

Aaron Sinnott PhD ATC

CONTACT

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EDUCATION

- 2021 PhD: Rehabilitation Science; University of Pittsburgh, Pittsburgh, PA.
Graduated May 2nd, 2021.
Dissertation: “*Dynamic Exertion Testing (EXiT): An Assessment to Inform Return to Play/Activity following Sport-related Concussion*”.
Advisors: Dr. Anthony Kontos PhD and Dr. Christopher Connaboy PhD
- 2015 MS: Exercise Science, Cal Poly, Humboldt; Arcata, CA Thesis: “*Effects of Concussion History on Neurocognitive Performance in High School and Collegiate Athletes after an Athletic Season*”
Advisor: Dr. Justus Ortega
- 2013 BS: Athletic Training, California State University-Sacramento; Sacramento, CA
- 2011 AS: Physical Education/Athletic Training; College of the Siskiyous, Weed, CA

POSITIONS AND EMPLOYMENT

- 2021-Present Postdoctoral Research Associate; Matthew Gfeller Sport-Related Traumatic Brain Injury Research Center, The University of North Carolina-Chapel Hill
- 2017-2021 Doctoral Research Fellow; Neuromuscular Research Laboratory-Warrior Human Performance Research Center, University of Pittsburgh; Concussion Research Laboratory, University of Pittsburgh Medical Center. Pittsburgh, PA
- 2015-2017 Site Project Coordinator; NCAA-DoD CARE Consortium. California State University- Humboldt, Arcata, CA
- 2013-2017 Adjunct Faculty Lecturer; Department of Kinesiology and Recreation Administration Cal Poly, Humboldt, Arcata, CA
- 2013-2015 Graduate Assistant Athletic Trainer; Department of Athletics. California State University-Humboldt, Arcata, CA

HONORS AND AWARDS

- 2020 Freddie H. Fu Graduate Research Award, University of Pittsburgh
- 2020 Clinical Sports Medicine Endowment, American College of Sports Medicine

RESEARCH SUPPORT (Funded)

1. American College of Sports Medicine Foundation, Clinical Sports Medicine Endowment. “A Physiological and Clinical Comparison between Cardiovascular Exercise Modes Following Sport-Related Concussion.”

Purpose: Compare physiological and clinical responses of patients randomly assigned to complete either a structured treadmill running or a dynamic aerobic exertion protocol during the subacute phase of SRC recovery

Funding Period: 07/01/2020- 09/30/2021

Role: PI Amount: \$5,000

2. Freddie H. Fu Doctoral Student Grant. "Convergent Validity of a Multiplanar Exercise Test in Healthy Adults."

Purpose: validate a recently developed multiplanar aerobic exercise protocol to the Buffalo Concussion Treadmill Test

Funding Period 10/01/2020-05/01/2021

Role: PI Amount: \$3,400

RESEARCH SUPPORT (Non-Funded)

1. Joint NINDS/NIMH Exploratory Neuroscience Research Grant (R21); PA-21-219. "A Prospective Investigation of Head Impact Burden on Autonomic Nervous System Function Among Men and Women Collegiate Athletes".

Purpose: Prospectively measure pre- and post-exercise autonomic nervous system functioning among a) healthy male and female collegiate athletes prior to and following a competitive season, and b) recently concussed athletes at stages 3 or 4 of the graduated return to sport strategy and again within 30 days of medical clearance to resume unrestricted sport participation. Repetitive head impact exposure will be measured via instrumented mouthguards among contact and collision sport athletes and will be used to determine which head impact burden factors are associated with autonomic nervous system functioning after sport-related concussion."

Role: PI Amount: \$427,625

2. Ruth L. Kirschstein National Research Service Award (NRSA) for Postdoctoral Fellows (F32); PAR-21-032. "A Prospective Investigation of Head Impact Burden on Autonomic Nervous System Function in Collegiate American Football Players."

Purpose: Prospectively measure pre- and post-season cerebrovascular and autonomic nervous system functioning among collegiate American football athletes and uninjured non-contact sport athletes, and an additional group of athletes within 30 days of resumption to sport participation after sport-related concussion will complete these measures. We will identify demographic and head impact burden factors associated with cerebrovascular and autonomic nervous system functioning that will affect interpretation of future investigations aiming to ameliorate neurological dysfunction.

Role: Trainee/PI Amount: \$182,342 Impact Score: 56

3. School of Health and Rehabilitation Science Doctoral Student Grant at The University of Pittsburgh. "Vestibular Ocular Motor Screening and Concussion Symptoms in Response to Graded Maximal Exertion in Healthy Athletes"

Purpose: Compare Vestibular-Ocular Motor Screening tool symptoms between submaximal uni- and multi-planar aerobic exercise protocols among healthy physically active adults.

Role: Trainer/PI Amount \$4,300

RESEARCH SUPPORT (In Review)

SCHOLARLY WORK***Published Manuscripts***

1. **Sinnott AM**, Eagle SR, Kochick V, Bricker IR, Collins MW, Sparto PJ, Flanagan SR, Elbin RJ, Connaboy C, Kontos AP. Test-Retest, Interrater Reliability, and Minimal Detectable Change of the Dynamic Exertion Test (EXiT) for Concussion. *Sports Health*. <https://doi.org/10.1177/19417381221093556>
2. **Sinnott AM**, Eagle SR, Kochick V, Preszler J, Collins MW, Sparto PJ, Flanagan SR, Elbin RJ, Connaboy C, Kontos AP. The Role of Age, Sex, Body Mass Index, and Sport-Type on the Dynamic Exertion Test (EXiT) Physiological, Performance, and Clinical Outcomes in Healthy Athletes. *Clinical Journal of Sports Medicine*. doi: 10.1097/JSM.0000000000001028
3. Lauck BJ, **Sinnott AM**, Kiefer AW, Padua DA, Powell JR, Sledge HR, & Mihalik JP. (2022). Association Between Head Impact Biomechanics and Physical Load in College Football. *Annals of Biomedical Engineering*. <https://doi.org/10.1007/s10439-022-03042-8>
4. **Sinnott AM**, Krajewski KT, LaGoy AD, Beckner ME, Proessl FS, Canino MC, Nindl BC, Turner RL, Lovalekar MT, Connaboy C, Flanagan SD. The Prevention of Lower Extremity Musculoskeletal Injuries in Tactical and First Responder Populations: A Systematic Review and Meta-analysis of Randomized Trials from 1955 to 2020. *Journal of Strength and Conditioning Research*. 2022. <https://doi.org/10.1519/JSC.0000000000004293>
5. LaGoy AD, Conkright WR, Proessl F, **Sinnott AM**, Beckner ME, Jabloner L, Eagle SR, Sekel N, Roma PG, Dretsch MN, Flanagan SD, Mi Q, Nindl BC, Germain A, Connaboy C, Ferrarelli F. Less Daytime Sleepiness, and Slow Wave Activity Contribute to Better Physical Readiness in Military Personnel. 2023. *Sleep Health*. <https://doi.org/10.1016/j.sleh.2022.10.013>
6. Kochick V, **Sinnott AM**, Bricker IR, Eagle SR, Collins MW, Connaboy C, Kontos AP. Dynamic Exertion Testing (EXIT): An Assessment to Inform Return to Sport Readiness Following Sport-Related Concussion. *International Journal of Sports Physiology and Performance*. 2021. 1-10. doi:10.1123/ijsp.2021-0258
7. Eagle SR, Trbovich A, **Sinnott AM**, Marchetti, G, Mucha, A, Port N, Ferris L, Clugston J, Ortega J, Collins MW, Kontos AP. Minimum Detectable Change and False Positive Rates of the Vestibular/Ocular Motor Screening (VOMS) Tool: An NCAA-DoD CARE Consortium Analysis. *Brain Injury*, 35(12-13), 1563-1568. doi:10.1080/02699052.2021.1973561
8. LaGoy AD, **Sinnott AM**, Eagle SR, Beckner ME, Conkright WR, Proessl F, Williams J, Dretsch MN, Flanagan SD, Nindl BC, Lovalekar M, Germain A, Ferrarelli F, Connaboy C. Combined effects of time-of-day and simulated military operational stress on perception-action coupling. *Chronobiology International*. doi: 10.1016/j.brainres.2021.147395
9. Proessl F, Beckner ME, **Sinnott AM**, Eagle SR, Lagoy A, Conkright WR, Canino MC, Sterczala AJ, Midhe Ramkumar PP, Sciavolino BM, Connaboy C, Ferrarelli F, Germain A, Nindl BC, Flanagan SD. Reliability of Corticospinal Excitability Estimates for the Vastus Lateralis: Practical Considerations for Lower Limb TMS Task Selection, *Brain Research*. *In press*
10. Beckner ME, Conkright WR, Eagle SR, Martin BJ, **Sinnott AM**, LaGoy AD, Proessl P, Mita Lovalekar M, Jabloner JR, Roma PG, Basner M, Ferrarelli F, Germain A, Flanagan SD, Connaboy C, Nindl BC, FACSM. Impact of Simulated Military Operational Stress on Executive

- Function Relative to Trait Resilience, Aerobic Fitness, and Neuroendocrine Biomarkers. *Physiological and Behavior*. 236, 113413. doi: 10.1016/j.physbeh.2021.113413
11. Proessl F, Canino MC, Beckner ME, **Sinnott AM**, Eagle SR, LaGoy AD, Conkright WR, Sterczala AJ, Connaboy C, Ferrarelli F, Germain A, Nindl BC, Flanagan SD. Characterizing Off-Target Corticospinal Responses to Double-Cone Transcranial Magnetic Stimulation, *Experimental Brain Research*. 239(4), 1099-1110. doi:10.1007/s00221-021-06044-5
 12. Kontos AP, Eagle SR, Marchetti G, **Sinnott AM**, Mucha A, Port N, Ferris LM, Elbin RJ, Clugston J, Ortega J, Broglio SP, McAllister T, McCrea M, Pasquina P, Collins MW, CARE Consortium Investigators: Brooks A, Buckley T, Mihalik J, Miles C. Discriminative utility of VOMS in identifying concussed from healthy collegiate athlete controls: an NCAA-DoD CARE Consortium study. *Am J Sports Med*; 2021.DOI: 10.1177/03635465211012359
 13. LaGoy A, Cashmere D, Beckner M, Eagle S, **Sinnott A**, Conkright W, Miller E, Darrow C, Dretsch M, Flanagan S, Nindl B, Connaboy C, Germain A, Ferrarelli F. A trait of mind: stability and robustness of sleep across sleep opportunity manipulations during simulated military operational stress. *Sleep*. 45(2). doi:10.1093/sleep/zsab219
 14. Conkright WC, Beckner ME, **Sinnott AM**, Eagle SR, Martin BJ, Lagoy AD, Proessl F, Lovalekar M, Doyle TLA, Agostinelli P, Sekel NM, Flanagan SD, Germain A, Connaboy C, Nindl BC. Neuromuscular Performance and Hormonal Responses to Military Operational Stress in Men and Women. *J Strength Cond Res*. 2021
 15. LaGoy, AD, **Sinnott, AM**, Ambarian, M, Pepping, GJ, Simpson, RJ, Agah, NH, Bower, JL, Alfano, CA, Connaboy, C. Differences in Affordance-based Behaviors within an Isolated and Confined Environment are Related to Sleep, Emotional Health and Physiological Parameters, *Acta Astronautica*. 2020 <https://doi.org/10.1016/j.actaastro.2020.06.034>
 16. **Sinnott AM**, Kontos AP, Collins MW, Ortega JD. Concussion Symptoms among Athletes: Pre-Injury Factors Predict Post-Injury Factors. *Journal of Head Trauma and Rehabilitation*. 2020 <https://doi.org/10.1097/htr.0000000000000562>
 17. Johnson C, Eagle SR, LaGoy A, **Sinnott AM**, Pepping GJ, Connaboy C. Establishing and applying measurement reliability in perceptual-motor coordination tasks. *Ecological Psychology*. 33(3-4), 297-311. doi:10.1080/10407413.2021.1965479
 18. Connaboy C, **Sinnott AM**, LaGoy AD, Krajewski K, Simpson RJ, Bower JL, Alfano C, Prolonged Exposure to an Isolated, Confined, and Extreme Environment: Impact on Vigilance and Cognitive Function. 2020. *Acta Astronautica*. <http://dx.doi.org/10.1016/j.actaastro.2020.08.018>
 19. LaGoy, A. D., Ferrarelli, F., **Sinnott, A. M.**, Eagle, S. R., Johnson, C. D., & Connaboy, C. (2020). You Snooze, You Win? An Ecological Dynamics Framework Approach to Understanding the Relationships between Sleep and Sensorimotor Performance in Sport. *Sleep Med Clin*, 15(1), 31-39. doi: 10.1016/j.jsmc.2019.11.001
 20. Krajewski, K. T., McCabe, C., **Sinnott, A. M.**, Moir, G. L., Lamont, H. S., Brown, S., & Connaboy, C. (2020). Inter-Segmental Coordination during a Unilateral 180° Jump in Elite Rugby Players: Implications for Prospective Identification of Injuries. *Applied Sciences*, 10(2), 427
 21. Eagle SR, Kontos AP, Pepping GJ, Johnson CD, **Sinnott AM**, LaGoy A, Connaboy C. Increased Risk of Musculoskeletal Injury Following Sport-Related Concussion: A Perception-Action Coupling Approach. *Sports Medicine*. 2019 June 21; DOI: 10.1007/s40279-019-01144-3
 22. **Sinnott AM**, Elbin RJ, Collins MW, Reeves VL, Holland CL, Kontos AP. Persistent Vestibular-Ocular Impairment Following Concussion in Adolescents. *Journal of Science and Medicine in*

Sport. Journal of Science and Medicine in Sport, Volume 22, Issue 12, 1292 – 1297.
<https://doi.org/10.1016/j.jsams.2019.08.004>

23. Flanagan SD, Krajewski KT, **Sinnott AM**, Johnson CD, Eagle SR, LaGoy AD, Beckner ME, Beethe AZ, Turner R, Lovalekar MT, Dunn-Lewis C, Connaboy C, Nindl BC. Prediction of exertional lower extremity musculoskeletal injury in tactical populations: protocol for a systematic review and planned meta-analysis of prospective studies from 1955 to 2018. Systematic Review. 2018 Dec 23;7(1):244. doi: 10.1186/s13643-018-0883-6
24. Flanagan SD, **Sinnott AM**, Krajewski KT, Johnson CD, Eagle SR, LaGoy AD, Beckner ME, Beethe AZ, Turner R, Lovalekar M, Dunn-Lewis C, Connaboy C, Nindl BC. Prevention of exertional lower body musculoskeletal injury in tactical populations: protocol for a systematic review and planned meta-analysis of prospective studies from 1955 to 2018. Systematic Review. 2018 May 5;7(1):73. doi: 10.1186/s13643-018-0730-9
25. Cohen PE, Sufriko A, Elbin RJ, Collins MW, **Sinnott AM**, Kontos AP. Do Initial Symptom Factor Scores Predict Subsequent Impairment Following Concussion? Clin J Sport Med. 2018 Mar 28. doi: 10.1097/JSM.0000000000000581

List is also available, below:

<https://www.ncbi.nlm.nih.gov/myncbi/1Vm6UDuiLbmkQt/bibliography/public/>

Accepted Manuscripts- in Press

1. **Sinnott AM**, Eagle SR, Kochick V, Trbovich A, Collins MW, Sparto P, Flanagan SR, Elbin RJ, Connaboy C, Kontos AP. Comparison of Physiological Outcomes After Dynamic Exertion Between Athletes at Return to Sport from Concussion and Controls. Journal of Science and Medicine in Sport. *In Press*
2. Proessl F, Beckner ME, **Sinnott AM**, Eagle SR, Lagoy A, Conkright WR, Canino MC, Sterczala AJ, Sciavolino BM, Midhe Ramkumar PP, Connaboy C, Ferrarelli F, Germain A, Nindl BC, Flanagan SD. Contractile Factors Drive Differences in Corticospinal Excitability Between Isometric Squat and Knee Extension, Physiological Reports. *In press*

Manuscripts in Review

1. **Sinnott AM**, Chandler M, Van Dyke C, Minberg D, Pinapaka HK, Lauck BJ, Mihalik JP. Efficacy of Soft-Shell Padding on Head Impact Kinematics in American Football: Pilot Findings. International Journal of Environmental Research and Public Health. *In Review*.
1. **Sinnott AM**, Collins CL, Boltz AJ, Robison HJ, Pinapaka HK, Mihalik JP. Head Impact Kinematics Between Helmet- and Shoulder Pads- Initiated Impacts Among High School American Football Athletes. Intended journal: Annals of Biomedical Engineering
2. **Sinnott AM**, Paddock M, Ruddy G, Carlton B, Kochick VL, Eagle SR, Collins MW, Mihalik JP, Connaboy C, Kontos AP. Validation of the 10-M Protocol for the Aerobic Component of The Dynamic Exertion Test (EXiT)

Manuscripts in Preparation

Connaboy C, **Sinnott AM**, Eagle SR, LaGoy A, Beckner M, Conkright W, Rivetti D, Proessl F, Dretsch M, Roma P, Germain A, Flanagan SR, Nindl BC. Cognitive Performance is Associated with Marksmanship Accuracy During Simulated Military Operational Stress

Invited Presentations

1. **Sinnott AM**, Mincberg DL, Mihalik JP. Efficacy of Soft-Shell Padding on Head Impact Kinematics During Fall 2021 Football Season: Preliminary Findings. Atlantic Coastal Conference Health and Safety Summit. Greensboro, NC, May 2nd, 2022.
2. **Sinnott AM**, Mihalik JP. Efficacy of Soft-Shell Padding on Head Impact Kinematics During Fall 2021 Football Season: Preliminary Findings. National Football League and National Collegiate Athletic Association Instrumented Mouthguard Program Kickoff Meeting, New York City, NY, May 17th, 2022.

Accepted Abstracts-Oral Presentations

1. **Sinnott AM**. “Guardian” Your Brain: After-market Football Head Protection”. The University of North Carolina Neurohealth Symposium, podium presentation; Chapel Hill, NC; March 9, 2023.
2. **Sinnott AM**, Lauck BJ, Soligon C, Pinapaka HK, Malcolm L, Mincberg DL, Mihalik JP; Efficacy of Soft-Shell Padding on Head Impact Kinematics During Fall 2021 Football Season: Preliminary Findings. Human Movement Science Research Symposium Program, podium presentation; Chapel Hill, NC; April 29, 2022.
3. **Sinnott AM**, LaGoy AD, Connaboy C, Simpson RJ, Bower JL, Laughlin M, Alfano C, Connaboy C. An Examination of Mental Health on Vigilance and Cognitive Performance during an Antarctic Winter over. NASA Human Research Program Investigators’ Workshop. Galveston, TX, January 2019.
4. **Sinnott AM**, Krajewski KT, LaGoy AD, Simpson RJ, Bower JL, Alfano CA, Connaboy C. Prolonged Exposure to an Isolated, Confined, and Extreme Environment: Impact on Vigilance and Cognitive Function, Mid-Atlantic Regional Chapter ACSM meeting, Nov 2nd-3rd, Harrisburg, PA 2018.
5. **Sinnott AM**, Anderson S, Jones A, Neal M. Traumatic Tibiofemoral Dislocation in a Collegiate Football Athlete: A Case Study. Far West athletic Trainers Association Symposium. Sacramento, CA 2013

Accepted Abstracts-Poster Presentations & Co-Author Oral and Poster Presentations

1. **Sinnott AM**, Soligon C, Pinapaka H, Mincberg D, Mihalik JP. Efficacy Of Soft-shell Padding on Head Impact Kinematics In American Football: Pilot Findings. Poster Presentation. American College of Sports Medicine Annual Meeting. Denver, CO. May 30-June 2, 2023.
2. **Sinnott AM**, Collins CL, Boltz AJ, Robison HJ, Pinapaka H, Mihalik JP: Comparison of Head Impact Kinematics for Head Impacts Initiated by Helmets and Shoulder Pads Among High School American Football Athletes. Poster Presentation. National Athletic Trainers’ Association Convention and Symposia. Indianapolis, IN. June 21-24, 2023.
3. **Sinnott AM**, Mincberg DL, Moege DR, & Mihalik JP. Head Impact Exposure and Physical Load Burden During Continued Participation After Sport-related Concussion: Pilot Findings. 6th International Consensus Conference on Concussion in Sport. Amsterdam, Netherlands; October 27-28, 2022.

4. Lauck BJ, Kiefer AW, **Sinnott AM**, Mihalik JP; Association Between Head Impact Kinematics and Physical Load Burden in Division I Collegiate Football Players. Human Movement Science Program Research Symposium, poster presentation; Chapel Hill, NC; April 29, 2022.
5. Sirhal S, Finegan A, Chandler MC, **Sinnott AM**, Cole WR, Register-Mihalik JK, DeLellis SM, Kane SF, Means GE, Mihalik JP. Relationship Between mTBI History and Depressive Symptoms Among Special Operations Forces Soldiers. Thematic Poster. American College of Sports Medicine Annual Meeting. Denver, CO. May 30-June 2, 2023.
6. **Sinnott AM**, Eagle SR, Kochick V, Collins MW, Trbovich AM, Sparto PJ, Flanagan SR, Elbin RJ, Connaboy C, Kontos AP. Autonomic Nervous System Function After Dynamic Exertion Among Athletes at Medical Clearance Following Concussion. American College of Sports Medicine Annual Meeting, May 31-June 4, 2022.
7. **Sinnott AM**, Mincberg DL, Moege DR, & Mihalik JP, Physical Load Burden Following Sport-related Concussion and Clinical Recovery Among Collegiate Football Athletes: Pilot Findings. National Athletic Trainers' Association Convention and Symposia, Philadelphia, June 28-July 1, 2022.
8. Lauck BJ, **Sinnott AM**, Mihalik JP; Association Between Head Impact Biomechanics and Physical Load Burden in Division I Collegiate Football Players. 2022 Undergraduate Research Showcase – UNC Board of Governors visit, poster presentation; Chapel Hill, NC; February 22, 2022.
9. **Sinnott AM**, Eagle S, Crawford K, Bacha S, Biery N, Connaboy C, Collins M, Kontos A, A Brief Dynamic Exertion Test (B-EXiT) For Concussion: Concurrent Validity with the Buffalo Concussion Treadmill Test. 17th Annual Rehabilitation Institute Research Day, University of Pittsburgh. June 9th, 2021.
10. Connaboy C, LaGoy AD, Eagle SR, **Sinnott AM**, Beckner ME, Conkright WR, Ferrarelli F, Flanagan SD, Martin BJ, Nindl B, Dretsch MN, Germain A. (2021). Time of day and exposure to simulated military operational stress compromises perception-action coupling abilities, Military Health System Research Symposium, Orlando, FL, 23rd-26th Aug 2021
11. Kontos AP, **Sinnott AM**, Kochick V, Eagle SR, Collins MW, Connaboy C. Role of Age, Gender, and BMI in Test-retest Performance on Dynamic Exertion Testing for Concussion. Poster to be presented at American College of Sports Medicine Annual Virtual Meeting, June 1-5, 2021.
12. Proessl, F, Beckner, ME, **Sinnott, AM**, Eagle, SR, LaGoy, AD, Conkright, WR, Canino, MC, Beck, AL, Sterczala, AJ, Midhe Ramkumar, PP, Sciavolino, BM, Connaboy, C, Ferrarelli, F, Germain A, Nindl, BC, Flanagan, SD. (2021). Comparative Reliability of Corticospinal Excitability Estimates for the Vastus Lateralis During Isometric Knee Extensions and Squats, the Society for the Neural Control of Movement Annual Meeting.
13. Beckner, ME, Conkright, WR, Eagle, SR, Martin, BJ, **Sinnott, AM**, LaGoy, AD, Proessl, F, Lovalekar, MT, Jabloner, LR, Roma, PG, Basner, M, Ferrarelli, F, Germain, A, Flanagan, SD, Connaboy, C, Nindl, BC. (2021). Impact of Simulated Operational Stress on Cognition Relative to Resilience, Fitness, Vigilance, and Neuroendocrine Biomarkers. ACSM's 68th Annual Meeting, Virtual Convention, June 2021
14. Jabloner, LR, Beckner, ME, Conkright, WR, LaGoy, AD, Lovalekar, MT, **Sinnott, AM**, Proessl, f, Martin, BJ, Lieberman, HR, Ferrarelli, F, Germain, A, Flanagan, SD, Connaboy, C, Nindl, BC. Impact of Higher Aerobic Fitness on Neurocognitive Function During Simulated Military Operational Stress. ACSM's 68th Annual Meeting, Virtual Convention, June 2021

15. **Sinnott AM**, Kochick, V, Eagle S, Collins M, Flanagan S, Elbin R, Sparto P5, Connaboy C, Kontos A Dynamic Exertion Testing (EXiT) Performance and Physiological Outcomes in Athletes Following Sport-Related Concussion Recovery and Healthy Athletes. UPMC Pittsburgh Orthopedic Journal. 2021.
16. **Sinnott, AM**, Eagle, SR, LaGoy, AD, Beckner, ME, Conkright, WR, Germain, A, Rivetti, DA, Flanagan, SD, Roma, PG, Dretsch, MN, Nindl, BC, Connaboy, C (2020). Association between Affordance-Detection Accuracy and Marksmanship Performance during Sleep and Caloric Restriction among Active-Duty Soldiers, The Military Health System Research Symposium
17. **Sinnott AM**, Kochick V, Eagle SR, Raub IR, Connaboy C, Nindl B, Collins MW, Kontos. “Dynamic Exertion Testing (EXIT): A New Approach to Inform Return to Play Following Sport-related Concussion.” American College of Sports Medicine. San Francisco, CA; May 2020.
18. Eagle SR, **Sinnott AM**, Puligilla A, Fazio-Sumrok V, Kegel N, Collins MW, Kontos AP. “Clinical Predictors of Prolonged Recovery from Sport-related Concussion: Importance of Early Clinical Care”. American College of Sports Medicine. San Francisco, CA; May 2020.
19. Beckner, ME, Conkright, WR, **Sinnott, AM**, LaGoy, AD, Proessl, F, Roma, PG, Basner, M, Lovalekar, M, Martin, BJ, Flanagan, SD, Germain, A, Ferrarelli, F, Connaboy, C, Nindl, BC, FACSM. (2020). impact of Aerobic Fitness on Cognitive Performance During Simulated Military Operational Stress, Mid-Atlantic Regional Chapter ACSM meeting, Nov 6th, Harrisburg, PA
20. Feder A, Kochick, V, **Sinnott, AM**, Collins, M, Kontos AP, Clinical Risk Factors Associated with Dynamic Exertion Test (EXiT Performance). UPMC Pittsburgh Orthopedic Journal. 2020.
21. Kochick, V, **Sinnott, AM**, Ostop, S, Collins, M, Kontos AP, Dynamic Exertion Testing (EXIT): An Assessment to Inform Return to Sport Following Sport-Related Concussion. UPMC Pittsburgh Orthopedic Journal. 2020.
22. Beck, AL, Proessl, F, Canino, M, Beckner, ME, Sterczala, AJ, Dunn-Lewis, C, Conkright, WR, **Sinnott, AM**, LaGoy, AD, Eagle, SR, Ferrarelli, F, Germain, A, Connaboy, C, Nindl, BC, Flanagan, SD. (2020). Similar Corticospinal Excitability in Military Men and Women During Simulated Operational Stress, Mid-Atlantic Regional Chapter ACSM meeting, Nov 6th, Harrisburg, PA
23. Kirschler A, Nagle E, **Sinnott AM**, Holland C, Bitzer H, Collins MW, Kontos AP. More Than One Personal Risk Factor is Associated with Worse Clinical Outcomes Among Adolescents Following Concussion. American College of Sports Medicine, Mid-Atlantic Chapter Meeting. Hershey, PA. November 2019.
24. Kochick V, **Sinnott AM**, Collins MW, Kontos AP. Dynamic Exertion Test (EXiT): Functional Assessment to Inform Return to Play Following Sport-Related Concussion. American Physical Therapy Association, Combined Sections Meeting. Denver CO, February 2020.
25. **Sinnott AM**, Kochick V, Raub I, Reardon R, Harnish K, Tully A, Collins MW, Kontos AP. Test-Retest Reliability of the Dynamic Exertion Test (EXiT) Among Healthy Athletes. American Physical Therapy Association, Combined Sections Meeting. Denver CO, February 2020.
26. Canino MC, Proessl F, Sterczala AJ, Dunn-Lewis C, Conkright WR, **Sinnott AM**, LaGoy A, Beckner ME, Eagle SR, Ferrarelli F, Germain A, Connaboy C, Nindl BC, and Flanagan SD. Impact of operational stress on motor evoked potentials in military personnel. Med Sci Sports Exerc 52(5S), 2020.

27. Canino MC, Proessl F, Sterczala AJ, Dunn-Lewis C, Conkright WR, **Sinnott AM**, LaGoy A, Beckner ME, Eagle SR, Farrarelli F, Germain A, Connaboy C, Nindl BC, and Flanagan SD. Impact of operational stress on motor evoked potentials in military personnel. *Int J Exer Sci. Conference Proceedings*, 9(8): 13, 2020. Available at <https://digitalcommons.wku.edu/ijesab/vol9/iss8/13>.
28. Beckner, ME, Martin, BJ, Conkright, WR, Eagle, SR, **Sinnott, AM**, LaGoy, AD, Proessl, F, Flanagan, SD, Germain, A, Roma, P, Dretsch, M, Connaboy, C, Nindl, BC. (2020). Simulated Military Operational Stress Negatively Impacts Psychomotor Vigilance and Neurocognitive Biomarkers in Men and Women ACSM's 67th Annual Meeting, May 26th- 30th, San Francisco, CA
29. Conkright, WR, Beckner, ME, Martin, BJ, **Sinnott, AM**, LaGoy, AD, Proessl, F, Eagle, SR, Flanagan, SD, Connaboy, C, Germain, A, Nindl, BC (2020). Differential Responses of Resting Vs. Post-exertion Hormone Concentrations During Simulated Military Operational Stress, ACSM's 67th Annual Meeting, May 26th-30th, San Francisco, CA.
30. Proessl, F, Canino, MC, Sterczala, AJ, Sciavolino, BM, Dunn-Lewis, C, Conkright, WR, **Sinnott, AM**, Beckner, ME, Eagle, SR, Ferrarelli, F, Germain, A, Connaboy, C, Nindl, BC, Flanagan, SD. (2020). Task-specificity Of Corticospinal Excitability: The Influence of Contractile Properties, ACSM's 67th Annual Meeting, May 26th-30th, San Francisco, CA
31. LaGoy, AD, Eagle, SR, **Sinnott, AM**, Beckner, ME, Conkright, WR, Flanagan, SD, Martin, BJ, Nindl, BC, Ferrarelli, F, Germain, A, Connaboy, C. (2020). Compromised Perception-action Coupling Performance in Military Personnel May Be Related to Increased Deep Sleep, ACSM's 67th Annual Meeting, May 26th-30th, San Francisco, CA
32. **Sinnott AM**, Eagle SR, LaGoy AD, Rivetti DA, Germain AN, Nindl BC, Connaboy C. "Association Between Affordance-Detection Accuracy and Marksmanship Performance during Military Operational Stress". International Congress on Soldiers' Physical Performance. Quebec City, February 2020.
33. LaGoy, AD, **Sinnott, AM**, Bower, JL, Flanagan, SD, Pepping, GJ, Simpson, RJ, Alfano, CA, Connaboy, C. (2020). Assessments of vigilance and perception-action coupling involve different components of neurobehavioral function, NASA Human Research Program Investigators' Workshop, January 27th-30th, Galveston, TX, USA.
34. LaGoy, AD, Beckner, ME, Eagle, SR, Conkright, WR, **Sinnott, AM**, Flanagan, SD, Dretsch, MN, Roma, PG, Martin, BJ, Nindl, BC, Germain, A, Ferrarelli, F, Connaboy, C (2020). Sensorimotor performance is maintained under conditions of military operational stress. International Congress on Soldiers' Physical Performance, 11th-14th February, Quebec City, Canada
35. Conkright, WR, **Sinnott, AM**, Beckner, ME, Eagle, SR, Martin, BJ, Flanagan, SD, Connaboy C, Germain, A, Nindl, BC (2020). Implications on estimated susceptibility to enemy fire following 5-days of simulated military operational stress. International Congress on Soldiers' Physical Performance, 11th-14th February, Quebec City, Canada
36. Beckner, ME, Martin, BJ, Rivetti, DA, Conkright, WR, Eagle, SR, Sinnott, AM, LaGoy, AD, Flanagan, SD, Germain, A, Roma, PG, Dretsch, MN, Connaboy, C, Nindl, BC (2020). High GRIT scores associated with elevated BDNF during military operational stress. International Congress on Soldiers' Physical Performance, 11th-14th February, Quebec City, Canada
37. Beckner, ME, Eagle, SR, Rivetti, DA, Conkright, WR, **Sinnott, AM**, LaGoy, AD, Martin, BJ, Flanagan, SD, Germain, A, Roma, PG, Dretsch, MN, Connaboy, C, Nindl, BC (2020). Emotion

- recognition and vigilance is compromised during military operational stress. International Congress on Soldiers' Physical Performance, 11th-14th February, Quebec City, Canada
38. Haufler, AJ, Beckner, ME, Eagle, SR, Conkright, WR, LaGoy, AD, **Sinnott, AM**, Flanagan, SD, Germain, A, Connaboy, C, Nindl, BC (2020). Adaptability, emotion perception and attention: cognitive resilience in response to operational stress. International Congress on Soldiers' Physical Performance, 11th-14th February, Quebec City, Canada
 39. Canino, MC, Proessl, F, Sterczala, AJ, Dunn-Lewis, C, Conkright, WR, Sinnott, AM, Beckner, ME, Eagle, SE, Ferrarelli, F, Germain, A, Connaboy, C, Nindl, BC, Flanagan, SD. (2019). Impact of Operational Stress on Motor Evoked Potentials in Military Personnel, Mid-Atlantic Regional Chapter ACSM meeting, Nov 1st-2nd, Harrisburg, PA
 40. Agostinelli, PJ, Conkright, WR, Sinnott, Am, Beckner, ME, Eagle, SR, Martin, BJ, Flanagan, SD, Connaboy, C, Germain, A, Nindl, BC. (2019). Differences in Performance Decline Between Sex Under Simulated Military Operational Stress, Mid-Atlantic Regional Chapter ACSM meeting, Nov 1st-2nd, Harrisburg, PA
 41. **Sinnott AM**, Krajewski KT, LaGoy AD, Simpson RJ, Bower JL, Laughlin M, Alfano CA, Connaboy C. (2019). Prolonged Exposure to an Isolated, Confined, and Extreme Environment: Impact on Vigilance and Cognitive Function. University of Pittsburgh's Science Day
 42. LaGoy, AD, **Sinnott, AM**, Simpson, RJ, Bower, JL, Laughlin, M, Alfano, CA, Connaboy, C. Interactions between psychological, behavioral and cognitive parameters during prolonged exposure to isolated, confined and extreme environments, NASA Human Research Program Investigators' Workshop, January 22nd-25th, Galveston, TX, USA. 2019
 43. LaGoy, AD, **Sinnott, AM**, Krajewski, KT, Simpson, RJ, Bower, JL, Alfano, CA, Connaboy, C (2018). Action Boundary Perception Across 30 Days in an Isolated and Confined Environment, Mid-Atlantic Regional Chapter ACSM meeting, Nov 2nd-3rd, Harrisburg, PA
 44. LaGoy AD, Sinnott AM, Germain A, Simpson RJ, Bower JL, Alfano CA, Connaboy C. Impact of Sleep Deprivation on Judgment of Afforded and Unafforded Opportunities. Sleep. Baltimore, June 2nd-6th, 41(suppl1): A81 2018.
 45. Connaboy, C, LaGoy, AD, **Sinnott, AM**, Pepping, G-J, Simpson, RJ, Deng, Z, Ma, L, Bower, JL and Alfano, CA. Sleep deprivation compromises action boundary and affordance-based judgments, NASA Human Research Program Investigators' Workshop, January 22nd-25th, Galveston, TX, USA 2018.
 46. Connaboy, C, **Sinnott, AM**, LaGoy, AD, Pepping, G-J, Simpson, RJ, Deng, Z, Ma, L, Bower, JL and Alfano, CA. Aperture ratio influences action boundary perception accuracy performance, NASA Human Research Program Investigators' Workshop, January 22nd-25th, Galveston, TX, USA. 2018
 47. Beckner, ME, Martin, BJ, Conkright, WR, Eagle, SR, **Sinnott, AM**, LaGoy, AD, Prossel, F, Flanagan, SD, Germain, A, Roma, PG, Dretsch, MN, Connaboy, C, Nindl, BC (2019). Simulated Military Operational Stress Negatively Impacts Psychomotor Vigilance and Neurocognitive Biomarkers in Men and Women, Mid-Atlantic Regional Chapter ACSM meeting, Nov 1st-2nd, Harrisburg, PA.
 48. Proessl, F, Canino, MC, Sterczala, AJ, Dunn-Lewis, C, Conkright, WR, **Sinnott, AM**, Beckner, ME, Eagle, SE, Connaboy, C, Ferrarelli, F, Germain, A, Nindl, BC, Flanagan, SD. Normalization Removes Differences in Contractile Properties and Corticospinal Excitability Between Single- and Multi-Joint Exercises, Mid-Atlantic Regional Chapter ACSM meeting, Nov 1st-2nd, Harrisburg, PA.

49. LaGoy, AD, Eagle, SR, **Sinnott, AM**, Beckner, ME, Conkright, WR, Nindl, BC, Germain, A, Ferrarelli, F, Connaboy, C. (2019). Increased Deep Sleep May Relate to Compromised Perception-Action Coupling Performance in Military Personnel, Mid-Atlantic Regional Chapter ACSM meeting, Nov 1st-2nd, Harrisburg, PA.
50. LaGoy, AD, Kahn, H, Eagle, S, **Sinnott**, Ferrarelli, F, Nindl, BC, Germain, A, Connaboy, C. (2019). Changes in affordance perception behaviors during exposure to acute military operational stress, Military Health System Research Symposium, August 19th – 23rd, Orlando, FL
51. LaGoy, AD, **Sinnott, AM**, Krajewski, KT, Simpson, RJ, Bower, JL, Alfano, CA, Connaboy, C. (2019). Action boundary perception across 30 days in an isolated and confined environment. ACSM's 66th Annual Meeting, May 28th -June 1st, Orlando, FL.
52. **Sinnott, AM**, Lovalekar, MT, Nagle, EZ, Beethe, AZ, Nagai, T, Nindl, BC, Connaboy, C. (2017). Does Fatiguing Exercise Influence Performance on an Affordance-Based Action Boundary Task? Mid-Atlantic Regional Chapter ACSM meeting, Nov 3rd-4th, Harrisburg, PA 2017.
53. **Sinnott AM**, Reeves VL, Holland CL, Blaney NA, Rosse AM, Blitzer HB, Elbin RJ, Collins MW, Kontos AP. Persistent Vestibular Symptoms and Impairment following Concussion in Adolescents. American College of Sports Medicine. May 30th, 2018.
54. **Sinnott AM**, Collins MW, Kontos AP. Vestibular-Ocular Symptoms and Impairment among Collegiate Athletes within 3 days of Sport-related Concussion. Brain Day, University of Pittsburgh, PA 2018
55. **Sinnott AM**, Martinez S, Kontos AP, Ortega, JD. Do Changes in Symptom Burden Affect Clinical Outcomes Following Concussion? Brain Day, University of Pittsburgh, PA 2017
56. **Sinnott AM**, Ortega JD, Paddock M. History of Prior Concussions Has No Negative Effect on Neurocognitive Performance Following Competitive Seasons in Uninjured Collegiate Soccer Athletes California Athletic Trainers Association (CATA) meeting, Sacramento, CA 2016

Manuscript Reviews:

- Medicine and Science in Sport and Exercise
- Sports Medicine
- European Journal of Applied Physiology
- Journal of Science and Medicine in Sport
- PLOS One
- Journal of Athletic Training
- World Neurosurgery
- International Journal of Athletic Therapy & Training

Mentored Review (Dr. Kontos)

- Pediatrics
- Medicine and Science in Sport and Exercise
- Journal of Athletic Training
- Frontiers in Neurology

Grant Reviews

Eastern Athletic Training Association, Inc. Supported Research Program. April 2022.

TEACHING EXPERIENCE

Cal Poly Humboldt, Department of Kinesiology and Recreation Administration

Instructor rating based on a 5-point scale

Spring 2017: KINS 276-Techniques of Athletic Training

Students: 34; Instructor rating: 4.8 ± 0.3

KINS 484- Motor Development and Motor Learning

1. Students: 33; Instructor rating 4.9 ± 0.3

2. Students: 30; Instructor rating: 4.7 ± 0.5

KINS 490-Kinesiology Practicum

Students: 23; Instructor rating: 4.8 ± 0.4

Fall 2016: KINS 484-Motor Development and Motor Learning

1. Students: 40; Instructor rating: 4.8 ± 0.4

2. Students: 40; Instructor rating: 4.5 ± 0.7

Spring 2016: KINS 276-Techniques of Athletic Training- Lecture and Lab

Students: 39; Instructor rating: 4.8 ± 0.5

KINS 165 Foundations of Kinesiology

Students: 41; Instructor rating: 4.7 ± 0.6

Spring 2015: KINS 276-Techniques of Athletic Training-Lecture and Lab

Students: 37; Instructor rating: 4.8 ± 0.5

Student Mentorships

Indira Raub (MS Student) – University of Pittsburgh, 2020. Thesis: “Inter-Rater Reliability of Dynamic Exertion Testing (EXIT) Performance Among Healthy Adults”

Bradley Lauck (Undergraduate Honors Thesis)-The University of North Carolina at Chapel Hill, 2022. Thesis: “Association Between Head Impact Kinematics and Physical Load Burden in Division I College Football Players”

Carly Pattison (MS Student)-The University of North Carolina at Chapel Hill, Expected 2024.
Thesis “Comparing Biomechanical Head Impact Biomechanics During Different Drill Types in Collegiate Offensive and Defensive Linemen”

Professional Memberships

National Athletic Trainers Association, NATA (2011)

American College of Sports Medicine, ACSM (2017)

Certifications

Certified Athletic Trainer (ATC)-2013

CPR/AED for the Professional Rescuer and Emergency First Responder

ImPACT Trained Athletic Trainer (ITAT) through Immediate Post-concussion Assessment and Cognitive Testing (ImPACT) software