Curriculum Vitae

Associate Professor Exercise Science

Point Loma Nazarene University

E-Mail: <u>ksnyman@pointloma.edu</u> ; <u>drkristensnyman@gmail.com</u>

Research Interests

Exercise Science, Exercise physiology, Human performance, Perception of Effort

<u>Education</u>

Ph.D. May 2016: Physiology and Nutrition, University of Nebraska-Lincoln; Lincoln, NE

Dissertation Title: Physiological responses at the rating of perceived exertion at and above the gas exchange threshold during treadmill running.

M.S. May 2012: Exercise Physiology, California State University-Fullerton; Fullerton, CA

Thesis Title: The effects of diverting activity on strength, electromyography, and mechanomyography.

B.A. June 2008: Cognitive Sciences, Cum Laude, University of California-Irvine; Irvine, CA

Professional Appointments:

Teaching / Mentorship

Teaching / Mentorship

Associate Professor, Point Loma Nazarene University August 2023 – Present KIN3001: Fitness Testing and Program Design KIN3001L Fitness Testing and Program Design Lab KIN3040L Exercise Physiology Lab KIN6046 Advanced Clinical Physiology & Metabolism

KIN Exercise Testing and Prescription (Graduate)

Assistant Professor, Concordia University, Chicago

Program Coordinator, Online Doctoral Program in Leadership, Health & Human Performance

April 2019 – August 2023 Faculty Development, Assessment, Student advising/mentorship, Curriculum design/assessment Courses: KIN 1: Anatomy KIN 2: Physiology KIN 3: Biology for Non-Majors AES 6200: Applied Exercise Physiology (Masters Level) AES 6250: Advanced Exercise Physiology (Masters/Doctoral co-listed) AES 6860: Strength & Conditioning (Masters Level) AES 6850: Strength & Conditioning Seminar (Masters/Doctoral co-listed) HHP 7005: Scientific Writing & Communication (Doctoral) HHP 7090: Ethics & Legal Issues in Human Performance (Doctoral) HHP 7040: Measurement and Evaluation in Sports Science (Doctoral) HHP 7101: Neuromuscular Responses to Exercise (Doctoral) HHP 7000: Cardiovascular Responses to Exercise (Doctoral)

Visiting Assistant Professor, University of California, Irvine

September 2019 – January 2020 Courses: Ecology & Evolutionary Biology: E109: Human Physiology (Undergraduate level, n = 350/class)

Assistant Professor, Fresno State

August 2017 – August 2019 Teaching, Faculty development, student development & advising, student mentorship, research Courses: KIN 1 Fitness Principles KIN 121 Body Composition & Nutrition theory, principles, and management KIN 231 Research Methods in Kinesiology (Graduate Level) KIN 233 Advanced Exercise Physiology: Metabolic & Neuromuscular System (Graduate Level) KIN 234 Exercise Endocrinology (Graduate Level)

Assistant Professor, California State Polytechnic University, Pomona

September 2016 – August 2017 Teaching, Faculty development, student development & advising, student mentorship, research Courses: KHP 403 – Exercise Physiology

KHP 473- Environmental Exercise Physiology KHP 453 – Fitness Principles and Exercise programs (ACSM) KHP 510 – Research Methods (Graduate Level) KHP 450 – Physiology of Aging

Blood Borne Pathogen Compliance Liason

College of Nutrition & Health Sciences University of Nebraska-Lincoln 2014-2016

Graduate Assistant, University of Nebraska-Lincoln

August 2012 – May 2016 Courses: Nutrition 250- Human Nutrition and Metabolism Nutrition 484/884 Lab- Exercise Physiology Nutrition 486/886 Lab- Exercising Testing and Programming

Graduate Assistant, California State University-Fullerton

August 2010 – 2012 Courses: Kinesiology 100- Physical Conditioning Kinesiology 103- Fitness Walking Kinesiology 144- Aerobic Exercise and Weight Control Kinesiology 348- Exercise Physiology, Teacher's Assistant Kinesiology 250- Strength and Conditioning, Teacher's Assistant

Peer-reviewed Publications

*indicates senior/corresponding author

In Preparation

1. **Cochrane-Snyman, K.C.**, Pryor, J.L., Perez Jr., S. Adame-Walker, J., Trueblood, P. Concurrent validity of a lower body power test, the Cobalt concussion test, and the Bertec balance screen: implications for field use. *Journal of Sports Sciences*, 2021.

2. **Cochrane- Snyman, K.C.**, Housh, T.J., Smith, C.M., Jenkins, N.D.M., Hill, E.C., Johnson, G.O., and Schmidt, R.J. Muscle activation of the vastus medialis during perceptually grounded moderate and heavy intensity cycle ergometry. *European Journal of Sport Science*, 2021

3. **Cochrane-Snyman, K.C.**, Pryor, J.L., Perez Jr., S., Lawrence, D., Trueblood, P. Muscle activation and leg asymmetry during a pneumatic resistance task to failure. *Journal of Strength and Conditioning Research*, 2021

Submitted, In Review

Accepted, In Press

Mortensen, N., **Cochrane-Snyman, K.C**^{*}. The Influence of Bodyweight High-Intensity Interval Training on Critical Velocity and Sprinting Abilities in Well-Trained Soccer Players. *Trends in Sports Science*. accepted May 2023.

Choice, E., Jagger, K., Tufano, J., & **Cochrane-Snyman**, K.C^{*}. Match-Play External Load and Internal Load in NCAA Division II Women's Soccer. *Journal of Strength and Conditioning Research*, accepted April 2023.

Ottinger, C. R., Tufano, J. J., **Cochrane-Snyman, K. C.**, Gheith, R. H., & McBride, J. M. Offset loadings in a bilateral squatting movement pattern influences ground reaction force and muscle activity in the dominant and nondominant limb. *International Journal of Sports Physiology and Performance*, accepted Feb. 2023

Published

2023:

Pryor. J. L., Leija, R. G., Morales, J. Potter, A., Looney, D. P., Pryor, R. R., **Cochrane-Snyman**, K. C.* Verification phase confirms VO2max in a hot environment in sedentary untrained males. *Medicine and Science in Sports and Exercise*, 2023

2022:

Choice, E., Tufano, J., Jagger, K., Hooker, K., & **Cochrane-Snyman**, K.C*. Differences across playing levels for match-play physical demands in women's professional and collegiate soccer. *Sports*, 2022, 10 (141).

Valster, K., **Cochrane-Snyman, K.***, Jones, K., & Smith, D. Mental Health Prevalence in NCAA Division III Collegiate Athletes. *Journal of Athlete Development and Experience*, 2022, 4(1), 4.

Stuart, A., & Cochrane-Snyman, K. C.* Strength Training and Development in Competitive Speed Skating. *Strength & Conditioning Journal*, 2022.

Killian, J., Miyashita, T., **Snyman, K.C.***In-Game External Load Metrics of Division I Collegiate Women's Lacrosse Athletes. *International Journal of Strength and Conditioning*, 2022, 2(1)

2021

Valster, K. M., **Cochrane-Snyman**, K.*, Smith, D., & Jones, K. COVID-19 distress in NCAA Division III student-athletes. *Journal of Issues in Intercollegiate Athletics*, 2021, 14, 674-693

Cochrane-Snyman, K.C., Cruz, C., Morales, J., Coles, M. The effects of cannabidiol oil on non-invasive measures of muscle damage in untrained college-aged men. *Medicine and Science in Sports and Exercise*, 2021, 53(7):1460-1472.

Cazas-Moreno, V.L., **Cochrane-Snyman**, **K.C.***, Tufano, J. J., Brown, L.E. The influence of rest intervals following different low-load, high-intensities on countermovement jumps in athletes. *Trends in Sport Science*, 2021, 28(3): 217-223.

2020

Pryor, L. J., Leija, R. G., Morales, J., Potter, A., Looney, D. P., Pryor, R. R., **Cochrane-Snyman, K. C.*** Validity and reliability of VO2max verification testing in a hot, dry environment. *Medicine and Science in Sports and Exercise*, 2021, 53(4):763-769.

Bergstrom, H.C., Housh, T.J., Dinyer, T.K., Byrd, M.T., Jenkins, N.D.M., **Cochrane-Snyman, K.C.,** Succi, P.J., Zuniga, J.M., Schmidt, R.J., Johnson, G.O. Neuromuscular responses of the superficial quadriceps femoris muscles: muscle specific and interindividual variability during severe intensity treadmill running. *Journal of Musckuloskeletal and Neuronal Interactions*, 2020, 20(1):77-87.

2019

Cochrane-Snyman, K.C., Housh, T.J., Smith, C.M., Hill, E.C., Jenkins, N.D.M. Treadmill running using an RPE-clamp model: mediators of perception and implications for exercise prescription. *European Journal of Applied Physiology*. 2019 August, 119: 2083-2094.

Jenkins, N.D.M., Miramonti, A.A., Hill, E.C., Smith, C.M., **Cochrane-Snyman, K.C.,** Housh, T.J., Cramer, J.T. Mechanomyographic amplitude is sensitive to loaddependent neuromuscular adaptations in response to resistance training. *The Journal of Strength and Conditioning Research*. Aug 2019

Dinyer, T.K., Byrd T., **Cochrane-Snyman, K.C.**, Jenkins, N.D.M., Housh, T.J., Schmidt, R.J., Johnson, G.O., Bergstrom, H.C. Time course of changes in neuromuscular responses during rides to exhaustion above and below critical power. *Journal of Musculoskeletal and Neuronal Interactions*. 2019; 19(3): 266–275.

2017

Bergstrom, H.C., Housh, T.J., *Cochrane-Snyman, K.C.*, Jenkins, N.D.M., Byrd, M.T., Switalla, J.R., Schmidt, R.J., Johnson, G.O., Cramer, J.T. A model for identifying intensity zones above critical velocity. *The Journal of Strength & Conditioning Research*. 2017 Dec, 31(12):3260-3265.

Hill, E.C., Housh, T.J., Smith, C.M., **Cochrane, K.C.**, Jenkins, N.D.M., Schmidt, R.J., Johnson, G.O. The effects of work-to-rest ratios on torque, electromyographic and mechanomyographic responses to fatiguing workbouts. *International Journal of Exercise Science*. 2017 July, 10(4):580-591.

Jenkins, N.D.M., Miramonti, A.A., Hill, E.C., Smith, C.M., **Cochrane-Snyman, K.C.**, Housh, T.J., Cramer, J.T. Greater neural adaptations following high-versus low resistance training. *Frontiers in Physiology*. 2017 May, 29;8:331.

2016

Smith, C.M., Housh, T.J., Hill,E.C., *Cochrane, K.C.*, Jenkins, N.D.M., Schmidt, R.J., and Johnson, G.O. Effects of fatiguing constant versus alternating intensity intermittent isometric muscle actions on maximal torque and neuromuscular responses. *Journal of Musculoskeletal and Neuronal Interactions*. 2016 Dec, 16(4): 318-326.

Hill, E.C., Housh, T.J., Smith, C.M., **Cochrane, K.C.**, Jenkins, N.D.M., Cramer, J.T., Schmidt, R.J., Johnson, G.O. Effect of sex on torque, recovery, EMG, and MMG responses to fatigue. *Journal of Musculoskeletal and Neuronal Interactions*. 2016 Dec, 16(4): 310-317.

Smith, C.M., Housh, T.J., Hill, E.C., **Cochrane, K.C.**, Miramonti, A.A., Schmidt, R.J., Johnson, G.O. Combining regression and mean comparisons to identify the time course of changes in neuromuscular responses during the process of fatigue. *Physiological Measurement*. 37: 2016, 1993-2002.

Jenkins, NDM., Housh, T.J., Smith, C.M., Miramonti, A., Hill, E.C., *Cochrane, K.C.*, Cramer, J.T. Effects of rumenic acid rich conjugated linoleic acid supplementation on cognitive function and handgrip performance in older men and women. *Experimental Gerontology*. 2016, 84: 1-11.

Smith, C.M., Housh, T.J., Herda, T.J., Zuniga, J.M., Camic, C.L., Bergstrom, H.C., Smith, D.B., Weir, J.P., Hill, E.C., *Cochrane, K.C.*, and Jenkins, N.D. Time course of changes in neuromuscular parameters during sustained isometric muscle actions. *The Journal of Strength & Conditioning Research*. 2016, 30(10), pp.2697-2702.

Smith, C.M., Housh, T.J., Herda, T., Zuniga, J., Camic, C., Bergstrom, H., Smith, D., Weir, J., Cramer, J., Hill, E., *Cochrane, K.C.*, Jenkins, N., Schmidt, R., and Johnson, G. Electromyographic responses from the vastus medialis during isometric muscle actions. *International Journal of Sports Medicine*. 2016, 37(8):647-652; doi: 10.1055/s-0035-1564174.

Hill, E.C., Housh, T.J., Smith, C.M., Jenkins, N.D.M., *Cochrane-Snyman, K.C.*, Johnson, G.O., Schmidt, R.S. Muscle- and Mode-specific responses of the forearm flexors in women as a result of fatiguing, concentric muscle actions. *Sports*. 2016, 4(4): 47; doi: 10.3390/sports4040047

Cochrane-Snyman, K.C., Housh, T.J., Smith, C.M., Jenkins, N.D.M., Hill, E.C., Johnson, G.O., and Schmidt, R.J. Inter-individual variability in the patterns of responses for electromyography and mechanomyography during moderate and heavy cycle ergometry. *European Journal of Applied Physiology*. 2016 Sep; 116(9):1639-49.

Hill, H.C., Housh, T.J., Camic, C.L., Jenkins, N.D.M., Smith, C.M., *Cochrane, K.C.*, Cramer, J.T., Schmidt, R.J., Monaghan, M.M., and Johnson, G.O. Effects of velocity on peak torque and neuromuscular responses during eccentric muscle actions. *Isokinetics and Exercise Science*. 2016, 24: 1-6.

Jenkins, N.D.M, Housh, T.J., Buckner, S.L., Bergstrom, H.C., *Cochrane, K.C.*, Hill, E.C., Smith, C.M., Schmidt, R.J. Johnson, G.O., and Cramer, J.T. Neuromuscular adaptations after 2- and 4-weeks of 80% versus 30% 1RM resistance training to failure. *The Journal of Strength & Conditioning Research*. 2016 Aug; 30(8):2174-85.

Jenkins, N.D.M., Housh, T.J., Bergstrom, H.C., *Cochrane, K.C.*, Hill, E.C., Smith, C.M., Johnson, G.O., Schmidt, R.J., and Cramer, J.T. Basic reporting and interpretation of surface EMG amplitude and mean power frequency: A reply to Vitgotsky, Oghorn, and Phillips. *European Journal of Applied Physiology*. 2016 116(3):659-661.

Hill, E.C., Housh, T.J., Camic, C.L., Jenkins, N.D.M, Smith, C.M., *Cochrane, K.C.*, Cramer, J.T., Schmidt, R.J., Monaghan, M.M., and Johnson, G.O. The effects of velocity on electromyographic, mechanomyographic, and torque responses to repeated eccentric muscle actions. *The Journal of Strength & Conditioning Research*. 2016, 30(6): 1743-1751.

Jenkins, N.D.M, Housh, T.J., Bergstrom, H.C., *Cochrane, K.C.*, Hill, E.C., Smith, C.M., Johnson, G.O., Schmidt, R.J., and Cramer, J.T. Muscle activation and swelling responses during three sets to failure of high- versus low-volume resistance training. *European Journal of Applied Physiology*. 2015, 115(11): 2335-2347.

Cochrane, K.C., Housh, T.J., Hill, E.C., Smith, C.M., Jenkins, N.D.M., Cramer, J.T., Johnson, G.O., and Schmidt, R.J. Physiological responses underlying the perception of effort during moderate and heavy intensity cycle ergometry. *Sports* 2015, 3:369-382; doi: 10.3390/sports3040369.

Jenkins, N.D.M., Housh, T.J., Buckner, S.L., Bergstrom, H.C., *Cochrane, K.C.*, Hill, E.C., Smith, C.M., Schmidt, R.J., Johnson, G.O., Cramer, J.T. Individual responses for muscle activation, repetitions, and volume during 3 sets to failure of high- (80% 1RM) versus low-load (30% 1RM) forearm flexion resistance exercise. *Sports* 2015, 3: 269-280; doi:10.3390/sports3040269.

Cochrane, K.C., Housh, T.J., Jenkins, N.D.M., Bergstrom, H.C., Smith, C.S., Hill, E.C., Johnson, G.O., Schmidt, R.J., and Cramer, J.T. Electromyographic, mechanomyographic, and metabolic responses during cycle ergometry at a constant rating of perceived exertion. *Applied Physiology, Nutrition, and Metabolism* 2015, 40(11): 1178-85.

Cochrane K.C., Housh, T.J., Smith, C.M., Hill, E.C., Jenkins, N.D.M., Johnson, G.O., Housh, D.J., Schmidt, R.J., and Cramer, J.T. The relative contributions of strength, anthropometrics, and body composition characteristics to estimated propulsive force in young male swimmers. *The Journal of Strength & Conditioning Research* 2015, 29(6): 1473-1479.

Cochrane K.C., Housh, T.J., Bergstrom, H.C., Jenkins, N.D.M., Johnson, G.O., Housh, D.J., Traylor, D.A., Lewis Jr., R.W., Schmidt, R.J., and Cramer, J.T. Dissociations among direct and indirect indicators of adiposity in young wrestlers *The Journal of Strength and Conditioning Research* 2015, 29(2): 408-415.

Cochrane K.C., Housh, T.J., Bergstrom, H.C., Jenkins, N.D.M., Johnson, G.O., Schmidt, R.J., and Cramer, J.T. Physiological responses during cycle ergometry at a constant perception of effort. *International Journal of Sports Medicine* 2015, 36(6): 466-473.

Bergstrom, H.C., Housh, T.J., *Cochrane, K.C.*, Jenkins, N.D.M., Zuniga, J.M., Buckner, S.L., Goldsmith, J.A., Schmidt, R.J., Johnson, G.O., and Cramer, J.T. Factors underlying the perception of effort during constant heart rate running above and below the critical heart rate. *European Journal of Applied Physiology* 2015, 115(10): 2231-2241.

Bergstrom, H.C., Housh, T.J., *Cochrane, K.C.*, Jenkins, N.D.M., Buckner, S.L., Goldsmith, J.A., Zuniga, J.M., Schmidt, R.J., Johnson, G.O., and Cramer, J.T. Application of the critical heart rate model to treadmill running. *The Journal of Strength & Conditioning Research* 2015, 29 (8): 2237-2248.

Smith, C.M., Housh, T.J., Herda, T.J., Zuniga, J.M., Ryan, E.D., Camic, C.L., Bergstrom, H.C., Smith, D.B., Weir, J.P., Cramer, J.T., Hill, E.C., *Cochrane, K.C.*, Jenkins, N.D.M., Schmidt, R.J., and Johnson, G.O. Effects of the innervation zone on the time and frequency domain parameters of the surface electromyographic signal. *Journal of Electromyography and Kinesiology* 2015, 25(4): 565-570

Jenkins, N.D.M., Miller, J.M., Buckner, S.L., *Cochrane, K.C.*, Bergstrom, H.C., Hill, E.C., Smith, C.M., Housh, T.J., and Cramer, J.T. Test-retest reliability of single transverse versus panoramic ultrasound imaging for muscle size and echo intensity in the biceps brachii. *Ultrasound in Medicine and Biology* 2015, 41(6): 1584-1591.

Jenkins, N.D.M, Housh, T.J., Palmer, T.B., *Cochrane, K.C.*, Bergstrom, H.C., Johnson, G.O., Schmidt, R.J., and Cramer, J.T. Relative differences in strength and power from slow to fast isokinetic velocities may reflect dynapenia. *Muscle and Nerve* 2015, 52 (1): 120-130.

2014

Cochrane K.C., Housh, T.J., Bergstrom, H.C., Jenkins, N.D.M., Johnson, G.O., Schmidt, R.J., and Cramer, J.T. Perceptual and Physiological Fatigue Thresholds during Cycle Ergometry. *Journal of Exercise Physiology Online* 2014, 17 (5): 95-107.

Cochrane K.C., Coburn, J.W., Brown, L.E., and Judelson, D.A. Effects of diverting activity on strength, electromyographic signals and mechanomyographic signals. *The Journal of Strength & Conditioning Research* 2014, 28(5): 1203-11.

Jenkins, N.D.M, Buckner, S.L., Bergstrom, H.C., *Cochrane, K.C.*, Goldsmith, J.A., Housh, T.J., Johnson, G.O., Schmidt, R.J., and Cramer, J.T. Reliability and relationships among handgrip strength, leg extensor strength and power, and balance in older men. *Experimental Gerontology* 2014, 58: 47-50.

Jenkins, N.D.M., Buckner, S.L., *Cochrane, K.C.*, Bergstrom, H.C., Goldsmith, J.A., Weir, J.P., Housh, T.J., and Cramer, J.T. CLA supplementation and aerobic exercise lower blood triacylglycerol, but have no effect on peak oxygen uptake or cardiorespiratory fatigue thresholds. *Lipids* 2014, 49: 871-880.

Bergstrom, H.C., Housh, T.J., Traylor, D.A., Lewis Jr., R.W., *Cochrane, K.C.*, Jenkins, N.D.M, Schmidt, R.J., Johnson, G.O., Housh, D.J., and Cramer, J.T. Metabolic, cardiovascular, and perceptual responses to a thermogenic nutritional supplement at

rest, during exercise, and recovery in men. *The Journal of Strength & Conditioning Research* 2014, 28(8): 2154-2163.

Jenkins, N.D.M, Buckner, S.L., Baker, R.B., Bergstrom, H.C., *Cochrane, K.C.*, Weir, J.P., Housh, T.J., and Cramer, J.T. Effects of six weeks of aerobic exercise combined with conjugated linoleic acid on the physical working capacity at the fatigue threshold. *The Journal of Strength & Conditioning Research* 2014, 28(8): 2127-2135.

Jenkins, N.D.M., Buckner, S.L., *Cochrane, K.C.*, Bergstrom, H.C., Palmer, T.B., Johnson, G.O., Schmidt, R.J., Housh, T.J., and Cramer, J.T. Age-related differences in rates of torque development and rise in EMG are eliminated by normalization. *Experimental Gerontology* 2014, 57: 18-28.

Jenkins, N.D.M, Housh, T.J., Traylor, D.A., *Cochrane, K.C.*, Bergstrom, H.C., Lewis, R.W. Jr., Schmidt, R.J., Johnson, G.O., and Cramer, J.T. The rate of torque development: a non-invasive indicator of muscle damage? *International Journal of Sports Medicine* 2014, 35(14): 1190-1195.

Jenkins, N.D.M., Housh, T.J., *Cochrane, K.C.*, Bergstrom, H.C., Traylor, D.A., Lewis Jr., R.W., Buckner, S.L., Schmidt, R.J., Johnson, G.O., and Cramer, J.T. Effects of anatabine and unilateral eccentric isokinetic muscle actions on serum markers of muscle damage and inflammation. *European Journal of Pharmacology* 2014, 728: 161-166.

Traylor, D.A., Housh, T.J., Lewis, Jr., R.W., Bergstrom, H.C., **Cochrane, K.C.**, Jenkins, N.D.M, Schmidt, R.J., Johnson, G.O., and Cramer, J.T. The effects of gender and very short-term resistance training on peak torque, average power, and neuromuscular responses of the forearm flexors. *Isokinetics and Exercise Science* 2014, 22(2): 123-130.

Moyen, N.E., Ellis, C.L.V., Ciccone, A.B. Thurston, T.S., *Cochrane, K.C.*, Brown, L.E., Coburn, J.W., and Judelson, D.A. Increasing relative humidity impacts low intensity exercise in the heat. *Journal of Aviation, Space, and Environmental Medicine* 2014, 85(2): 112-9.

2013

Cochrane K.C., Housh, T.J., Bergstrom, H.C., Jenkins, N.D.M., Johnson, G.O., Housh, D.J., Schmidt, R.J., and Cramer, J.T. Body build and anthropometric growth patterns of 7 to 18 year old wrestlers. *Journal of Exercise Physiology Online* 2013, 16(6): 89-101.

Bergstrom, H.C., Housh, T.J., *Cochrane, K.C.*, Jenkins, N.D.M, Lewis Jr., R.W., Traylor, D.A., Zuniga, J.M., Schmidt, R.J., Johnson, G.O., and Cramer, J.T. An

examination of neuromuscular and metabolic fatigue thresholds. *Physiological Measurements* 2013, 34(10): 1253-1267.

Bergstrom, H.C., Housh, T.J., Traylor, D.A., Lewis Jr., R.W., Jenkins, N.D.M., *Cochrane, K.C.*, Schmidt, R.J., Johnson, G.O., and Housh, D.J. Physiologic responses to a thermogenic nutritional supplement at rest, during low-intensity exercise, and during recovery from exercise in college-aged women. *Applied Physiology, Nutrition, and Metabolism* 2013, 38(9): 988-995.

Lewis Jr., R.W., Housh, T.J., Traylor, D.A., Bergstrom, H.C., Johnson, G.O., Schmidt, R.J., Cramer, J.T., Jenkins, N.D.M., and *Cochrane, K.C.* The effects of concentric fatigue on concentric, eccentric, and isometric torque. *Journal of Exercise Physiology Online* 2013, 16(1): 10-18.

Jenkins, N.D.M., Housh, T.J., Johnson, G.O., Traylor, D.A., Bergstrom, H.C., *Cochrane, K.C.*, Lewis Jr., R.W., Schmidt, R.J., and Cramer, J.T. The effects of anatabine on non-invasive indicators of muscle damage: A randomized, double-blind, placebo-controlled, crossover study. *Journal of the International Society of Sports Nutrition* 2013, 10(1): 33.

Research Presentations and Published Abstracts

Killian, J. and **Cochrane-Snyman**, K.C. In-Game External Load Metrics of Division I Collegiate Women's Lacrosse Athletes. NSCA National Conference Orlando, FL, July 2021.

Cruz, C., Morales, J., Coles, M., Baldis, M., **Cochrane-Snyman**, **KC**.*The effects of cannabidiol oil on non-invasive measures of muscle damage in untrained college-aged men. NSCA National Conference Las Vegas, NV, July 2020.

Cochrane-Snyman, K., Lao, P., Leija, R., Cruz, C., Perez Jr., S., Pryor, J.L. Verification bout criteria in the heat: a training status comparison. Poster presentation, ACSM Annual Conference San Francisco, CA, May 2020.

Pryor, J.L., Leija, R.G., Lao, P., Cruz, C., Perez Jr., S., Morales, J., **Cochrane-Snyman**, **K**. Core temperature and blood lactate kinetics after graded exercise testing in the heat. Poster presentation, ACSM Annual Conference San Francisco, CA, May 2020.

Cochrane-Snyman, K.C., Perez Jr., S., Lawrence, D., Burblys E., Pryor, J.L. An investigation into leg asymmetry and muscle activation during a pneumatic resistance task to failure. NSCA National Conference Washington, D.C., July 2019.

Bergstrom, H.C., ... **Cochrane-Snyman, K.C.** Poster presentation, ACSM Annual Conference Orlando, FL, May 2019.

Dinyer, T.K., Byrd, T., **Cochrane-Synman**, K.C., Jenkins, N.D.M., Housh, T.J., Schmidt, R.J., and Bergstrom, H.C. Time course of changes in neuromuscular responses during rides to exhaustion above critical power. Podium presentation, NSCA National Conference Indianapolis, IN, July 2018.

Bergstrom, H.C., Housh, T.J., **Cochrane-Snyman, K.C.**, Jenkins, N.D.M, Byrd, M.T., Dinyer, T., Schmidt, R.J., Johnson, G.O. Inter-individual variability in metabolic and neuromuscular responses during continuous exercise above and below critical power. Poster Presentation, ACSM Annual Minneapolis, MN, May 2018.

Tomko, P.M., Miramonti, A.A., Hill, E.C., Smith, C.M., **Cochrane-Snyman, K.C.,** Colquhoun, R.J., Housh, T.J., Cramer, J.T., and Jenkins, N.D.M. Mechanomyographic amplitude is sensitive to neuromuscular adaptations following high- versus low-load resistance training. Poster Presentation, ACSM National, Minneapolis, MN, May 2018.

Snyman, K.C., Housh, T.J., Smith, C.M., Hill, E.C., Jenkins, N.D.M. Implications for training: regulating exercise intensity above the gas exchange threshold using an RPE-clamp model. Podium Presentation, NSCA Las Vegas, NV, July, 2017.

Bergstrom, H.C., Housh, T.J., Eastman, J.E., Byrd M.T., Jenkins, N.D.M., **Cochrane-Snyman**, K.C., Schmidt, R.J., Johnson, G.O. Is there an oxygen pulse threshold during threadmill running? Poster Presentation, ACSM Denver, CO, June 2017.

Cochrane, K.C., Housh, T.J., Smith, C.M., Hill, E.C., Jenkins, N.D.M., Miramonti, A.A., Schmidt, R.J., Johnson, G.O., Cramer, J.T., Coburn, J.W. Physiological responses underlying the perception of effort during moderate and heavy intensity cycle ergometry. Poster Presentation, ACSM Boston, MA, June 2016.

Jenkins, N.D.M, Housh, T.J., Miramonti, A.A., Smith, C.M., Hill, E.C., **Cochrane**, **K.C.**, Cramer, J.T. Effects of rumenic acid rich conjugated linoleic acid supplementation on handgrip performance and cognitive function in older men. Journal of Strength and Conditioning Research XX(XX):eX-eXXX. Poster Presentation, NSCA National Meeting, New Orleans, La, July 2016.

Jenkins, N.D.M., Miramonti, A.A., Hill, E.C., Smith, C.M., **Cochrane, K.C.**, Housh, T.J., Cramer, J.T. Are voluntary activation determined by the interpolated twitch technique and mechanomyographic amplitude synonymous? Poster Presentation, ACSM Annual Meeting, Boston, MA, June 2016.

Miramonti, A.A., Housh T.J., Jenkins, N.D.M., **Cochrane, K.C.**, Hill, E.C. Smith, C.M., Schmidt, R.J., Johnson, G.O. Cramer, J.T. Relationships among cognitive function and handgrip strength and endurance in older men and women. Poster Presentation, ACSM Annual Meeting, Boston, MA, June 2016.

Cochrane, K.C., Housh, T.J., Hill, E.C., Smith, C.M., Jenkins, N.D.M., Cramer, J.T., Murphy, C., Johnson, G.O., and Schmidt, R.J. Perceptual and physiological responses during cycle ergometry at a constant perception of effort. *Journal of Strength and Conditioning Research* XX(XX):eX-eXXX. Poster Presentation, NSCA National Meeting, Orlando, FL, July 2015.

Jenkins, N.D.M., Housh, T.J., Bergstrom, H.C., **Cochrane, K.C.**, Hill, E.C., Smith, C.M., Johnson, G.O., Schmidt, R.J., and Schmidt, R.J. Muscle size, muscle strength, electromyography, mechanomyography, and voluntary activation during four weeks of high- versus low-load resistance training. *Journal of Strength and Conditioning Research* XX(XX):eX-eXXX. Oral Presentation, NSCA National Meeting, Orlando, FL, July 2015.

Jenkins, N.D.M., Housh, T.J., Bergstrom, H.C., **Cochrane, K.C.**, Hill, E.C., Smith, C.M., Yeo, N., Miller, J.M., and Cramer, J.T. Muscle activation, muscle swelling, and exercise volume during three sets to failure at 80% versus 30% 1RM resistance exercise. *Journal of Strength and Conditioning Research* XX(XX):eX-eXXX. Poster Presentation, NSCA National Meeting, Orlando, FL, July 2015.

Switalla, J., Bergstrom, H.C., Housh, T.J., **Cochrane, K.C.,** Jenkins, N.D.M, Buckner, S.L., Goldsmith, J.A., Schmidt, R.J., Johnson, G.O., and Cramer, J.T. Metabolic, cardiovascular, and perceptual responses during severe intensity treadmill running: limiting factors of exercise performance? *Journal of Strength and Conditioning Research* XX(XX):eX-eXXX. Poster Presentation, NSCA National Meeting, Orlando, FL, July 2015.

Smith, C.M., Housh, T.J., Herda, T.J., Zuniga, J.M., Ryan, E.D., Camic, C.L., Bergstrom, H.C., Smith, D.B., Weir, J.P., Cramer, J.T., **Cochrane, K.C.**, Hill, E.C., Jenkins, N.D.M., Schmidt, R.J, and Johnson, G.O. Effects of the innervation zone on electromyographic time and frequency domain parameters during fatiguing isometric muscle actions. Journal of Strength and Conditioning Research XX(XX):eX-eXX. Poster Presentation, NSCA National Meeting, Orlando, FL, July 2015.

Hill, E.C., Camic, C.L., Housh, T.J., Monaghan, M.M., **Cochrane, K.C.**, Smith, C.M., Jenkins, N.D.M., Cramer, J.T., Schmidt, R.J., and Johnson, G.O. Effects of velocity on isometric peak torque, electromyographic, and mechanomyographic responses to repeated maximal eccentric muscle actions. Journal of Strength and Conditioning Research XX(XX):eX-eXX. Poster Presentation, NSCA National Meeting, Orlando, FL, July 2015.

Cochrane, K.C., Housh, T.J., Jenkins, N.D.M., Bergstrom, H.C., Hill, E.C., Smith, C.M., Johnson, G.O., Schmidt, R.J., and Cramer, J.T. Electromyographic, mechanomyographic, and metabolic responses during cycle ergometry at a constant rating of perceived exertion. Poster Presentation, ACSM Annual Meeting in San Diego, CA, May 2015.

Jenkins, N.D.M., Miller, J.M., Yeo, N., Smith, C.M., Hill, E.C., **Cochrane, K.C.**, Bergstrom, H.C., Housh, T.J., and Cramer, J.T. Electromyographic and mechanomyographic responses during three sets to failure of low- versus high-load resistance training. Poster Presentation, ACSM Annual Meeting in San Diego, CA, May 2015.

Smith, C.M., Herda.T.J., Zuniga, J.M., Ryan, E.D., Camic, C.L., Bergstrom, H.C., Smith, D.B., Weir, J.P., Cramer, J.T., **Cochrane, K.C.**, Hill, E.C., Jenkins, N.D.M., Housh, T.J., Schmidt, R.J., and Johnson, G.O. Effects of the innervation zone on electromyographic responses during fatiguing isometric muscle actions. Oral presentation, ACSM Annual Meeting in San Diego, CA, May 2015.

Hill, E.C., Camic, C.L., Housh, T.J., Monaghan, M.M., **Cochrane, K.C.**, Smith, C.M., Jenkins, N.D.M., Cramer, J.T., Schmidt, R.J., and Johnson, G.O. Effects of velocity on peak torque and neuromuscular responses during repeated, maximal eccentric muscle actions. Poster Presentation, ACSM Annual Meeting in San Diego, CA May 2015.

Cochrane, K.C., Housh, T.J., Bergstrom, H.C., Jenkins, N.D.M., Buckner, S.L., Cramer, J.T., Johnson, G.O, and Schmidt, R.J. Comparison of Perceptual and Physiological Fatigue Thresholds During Cycle Ergometry. *Journal of Strength and Conditioning Research* 28(12): e1-e130. Poster Presentation, NSCA National Meeting, Las Vegas, NV, July 2014.

Cochrane, K.C., Housh, T.J., Bergstrom, H.C., Jenkins, N.D.M., Cramer, J.T., Johnson, G.O., and Schmidt, R.J. Comparison of perceptual and physiological fatigue thresholds during cycle ergometry. Poster Presentation, South West American College of Sports Medicine Meeting in Newport Beach, CA. 2013.

Cochrane, K.C., Housh, T.J., Bergstrom, H.C., Traylor, D.A., Jenkins, N.D.M., Lewis, R.W. Jr., Schmidt, R.J., Johnson, G.O., Cramer, J.T., and Housh, D.J. Age-related differences in body weight, height, body mass index, and upper body skinfolds between young wrestlers and non-athletes. *Journal of Strength and Conditioning Research* 27(4):p1-129. Poster Presentation, NSCA National Meeting, Las Vegas, NV, July 7-10, 2013.

Cochrane, K.C., Coburn, J.W., Brown, L.E., and Judelson, D.A. Effects of Diverting Activity on Strength, Electromyography and Mechanomyography Signals. Poster Presentation, ACSM Annual Meeting, Indianapolis, IN, May 29-31, 2013.

Bergstrom, H.C., Housh, T.J., Traylor, D.A., Lewis Jr., R.W., Johnson, G.O., Schmidt, R.J., Housh, R.J., Jenkins, N.D.M., **Cochrane, K.C.,** and Cramer, J.T. Metabolic, cardiovascular, and perceptual responses to a thermogenic nutritional supplement at rest, during exercise, and recovery in men. *Journal of Strength and Conditioning Research* 27(4):p1-129. Poster Presentation, NSCA National Meeting in Las Vegas, NV, 2013.

Bergstrom, H.C., Housh, T.J., Traylor, D.A., Lewis Jr., R.W., Johnson, G.O., Schmidt, R.J., Housh, R.J., Jenkins, N.D.M., and **Cochrane**, **K.C.** Physiological responses to a thermogenic nutritional supplement during rest, exercise, and recovery in women. Poster Presentation, ACSM Annual Meeting in Indianapolis, IN, 2013.

Jenkins, N.D.M., Traylor, D.A., Housh, T.J., Bergstrom, H.C., **Cochrane, K.C.**, Lewis Jr., R.W., Schmidt, R.J., Johnson, G.O., and Cramer, J.T. Effects of eccentric-induced muscle damage on the time courses of recovery for peak torque and rates of torque development. *Journal of Strength and Conditioning Research* 27(4): p1-129. Poster Presentation, NSCA National Meeting in Las Vegas, NV, 2013.

Jenkins, N.D.M, Cramer, J.T., Housh, T.J., Bergstrom, H.C., **Cochrane, K.C.**, Traylor, D.A., Lewis Jr., R.W., Schmidt, R.J., and Johnson, G.O. Rate of torque development versus rate of velocity development during voluntary and evoked muscle actions. Poster Presentation, ACSM Annual Meeting in Indianapolis, IN, 2013.

Traylor, D.A., Housh, T.J., Lewis Jr., R.W., Bergstrom, H.C., Johnson, G.O., Schmidt, R.J., Jenkins, N.D.M., and **Cochrane, K.C**. Effects of very short-term training on peak torque, power, and neuromuscular responses of the forearm flexors. Poster Presentation, ACSM Annual Meeting in Indianapolis, IN, 2013.

Cochrane, K.C., Coburn, J.W., Brown, L.E., and Judelson, D.A. Comparison of active and diverting recovery strategies between bouts of fatiguing lower body exercise. *Journal of Strength and Conditioning Research* 26(1): s1-s130. Poster Presentation, NSCA National Meeting, Providence, RI, July 11-14, 2012.

Moyen N.E., Ellis, C.L.V., Ciccone, A.B., Thurston, T.S., **Cochrane, K.C**., Brown, L.E., Coburn, J.W., and Judelson, D.A. Effects of relative humidity on thermoregulation and perception during low intensity exercise in the heat. Poster Presentation, South West American College of Sports Medicine Meeting, Newport Beach, CA Oct 19-20, 2012.

Cochrane, K.C., Malek, M.H., and Coburn, J.W. Effects of incremental exercise and Mechanomyographic sensor placement on the vastus lateralis during cycle ergometry. *Journal of Strength and Conditioning Research* XX(XX):eX-eXXX. Poster Presentation, NSCA National Meeting, Las Vegas, NV, July 2-4, 2011.

Cochrane K.C., Brown, L.E., Coburn, J.W., Lynn, S.K., Noffal, G.J., Tran, T.T., Nguyen, D., Cazas, V.L., Biagini, M.S., Aguirre, N.W., and Bottaro, M. Reliability of performance measures of an assisted and unassisted jump. Poster Presentation, South West American College of Sports Medicine Meeting, San Diego, CA, October 22-23, 2010.

Tran T.T., Brown, L.E., Coburn, J.W., Lynn, S.K., Noffal, G.J., Nguyen, D., Cazas, V.L., Biagini, M.S., Aguirre, N.W., **Cochrane, K.C.**, and Bottaro, M. Effect of elastic cord assistance on vertical jump relative peak power. Poster Presentation, South West American College of Sports Medicine Meeting, San Diego, CA, October 22-23, 2010.

Cazas, V.L., Brown, L.E., Coburn, J.W., Lynn, S.K., Noffal, G.J., Tran, T.T., Nguyen, D., Biagini, M.S., Aguirre, N.W., **Cochrane, K.C.**, and Bottaro, M. Effect of elastic assistance on vertical jump deceleration between men and women. Poster Presentation, South West American College of Sports Medicine Meeting, San Diego, CA, October 22-23, 2010.

Biagini, M.S., Brown, L.E., Coburn, J.W., Lynn, S.K., Noffal, G.J., Tran, T.T., Nguyen, D., Cazas, V.L., Aguirre, N.W., **Cochrane, K.C.**, and Bottaro, M. Effect of elastic cord assistance on vertical jump interpeak time between ground reaction force, power and velocity. Poster Presentation, South West American College of Sports Medicine Meeting, San Diego, CA, October 22-23, 2010.

Aguirre, N.W., Brown, L.E., Coburn, J.W., Lynn, S.K., Noffal, G.J., Nguyen, D., **Cochrane, K.C.**, Tran, T.T., Cazas, V.L., Biagini, M.S., and Bottaro, M. Effect of different levels of assisted jumping on countermovement unloading force and velocity. Poster Presentation, South West American College of Sports Medicine Meeting, San Diego, CA, October 22-23, 2010.

Book Chapters

Co-author: "Ch. 3: The Neuromuscular system: Anatomical and Physiological bases and adaptations to training" In: Conditioning for Strength and Human Performance. Brown, L., Chandler, J. Human Kinetics, 2nd edition: Published August 2018

Editor/Co-author: "Ch. 15 Advanced Programs" In: Strength Training. NSCA-National Strength and Conditioning Association, Brown, L., Human Kinetics, 2007, 2017, 2nd edition: Published 2017.

Invited Lectures and Contributions

"Mental Fatigue: Current Research & Practical Applications" Duke University Performance Clinic. Virtual Conference March 2021

"The Perception of Effort: Research & Practice" Bloomfield University, Kinesiology Seminar. Virtual Guest Lecture October 2020

"The Perception of Effort: The Current Status of Research and Practical Applications for Training" NSCA Tennessee State Clinic, Nashville, TN September 2020

"Mental fatigue, RPE, and performance implications" NSCA National meeting, Washington, D.C., 2019.

"Nutritional supplements for aerobic performance" NSCA National Meeting, Orlando, FL 2015.

"Arm strength and height predicts youth swimming performance" article and interview for Swimming Science, (www.swimmingscience.net) June 2015.

Mentorship *selection

California State University, Fresno (2017 - 2020)

Masters Project: "The application of social media for graduate student recruitment: A project investigating current and prospective student engagement." Randi Wallace, class of 2019

Masters Thesis: "The utilization of verification trials for vo2 max determination in the heat." Robert Leija, class of 2019 (poster presentation ACSM 2020, manuscript accepted MSSE 2021).

Masters Thesis: "Observing the effects of heat on oxygen consumption kinetics in sedentary men using verification bouts." Peter Lao, class of 2020 (poster presentation ACSM 2020, manuscript in progress).

Masters Thesis: "A single site, double-blinded, randomized, placebo-controlled, crossover trial to evaluate the potential effects of the supplement THC-free cannabidiol (CBD) oil on delayed onset muscle soreness in the forearm flexors." Candelaria Cruz, class of 2020 (poster presentation NSCA 2020).

Independent, Guided Research: "An investigation into leg asymmetry and muscle activation during a pneumatic resistance task to failure." Masters & Undergraduate student involvement. (poster presentation NSCA 2019, manuscript accepted MSSE 2021).

Concordia University, Chicago (2018 - present)*selection

Doctoral Dissertation: "The influence of different Intensities of Countermovement jumps on post-activation potentiation of lower body power." Dr. Vanessa L. Cazas-Moreno, graduated Aug. 2019; committee chair; poster presentation NSCA 2020, manuscript in review.

Doctoral Dissertation: "Activity profiling in college-women lacrosse players." Dr. Justin Killian, graduated Aug. 2020, committee chair; poster presentation NSCA 2021 manuscript in review.

Doctoral Dissertation: "Mental health profiling in NCAA division III athletes" Dr. Katelin Valster; graduated Nov. 2020; committee chair; manuscript in review Doctoral Dissertation: "Mental Health Seeking Attitudes among Disabled Athletes". Meghan Trella; committee chair (defended June 2022)

Doctoral Dissertation: "Effect of Sleep Health on Adolescent Distance Runner Performance and Indication with Resting Heart Rate, Heart Rate Variability, and Rate of Perceived Exertion". Taylor Mapp; committee chair (expected graduation Aug. 2021) Doctoral Dissertation: "Effects of HIFT Training on Critical Velocity in Trained Soccer Players". Nicholas Mortenson; committee chair

Doctoral Dissertation: "A Retrospective Analysis of the Physical Demands of a Women's NCAA Division II Soccer Season with Measures of External Load (GPS and Accelerometry) and Internal Load (session RPE)". Erin Choice; committee chair (defended July 2021)

Doctoral Dissertation: "Recreational Triathlon and COVID-19 Mediators: A Predictive Interpretation". Richard Todd Gober; committee reader (defended Oct. 2021) *Doctoral Dissertation:* "ECG novel measurement analysis for hypertrophic cardiomyopathy". James Hodovan; committee reader (defended Sept. 2021) *Doctoral Dissertation:* "Relationship between skeletal muscle strength and cystic fibrosis outcomes in youth and young adults". Taylor Lewis, committee chair (proposed June 2022) *Doctoral Dissertation:* "Hamstring strength intervention and injury prediction among professional baseball players". Austin Driggers, committee methodologist *Doctoral Dissertation:* "Lower body asymmetry and offset loading during the barbell squat". Charlie Ottinger, committee reader (defended June 2022) *Doctoral Dissertation:* "Body composition reliability and agreement between inbody BIA and DXA among DIII collegiate athletes". Brian Edelbeck, committee chair

Pedagogy Training & Certifications

Graduate Online Pedagogy & Mentorship Workshop 2018 Quality Matters Certificate: Improving Online Courses 2018 Online Graduate Course Delivery, Concordia University 2019 DiscoverE technology in the classroom seminar & workshop 2017-2018 Faculty Development STEM training 2017,2018 Excellence in Student Learning training 2017, 2018 CSU Ally Training 2016

Professional/University Service

Graduate Council Chair July 2022 – Present: Concordia University, Chicago NSCA Foundation Board of Directors May 2021 – May 2023: Scholarship Committee Liason July 2022 – May 2023: Vice President Associated Editor: Journal of Strength and Conditioning Research January 2020- Present Senior Associate Editor: Journal of Strength and Conditioning Research January 2018 – December 2019 Research Committee Member & Secretary: National Strength and Conditioning Association (NSCA) July 2017 – July 2020 Research Committee Awards Subcommittee Chair: National Strength and Conditioning Association (NSCA) May 2018 – July 2020

Applied Strength and Conditioning

Personal Trainer (older adults & rehab), Redondo Beach Cities Health District, Redondo Beach, CA 2010 - 2012 Employee Wellness Program trainer and programmer, California State University-Fullerton, Fullerton, CA 2011 - 2012 Facility Manager for Strength training staff and facilities, California State University-Fullerton, Associated Students, Inc. 2011 – 2012

<u>Awards</u>

University of Nebraska, Lincoln Dean's Fellowship Award: 2015 - 2016 Outstanding doctoral poster presentation: National Strength and Conditioning Association, 2015 California Chancellor's Doctoral Incentive Mini-Grant award: 2015 - 2016 California Chancellor's Doctoral Incentive Scholarship: 2014 - 2016 University of Nebraska Graduate Fellowship Award: Othmer Fellow 2012 - 2015 National Strength and Conditioning Association Foundation Women's Scholarship: 2013, 2014 National Strength and Conditioning Association Foundation Challenge Scholarship: 2011, 2015 University of California, Irvine Social Sciences Student of Distinction Award: 2008 University of California, Irvine Undergraduate Latin Honors: Cum Laude: 2008

<u>Scholarships & Grants</u>

Internal Funding

Research Scholarship & Creative Activities Grant: Snyman, K.C. Awarding body: California State University, Fresno, May 2019 \$2500.00 requested, awarded. Project: "A single site, double-blinded, randomized, placebo-controlled, crossover trial to evaluate the potential effects of the supplement THC-free cannabidiol (CBD) oil on delayed onset muscle soreness in the forearm flexors"

Research Scholarship & Creative Activities Grant: Snyman, K.C. Awarding body: California State Polytechnc University, March 2017 \$3,500 requested, awarded. Project: Summer Pilot: "The Effect of HIIT on Short Term Memory Retention"

Technology and Innovation Grant: Snyman, K.C. Awarding body: California State University, Fresno, February 2018 \$2000 requested, awarded. Project: Neuromuscular function laboratory upgrades

External Funding

Principal author (*not funded*, 2019): Awarding body: National Strength and Conditioning Association – Young Investigator Grant: Snyman, K.C. Requested: \$24,000 *Project:* " A single site, double-blind, crossover, placebo controlled investigation into the effects of cannabinol (CBD) oil on markers of muscle damage, inflammation, and performance."

Graduate Student Principal author and recipient: **Cochrane, K.C.** Awarding body: California Doctoral Incentive Program, October 2015 – May 2016. \$3,500 requested, awarded. California State University, Office of the Chancellor. *Project:* "Physiological responses at the rating of perceived exertion at and above the gas exchange threshold during cycling and treadmill running."

Graduate Student Primary-Investigator: Cochrane, K.C.

Principal Investigator: Joel T. Cramer, Co-Principal Investigator: Terry J. Housh-Stepan Lipid Nutrition, June 2015 - June 2016. \$150,000 requested, awarded. University of Nebraska-Lincoln.

Project: "Rumenic acid rich conjugated linoleic acid for improving anti-ageing properties regarding joint function and cognitive decline."

Graduate Student Co-investigator: Cochrane, K.C.

Principal Investigator: Joel T. Cramer, Co-Principal Investigator: Terry J. Housh-Stepan Lipid Nutrition, August 2013 - 2014. \$339,566.74 requested, \$339,566.74 approved. University of Nebraska-Lincoln.

Project: "The effects of conjugated linoleic acid on physical performance."

Graduate Student Co-Investigator and Study Coordinator: **Cochrane, K.C.** Principal Investigator: Terry J. Housh, Co-Principal Investigator: Joel T. Cramer-General Nutrition Corporation, Fall 2013. \$99,600 requested, \$99,600 approved. University of Nebraska-Lincoln.

Project: "The effects of two forms of leucine and two forms of creatine on leucine and creatine bioavailability."

Graduate Student Co-Investigator: Cochrane, K.C.

Principal Investigator: Joel T. Cramer, Co-Principal Investigator: Terry J. Housh- Rock Creek Pharmaceuticals, Inc. August 2012 – August 2013. \$377,456 requested, \$377,456 awarded. University of Nebraska-Lincoln.

Project: "A single site, double-blind, randomized, placebo-controlled, crossover trial to evaluate the potential effects of the dietary supplement anatabine on delayed onset muscle soreness in the forearm flexors."

<u>External Reviewer</u>

European Journal of Sport Science, 2015 – Present European Journal of Applied Physiology, 2016 – Present International Journal of Sports Medicine, 2014 - Present Journal of Athletic Training, 2016 – Present Journal of Musculoskeletal and Neuronal Interactions, 2017 - Present Journal of Strength and Conditioning Research, 2012 – Present Senior Associate Editor: 2018 – 2019 Associated Editor: 2019 - Present Muscle and Nerve, 2014 – Present National Strength and Conditioning Association National Conference Abstract reviewer, 2013 – Present National Strength and Conditioning Association National Conference Undergraduate Poster Competition reviewer, 2015, 2017, 2018 Grant Reviewer National Strength and Conditioning Association Doctoral and Masters Grant reviewer, 2017 - Present

Certifications

Certified Strength and Conditioning Specialist recertified with distinction, National Strength and Conditioning Association, March 2011 – Present American Red Cross Adult and Child CPR, AED, and First Aid American Heart Association BLS (CPR, AER, and First Aid) valid through 2019 American Red Cross Water Safety Instructor Quality Matters certified 2018

<u>Memberships</u>

Phi Beta Kappa, 2008 – Present California Faculty Association 2016 – 2019 National Strength and Conditioning Association, 2009 – Present American College of Sports Medicine, 2010 – Present South West Chapter, American College of Sports Medicine, 2010 – Present

Laboratory Testing and Software

Cycle ergometry testing, Submaximal and maximal (Lode Corval, Lode Excalibur, and Monark ergometers) Treadmill testing, Submaximal and maximal Metabolic testing, graded exercise testing, resting, and respiratory function (Parvo Medics TrueMax 2400, Cosmed Quark CPET) Pulmonary spirometry (Bell and Electronic) Respiration monitoring / Biofeedback (Biopac) Twelve lead resting and exercise electrocardiogram Surface Electromyography (EMG) (Biopac MP100, 150, BioNomadix wireless, skin/ rectal thermistors) Mechanomyography (MMG) (measurement specialties custom) Isokinetic dynamometry (Cybex 6000, II, Biodex Systems 2-4, Humac Norm) Body composition testing (Hydrostatic weighing, skinfolds, and bioelectrical impedance) Core and skin temperature monitoring (YSI series reusable skin temp probe, CorTemp) Lactate Scout- blood lactate monitoring Hematocrit & blood plasma analysis Hydration status – Urine specific gravity (USG) analysis Keiser Pneumatic A420 software and legpress Velocity Transducer Microsoft Windows / Macintosh OSX Statistical Package for the Social Sciences (IBM SPSS) SAS Statistical Software STAT PLUS (intermediate) R coding (intermediate) LabVIEW (beginner) BioPac Acqknowledge