

**Justus D. Ortega**

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**Academic Appointments:**

- 2019- present *Associate Dean*, College of Professional Studies,  
Humboldt State University.
- 2019-2021 *Department Chair*, Kinesiology, Recreation Administration and  
Nursing Humboldt State University.
- 2018-present *Full Professor*, Humboldt State University.
- 2012-2016 *Associate Professor*, Humboldt State University.
- 2008-2012 *Assistant Professor*, Humboldt State University.
- 2006-2008 *Lecturer*, Humboldt State University.

**Education:**

- University of Colorado, Integrative Physiology, Ph.D., 2006.
- University of Colorado, Kinesiology & Applied Physiology, M.S., 2001.
- Humboldt State University, Kinesiology, B.S., 1997.

**Field of Research Expertise:**

- Aging, Fall Prevention and Locomotion Biomechanics
- Concussion Management and Concussion Neuromechanics

**Research Experience:**

- 2010-present *Director*. North Coast Concussion Program, School of Applied  
Health, Humboldt State University.
- 2006-present *Director*. HSU Fall Prevention Program, School of Applied Health,  
Humboldt State University.
- 2006-present *Researcher*. Biomechanics Lab, School of Applied Health,  
Humboldt State University.
- 2010- present *Director*. CSU Concussion Initiative, California State Universities.
- 2013-2014 *Affiliate Associate Professor*. Locomotion Lab, Department of  
Integrative Physiology, University of Colorado Boulder.
- 2006-2014 *Affiliate Assistant Professor*. MRI Lab, Department of Radiology,  
University of Washington.

- 2001-2006 *Research Assistant*. Locomotion Lab, Department of Integrative Physiology, University of Colorado.
- 1999-2001 *Research Assistant*. Neural Control of Movement Lab, Department of Kinesiology and Applied Physiology, University of Colorado.

### **Peer reviewed Publications**

- Carson N, Aslan D, **Ortega JD**. The Effect of Forward Postural Lean on Running Economy, Kinematics, and Muscle Activation. Submitted to Journal of Sport and Health Science, 2023.
- Singichetti, B., Marshall, S. W., Breedlove, K. M., Cameron, K. L., McCrea, M. A., McAllister, T. W., **Ortega J.D.**, ... & CARE Consortium Investigators. (2023). School-level determinants of incidence of sports-related concussion: Findings from the CARE Consortium. *PLoS one*, 18(4), e0284259.
- Nolan, K. E., Caccese, J. B., Kontos, A. P., Buckley, T. A., Garcia, G. G. P., **Ortega J.D.**, Port, N., ... & CARE Consortium Investigators. (2023). Primary and Secondary Risk Factors Associated With Concussion Symptom Clusters in Collegiate Athletes: Results From the NCAA-DoD Grand Alliance CARE Consortium. *Orthopaedic Journal of Sports Medicine*, 11(4), 23259671231163581.
- Schmidt, J. D., Broglio, S. P., Knight, K., Leeds, D., Lynall, R. C., D'Lauro, C., **Ortega JD**,... & Lintner, L. (2023). Optimizing concussion care seeking: a longitudinal analysis of recovery. *The American Journal of Sports Medicine*, 51(1), 214-224.
- Le RK, **Ortega JD**, Chrisman S, Kontos AP, Buckley TA, Kaminski T, Meyer B, Clugston JR, Goldman J, McAllister TW, McCrea M, Broglio SP, Schmidt JD, , ...& CARE Consortium Investigators (2023). King-Devick Sensitivity and Specificity to Concussion in Collegiate Athletes. *Journal of Athletic Training*, doi: 10.4085/1062-6050-0063.21.
- Lempke, L. B., Teel, E. F., Lynall, R. C., Hoffman, N. L., Buckley, T. A., Eckner, J. T., **Ortega, J. D.**, ... & Schmidt, J. D. (2023). Early exercise is associated with faster concussion recovery among collegiate athletes: findings from the ncaa-dod care consortium. *Sports medicine*, 1-13.
- Lempke, L. B., Breedlove, K. M., Caccese, J. B., McCrea, M. A., McAllister, T. W., Broglio, S. P., **Ortega, J. D.**, ... & CARE Consortium Investigators. (2023). Pre-Injury Measures do not Predict Future Concussion Among Collegiate Student-Athletes: Findings from the CARE Consortium. *American Journal of Physical Medicine & Rehabilitation*, 10-1097.
- Garcia, G. G. P., Czerniak, L. L., Lavieri, M. S., Liebel, S. W., **Ortega, J. D.**, Van Pelt, K. L., Pasquina, P. F., ... & Broglio, S. P. (2023). Estimating the relationship between the symptom-free waiting period and injury rates after return-to-play from concussion: a simulation analysis using CARE Consortium data. *Sports Medicine*, 1-16.
- Whelan, B. M., Gause, E. L., **Ortega, J. D.**, Mills, B. M., Schmidt, J. D., Kaminski, T. W., ... & Chrisman, S. P. (2022). King-Devick testing and concussion

- recovery time in collegiate athletes. *Journal of Science and Medicine in Sport*, 25(11), 930-934.
- Broglio, S. P., Perkins, S. M., Riggan, L., Stemper, B. D., Shah, A., McAllister, T. W., **Ortega, J.**, ... & McCrea, M. (2022). Spring football concussion rates mimic the preseason: findings from the CARE Consortium. *Journal of Athletic Training*.
- Ferris, L. M., Kontos, A. P., Eagle, S. R., Elbin, R. J., Clugston, J. R., **Ortega, J.D.**, & Port, N. L. (2022). Optimizing VOMS for identifying acute concussion in collegiate athletes: findings from the NCAA-DoD care consortium. *Vision Research*, 200, 108081.
- Lynall, R. C., D'Lauro, C., Kerr, Z. Y., Knight, K., Kroshus, E., Leeds, D. D., **Ortega JD**, ... & O'Donnell, P. G. (2022). Optimizing concussion care seeking: the influence of previous concussion diagnosis status on baseline assessment outcomes. *The American Journal of Sports Medicine*, 50(12), 3406-3416.
- Moody, J. N., Hayes, J. P., Buckley, T. A., Schmidt, J. D., Broglio, S. P., McAllister, T. W., **Ortega JD**,... & CARE Consortium Investigators. (2022). Age of first concussion and cognitive, psychological, and physical outcomes in NCAA collegiate student athletes. *Sports Medicine*, 52(11), 2759-2773.
- Eagle, S. R., Asken, B., Trbovich, A., Houck, Z. M., Bauer, R. M., Clugston, J. R., **Ortega JD**, ... & CARE Consortium Investigators Putukian Margot Hoy April Ortega Justus Port Nicholas Buckley Thomas Kaminski Thomas Houston Megan Duma Stephen Miles Chris Lintner Laura. (2022). Estimated duration of continued sport participation following concussions and its association with recovery outcomes in collegiate athletes: findings from the NCAA/DoD CARE Consortium. *Sports Medicine*, 52(8), 1991-2001.
- Eagle SR, Ferris L, Mucha A, Sinnott A, Marchetti G, Trbovich A, Port N, Clugston J, Buckley T, **Ortega JD**, Mihalik J, Miles C, Collins MW, Broglio S, McAllister T, McCrea M, Pasquina P, 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* 2021 Nov 10; 35(12-13):1563-1568.
- Kontos AP, Eagle SR, Marchetti G, Sinnott A, Mucha A, Port N, Ferris LM, Elbin RJ, Clugston JR, **Ortega JD**, Broglio SP, McAllister T, McCrea M, Pasquina P; CARE Consortium Site Investigators, Brooks A, Buckley T, Mihalik J, Miles C, Collins MW (2021). Discriminative Validity of Vestibular Ocular Motor Screening in Identifying Concussion Among Collegiate Athletes: A National Collegiate Athletic Association-Department of Defense Concussion Assessment, Research, and Education Consortium Study. *American Journal of Sports Medicine*. Jul; 49(8):2211-2217.
- Kaminski TW, Chrisman SD, Glutting J, Wahlquist V, Eagle S, Putukian M, Tierney R, Broglio SP, McAllister TW, McCrea MA, Pasquina PF, **Ortega JD**, Kontos AP,... & CARE Site Investigators (2021) Mechanisms of injury

- for concussions in collegiate soccer: an NCAA/DoD CARE consortium study, *Science and Medicine in Football*, DOI: 10.1080/24733938.2021.1991586
- Aslan, D. H., Collette, J. M., & Ortega, J. D. (2020). Bicycling Exercise Helps Maintain a Youthful Metabolic Cost of Walking in Older Adults. *Journal of Aging and Physical Activity*, 1(aop), 1-7.
- McCrea M, Broglio S, McAllister T, Zhou W, Zhao S, Katz B, Kudela M, Harezlak J, Nelson L, Meier T, Marshall SW, Guskiewicz KM, **Ortega JD**, ...& CARE Consortium Investigators (2020). Return to play and risk of repeat concussion in collegiate football players: comparative analysis from the NCAA Concussion Study (1999-2001) and CARE Consortium (2014-2017). *British Journal of Sports Medicine*; 54(2):102-109.
- Jones SA, Alicea SK, **Ortega JD** (2020). A Self-Determination Theory Approach for Exercise Motivation in Rural Dwelling Older Adults. *Activities, Adaptation & Aging*. 44 (1), 24-41.
- Clugston JR, Chrisman SPD, Houck ZM, Asken BM, Boone JK, Buckley TA, Hoffman NL, Schmidt JD, Kontos AP, Jaffee MS, Harmon KG, Broglio SP, McCrea MA, McAllister TW, **Ortega JD** (2020). King-Devick Test Time Varies by Testing Modality. *Clinical Journal of Sport Medicine*. 30(5):e139-e142.
- Caccese JB, Bodt BA, Iverson GL, Kaminski TW, Bryk K, Oldham J, Broglio SP, McCrea M, McAllister T, Buckley TA, **Ortega JD**, ...& CARE Consortium Investigators (2020). Estimated Age of First Exposure to Contact Sports and Neurocognitive, Psychological, and Physical Outcomes in Healthy NCAA Collegiate Athletes: A Cohort Study. *Sports Medicine*; 50(7):1377-1392.
- Asken BM, Houck ZM, Clugston JR, Larrabee GJ, Broglio SP, McCrea MA, McAllister TW, Bauer RM, **Ortega JD**, ...& CARE Consortium Investigators (2020). Word-reading ability as a "hold test" in cognitively normal young adults with history of concussion and repetitive head impact exposure: A CARE Consortium Study. *Clinical Neuropsychology*; 34(5):919-936.
- Houck ZM, Asken BM, Bauer RM, Caccese JB, Buckley TA, McCrea MA, McAllister TW, Broglio SP, Clugston JR, **Ortega JD**, ...& CARE Consortium Investigators. (2020) Academic aptitude mediates the relationship between socioeconomic status and race in predicting ImPACT scores in college athletes. *Clinical Neuropsychology*; 34(3):561-579.
- Whitney SL, Eagle SR, Marchetti G, Mucha A, Collins MW, Kontos AP, **Ortega JD**, ...& CARE Consortium Investigators. (2020) Association of acute vestibular/ocular motor screening scores to prolonged recovery in collegiate athletes following sport-related concussion. *Brain Injury* 11;34(6):840-845
- Asken BM, Houck ZM, Schmidt JD, Bauer RM, Broglio SP, McCrea MA, McAllister TW, Clugston JR, **Ortega JD**, ...& CARE Consortium Investigators. A Normative Reference vs. Baseline Testing Compromise for ImPACT: The

- CARE Consortium Multiple Variable Prediction (CARE-MVP) Norms (2020). *Sports Med.*; 50(8):1533-1547.
- Schmidt, J. D., Rawlins, M. L. W., Lynall, R. C., D'Lauro, C., Clugston, J. R., McAllister, T. W., **Ortega JD**,... & Broglio, S. P. (2020). Medical Disqualification Following Concussion in Collegiate Student-Athletes: Findings from the CARE Consortium. *Sports Med* **50**, 1843–1855.
- Hoffman, N. L., Weber, M. L., Broglio, S. P., McCrea, M., McAllister, T. W., Schmidt, J. D., **Ortega JD**, ...& CARE Consortium Investigators. (2020). Influence of postconcussion sleep duration on concussion recovery in collegiate athletes. *Clinical journal of sport medicine*, *30*, S29-S35.
- Chrisman SPD, Harmon KG, Schmidt JD, Kaminski TW, Buckley TA, Kontos AP, Clugston JR, McCrea M, McAllister T, Broglio SP, **Ortega J.** (2019). Impact of Factors that Affect Reading Skill Level on King-Devick Baseline Performance Time. *Ann Biomed Eng.* Oct;47(10):2122-2127.
- Weber, M.L., Lynall, R.C., Hoffman, N.L., Miller, E. H., Kaminski, T. W., Buckley, T. A., Benjamin, H. J., Miles, C. M., Whitlow, C. T., Lintner, L., Broglio, S. P., McCrea, M., McAllister, T., **Ortega JD**, ...& CARE Consortium Investigators. (2019). Health-Related Quality of Life Following Concussion in Collegiate Student-Athletes With and Without Concussion History. *Ann Biomed Eng* **47**, 2136–2146.
- Houck ZM, Asken BM, Bauer RM, McCrea MA, McAllister TW, **Ortega JD**, ...& Clugston JR (2019). Multivariate Base Rates of Low Scores and Reliable Decline on ImpACT in Healthy Collegiate Athletes Using CARE Consortium Norms. *Journal of International Neuropsychological Society*, 25(9), 961-971.
- Broglio SP, Harezlak J, Katz B, Zhao S, McAllister T, McCrea M, **Ortega JD**, ...& CARE Consortium Investigators. Acute Sport Concussion Assessment Optimization: A Prospective Assessment from the CARE Consortium. *Sports Med.* (2019). 49(12):1977-1987
- Caccese JB, DeWolf RM, Kaminski TW, Buckley TA, **Ortega JD**,...& Broglio SP (2018). Estimated age of first exposure to football and neurocognitive performance amongst NCAA student-athletes. *American Journal of Sports Medicine*, 49(3), 477-487.
- Garcia GG, Lavieri MS, Jiang R, McAllister TW, McCrea MA, **Ortega JD**, ...and Broglio SP (2018). A Data-driven Approach to Unlikely, Possible, Probable, and Definite Acute Concussion Assessment. *Journal of Neurotrauma*, 36(10):1571-1583.
- Beck, ON, Grabowski, AM, & **Ortega, JD.** (2018). Neither total muscle activation nor co-activation explains the youthful walking economy of older runners. *Gait & posture*, 65, 163-168.
- Asken, B. M., Bauer, R. M., Guskiewicz, K. M., McCrea, M. A., Schmidt, J. D., Giza, C. C., **Ortega JD**, ... & Broglio, S. P. (2018). Immediate removal from activity after sport-related concussion is associated with shorter clinical recovery and less severe symptoms in collegiate student-athletes. *The American journal of sports medicine*, 46(6), 1465-1474.

- Schmidt, J. D., Rizzone, K., Hoffman, N. L., Weber, M. L., Jones, C., Bazarian, J., **Ortega JD**... & Hazzard, J. B. (2018). Age at first concussion influences the number of subsequent concussions. *Pediatric neurology*, 81, 19-24
- Weber, M. L., Dean, J. H. L., Hoffman, N. L., Broglio, S. P., McCrea, M., McAllister, T. W., **Ortega JD**, ... & Kelly, L. A. (2018). Influences of mental illness, current psychological state, and concussion history on baseline concussion assessment performance. *The American journal of sports medicine*, 46(7), 1742-1751.
- Broglio, S. P., Katz, B. P., Zhao, S., McCrea, M., McAllister, T., **Ortega JD**... & CARE Consortium Investigators. (2018). Test-Retest Reliability and Interpretation of Common Concussion Assessment Tools: Findings from the NCAA-DoD CARE Consortium. *Sports Medicine*, 48(5), 1255-1268.
- Garcia, G. G. P., Broglio, S. P., Lavieri, M. S., McCrea, M., McAllister, T., **Ortega JD**... & CARE Consortium Investigators (2018). Quantifying the value of multidimensional assessment models for acute concussion: an analysis of data from the NCAA-DoD Care Consortium. *Sports Medicine*, 48(7), 1739-1749.
- Katz, B. P., Kudela, M., Harezlak, J., McCrea, M., McAllister, T., Broglio, S. P., **Ortega JD**,... & CARE Consortium Investigators. (2018). Baseline performance of NCAA athletes on a concussion assessment battery: A report from the CARE consortium. *Sports Medicine*, 1-15.
- Broglio, S. P., McCrea, M., McAllister, T., Harezlak, J., Katz, B., Hack, D., **Ortega JD**,... & CARE Consortium Investigators. (2017). A national study on the effects of concussion in collegiate athletes and US military service academy members: the NCAA-DoD concussion assessment, research and education (CARE) consortium structure and methods. *Sports medicine*, 47(7), 1437-1451.
- Beck ON, **Ortega JD**, Roby JM, Turney AL, and Kram R. (2016) Older Runner Retain Youthful Running Economy Despite Biomechanical Differences. *Medicine and Science in Sports and Exercise*. 48 (4), 697
- Ortega JD**, Lindstedt SL, Jubrias S, Kushmerick MJ, Nelson FE and Conley KE. (2015) Making Sense of the Fenn Effect? *Journal of Experimental Biology* 218, 2075-2082.
- Ortega, JD** and Farley CT. (2015) Aging and the determinants of steady-state energetics cost during uphill walking. *Journal of Electromyography and Kinesiology* 25, 193-198.
- Ortega JD**, Beck ON, Roby JM, Turney AL, Kram R (2014) Running for Exercise Mitigates Age-Related Deterioration of Walking Economy. *PLoS ONE* 9(11): e113471. doi: 10.1371/journal.pone.0113471
- Ortega JD**. (2013) Counterpoint: Aging does not reduce mechanical efficiency. *Journal of Applied Physiology* 114(8): 1112-1113.
- Kontos AP and **Ortega JD** (2011). Neuromotor effects of concussion: A biobehavioral model (p.325-356). In *Handbook of Sport Neuropsychology* (1<sup>st</sup> Ed). New York, NY. Springer Publishing.

- Nelson FE, **Ortega JD**, Jubrias S, Kushmerick MJ, and Conley KE. (2011) A Review: High efficiency in human muscle: an anomaly and an opportunity? *Journal of Experimental Biology* 214, 2649-2653.
- Frey DJ, **Ortega JD**, Wiseman C, Farley CT, Wright KP. (2010) Influence of zolpidem and sleep inertia on balance and cognition during nighttime awakening: a randomized placebo-controlled trial. *Journal of the American Geriatric Society* 59(1):73-81
- Ortega, JD** and Farley, CF. (2008) Energetic cost of stability and arm swing in young and elderly adults. *Journal of Biomechanics* 41(16): 3303-8.
- Ortega, JD** and Farley, CF. (2007) Individual limb work does not explain the greater metabolic cost of walking in elderly adults. *Journal of Applied Physiology* 102(6):2266-73.
- Tracy BL, Mehoudar PD, **Ortega JD**, and Enoka RM. (2007) Correlations in steadiness between the elbow flexor and knee extensor muscle in young and elderly adults. *Experimental Brain Research* 176(3):448-64.
- Ortega, JD** and Farley, CF (2005) Minimizing center of mass vertical movement increases metabolic cost in walking. *Journal of Applied Physiology* 99: 2099-2107.

#### **Non-Refereed Publications and Reports**

- Ortega JD** and Larson, E (2016). 2<sup>nd</sup> CSU Concussion Management Report by the North Coast Concussion Program and CSU Concussion Initiative, Long Beach, CA.
- Ortega JD**, Alfi M, DeCarolis J, Vargas M. (2016) Metabolic Demand of an Emergency Response “critical task” among Humboldt Bay Power Plant Security Officers. A report presented to Pacific Gas & Electric Power Company.
- Ortega JD** and Larson, E (2015). Concussion Education for Coaches and Staff: An Online Education and Training Course by the North Coast Concussion Program and CSU Concussion Initiative, Long Beach, CA.
- Ortega JD** and Larson, E (2014). CSU Concussion Management: A Report by the North Coast Concussion Program and CSU Concussion Initiative, Long Beach, CA.
- Ortega JD** (2010). Laboratory Manual for Structural Kinesiology. *HSU Bookstore*. Humboldt State University.

#### **Conference Presentations and Peer-reviewed Abstracts**

- Duty Determination after mTBI - Dose-Response Association of Continued Activity Following Mild Traumatic Brain Injury with Poorer Clinical Outcomes: Findings from the NCAA-DoD CARE Consortium (2021). *Proceeding of Military Health System Research Symposium*.
- Frakes, NG, Perry, CA and Ortega, JD (2020). The Independent Effects of Gravitational and Inertial Forces on Kinematic Determinants of Human

Gait Transitions. *Proceeding of American Society of Biomechanics Annual Meeting.*

- Copriviza, CI and **Ortega, JD** (2019). Effects of Manipulation Center of Mass Vertical Motion on Running Economy. *Proceeding of World Congress of Biomechanics Conference.*
- Bouweraerts, AG and **Ortega, JD** (2019). Fall Risk Behaviors and Intrinsic Risk Factors for Falls in Indigenous and Non-indigenous Rural Older Adults, *Innovation in Aging*, 3(S1), S471–S472.
- Lim, Boram, Burrus, B, **Ortega, JD**, and Kwon, YS (2018). The effect of Stride Frequency on Running Performance at the Velocity of  $VO_2$ Max. *Medicine & Science in Sports & Exercise*. 49(5S), 22.
- Clugston JR, Chrisman SP, Houck ZM, Asken BM, Boone JK, Kontos AP, Buckley TA, Schmidt JD, Kaminski TW, Collins MW, **Ortega JD** (2017). King-Devick Test time varies by testing modality. *Proceeding of American Medical Society for Sports Medicine Annual Meeting*
- Aslan, DH, Collette, JM and **Ortega, JD** (2017). Bicycling for Exercise Helps Maintain a Youthful Metabolic Cost of Walking in Older Adults. *Medicine & Science in Sports & Exercise*. 49(5S):224, May 2017.
- Clugston JR, Chrisman SP, Houck ZM, Asken BM, Boone JK, Kontos AP, Buckley TA, Schmidt JD, Kaminski TW, Collins MW, **Ortega JD** (2017). Relationship between the King-Devick Test (KDT) and commonly used concussion tests. *Proceeding of American Medical Society for Sports Medicine Annual Meeting.*
- Buckley T, Breedlove K, Oldham J, Kontos A, DiFabio M, Kaminski T, Clugston J, Schmidt J, Chrisman S, DeWolf R, **Ortega JD**, (2017). Year to Year Reliability of the King Devick Test in Collegiate Student-Athletes: An NCAA/DoD Grand Alliance Report. *American Academy of Neurology Annual Meeting.*
- Breedlove K, Oldham J, Kontos A, DiFabio M, Kaminski T, Clugston J, Schmidt J, Chrisman S, DeWolf R, **Ortega JD**, Buckley T (2017). Between Trial Reliability of the King Devick Test. *American Academy of Neurology Annual Meeting.*
- Larson E, Ortiz M, **Ortega JD** (2016). A regional model for concussion education and outreach. *Society of Neuroscience National Conference*, San Diego, CA.
- Campbell J, Alicia S, Kwon Y, and **Ortega JD** (2016). The Effects of foot orthoses on energetics and lower extremity cycling mechanics in healthy recreational adults. *National Medicine of Cycling Annual Conference*, Colorado Springs, CO.
- Carson N, **Ortega, JD** (2016). The effects of lean on running kinematics and muscle activation. *American Society of Biomechanics Annual Meeting*, Charlotte, SC.
- Chrisman SP, Harmon KG, Schmidt JD, Kaminski TW, Buckley TA, Kontos AP, Clugston JR, **Ortega JD** (2016). Variation in King-Devick Performance



- Time by Primary language and History of a Learning Disorder.  
*Proceeding of American College of Sports Medicine Annual Meeting.*
- Carson N, **Ortega, JD** (2016). The effects of postural alterations on metabolic cost in running. *Proceeding of ACSM Annual Meeting. American Society of Biomechanics Annual Meeting*, Raleigh, North Carolina.
- Carson NM and **Ortega JD** (2016). The Effects of postural alterations on metabolic cost and mechanics of running. *Humboldt State University IdeaFest*, Arcata, CA
- Ortega, JD** and Larson, E (2015). Concussion: Fitting the Pieces Together for a Best Practices Model of Concussion Management. *CSU Fitting the Pieces Together Conference*, San Diego, CA.
- Ortega, JD** (2014). Aging and Locomotion Energetics. *American Society of Biomechanics Annual Meeting*, Columbus, OH.
- Ortega, JD** (2014). The Effects of Concussion on Balance and Gait. *Concussion in Youth Sport Research Summit*, Fayetteville, AR.
- Ortega, JD** (2014). Models of Human Locomotion: Walking vs. Running. *Colloquium of Mathematics*, Humboldt State University, Arcata, CA
- Beck ON, Roby JM, Turney AL, Grabowski AM, Kram R and **Ortega, JD** (2014). Do Older Runners Lose the Spring in Their Step? *Proceeding of World Congress of Biomechanics Conference.*
- Beck ON, Roby JM, Turney AL, Grabowski AM, Kram R and **Ortega, JD** (2014). Walking Energetics and Biomechanics of Older Walkers vs. Older Runners. *Proceeding of World Congress of Biomechanics Conference.*
- Beck ON, Roby JM, Turney AL, Grabowski AM, Kram R and **Ortega, JD** (2014). Running Improves the Economy of Walking Among Older Adults. *Proceeding of ACSM Annual Meeting.*
- Garcia, J and **Ortega, JD** (2014). History of Prior Concussion Injuries Influences Neurocognitive Recovery Time in Collegiate and High School Athletes. *Proceeding of ACSM Annual Meeting.*
- Garcia, J and **Ortega, JD** (2014). Prior Concussion Injuries May Influence Neurocognitive Recovery Time in Collegiate Athletes. *Proceedings of the CSUPERB Biotechnology Conference.*
- Ortega, JD** (2013). The Effects of Exercise on Balance, Mobility, and Fall Risk in Rural and Urban-Dwelling Older Adults. *Proceeding of the 2<sup>nd</sup> Annual Center for Healthy Aging in Multicultural Populations (CHAMP) Conference on Health and Aging.*
- Ortega, JD** (2012). Determinants of walking energetics in older adults. *Proceeding of American Society of Biomechanics Annual Meeting.*
- Ortega, JD** and Landis, S (2012). Effect of structured and unstructured exercise on postural balance and mobility in rural and urban dwelling elderly adults. *Proceeding of ACSM Annual Meeting.*
- Ortega, JD** and Kealalio, J (2012). Effect of ankle support on kinematics and kinetics of maximal vertical jumping performance. *Proceeding of ACSM Annual Meeting.*

- Kramer, K and **Ortega, JD** (2012). Effect of core strength training on dynamic and static balance in female collegiate athletes. *Proceeding of ACSM Annual Meeting*.
- Kontos A, Larson E, Kelly, S, and **Ortega JD**. (2011) Comprehensive Field and Laboratory Examination of the Neurocognitive Effects of Soccer Heading Among Collegiate Male and Female Soccer Players. *Proceeding of American Psychological Association Annual Convention*.
- Conti C, **Ortega JD**, and Musolf SA. (2011) The Mechanical determinants of energetic cost during backward running. *Proceeding of American Society of Biomechanics Annual Meeting*.
- Ortega JD** and Musolf SA. (2011) Effects of aging on the metabolic cost of supporting body weight. *Proceeding of American Society of Biomechanics Annual Meeting*.
- Ortega JD** and Farley CT. (2011) Aging and the determinants of steady-state energetics cost during uphill walking. *Proceeding of ACSM Annual Meeting*.
- Ortega JD**, Nelson FE, Lindstedt SL, Jubrias S, and Conley KE. (2011) Efficiency of positive and negative work in vivo: an innovative apparatus for human muscle studies. *Proceeding of Experimental Biology Annual Meeting*.
- Conti C and **Ortega JD** (2009). The mechanical determinants of energetic cost in backward running. Presented at *North West American Society of Biomechanics Symposium*, Pullman, WA.
- Ortega JD** and Farley CF (2007). Elderly adults perform mechanical work less efficiently during walking. *International Society of Gait and Posture. Proceeding of International Society of Gait and Posture*.
- Ortega JD** and Farley CF (2007). Lateral stabilization reduces metabolic cost of walking in elderly adults. *Proceedings of Annual Meeting of the American Society of Biomechanics*.
- Frey D, Farley CT, **Ortega JD**, Wiseman C, Wright K (2006). Staying up late or waking up during the night after taking a hypnotic impairs walking stability in healthy community-swelling older adults. *Proceedings of 21<sup>st</sup> Annual Meeting of the Associated Professional Sleep Societies*.
- Ortega JD** and Farley CF (2005). Elderly adults perform less limb work during walking. *International Society of Biomechanics. Proceeding of World Congress of Biomechanics*.
- Ortega JD** and Farley CF (2003). Minimizing vertical center of mass movement does not reduce metabolic cost in walking. *Proceedings of Annual Meeting of the American Society of Biomechanics*.

**Invited Presentations and Lectures (Research and Service)**

- Connecting Anatomy to Biomechanics. *Eureka High School Anatomy class, Humboldt State University Biomechanics Lab, 2018.*
- Conducting Undergraduate Research in Biomechanics at HSU. Northern Humboldt School District, Arcata, CA, 2018.
- Concussion management in Recreation sports. Joint Sport Clubs and CSU Leadership meetings, National Intramural and Recreation Sports Association. San Francisco, CA, 2018.
- Effects of Rural Living on Fall Risk and Fall Prevention for Older Adults living in Humboldt and Del Norte Counties. *Humboldt Senior Resource Center, Eureka, CA, 2018.*
- Majoring in Kinesiology at HSU. *College of Redwood, Loleta, CA, 2018.*
- Balance, Mobility and Fall Risk /Exercise Prescription for Older Adults. *Arcata Community Center, Arcata, CA, 2018.*
- Biomechanics and the Field of Kinesiology. *South Fork High School, Miranda, CA, 2018.*
- Balance, Mobility and Fall Risk /Exercise Prescription for Older Adults. *Fortuna Multi-generational Center, Arcata, CA, 2017.*
- Biomechanics and the Field of Kinesiology. *Eureka High School, Eureka, CA, 2018.*
- Best Practices in Concussion Management. *CSU Underwriters Meeting, Sonoma State University, Sonoma CA 2016.*
- Fall Risk and Fall Prevention for Older Adults living in Humboldt County. *Department of Health and Human Services, Eureka, CA, 2016.*
- Panelist: How to be successful in College. *McKinleyville High School, McKinleyville, CA, 2016.*
- Professional Pathways: Opportunities for Hands-On Career and Research Experience. *Academic and Career Advising Center, Humboldt State University, 2016.*
- Fall Risk Assessment and Exercise for Older Adults. *Bear River Rancheria, Loleta, CA, 2015.*
- Putting the U in ProDUctivity: Using Mindfulness and Purpose to Guide Us. Institute for Student Success, Humboldt State University, 2016.
- Integration of Research, Service and Learning. HSU Emeritus and Retired Faculty Association (ERFA) Annual Meeting. Humboldt State University, 2015.
- Concussions in Youth Sports: Prevention and Treatment. McKinleyville Middle School Parent Teacher Meeting, McKinleyville, CA, 2015.
- Balance and Mobility Assessment and Training for Older Adults. *Osher Lifelong Learning Institute, Arcata, CA, 2015.*
- Balance and Mobility and Fall Risk in Humboldt County. *Humboldt Senior Resource Center, Eureka, CA, 2015.*

- Using Exercise to Improve Balance and Mobility and Fall Risk. *Fortuna Senior Dining Center*, Fortuna, CA, 2015.
- Experience your Learning: The interrelation between research, Service and Student Learning. *Research Administration Committee Conference*, Blue Lake, CA, 2015.
- Models of Human Locomotion: Walking versus Running. Department of Mathematics Colloquium, Humboldt State University, Arcata, CA. 2014
- Ramp Up Your Courage. Retention through Academic Mentoring Program, Humboldt State University, 2014.
- Balance and Mobility Assessment and Training for Older Adults. *Osher Lifelong Learning Institute*, Eureka, CA, 2014.
- Excel Part 2: Advanced Use Workshop. Kinesiology Workshop and Lecture Series, Humboldt State University, 2014.
- Excel Part 1: Basic Use Workshop. Kinesiology Workshop and Lecture Series, Humboldt State University, 2014.
- CCAA Concussion Management. Annual CCAA Athletic Trainer's Meeting, California State University East Bay, Walnut Creek, CA, 2014.
- CSU Concussion Management: a Report. Annual CSURMA Athletic Injury Medical Expense Committee (AIME) Meeting, Sacramento, CA, 2014.
- Best Practices in Concussion Management. Council of Presidents, CSU Chancellor's Office, Long Beach, CA, 2013.
- Seeking Balance for Older Adults. *Osher Lifelong Learning Institute*, Eureka, CA, 2013.
- Determinants of Walking Energetics in Older Adults. *California Physical Therapy Association (CPTA)*, Santa Rosa, CA, 2011.
- Biomechanics: The Mathematics of Sports. *Redwood Empire Mathematics Tournament*, Arcata, CA, 2011.
- Improving balance and reducing falls in older adults. *Osher Lifelong Learning Institute*, Eureka, CA, 2011.
- A Model of Terrestrial Locomotion: From Mice to Elephants? *Department of Mathematics Colloquium*, Humboldt State University, Arcata, CA, 2011.
- Improving balance and reducing falls in older adults. *Osher Lifelong Learning Institute* in Eureka, CA, 2011.
- Do the locomotion: Using proximate and evolutionary perspectives to understand bipedalism. *Department of Anthropology*, Humboldt State University, Arcata, CA, 2011.
- A Biomechanical Model of Terrestrial Running? *Department of Biology*, Humboldt State University, Arcata, CA, 2011.
- A Model of Terrestrial Walking: From Mice to Men... to Elephants? *Department of Biology*, Humboldt State University, Arcata, CA, 2011.
- Session Moderator. *North West American Society of Biomechanics Symposium*, Seattle, WA, 2010.

The Next Big Step: Understanding the Effect of Aging on Mobility. *Classes without quizzes Lecture Series, Humboldt State University, Arcata, CA, 2010.*

Mechanical determinants of walking energetics in the elderly. *Alistair McCrone Promising Young Faculty Award Ceremony, Humboldt State University, Arcata, CA, 2009.*

**Grants, Awards, and Contracts (Research and Service)**

2023- Present California State Universities Chancellor's Concussion Initiative Grant. \$224,00

2022 Blue Lake Rancheria Fall Prevention, \$5,000/year.

2020- Present NCCP-HDN Concussion Assessment Contract, \$35,000/year.

2019-present NCCP-College of Redwood Concussion Contract. \$3,400 /year

2019- 2020 NCAA-DoD C.A.R.E. 3.0 Concussion Grant. \$68,000

2018 NCCP-College of Redwood Concussion Assessment Contract. \$3,400

2017- 2019 NCAA-DoD C.A.R.E. 2.0 Concussion Grant. \$248,000

2017 North Coast Grant Makers Fall Risk Testing Grant. \$8,900

2017 NCCP-College of Redwood Concussion Assessment Contract. \$3,400

2016 Fitness Testing for PG&E Security Officers. \$1,865

2016 United Indian Health Services Fall Prevention Program. \$3,865

2016 NCCP-College of Redwood Concussion Assessment Contract. \$3,400

2016-2020 NCCP-HDN Concussion Assessment Contract, \$30,000/year.

2015 NCAA-DoD C.A.R.E. 1.0 Concussion Grant. \$243,000

2014 Humboldt State University Excellence in Teaching Award. \$1000.

2014-2021 California State Universities Chancellor's Concussion Initiative Grant. \$300,000

2014 CSUPERB Travel Grant. \$1,300.

2013 CSUPERB New Investigator Award. \$14,071.

2013 NIH/NCATS CTSA Grant sub-award \$15,000.

2012 HSU Diversity Grant: Men's Story Project. \$2000.

2011-2015 NCCP-HDN Concussion Assessment Contract, \$28,000/year.

2011 Humboldt State University RSCA Grant. \$4701.

2010-2011 Humboldt State University Foundation work-study grant. \$5000

2009 Humboldt State University RSCA Grant. \$4500.

2009-2010 Humboldt State University Foundation work-study grant. \$5000

2009	McCrone Promising Young Faculty Award, Humboldt State University. \$1000
2008-2010	NIH R01 Supplemental Grant. \$89,767.
2007	American Society of Biomechanics Journal of Biomechanics Award. \$1000
2006	Humboldt State University Faculty Development Award. \$500
2005-2006	National Institutes of Health, Ruth L. Kirschstein Pre-doctoral Research Service Award, Tuition + \$20,000 stipend.
2003-2005	National Institutes of Health/Howard Hughes Medical Institute Pre-doctoral fellow, Tuition + \$20,000 stipend.
2002-2005	J. Tour Scholarship for the advancement of the study of physical sciences and engineering. \$2,500
2002-2003	National Institutes of Health, Pre-doctoral Training Grant. Tuition + \$20,000 stipend.
2001-2002	National Science Foundation Fellow. Tuition + \$18,500 Stipend.

## **Service**

### **A. University**

2018	<i>Member.</i> Search Committee for CPS Dean
2018	<i>Chair.</i> Search Committee for HSU Football Head Coach
2017-2018	<i>Chair.</i> Intercollegiate Athletics Advisor Committee
2017-2018	<i>Chair.</i> University Policy Committee
2017-2018	<i>Member.</i> University Sports Facilities Schedule Advisory Group
2016-2017	<i>Member.</i> Search Committee College of Prof. Studies Dean
2016-2017	<i>Member.</i> University Policy Committee
2015-2017	<i>Member.</i> Strategic Planning Oversight Committee
2015-2017	<i>Member.</i> Research Computing Task Force
2015-2017	<i>Member.</i> Parking and Transportation Committee
2015-2016	<i>CSU-PERB</i> New Investigator Major Grant Reviewer
2014-Present	<i>Director/coordinator.</i> CSU Concussion Initiative
2014-2017	<i>Member.</i> President's Diversity Advisory Committee
2011-2018	<i>Member.</i> Humboldt State University Senate
2014 -2017	<i>Advisor.</i> HSU Cycling Club.
2014-2015	<i>Chair.</i> Appointments and Elections Committee
2014	<i>Member.</i> Search Committee for Library Dean.
2014	<i>Facilitator.</i> Diversity Focus Group for HSU Faculty.

2013-2014	<i>Member.</i> Task Force to Oversee Implementation of Electronic SET (Student Evaluations of Teaching)
2012-2015	<i>Member.</i> Exploratory Committee on Establishing an Undergraduate Student Research Center
2012	<i>Faculty Mentor.</i> Men's Story Project
2012 Students	<i>Facilitator.</i> Fall book circle: Teaching Underprepared
2011-2014	<i>Member.</i> Appointments and Elections Committee
2011	<i>Member.</i> Spring book circle: Student Success in College
2010	<i>Presenter.</i> <i>Making Excellence Inclusive: Classroom Strategies and a Department Model.</i> Institute for Diversity in Learning and Teaching, Humboldt State University.
2010	<i>Speaker.</i> <i>Cabinet for Institutional Change Update.</i> HSU Spring Convocation.
2010 - 2013	<i>Advisor.</i> Lambda Theta Phi Club.
2009 - 2013	<i>Advisor.</i> HSU Women's Rugby Club.
2009 - 2013	<i>Advisor.</i> HSU Kinesiology Club.
2009 - 2010	<i>Member.</i> HSU Cabinet for Institutional Change.
2009	<i>Member.</i> HSU Retention Work Group of the Comprehensive Enrollment Task Force (2009).
2008 - 2015	<i>Member.</i> HSU Student Awards Selection Committee.
2008 - 2010	<i>Presenter.</i> <i>Developing a department plan for inclusive academic excellence.</i> HSU WASC Theme II committee. (4 presentations)
2008 - 2009	<i>Presenter.</i> <i>Strategies for academic excellence in the sciences.</i> Department of Nursing, Humboldt State University. (3 presentations)
2008	<i>Presenter.</i> <i>Social Justice Summit.</i> HSU Multicultural Center.
2007 - 2013	<i>Advisor.</i> HSU Men's Rugby Club.
2007 - 2009	<i>Advisor.</i> HSU Buddhist Club.
2007 - 2008	<i>Panelist.</i> <i>How to succeed at HSU.</i> HSU Educational Opportunity Program Peer Mentoring program. (2 presentations)
2007	<i>Presenter.</i> <i>Exploring Best Practices for Inclusive Higher Education as Educational Process.</i> HSU Dialogue on Race.
2006 - 2010	<i>Member.</i> WASC (Western Association of Schools and Colleges) Theme II committee.

**B. Department**

2020 - 2021	Member, <i>Initiating Unit Personnel Committee</i> , Department of Kinesiology and Recreation Administration.
2020- present	<i>Chair</i> . Department of Kinesiology, Recreation Administration and Nursing.
2017 - 2020	<i>Chair</i> . <i>Budget Advisory Committee</i> , Department of Kinesiology and Recreation Administration.
2017 - Present	<i>Member</i> . <i>Graduate Program Committee</i> , Department of Kinesiology and Recreation Administration.
2017 - 2020	<i>Member</i> . <i>Bylaws Committee</i> , Department of Kinesiology and Recreation Administration.
2018 - 2019	Chair, <i>Initiating Unit Personnel Committee</i> , Department of Kinesiology and Recreation Administration.
2017 - 2018	Member, <i>Initiating Unit Personnel Committee</i> , Department of Kinesiology and Recreation Administration.
2015 - 2017	<i>Graduate Program Coordinator</i> , Department of Kinesiology and Recreation Administration.
2015 - 2017	<i>Exercise Science Program Lead</i> , Department of Kinesiology and Recreation Administration.
2015 - 2016	<i>Chair</i> . <i>Exercise Science Faculty Search Committee</i> , Department of Kinesiology and Recreation Administration.
2014 - 2015	<i>Member</i> . <i>Nutrition Faculty Search Committee</i> , Department of Kinesiology and Recreation Administration.
2014 - 2015	<i>Member</i> . <i>Adapted PE Faculty Search Committee</i> , Department of Kinesiology and Recreation Administration.
2014 - 2015	<i>Chair</i> . <i>Exercise Science Faculty Search Committee</i> , Department of Kinesiology and Recreation Administration.
2012 - 2015	<i>Chair</i> . <i>Curriculum Committee</i> , Department of Kinesiology and Recreation Administration.
2012 - Present	<i>Member</i> . <i>Personnel Committee</i> , Department of Kinesiology and Recreation Administration.
2012 - 2013	<i>Member</i> . <i>Faculty Search Committee</i> , Department of Kinesiology and Recreation Administration.
2011	<i>Writer</i> . Sponsored Programs Initiative (SPI) proposal. Kinesiology and Recreation Administration
2010	<i>Writer</i> . Diversity and Inclusive Academic Excellence Plan. Kinesiology and Recreation Administration



2008 - present	<i>Member. Health and Human Performance Institute Board of Directors.</i>
2008 - present	<i>Member. HSU Kinesiology Graduate Program Committee.</i>
2008 - 2017	<i>Member. HSU KRA Department Advisory/Budget Committee.</i>
2006 - present	<i>Director. HSU Biomechanics Lab, Health and Human Performance Institute, Department of Kinesiology.</i>
2006-present	<i>Chair, Master's Thesis Committee. ~40+ thesis committees (34 graduated + 6 in progress).</i>
2006-present	<i>Member, Master's Thesis Committee. ~30+ thesis committees.</i>
2010 - present	<i>Director. HSU North Coast Concussion Program, Health and Human Performance Institute, Department of Kinesiology.</i>

### **C. Non-Academic Service Outside Humboldt State University**

2016-2020	<i>Board President. Making Headway Center for Traumatic Brain Injury Recovery, Eureka, CA</i>
2014-Present	<i>Director and Founding Member. CSU Concussion Initiative. Develop comprehensive concussion education, policy and protocols for CSU campuses.</i>
2015	<i>Faculty Panelist. "Preparing for Graduate School: A Round Table Discussion", North West Chapter Meeting of the American Society of Biomechanics, Salem, OR.</i>
2014-2016	<i>Board member. Making Headway Center for Traumatic Brain Injury Recovery, Eureka, CA</i>
2010-Present	<i>Clinical Gait Analysis. Data collection and analysis for surrounding community members and local physical therapy groups (approx. 10 assessment/year).</i>
20110-Present	<i>Concussion Education and Assessment. Data collection and analysis for Humboldt and Del Norte County School Districts, HSU, College of the Redwoods, and surrounding Humboldt, Del Norte, and Trinity County communities (approx. 2500-3000 assessment/year).</i>
2010-Present	<i>Founder and Director, HSU Fall Prevention Program. Provide balance, mobility, and fall risk Assessments as well as education and exercise prescription for seniors from surrounding Humboldt and Del Norte counties, local Native American tribes, and local physical therapy groups (approx. 100+ assessment/year).</i>

### **Conference Abstracts/ Journals / Books Reviewer**

2018 - 2021	Journal of Athletic Training
2016	Book Review: Concussion: A Comprehensive, Clinical Profile-based Perspective". American Psychological Association.
2015 – present	Reviewer of Abstracts, American College of Sports Medicine Annual Meeting.
2015 – present	Reviewer of Abstracts, North West Biomechanics Symposium
2013 – present	Human Movement Science
2012 – present	Reviewer of Abstracts, American Society of Biomechanics National Meeting
2012 – 2018	European Journal of Applied Physiology
2010	Book Review: Powers and Howley (2010) <i>Exercise Physiology</i> (7 <sup>th</sup> Ed). McGraw-Hill.
2009 - present	Journal of Sport Sciences
2009 – present	Journal of Biomechanics
2008 - present	Medicine and Science in Sports and Exercise
2007 - present	Proceeding of the Royal Society Biological Sciences
2002 - present	Journal of Applied Physiology

#### **Membership in Professional Societies**

International Society of Biomechanics  
International Society of Gait and Posture  
American College of Sports Medicine  
American Physiological Society  
American Society of Biomechanics  
Northwest Chapter of American Society of Biomechanics