation on the alpha7beta1 integrin pathway. Accepted for presentation at Experimental Biology, San Diego, CA, April 2014. *The FASEB Journal*: 28(1):S 1102.1, 2014.
42. M. Lane, A.C. Fry, T.J. Herda, A. Hudy, M.A. Cooper, M.J. Andre, J.P. Weir, **J. Siedlik**, Z.A. Graham and W. Hawkins. Validation of a 3-dimensional video motion capture system for determining weight training kinetics and kinematics. Accepted for presentation at the American College of Sports Medicine national conference, Indianapolis, IN, May 2013. *Med Sci Sports Exerc*: 45(5S): 2013.
43. **J. Siedlik**, G. Harrison, R. Brigman, Z.A. Graham, J.P. Weir, P.M. Gallagher, & J.P. Vardiman. Methods comparison: Assessing agreement of physiological parameters obtained from exercise on two different cycle ergometers. Accepted for presentation at the American College of Sports Medicine national conference, Indianapolis, IN, May 2013. *Med Sci Sports Exerc*: 45(5S): 2013.
44. P. Vardiman, P., **J. Siedlik**, M. Cooper, R. Emmons, B. Moreau, D. Nabhan, J. Street, and P.M. Gallagher. Gold Medal Sports Medicine: Integrative model of medical care during international competition. Accepted for

presentation at the American College of Sports Medicine national conference, Indianapolis, IN, May 2013. *Med Sci Sports Exerc*: 45(5S): 2013.

REGIONAL PRESENTATIONS *Indicates undergraduate author, #Indicates invited presentation

1. #**J. Siedlik** and P. Gallagher. Exercise-induced changes in T cell activation states. Central States Region – American College of Sports Medicine Annual Meeting. Virtual Meeting. March 2021.
2. B. Macdonald*, S. Ruelas*, E. Bredahl, and **J. Siedlik**. Higher levels of fatigue observed in anaerobic testing following a dual-stress warm up protocol. Accepted for presentation at the Nebraska Physiological Society annual meeting, Omaha, NE, October 2017.
3. P. Madsen*, H. Lingo*, E. Bredahl, and **J. Siedlik**. Changes in cardiorespiratory measures and perceived effort level during a competitive eating challenge. Accepted for presentation at the Nebraska Physiological Society annual meeting, Omaha, NE, October 2017.
4. D. Riley, A. Tigner*, R. Miller, **J. Siedlik**, J. Eckerson, and E. Bredahl. Effect of resistance training on skeletal muscle fatigue during doxorubicin treatment. Accepted for presentation at the Nebraska Physiological Society annual meeting, Omaha, NE, October 2017.
5. A. Tigner*, M. Kaufenberg*, S. Hook*, M. Twaddell*, M. Wagner*, **J. Siedlik**, J. Eckerson, K. Drescher, and E. Bredahl. Effect of resistance training on contractile force production during doxorubicin treatment. Accepted for presentation at the Nebraska Physiological Society annual meeting, Omaha, NE, October 2017.
6. M. Dovgan*, S. Kottenstette*, **J. Siedlik**, J. Eckerson, and E. Bredahl. The effect of creatine and creatinine on rates of necrosis in doxorubicin treated myoblasts. Accepted for presentation at the Nebraska Physiological Society annual meeting, Omaha, NE, October 2017.
7. S. Hook*, W. Najdawi*, J. Eckerson, **J. Siedlik**, K. Drescher, and E. Bredahl. The effect of creatine and creatinine treatment on short-term energy metabolism in doxorubicin treated skeletal muscle myoblasts. Accepted for presentation at the Nebraska Physiological Society annual meeting, Omaha, NE, October 2017.
8. **J. Siedlik**, J. Deckert, T. Herda, J. Weir, P. Gallagher, and P. Vardiman. Immunoendocrine Response to Marine Corps Martial Arts Training. Accepted for presentation at the Central States Chapter of the American College of Sports Medicine regional conference, Overland Park, KS, October 2014. *Int J Exerc Sci*: Vol. 11: Iss. 2, Article 54.
9. **J. Siedlik**, S. Siscos, P. Gallagher, J. Seeley, A. Rolf, K. Evans, and J.P. Vardiman. Computerized neurocognitive assessments and detection of the malingering athlete. Accepted for presentation at the Central States Chapter of the American College of Sports Medicine regional conference, Warrensburg, MO, October 2013. *Int J Exerc Sci*: Vol. 11. No. 1. 2014.
10. A.C. Fry, L. Bradford, T. Herda, J. Weir, M. Lane, M. Andre, A. Hudy, J. Deckert, and **J. Siedlik**. Validation of a 3-dimensional video motion capture system for determining barbell power and velocity during the bench press. Accepted for presentation at the Central States Chapter of the American College of Sports Medicine regional conference, Warrensburg, MO, October 2013. *Int J Exerc Sci*: Vol. 11. No. 1. 2014.
11. **J. Siedlik** and J.P. Vardiman. A model for epidemiological analysis of a multisite, multidisciplinary healthcare database. Accepted for presentation at the University of Kansas Annual Graduate Research Competition, Lawrence, KS, March 2013.
12. J.P. Vardiman, **J. Siedlik**, B. Moreau, D. Nabhan. Gold Medal Sports Medicine: Integrative model of medical care during international competition. Accepted for full session presentation at the Central States American College of Sports Medicine regional conference, Columbia, MO, October 2011.
13. M. Lane, A.C. Fry, T.J. Herda, A. Hudy, M.A. Cooper, M.J. Andre, J.P. Weir, **J. Siedlik**, Z.A. Graham and W. Hawkins. Validation of a 3-dimensional video motion capture system for determining weight training kinetics and kinematics. Accepted for presentation at the Central States American College of Sports Medicine regional conference, Columbia, MO, October 2011.

MENTORED UNDERGRADUATE RESEARCH PRESENTATIONS - CREIGHTON UNIVERSITY

1. E. Meister, R. Kraft, M. Cantu, P.J. Huynh, R. Edmonds, S. Bankers, and **J. Siedlik**. Does eligibility classification matter? Tracking autonomic function during collegiate soccer season. Annual Honors Day, Creighton University, April 12, 2023.
2. B. Small and **J. Siedlik**. Stress and training: Quantifying stress markers that affect fatigue and injury in NCAA DI cross country athletes. University Research Week, Creighton University, April 20, 2021.
3. H. Fye, C. Pass, K. Dickman, J. Eckerson, and **J. Siedlik**. Effect of a multi-ingredient pre-workout supplement on time to fatigue in collegiate cross-country runners. Annual Honors Day, Creighton University, April 17, 2020.
4. M. Glick, M. Sacco, E. Bredahl, M. Lane, and **J. Siedlik**. Dual stress warm-up protocol does not significantly alter blood glucose concentrations. Annual Honors Day, Creighton University, April 10, 2019.
5. K. Resman and **J. Siedlik**. Do T-cells need friends? Does Diversity of Culture Matter? Annual Honors Day, Creighton University, April 10, 2019.
6. M. Sacco, M. Glick, E. Bredahl, M. Lane, and **J. Siedlik**. Dual stress warm-up protocol does not significantly improve anaerobic performance. St. Albert's Day Student Research Forum, Creighton University, April 2, 2019.
7. C. Lee, E. Bredahl, M. Lane, and **J. Siedlik**. Comparison of two training programs for improvement of muscular strength quantified via pull-ups. St. Albert's Day Student Research Forum, Creighton University, April 2, 2019.
8. E. Andrews, A. Berry, K. Bumgarner, Z. Reed, M. Twadell, and **J. Siedlik**. Effect of acute exercise on delayed memory recall. Annual Honors Day, Creighton University, March 30, 2017.
9. S. Bianchi, T. Bendrick, and **J. Siedlik**. T cell proliferation following acute, moderate intensity exercise in human subjects is not associated with time spent at specific heart rate zones. St. Albert's Day Student Research Forum, Creighton University, March 30, 2017.
10. T. Bendrick, S. Bianchi, and **J. Siedlik**. T cell proliferation following exposure to acute, layered stress challenges is associate with time spent at near predicted maximal heart rate. St. Albert's Day Student Research Forum, Creighton University, March 30, 2017.
11. W. Coriolan, S. Olsen, M. Kluver, L. Vera, N. Rubarth, and **J. Siedlik**. The use of ammonia inhalants does not improve 300-meter shuttle run times. St. Albert's Day Student Research Forum, Creighton University, March 30, 2017.
12. E. Kosanke, D. Salazar, J. Magsnoc, J. Zheng, A. Hardy, and **J. Siedlik**. Caffeine's effect on perceived post-workout soreness and perceived muscle function. St. Albert's Day Student Research Forum – *Oral Presentation*, Creighton University, March 30, 2017.
13. A. Berry, E. Andrews, K. Bumgarner, Z. Reed, M. Twadell, and **J. Siedlik**. Effect of acute exercise on delayed memory recall (Cluster Analysis). Annual Honors Day, Creighton University, March 30, 2017.

PEDAGOGICAL DEVELOPMENT

2020	TLC Keep Teaching Live Workshop: Intermediate, Teaching and Learning Center, Creighton University, Omaha, NE
2019	Magis Core Faculty Development Grant Proposal, Creighton University, Omaha, NE. \$1,000 requested, \$1,000 awarded.
2018	Complying with Copyright Requirements in a University, Teaching and Learning Center, Creighton University, Omaha, NE
2018	Teaching, Learning, and Assessment of Clinical Reasoning: A Multidisciplinary View, Teaching and Learning Center, Creighton University, Omaha, NE
2017	Foundations of Online Teaching and Learning Certificate Course (Core and Design Tracks), Center for Academic Innovation, Creighton University, Omaha, NE
2017	New Course Development EXS 535 Applied Immunology

MASTER AND DOCTORAL COMMITTEES

- 2022 Cynthia Watson, M.S. Creighton University School of Medicine, Department of Medical Microbiology and Immunology, Omaha, NE. Investigation of Nebraska-Based SARS-CoV-2 Genetic Sequences Through Whole Genome Sequence Analysis.
- 2022 Dylan Deeney, M.S. Creighton University School of Medicine, Department of Medical Microbiology and Immunology, Omaha, NE. The effect of the incorporation of heavy metal zeolites into 3-D printed surgical grade resin on the surface stability of SARS-CoV-2.
- 2021 Morgan Raine, M.S. Creighton University School of Medicine, Department of Medical Microbiology and Immunology, Omaha, NE. High throughput sequencing of SARS-CoV-2.
- 2021 Melani Kelly, Ph.D. University of Kansas, Department of Health, Sport, and Exercise Sciences, Lawrence, KS. Exploring exertional heat illness risk factors in marching band artists and marathon runners.
- 2020 Mackenzie Hatcher, M.S. University of Kansas, Department of Health, Sport, and Exercise Sciences, Lawrence, KS. Effects of passive dehydration on neuromuscular function.
- 2019 Alexander Holbrook, M.S. Creighton University School of Medicine, Department of Medical Microbiology and Immunology, Omaha, NE. T cell activation and associated susceptibility to HIV-1 infection in vitro increased following acute exercise in human subjects.
- 2018 Jake Deckert, Ph.D. University of Kansas, Department of Health, Sport, and Exercise Sciences, Lawrence, KS. Neuroendocrine and lymphocyte responses to varied intensities of exercise.

UNIVERSITY SERVICE

- 2021 CURAS Research Fair, Creighton University, Omaha, NE
- 2020 Creighton Brand Initiative Discovery Session. Creighton University, Omaha, NE
- 2019 International High School Counselor Admissions Visit. Creighton University, Omaha, NE
- 2019 Admitted Students Day Mini Lecture. Creighton University, Omaha, NE
- 2018 Dean's Fellow Interviews. Creighton University, Omaha, NE
- 2018 Healthy Bites Seminar Guest Speaker (Don't Resist Resistance Training). Creighton University, Omaha, NE
- 2016 – 2018 Jay Days. Creighton University, Omaha, NE
- 2016 – 2018 Major Minor Fair. Creighton University, Omaha, NE
- 2016 – 2018 Prospective Student Visits. Creighton University, Omaha, NE
- 2016 CU Sunday. Creighton University, Omaha, NE

COMMITTEE ASSIGNMENTS

- 2022 – Present Athletic Board. Creighton University, Omaha, NE
- 2022 – Present University Public Honors and Events Committee. Creighton University, Omaha, NE
- 2020 – 2022 President's Strategic Assessment Group. Creighton University, Omaha, NE
- 2020 – 2022 Planning & Education Working Group of the University Preparedness Committee. Creighton University, Omaha, NE
- 2020 – 2022 Planning & Education Working Sub-Group of the Faculty Council. Creighton University, Omaha, NE
- 2020 – Present Committee on Lectures, Films & Concerts. Creighton University, Omaha, NE
- 2018 – 2021 Faculty and Academic Council. Creighton University, Omaha, NE

COMMUNITY SERVICE

- 2019 – 2021 Career Speaker STEM Fields. Plattsmouth High School, Plattsmouth, NE
- 2017 – 2019 Pre-Health Professions Explorer Program Chairperson. Boy Scouts of America, Mid-America Council, Omaha, NE
- 2018 – 2019 King Science Health Care Academy Speaker. King Science Middle School, Omaha, NE

- 2017 – 2018 Mini-Health Sciences School with Partnership for Kids. HS-MACA, Creighton University, Omaha, NE
- 2018 Career Day for Belvedere Elementary (2nd & 4th grade classes). Belvedere Elementary, Omaha, NE
- 2017 HS-MACA's CPHHE-REACH Department 2nd Annual Let's Move, Let's REACH Physical Activity Day. Creighton University, Omaha, NE
- 2017 Mini-Health Sciences School with Partnership for Kids. HS-MACA, Creighton University, Omaha, NE

EXTERNAL REVIEWER

Journal of Strength and Conditioning Research

Journal of Science in Sport and Exercise

European Journal of Sport Science

Sports

International Journal of Environmental Research and Public Health

Applied Physiology, Nutrition, and Metabolism

Nutrients