

## CURRICULUM VITA

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### **Eadric Bressel**

Professor

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### **Education**

- **Postdoctoral Research Fellow** in Clinical Biomechanics, June 1999-June 2000  
Auckland University of Technology, Auckland, New Zealand
- **Doctor of Education** in Kinesiology (emphasis in Clinical Biomechanics), 1999  
University of Northern Colorado, Greeley, CO
- **Master of Arts** in Physical Education (emphasis in Exercise Science), 1995  
California State University, Fresno, Fresno, CA
- **Bachelor of Science** in Physical Education (emphasis Allied Health) 1994  
California State University, Fresno, Fresno, CA

### **Professional Experience**

- **Utah State University**, Logan, UT
  - a. Head, Department of Kinesiology and Health Science, 2018-2025
  - b. Founding director of the KHS research center, 2017-
  - c. Professor of Kinesiology, 2012-
  - d. Director, Interdisciplinary PhD program in Pathokinesiology, 2012-2024
  - e. Associate Professor of Kinesiology, Tenured, 2007-2011
  - f. Director, Biomechanics Laboratory, 2001-2018
  - g. Assistant Professor of Kinesiology, 2000-2006
- **Auckland University of Technology**, Auckland, New Zealand
  - a. Research Associate, 2007-2018
  - b. Postdoctoral Research Fellow, 1999-2000
- **University of New England**, Biddeford, ME
  - a. Visiting Lecturer, Spring 2006
- **University of Northern Colorado**, Greeley, CO
  - a. Lecturer, 1999
  - b. Teaching Assistant, 1996-1998

### **Selected Administrative and Leadership Experiences**

Utah State University, Logan, UT

- Head, Department of Kinesiology and Health Science, October 2018-  
Responsible for a \$3.1 million annual personnel and operating budget and a \$1-2.9 million external yearly grant budget, 20 tenured/tenure track faculty, 4 full-time non-tenure track faculty, 64 part-time instructional faculty, 3 academic advisors, 3 administrative staff, ≈ 850 undergraduate students, ≈ 175 graduate students, BS degrees in kinesiology, health education/promotion, and recreation administration, MS degrees in public health (MPH), physical/sport education (MEd), kinesiology (MS), and sports management (MSM), an interdisciplinary PhD program in pathokinesiology, a lifetime activity program with over 10,000 student credit hours per year, 3 department certificate programs, large building spaces and green spaces for teaching, research, and physical activity opportunities.
- Founding Project Coordinator for Department Research Center, 2017-2019  
Participated in fundraising events for a state-of-the-art clinic research facility, provided leadership in design, construction, and equipment acquisition for the center, and served as the founding operations and research center director.
- Director, Interdisciplinary PhD program in Pathokinesiology, 2012-2024  
Responsible for developing the program specialization, creating the curriculum, establishing approval from the Utah System of Higher Education, coordinating the program, and seeking funding for the graduate assistantships.
- Director, Biomechanics Laboratory, 2001- 2018

### Research Publications

Articles (Refereed Journals); Google Scholar Oct. 2024: h-index=30, i10-index= 55, 3975 total citations

- Vakula, M.N., Kim, Y., & Bressel E. (2025). Knee extensor structure and function in children, adolescents, adults, and older adults with obesity: A systematic review and meta-analysis. *Obesity Reviews*, DOI: <https://doi.org/10.1111/obr.13949>
- Kim, Y., Richardson, J.L., & Bressel E. (2025). Influence of step rate manipulation on foot strike pattern and running economy. *Journal of Sport Rehabilitation*, DOI: <https://doi.org/10.1123/jsr.2024-0261>
- Kang, D., Koh, S., Kim, T., **Bressel, E.**, & Kim, D. (2024). Circuit Training Improves the Levels of  $\beta$ -Amyloid and Brain-Derived Neurotrophic Factor Related to Cognitive Impairment Risk Factors in Obese Elderly Korean Women. *Journal of Clinical Medicine*, 13(3), 799. <https://doi.org/10.3390/jcm13030799>
- Louder, T.J., Thompson, B.J., Woster, A., & **Bressel, E.** (2023). Kinetics of depth jumps performed by female and male National Collegiate Athletics Association basketball athletes and young adults. *Journal of Functional Morphology and Kinesiology*, 8(3), e108. <https://doi.org/10.3390/jfmk8030108>
- Weeks, K., Thompson, B.J., Spencer, S.B., Fisher, C.F., Althouse, D., Louder, T.J., & **Bressel, E.** (2023). Effects of multi-joint eccentric training on muscle function when

combined with aquatic plyometric training: a minimal dose, mixed training study. *Journal of Musculoskeletal and Neuronal Interaction*, 23(4), 386-396.

- Xu, J., Thompson, B.J., Spencer, S.B., Studenka, B.E., & **Bressel E.** (2023). Effects of flywheel resistance training on muscle function and sport-specific performance in club water-polo players. *Research Quarterly for Exercise and Sport*, 94, 98-109. <https://doi.org/10.1080/02701367.2021.1942417>
- Spencer, S., Thompson, B.J., **Bressel, E.**, Louder, T., & Harrell, D.C. (2023). Transfer Effects of a Multiple-Joint Isokinetic Eccentric Training Intervention to Nontraining-Specific Traditional Muscle Function Measures. *Sports*, 11(1), 9, <https://doi.org/10.3390/sports11010009>
- Kim, Y., Vakula, M.N., Bolton, D.A., & **Bressel, E.** (2022). Catching and throwing exercises to improve reactive balance: A randomized controlled trial protocol for the comparison of aquatic and dry-land exercise environments. *PLOS ONE*, 17(10), e0275733. <https://doi.org/10.1371/journal.pone.0275733>
- Kim, Y., Vakula, M.N., Bolton, D.A., Dakin, C.J., Thompson, B.J., Slocum, T.A., Teramoto, M., & **Bressel, E.** (2022). Which exercise interventions can most effectively improve reactive balance in older adults? A systematic review and network meta-analysis. *Frontiers in Aging Neuroscience*, 13, 764826. <https://doi.org/10.3389/fnagi.2021.764826>
- Kung, S., Vakula, M.N., Kim, Y., England, D.L., Bergeson, J., **Bressel, E.**, Lefevre, M., & Ward, R. (2022). No effect of a dairy-based, high flavonoid pre-workout beverage on exercise-induced intestinal injury, permeability, and inflammation in recreational cyclists: A randomized controlled crossover trial. *PLOS ONE*, 17(11), e0277453 <https://doi.org/10.1371/journal.pone.0277453>
- Kim, Y., Rech, N., Louder, T., & **Bressel, E.** (2022). Relationship between Intramuscular and Skin Temperature and Anthropometric Consideration for Post-exercise Cryotherapy: Developing Prediction Models for Clinical Use. *The Asian Journal of Kinesiology*, 24(3), 22-30. DOI: <https://doi.org/10.15758/ajk.2022.24.3.22>
- Crane, J.S., Thompson, B.J., Harrell, D.S., **Bressel E.**, & Heath, E.M. (2022). Comparison of high versus low eccentric-based resistance training frequencies on short-term muscle function adaptations. *Journal of Strength and Conditioning Research*, 36, 332-339. doi: [10.1519/JSC.0000000000003482](https://doi.org/10.1519/JSC.0000000000003482)
- Jeon, D., Bressel, E., & Kim, N. (2021). Ground Reaction Forces Comparison of Sauté Jump Landing between Dancers with Different Levels of Proficiency. *Journal of Dance Education*, DOI: <https://doi.org/10.1080/15290824.2021.1989438>
- Rech, N., **Bressel, E.**, & Louder, T. (2021). Predictive ability of body fat percentage and thigh anthropometrics on tissue cooling during cold-water immersion. *Journal of Athletic Training*, 56, 548-554. <https://doi.org/10.4085/40-20>

- Louder, T., Thompson, B., & **Bressel, E.** (2021). Association and agreement between reactive strength index and reactive strength index-modified scores. *Sports*, 9(7). <https://doi.org/10.3390/sports9070097>
- Kim, Y., Vakula, M.N., Waller, B., & **Bressel, E.** (2020). A systematic review and meta-analysis comparing the effect of aquatic and land exercise on dynamic balance in older adults. *BMC Geriatrics*, 20, 302, <https://doi.org/10.1186/s12877-020-01702-9>.
- Kanga, D., **Bressel, E.**, & Kim, D. (2020). Effects of Aquatic Exercise on Insulin-Like Growth factor-1, Brain-Derived Neurotrophic Factor, Vascular Endothelial Growth Factor, and Cognitive Function in Elderly Women. *Experimental Gerontology*, 132, 110842, <https://doi.org/10.1016/j.exger.2020.110842>.
- Louder, T., Thompson, B., Banks, N., & **Bressel, E.** (2019). A mixed-methods approach to evaluating the internal validity of the reactive strength index. *Sport*, 7, 157, <https://doi.org/10.3390/sports7070157>.
- Louder, T., **Bressel, E.**, & Dolny, D. (2019). Biomechanical Comparison of Loaded Countermovement Jumps Performed on Land and in Water. *Journal of Strength and Conditioning Research*, 33, 25-35.
- Gordon, J., Thompson, B., Crane, J., **Bressel, E.**, & Wagner, D. (2019). Effects of isokinetic eccentric versus traditional lower body resistance training on muscle function: examining a multiple-joint short term training model. *Applied Physiology, Nutrition, and Metabolism*, 44, 118-126.
- **Bressel, E.**, Louder, T., Raikes, A., Alphonsa, S., & Kyvelidou, A. (2019). Water immersion affects episodic memory and postural control in healthy older adults. *Journal of Geriatric Physical Therapy*, 42, E1-E6.
- **Bressel, E.**, Vakula, M.N., Kim, Y., Bolton, D.A., & Dakin, C.J. (2018). Comparison of motor skill learning, grip strength and memory recall on land and in chest-deep water. *PLOS ONE*, 13(8), e0202284. <https://doi.org/10.1371/journal.pone.0202284>.
- Gaballah, A., Elgeidi, A., **Bressel, E.**, Shakrah, N., & Abd-Alghany, A. (2018). Rehabilitation of hamstring strains: does a single injection of platelet-rich plasma improve outcomes? (Clinical study). *Sport Sciences for Health*, 14, 439-447.
- Thompson, B.J., Cazier, C.S., **Bressel, E.**, & Dolny, D.G. (2018). A lower extremity strength-based profile of NCAA Division I women's basketball and gymnastics athletes: implications for knee joint injury risk assessment. *Journal of Sports Sciences*. 36, 1749-1756.
- Louder, T., **Bressel, E.**, & Dolny, D. (2018). Biomechanical Comparison of Countermovement Jumps Performed On Land And In Water: Age Effects. *Journal of Sport Rehabilitation*. 27, 249-256. <https://doi.org/10.1123/jsr.2016-0225>.
- Hill, R., Mason, H., Yeip, G., Merchant, S., Olsen, A., Stott, R., Van Wettere, A., **Bressel, E.**, & Mason, J. (2017). The influence of oblique-angle forced exercise in

surgically destabilized stifle joints is synergistic with bone, but antagonistic with cartilage in an ovine model of osteoarthritis. *Arthritis*, 2017: 7481619. doi:10.1155/2017/7481619.

- Noghondar, F.A. & **Bressel, E.** (2017). Effect of shoe insole density on impact characteristics and performance during a jump-landing task. *Footwear Science*, 9(2), 95-101. doi.org/10.1080/19424280.2017.1305003.
- Gaballah, A., Zeyada, M., Elgeidi, A., & **Bressel, E.** (2017). Six-week physical rehabilitation protocol for anterior shoulder dislocation in athletes. *Journal of Exercise Rehabilitation*, 13(3), 353-358.
- **Bressel, E.**, Louder, T., Hoover, J., Roberts, L., & Dolny, D. (2017). Acute and chronic effects of aquatic treadmill training on land treadmill running kinematics: A cross-over and single-subject design approach. *Journal of Sports Sciences*. 35, 2105-2113.
- **Bressel, E.**, Louder, T., & Dolny, D. (2017). Age-related changes in postural sway are not consistent between land and aquatic Environments. *Journal of Geriatric Physical Therapy*, 40(3), 113-120.
- Cronin, J., Sharpe, A., Stronach, B., Deuchress, R., **Bressel, E.**, & McMaster, D. (2016). Strength and conditioning for throwing in cricket. *Strength and Conditioning Journal*, 38(6), 1-9.
- Louder, T., Searle, C., & **Bressel, E.** (2016). Mechanical parameters and flight phase characteristics in aquatic plyometric jumping. *Sports Biomechanics*, 15, 342-356.
- Schaefer, S., Louder, T., Foster, S., & **Bressel, E.** (2016). Effect of water immersion on dual task performance: Implications for aquatic therapy. *Physiotherapy Research International*. 21, 147-154.
- Louder, T., Bressel, M., & **Bressel, E.** (2015). The kinetic specificity of plyometric training: verbal cues revisited. *Journal of Human Kinetics*, 49, 129-137.
- Miller, A., Heath, E., Dickinson, J., & **Bressel, E.** (2015). Relationship between muscle fiber type and reactive balance: A preliminary study. *Journal of Motor Behavior*, 47, 497-502.
- **Bressel, E.**, Wing, J., Miller, A., & Dolny, D. (2014). High-intensity interval training on an aquatic treadmill in adults with osteoarthritis: effect on pain, balance, function, and mobility. *Journal of Strength and Conditioning Research*, 28, 2088-2096.
- Louder, T., **Bressel, E.**, Baldwin, M., Dolny, D., Gordin, R., & Miller, A. (2014). Effect of aquatic immersion on static balance. *International Journal of Aquatic Research and Education*, 8, 53-65.
- Silvers, M., Dolny, D.G., **Bressel, E.**, Dickin, C., & Killgore, G. (2014). Lower extremity muscle activity during aquatic and land treadmill running at the same speeds. *Journal of Sport Rehabilitation*, 23, 107-122.

- Requena, B., Garcia, I., Requena, F., **Bressel, E.**, Saez-Saez de Villarreal., & Cronin, J.B. (2014). Association between traditional standing vertical jumps and a soccer specific vertical jump. *European Journal of Sport Science*. 14 Suppl 1, S398-405.
- Garner, R., Wagner, D., **Bressel, E.**, & Dolny, D. (2014). Land versus water treadmill running: Lactate threshold. *International Journal of Aquatic Research and Education*, 8, 9-19.
- Miller, A., Heath, E., **Bressel, E.**, & Smith, G. (2013). The metabolic cost of balance in cycling. *Journal of Science and Cycling*, 2, 20-26.
- Roper, J., **Bressel, E.**, & Tillman, M. (2013). Acute aquatic treadmill exercise improves gait and pain in people with knee osteoarthritis. *Archives of Physical Medicine and Rehabilitation*, 94, 419-425.
- **Bressel, E.**, Dolny, D., Smith, D., & Miller, A. (2012). Aquatic treadmill walking: quantifying drag force and energy expenditure. *Journal of Sport Rehabilitation. Technical Report 5*, 1-4.
- Coppin, E., Heath, E.M., **Bressel, E.**, & Wagner, D. (2012). Development of Wingate anaerobic test norms for male athletes. *International Journal of Sports Physiology and Performance*, 7, 232-236.
- **Bressel, E.**, Vandenberg, C., Dolny, D., & Cronin, J.B. (2012). Trunk muscle activity during spine stabilization exercises performed in a pool. *Physical Therapy in Sport*, 13, 67-72.
- Denning, W.M., **Bressel, E.**, Dolny, D., Bressel, M.E., & Seeley, M.K. (2012). A review of biophysical differences between aquatic and land-based exercise. *International Journal of Aquatic Research and Education*, 6, 46-67.
- **Bressel, E.**, Dolny, D., & Gibbons, M. (2011). Trunk muscle activity during exercises performed on land and in water. *Medicine & Science in Sports & Exercise*, 43, 1927-1932.
- Snyder, E., Kras, J., **Bressel, E.**, & Reeve, E. (2011). The relationship between residence and academic performance in NCAA Division I student athletes. *Journal of Issues in Intercollegiate Athletics*, 4, 105-119.
- Sobolewski, E.J., Wagner, D.R., & **Bressel, E.** (2011). Effect of static stretching and jogging on knee extension isokinetic peak torque. *Isokinetics and Exercise Science*, 19, 157-162.
- **Bressel, E.**, Gibbons, M., & Samaha, A. (2011). Effect of whole body vibration on stereotypy of young children with autism. *British Medical Journal (BMJ) Case Reports*. Published 20 April 2011; DOI:10.1136/bcr.02.2011.3834.

- **Bressel, E., & Parker, D.** (2010). Effect of graded bicycle seat pressure on perineal compression. *British Journal of Sports Medicine*, *44*, 466-467.
- **Bressel, E., Nash, D., & Dolny, D.** (2010). Association between attributes of a cyclist and bicycle seat pressure, *Journal of Sexual Medicine*, *7*, 3424-3433.
- Denning, M., **Bressel, E., & Dolny, D.** (2010). Underwater treadmill exercise as a potential treatment for adults with osteoarthritis. *International Journal of Aquatic Research and Education*, *4*, 70-80.
- **Bressel, E., Smith, G., & Branscomb, J.** (2010). Transmission of whole body vibration in children while standing. *Clinical Biomechanics*, *25*, 181-186.
- Bressel, M., & **Bressel, E.** (2010). Ergometer rowing and abdominal crunch exercises: A possible origin of hip derangement. *International Journal of Mechanical Diagnosis and Therapy*, *5*, 35-40.
- **Bressel, E., Bliss, S.G., & Cronin, J.** (2010). Response – Letter. *Applied Ergonomics*, *41*, 175.
- **Bressel, E., Bliss, S.G., & Cronin, J.** (2009). A field-based approach for examining bicycle seat design effects on seat pressure and perceived stability. *Applied Ergonomics*, *40*, 472–476.
- **Bressel, E., Willardson, J.M., Thompson, B., & Fantana, F.E.** (2009). Effect of instruction, surface stability, and load intensity on trunk muscle activity. *Journal of Electromyography and Kinesiology*, *19*, 500-504.
- Willardson, J.M., Fantana, F.E., & **Bressel, E.** (2009). Effect of surface stability on core muscle activity for dynamic resistance exercises. *International Journal of Sports Physiology and Performance*, *4*, 97-109.
- Mitchell, B., **Bressel, E., McNair, P.J., & Bressel, M.E.** (2008). Effect of pelvic, hip, and knee position on ankle joint range of motion. *Physical Therapy in Sport*, *9*, 202-208.
- Cronin, J., **Bressel, E., & Finn, L.** (2008). A single session of augmented feedback reduces ground reaction forces in the landing phase of the volleyball spike jump. *Journal of Sport Rehabilitation*, *17*, 148-159.
- Willardson, J., Emmett, J., Oliver, T., & **Bressel, E.** (2008). Effect of short-term failure versus nonfailure training on lower body muscular endurance. *International Journal of Sports Physiology and Performance*, *3*, 279-293.
- **Bressel, E., Yonkers, J., Kras, J., & Heath, E.** (2007). Comparison of static and dynamic balance in female collegiate soccer, basketball, and gymnastics athletes. *Journal of Athletic Training*, *42*, 42-46.
- **Bressel, E., Reeve, T., Parker, D., & Cronin, J.** (2007). Influence of bicycle seat pressure on compression of the perineum: A MRI analysis. *Journal of Biomechanics*, *40*, 198-202.

- Seeley, M.K., & **Bressel, E.** (2005). A comparison of upper-extremity ground reaction forces between the Yurchenko vault and floor exercise. *Journal of Sports Science and Medicine*, 2, 85-94.
- Jeffery, R., Cronin, J., & **Bressel, E.** (2005). Eccentric strengthening: Clinical applications to Achilles tendonopathy. *New Zealand Journal of Sports Medicine*, 33, 22-30.
- **Bressel, E.**, & Cronin, J. (2005). Bicycle seat interface pressure: Reliability, validity, and influence of hand position and workload. *Journal of Biomechanics*, 38, 1325-1331.
- **Bressel, E.**, & Cronin, J. (2005). The landing phase of a jump: Strategies to minimize landing injuries. *The Journal of Physical Education, Recreation & Dance*, 76, 30-35.
- Claxton, J., Cronin, J., & **Bressel, E.** (2005). Pre-event preparation routine-part one: The effect of warm-up on athletic performance. *Strength and Conditioning Coach*, 13(2), 2-6.
- Claxton, J., Cronin, J., & **Bressel, E.** (2005). Pre-event preparation routine-part two: The effect of stretching on athletic performance. *Strength and Conditioning Coach*, 13(3), 2-5.
- Cronin, J., & **Bressel, E.** (2004). Landing and injury prevention: Part 1. *The New Zealand Coach*, 12(2), 21-24.
- Cronin, J., & **Bressel, E.** (2004). Strategies to minimize landing forces: Part 2. *The New Zealand Coach*, 12(3), 21-23.
- Cronin, J., McLaren, A., & **Bressel, E.** (2004). The effects of whole body vibration on jump performance in dancers. *Journal of Human Movement Studies*, 47, 237-251.
- **Bressel, E.**, & Heise, G.D. (2004). The effect of arm cranking direction on EMG, kinematic and oxygen consumption responses. *Journal of Applied Biomechanics*, 20, 129-143.
- **Bressel, E.**, Larsen, B.T., McNair, P.J., & Cronin, J. (2004). Ankle joint proprioception and passive mechanical properties of the calf muscles after an Achilles tendon rupture: A comparison with matched controls. *Clinical Biomechanics*, 19, 284-291.
- Willardson, J.M., & **Bressel, E.** (2004). Predicting equivalent workloads between the free weight parallel squat and 45 degree angled leg press. *Journal of Strength and Conditioning Research*, 18, 567-571.
- **Bressel, E.**, & Larson, B.J. (2003). Bicycle seat designs and their effect on pelvic angle, trunk angle, and comfort. *Medicine & Science in Sports & Exercise*, 35, 327-332.

- **Bressel, E., & McNair, P.J.** (2002). The effect of prolonged static and cyclic stretching on ankle joint stiffness, torque relaxation, and gait in people with stroke. *Physical Therapy*, 82(9), 880-887.
- **Bressel, E.** (2001). The influence of ergometer pedaling direction on peak patellofemoral joint forces. *Clinical Biomechanics*, 16(5), 431-437.
- **Bressel, E., Bressel, M.E., Marquez, M., & Heise, G.D.** (2001). The effect of handgrip position on the upper extremity neuromuscular response to arm cranking exercise. *Journal of Electromyography and Kinesiology*, 11(4), 291-298.
- **Bressel, E., Bressel, M.E., & Heise, G.D.** (2001). Lower trapezius activity during supported and unsupported scapular retraction exercise. *Physical Therapy in Sport*, 2(4), 178-185.
- **Bressel, E., & McNair, P.J.** (2001). Biomechanical behavior of the plantar flexor muscle tendon unit following an Achilles tendon rupture. *The American Journal of Sports Medicine*, 29(3), 321-326.
- **Bressel, E., Heise, G.D., & Bachman, G.** (1998). A neuromuscular and metabolic comparison between forward and reverse pedaling. *Journal of Applied Biomechanics*, 14(4), 401-411.

#### Articles (Non-Refereed Journals)

- **Bressel, E.** (2021) Can aquatic exercise be used as an effective therapy for age-related conditions? *Research Outreach*. [DOI: 10.32907/RO-122-1291480171](https://doi.org/10.32907/RO-122-1291480171).
- **Bressel, E.** (2015) Strengthening low back muscles and reducing pain. *Water Immersion Works: Research-Based Health Benefits of Aquatic Immersion and Activity*. [www.Playcore.com/WaterImmersionWorks.html](http://www.Playcore.com/WaterImmersionWorks.html).
- **Bressel, E.** (2015) Promoting Balance and Fall Prevention. *Water Immersion Works: Research-Based Health Benefits of Aquatic Immersion and Activity*. [www.Playcore.com/WaterImmersionWorks.html](http://www.Playcore.com/WaterImmersionWorks.html)
- Horlbeck, W., Louder, T., & **Bressel, E.** (2015) Association between pelvic motion and hand velocity in college-aged baseball pitchers. *Baseball Research Journal*. 44 (1), 58-61.
- Dolny, D., & **Bressel, E.** (2014). Healing Waters: Treating osteoarthritis with aquatic therapy. *Impact*, June 2014, 32-35.

#### Books or Monographs

- Costa-Scorse, B., Hopkins, W., Cronin, J., & **Bressel, E.** (2017). New Zealand snow sports injury trends over five winter seasons 2010-2014. In: *Scher I., Greenwald R., Petrone N. (eds) Snow Sports Trauma and Safety*. Springer, Cham. [https://doi.org/10.1007/978-3-319-52755-0\\_2](https://doi.org/10.1007/978-3-319-52755-0_2). Online ISBN: 978-3-319-52755-0

- Costa-Scorse, B., Hopkins, W., Cronin, J., & **Bressel, E.** (2017). The utility of two national injury databases to evaluate snow sports injuries in New Zealand. In: Scher I., Greenwald R., Petrone N. (eds) *Snow Sports Trauma and Safety*. Springer, Cham. [https://doi.org/10.1007/978-3-319-52755-0\\_4](https://doi.org/10.1007/978-3-319-52755-0_4). Online ISBN: 978-3-319-52755-0.
- Costa-Scorse, B., Hoyle, A., Davidson, M., Dooney, A., Clinton-Baker, P., Lamont, M., Cronin, J., **Bressel, E.**, & Hopkins, W.G. (2015). New Zealand snow sports injury prevention strategy (2015-2020): A snow sports industry initiative. Ski Areas Association New Zealand. 2015; Wellington, New Zealand. ISBN: 978-0-473-34928-8.
- Workman, C., & **Bressel, E.** (2010). Effect of static stretching on the instep soccer kick: A foot velocity analysis. *VDM Verlag*, ISBN: 3639388939

#### Media Citations, Interviews, Media Publications of Research (selective)

- **Bressel, E.** (2019). Aquatics Advocate. *Aquatic International* (<https://lsc-pagepro.mydigitalpublication.com/publication/frame.php?i=567089&p=&pn=&ver=html5>), March, 2019.
- **Bressel, E.** (2014). Healing waters: The power of aquatic programs. *Recreation Management* ([www.recmanagement.com](http://www.recmanagement.com)), November, 2014.
- **Bressel, E.** (2014). The pain-reducing power of water workouts. *PBS Next Avenue* ([www.nextavenue.org/](http://www.nextavenue.org/) 935,000 unique visitors per month.), August 29, 2014.
- **Bressel, E.** (2014). Study: High-intensity aquatic exercise helps OA. *Aquatic International* (<http://www.aquaticsintl.com/>), August 25, 2014.
- **Bressel, E.** (2014). New Study: Arthritis relieved by intensive aquatic exercise. *AQUA for Spa & Pool Professionals* (<http://aquamagazine.com/content/>). August 25, 2014.
- **Bressel, E.** (2014). Hot water heals. *SpaRetailer Magazine*, September/October, pg. 70.
- **Bressel, E.** (2014). USU research finds water workout benefits osteoarthritis patients. *Herald Journal*, August 21, 2014.
- **Bressel, E.** (2014). USU research finds water workout benefits osteoarthritis patients. *Utah Public Radio Newscast*, August 14 & 15, 2014.
- **Bressel, E.** (2014). Benefits of aquatic exercise. *Utah Aggies TV* (<https://www.youtube.com/watch?v=UdmIFlaYLO>), September 10, 2014.
- **Bressel, E.** (2010). Association between attributes of a cyclist and bicycle seat pressure. *Health & Medicine Week*, November 22, 2010.
- **Bressel, E.** (2008). Core strengthening. *Men's Health Magazine*, November issue, page 52.

- **Bressel, E.** (2007). Healthy Spin. *Standard-Examiner*, December 4.
- **Bressel, E.** (2004). Bicycle seat designs and their effect on pelvic angle, trunk angle, and comfort. *Good Morning America*, April 3.
- **Bressel, E.** (2004). Bicycle seat designs and their effect on pelvic angle, trunk angle, and comfort. *Herald Journal*, January 18 Issue.
- **Bressel, E.** (2003). Bicycle seat designs and their effect on pelvic angle, trunk angle, and comfort. *Fitness Magazine*, July Issue.
- **Bressel, E.** (2003). Bicycle seat designs and their effect on pelvic angle, trunk angle, and comfort. *Self Magazine*, July Issue.

#### Invited presentations

- **Bressel, E.** Key observations regarding the benefits of aquatic treadmill exercise for improving health and mobility. Presented to NeuroWorx and AquaWorx clinicians and marketing staff. Sandy, Utah, September 29, 2021. (Regional)
- **Bressel, E.** The health benefits of water activity: Who benefits the most and has our industry missed an opportunity for profit? Key Note Presented at the 2018 World Aquatic Health Conference. Charleston, South Carolina, October 16-18, 2018. (International)
- **Bressel, E.** Postural control during aquatic immersion: A window for therapy? Key Note Presented at the 2017 International Conference on Evidence Based Aquatic Therapy. Mysore, India, November 10-12, 2017. (International)
- **Bressel, E.** Pathokinesiology: What is it? Presented at the fall 2017 Disability Disciplines PhD Program Symposium. Logan, UT, November 3, 2017. (Regional)
- **Bressel, E.** Influence of an aquatic environment on cognitive performance. Presented at the 2016 South West American College of Sports Medicine annual meeting. Costa Mesa, CA, October 21, 2016. (Regional)
- **Bressel, E.** How does running mechanics on land change after 6-weeks of gait training in a pool? American Physical Therapy Association Aquatic Section Webinar, September 13, 2016. (National)
- **Bressel, E.** Strengthening low back muscles and reducing pain. Presentation to the 2015 World Aquatic Health Conference. Scottsdale, Arizona, October 7-9, 2015. <https://www.youtube.com/watch?v=-SjMIBKKENk> (International)
- **Bressel, E.** Promoting balance and fall prevention. Presentation to the 2015 World Aquatic Health Conference. Scottsdale, Arizona, October 7-9, 2015. <https://www.youtube.com/watch?v=rDP7bOUzKUU> (International)

- **Bressel, E.** and Dolny D. Effect of an aquatic environment on cognition and gait. International Council on Active Aging Webinar (over 350 attendees), April 22, 2015. (International)
- **Bressel, E.** and Dolny, D. Can the differences in biophysical responses on land vs water be explained simply by hydrodynamic properties or does aquatic activity create a unique cognitive environment? Presented at the 2015 American Physical Therapy Association Combined Sections Meeting. Indianapolis, IN February 4-7, 2015. (National)
- Dolny, D., and **Bressel, E.** Gait differences between shallow water walking and aquatic treadmill walking. Presented at the 2015 American Physical Therapy Association Combined Sections Meeting HydroWorx Exhibit. Indianapolis, IN February 4-7, 2015. (National)
- **Bressel, E.** and Schaefer, S. Effect of water immersion on cognitive performance. Keynote address at the 2014 World Aquatic Health Conference. Portland, Oregon, October 7-9, 2014. (International)
- Dolny, D. and **Bressel, E.** HIT training using an aquatic treadmill. HydroWorx exhibit at the 2014 Leading Age Conference. Nashville, Tennessee, October 2, 2014. (International)
- **Bressel, E.** and Dolny D. Aquatic exercise interventions for people with osteoarthritis. Osteoarthritis Action Alliance Webinar, September 18, 2014 (National)
- **Bressel, E.** Aquatic exercise interventions for people with osteoarthritis. Presentation to the Advancement Board for the Emma Eccles College of Education and Human Services, September 13, 2014. (Regional)
- **Bressel, E.** and Dolny D. Aquatic exercise interventions for people with osteoarthritis. International Council on Active Aging Webinar (457 attendees; top 1% in attendance), January 22, 2014. (National)
- **Bressel, E.** Applications of mechanical stress for sport performance and injury prevention. Guest lecturer at Brigham Young University, Provo, UT, October 2, 2012. (Regional)
- **Bressel, E.** Transmission of whole body vibration in children. Guest lecturer at Brigham Young University, Provo, UT, September 25, 2009. (Regional)
- **Bressel, E.** Effect of bicycle seat pressure on perineal compression. Guest lecturer at Brigham Young University, Provo, UT, October 3, 2008. (Regional)
- **Bressel, E.** Applications of mechanical stress for sport performance and injury prevention. Guest lecturer at Brigham Young University, Provo, UT, December 7, 2007. (Regional)

- **Bressel, E.** Practical application of biomechanical principles: Implications for injury prevention and skeletal health. Presented at the Utah State University extension symposium. Roosevelt, UT, October 23, 2004. (Regional)
- **Bressel, E.** Global and specific issues addressed through biomechanics research. Presented at the University of Northern Colorado Kinesiology and Physical Education Colloquium Series. Greeley, CO, October 16, 1998. (Regional)

#### Refereed Abstracts

- Kim, Y., Vakula, M., Bolton, D., and **Bressel, E.** Comparing Exercise Interventions on Reactive Balance in Older Adults: A Systematic Review and Network Meta-Analysis. Presented at the 202 ACSM annual meeting. San Diego, CA, May 31, 2022. (National)
- Mercer, M., Louder, T., **Bressel, E.**, and Thompson, B. (2022). Improving the specificity of vertical stiffness measurement. Presented at the 2022 ACSM annual meeting. San Diego, CA, May 31, 2022. (National)
- Ha, S., **Bressel, E.**, Kim, J., Koh, S., and Kim D. Effects of progressive combined exercise program on irisin, C-peptide and homa index in obese elderly women with type 2 diabetes. Presented at the virtual 2020 ACSM annual meeting. May 27, 2020. (National)
- Ki, M., Kim, D., Ha, S., Kim J., Koh, S., Kim, J.S., **Bressel, E.**, and Kim, J.W. Effect of combined exercise on lung function, blood vitamin D, calcium and bone metabolism hormones in elderly women. Presented at the virtual 2020 ACSM annual meeting. May 28, 2020. (National)
- Dakin, CJ., Kern, A., Elwood, M., Vakula, MN., Kim, Y., and **Bressel, E.** Vestibular contribution to balance control during stair negotiation and locomotion. Poster presented at the 2018 Society for Neuroscience. San Diego, CA, November 3-7, 2018. (National)
- Alphonsa, S., Louder, T., and **Bressel, E.** MoCA as a predictor of cognitive performance and balance during water immersion in healthy older adults. Poster presented at the 2017 International Conference on Evidence Based Aquatic Therapy. Mysore, India, November 10-12, 2017. (Recipients of the best poster award) (National)
- Jeon, D. and **Bressel, E.** Comparison of ground reaction forces between novice and experienced ballet dancers performing a second position jump landing. Presented at the International Association for Dance Medicine and Science. Houston, TX, October 10, 2017. (National)
- Louder, T., **Bressel, E.**, Nordoni, C., Gollofon, K., and Dolny, D. Biomechanical comparison of loaded countermovement jumps on land and in water. Presented at the 2017 ACSM annual meeting. Denver, CO, May 30- June 3, 2017. (National)
- Dolny, D., Louder, T., and **Bressel, E.** Biomechanical comparison of countermovement: Age effects. Presented at the 2017 ACSM annual meeting. Denver, CO, May 30- June 3, 2017. (National)

- Gaballah, A., Abdalaziz, A., Elgeidi, A., Shkrah, N., and **Bressel, E.** Platelet-rich plasma injections for accelerating treatment of hamstring tear injuries. Presented at the 2017 ACSM annual meeting. Denver, CO, May 30- June 3, 2017. (National)
- Costa-Scorse, B., Hopkins, W., Cronin, J., and **Bressel, E.** Can skiers establish safe ski binding release torques using a self-release maneuver? Presented at the 2017 International Symposium of the International Society for Skiing Safety. Innsbruck, Austria, April 17-22, 2017. (International)
- Gaballah, A. and **Bressel, E.** Effect of salvia officinalis consumption on pulmonary function in young athletes. Presented at the 2016 South West ACSM annual meeting. Costa Mesa, CA, October 20-21, 2016. (Regional)
- Dolny, D., Louder, T., Roberts, L., Hoover, J., Clark, N., and **Bressel, E.** Aquatic treadmill running does not alter select land treadmill running kinematics after six-weeks of training. Presented at the 2016 ACSM annual meeting. Boston, MA, June 1-4, 2016. (National)
- **Bressel, E.**, Louder, T., Dolny, D., and Foster, S. Effect of water immersion on dual task performance in older adults. Presented at the 2016 ACSM annual meeting. Boston, MA, June 1-4, 2016. (National)
- Searle, C., Louder, T., Dolny, D., and **Bressel, E.** Jumping landings on land and in waist-deep water between young and middle-aged adults. Presented at the 2016 ACSM annual meeting. Boston, MA, June 1-4, 2016. (National)
- Louder, T., Clark, N., **Bressel, E.**, and Dolny, D. The relative effect of aquatic environment on jumping kinetics between older and younger adults. Presented at the 2016 ACSM annual meeting. Boston, MA, June 1-4, 2016. (National)
- Patterson, E., Louder, T., Nardoni, C., Clark, N., **Bressel, E.**, and Dolny, D. Comparison of propulsive power during loaded countermovement jumps performed in water versus land in males. Presented at the 2016 ACSM annual meeting. Boston, MA, June 1-4, 2016. (National)
- Louder, T., and **Bressel, E.** Aquatic Plyometric Training: Mechanical parameters and flight phase characteristics. Presented at the 2015 ACSM annual meeting. San Diego, CA, May 27-30, 2015. (National). Also Presented at the 2014 World Aquatic Health Conference. Portland, Oregon, October 7-9, 2014. (International)
- Costa-Scorse, B., Hopkins, W., Cronin, J., and **Bressel, E.** New Zealand snow sports injury trends over five winter seasons 2010-2014. Presented at the 2015 International Symposium of the International Society for Skiing Safety. Cortina, Italy, March 8-13, 2015. (International)
- Costa-Scorse, B., Hopkins, W., Cronin, J., and **Bressel, E.** The utility of two national injury databases to evaluate snow sports injuries in New Zealand. Presented at the 2015 International Symposium of the International Society for Skiing Safety. Cortina, Italy, March 8-13, 2015. (International)

- Louder, T., and **Bressel, E.** Impulse-Momentum: Functional Strength in the Context of Plyometric Training. Presented at the 2014 National Strength and Conditioning Conference. Las Vegas, NV, July 9-12, 2014. (National)
- Richardson, J., **Bressel, E.**, and Wagner, D. R. Effect of step rate on foot strike pattern and running economy in novice runners. Presented at the 2014 ACSM annual meeting. Orlando, FL May 27-30, 2014. (National)
- **Bressel, E.**, and Dolny, D. A novel aquatic exercise intervention for people with osteoarthritis. Presented at the 2014 American Physical Therapy Association Combined Sections Meeting. Las Vegas, NV, February 3-6, 2014. (National)
- **Bressel, E.**, Wing, J., Miller, A., and Dolny, D. High-Intensity Interval Training on an Aquatic Treadmill: A Promising Treatment Approach for Adults with Osteoarthritis. Presented at the 2013 ACSM annual meeting. Indianapolis, IN, May 28-June 1, 2013. (National)
- Gardner, R., Wagner, D., **Bressel, E.**, and Dolny, D. Land vs. Water Treadmill Running: Lactate Threshold. Presented at the 2013 ACSM annual meeting. Indianapolis, IN, May 28-June 1, 2013. (National)
- **Bressel, E.**, Louder, T., Szpindor, A., and Dolny, D. Effect of Water Immersion on Measures of Balance. Presented at the 2012 World Aquatic Health Conference. Norfolk, Virginia, October 11-12, 2012. (International)
- Miller, A. Heath, E.M., and **Bressel, E.** Relationship between muscle fiber type and latency times during a motor control test. Presented at the 2012 South West ACSM annual meeting. Newport Beach, CA, October 19-20, 2012. (National)
- Miller, A., Heath, E., Smith, G., and **Bressel, E.** Comparison of  $VO_2$  for three cycling modes. Presented at the 2012 ACSM annual meeting. San Francisco, CA, May 29-June 2, 2012. (National)
- Smith, G., Miller, A., **Bressel, E.**, and Heath, E. Cycling on rollers: Motion characteristics for dynamic stability. Presented at the 2012 ACSM annual meeting. San Francisco, CA, May 29-June 2, 2012. (National)
- Heath, E., Miller, A., **Bressel, E.**, and Smith, G. Comparison of peak power for cycling on ergometer and trainer. Presented at the 2012 ACSM annual meeting. San Francisco, CA, May 29-June 4, 2012. (National)
- **Bressel, E.**, and Dolny, D. Benefits of an aquatic environment for rehabilitation of osteoarthritis patients. Presented at the 2011 World Aquatic Health Conference. Seattle, Washington, October 14, 2011. (International)
- Hogue, C., Porter, R., Blackwell, S., **Bressel, E.**, and Dolny, D. Cross-validation of  $VO_2$  prediction equations on underwater treadmill exercise. Presented at the 2011 World Aquatic Health Conference. Seattle, Washington, October 12-14, 2011. (International)

- Miller, A., **Bressel, E.**, Smith, G., and Dolny, D. Effect of hydrodynamic flow on drag force and energy expenditure during underwater treadmill walking. Presented at the 2011 World Aquatic Health Conference. Seattle, Washington, October 12-14, 2011. (International)
- **Bressel, E.**, and Gibbons, M. Effect of whole body vibration on stereotypy of young children with autism. Presented at the 2011 ACSM annual meeting. Denver, CO, May 31-June 4, 2011. (National)
- Roper, J., Tillman, M., and **Bressel, E.** Aquatic treadmill exercise improves gait kinematics and mobility for individuals with unilateral knee osteoarthritis. Presented at the 2011 ACSM annual meeting. Denver, CO, May 31-June 4, 2011. (National)
- Vandenburg, C., **Bressel, E.**, and Dolny, D. Trunk muscle recruitment is reduced when exercising in an aquatic environment. Presented at the 2011 ACSM annual meeting. Denver, CO, May 31-June 4, 2011. (National)
- Wing, J., **Bressel, E.**, and Dolny, D. Effect of aquatic and body weight supported treadmill exercise on physiological and biomechanical performance. Presented at the 2010 World Aquatic Health Conference. Colorado Springs, Colorado, October 7-8, 2010. (International)
- Porter, R., Roper, J., and **Bressel, E.** Effect of water treadmill exercise on joint kinematics in people with knee osteoarthritis. Presented at the 2010 World Aquatic Health Conference. Colorado Springs, Colorado, October 7-8, 2010. (International)
- **Bressel, E.**, Vandenburg, C., and Dolny, D. The role of an aquatic environment for recruiting trunk muscles and treating patients with back pain. Presented at the 2010 World Aquatic Health Conference. Colorado Springs, Colorado, October 7-8, 2010. (International)
- Denning, W., **Bressel, E.**, and Dolny, D. Underwater treadmill exercise as a potential treatment for adults with osteoarthritis. Presented at the 2010 World Aquatic Health Conference. Colorado Springs, Colorado, October 7-8, 2010. (International)
- Nash, D., **Bressel, E.**, and Dolny, D. Association between attributes of a cyclist and bicycle seat pressure. Presented at the 2010 ASB annual meeting. Providence, RI, August 18-21, 2010. (National)
- Smith, G., **Bressel, E.**, and Nash, D. Vibration frequency influences foot to leg transmission. Presented at the 2010 ASB annual meeting. Providence, RI, August 18-21, 2010. (National)
- **Bressel, E.**, Smith, G., and Nash, D. A comparison of vibration acceleration measured with high speed 3-D motion capture and triaxial accelerometers. Presented at the 2010 ASB annual meeting. Providence, RI, August 18-21, 2010. (National)

- Smith, G., **Bressel, E.**, and Branscomb, J. Impact acceleration of the leg: Comparison of shod and barefoot treadmill running. Presented at the 2010 ACSM annual meeting. Baltimore, MD, June 2-5, 2010. (National)
- Snyder, E.M., Kras, J.M., **Bressel, E.**, and Reeve, E., The relationship between residence and academic performance in NCAA Division I student athletes. Poster Presented at the 2010 AAPHERD conference, Indiana State University, IN, March 15-18, 2010. (National)
- Dolny, D., and **Bressel, E.** Benefits of aquatic exercise for arthritis patients. Presented at the 2009 World Aquatic Health Conference. Atlanta, Georgia, October 28-30, 2009. (International)
- Branscomb, J., Smith, G., and **Bressel, E.** Vibration platform oscillation characteristics using high speed 3-d motion capture. Presented at the 2009 ASB annual meeting. The Pennsylvania State University, PA, August 26-29, 2009. (National)
- Smith, G., **Bressel, E.**, and Branscomb, J. Knee positioning influences whole body 3-d vibration transmission. Presented at the 2009 ASB annual meeting. The Pennsylvania State University, PA, August 26-29, 2009. (National)
- **Bressel, E.**, Smith, G., and Branscomb, J. Transmission of whole body vibration in children while standing. Presented at the 2009 ASB annual meeting. The Pennsylvania State University, PA, August 26-29, 2009. (National)
- Smith, G., **Bressel, E.**, and Snyder, E. Whole body vibration: Mapping of transmission with high speed motion analysis. Presented at the 2009 ACSM annual meeting. Seattle, WA, May 27-30, 2009. (National)
- **Bressel, E.**, Bliss, S., and Cronin, J. Influence of bicycle seat design on perceived comfort and stability during non-stationary bicycling. Presented at the 2009 ACSM annual meeting. Seattle, WA, May 27-30, 2009. (National)
- **Bressel, E.**, Willardson, J.M., Thompson, B., and Fontana, F. E. Core muscle activity during the free weight squat: effect of instruction, surface stability, and load. Presented at the 2008 National Strength and Conditioning Association Annual Conference. Las Vegas, NV, July 9-12, 2008. (International)
- **Bressel, E.**, and Nuckles, J. Effect of graded bicycle seat pressure on perineal compression. Presented at the 2008 Serotta International Cycling Science Symposium. Denver, CO, January 27-30, 2008. (International)
- Nuckles, J., Bills, B., Wagner, D., and **Bressel, E.** Powercranks versus normal bicycle cranks: An EMG comparison. Presented at the 2007 Southwest ACSM annual meeting. San Diego, CA, November 9-10, 2007. (Regional)
- **Bressel, E.**, and Cronin, J. A field-based approach for examining bicycle seat design effects on seat pressure and perceived stability. Presented at the 2007 Southwest ACSM annual meeting. San Diego, CA, November 9-10, 2007. (Regional)

- **Bressel, E.**, Reeve, T., and Parker, D. The influence of bicycle seat pressure on compression of the cavernous spaces: An MRI analysis. Presented at the 2006 Southwest ACSM annual meeting. San Diego, CA, November 10-11, 2006. (Regional)
- **Bressel, E.**, McNair, P.J., and Quick, N. Knee joint proprioception after an anterior cruciate ligament rupture: A comparison with matched controls. Presented at the American Physical Therapy Association Combined Sections Meeting. San Diego, CA, February 1-4, 2006 (National)
- **Bressel, E.**, Cronin, J., and Exeter, A. Bicycle seat interface pressure: Reliability, validity, and influence of hand position and workload. Presented at the 2004 ASB annual meeting. Portland, OR, September 8-11, 2004. (National)
- **Bressel, E.**, Cronin, J., Finn, L., and Heath, E. Augmented feedback reduces ground reaction forces in the landing phase of the volleyball spike. Presented at the 2004 ACSM annual meeting. Indiana, IN, June 2 - 5, 2004. (National).
- Cronin, J., **Bressel, E.**, and Finn, L. The effect of augmented feedback on reducing ground reaction forces in the landing phase of the volleyball spike jump. Presented at the 2003 New Zealand Sports Medicine and Science Conference. Nelson, New Zealand, November 20-22. (National). Also presented at the Australian Association for Exercise and Sport Scientists Conference, Brisbane April 13-16, 2003. (National)
- **Bressel, E.**, and Larsen, B.T. Ankle joint proprioception after an Achilles tendon rupture: A comparison with matched controls. Presented at the 2003 ACSM annual meeting. San Francisco, CA, May 28 - 31, 2003. (National)
- Larsen, B.T., **Bressel, E.**, and Heath, E.M. Biomechanical behavior of the calf muscle-tendon unit in Achilles tendon rupture patients. Presented at the 2003 ACSM annual meeting. San Francisco, CA, May 28 - 31, 2003. (National)
- Van Langevald, E., **Bressel, E.**, Arnett, M.G., and Heath, E.M. Development of Wingate anaerobic test norms for male power athletes. Presented at the 2003 ACSM annual meeting. San Francisco, CA, May 28 - 31, 2003. (National)
- Willardson, J.M., and **Bressel, E.** Predicting equivalent workloads between the free weight parallel squat and 45-degree angled leg press. Presented at the AAHPERD Combined Northwest and Southwest Conventions. Reno/Sparks, Nevada, February 12-15, 2003. Also presented at the 2001 USU Intermountain Graduate Paper/Poster Symposium. Logan, UT, March 31, 2001. (National/Regional)
- **Bressel, E.**, Mecham, C., and Bressel, M.E. Bicycle seat designs and their effect on pelvic angle, trunk angle, and comfort in females during cycling. Presented at the IV World Congress on Biomechanics. Calgary, Canada, August 4-9, 2002. Also presented at the Physical Therapy Association Utah Chapter Fall Symposium. Salt Lake City, UT, October 15, 2002. (International/Regional)

- Seeley, M., and **Bressel, E.** Ground reaction forces transmitted to the upper extremity during the Yurchenko vault and floor exercise. Presented at the IV World Congress on Biomechanics. Calgary, Canada, August 4-9, 2002. (International)
- **Bressel, E.**, and Larson, B.J. Radiographic analysis of the wrist while gripping a kayak paddle. Presented at the IV World Congress on Biomechanics. Calgary, Canada, August 4-9, 2002. (International)
- Seeley, M., **Bressel, E.**, and McNair, P. J. Ankle joint kinetics and proprioception: A comparison between right and left limbs in able-bodied humans. Presented at the 2002 ACSM annual meeting. St. Louis, MO, May 29 - June 1, 2002. (National)
- **Bressel, E.**, and Bressel, M.E. Lower trapezius activity during supported and unsupported scapular retraction exercise. Presented at the Sixth International Olympic Committee (IOC) World Congress on Sports Sciences (presented by co-researcher). St. Louis, Missouri, May 28, 2002. Also presented by **Bressel, E.** at the PTA Colorado Chapter Spring Symposium. Denver, CO, April 18, 1998. (International/Regional)
- **Bressel, E.**, and McNair, P.J. The effect of prolonged static and cyclic stretching on ankle joint stiffness in humans with spasticity. Presented at the 2001 ASB annual meeting. San Diego, CA, August 8-11, 2001. (National)
- Hiese, G.D., Bohne, M., and **Bressel, E.** Muscle preactivation and leg stiffness in men and women during hopping. Presented at the 2001 ASB annual meeting. San Diego, CA, August 8-11, 2001. (National)
- McNair, P.J., and **Bressel, E.** Viscoelastic behavior and proprioception after Achilles tendon rupture. 2001 Combined Sections Meeting for the American Physical Therapy Association. San Antonio, TX, February 14-17, 2001. (International)
- McNair, P.J., and **Bressel, E.** Viscoelastic behavior and proprioception after Achilles tendon rupture. 2000 Pre-Olympic Congress in Sports Science and Sports Medicine. Brisbane, Australia, September 7-13, 2000. (International)
- **Bressel, E.**, and McNair, P.J. Achilles tendon rupture: Range of motion and proprioceptive changes after injury. Presented at the Annual New Zealand Society of Physiotherapists Conference. Wellington, New Zealand, May 24-26, 2000. (Regional)
- **Bressel, E.**, Bressel, M.E., Marquez, M., and Heise, G.D. The effect of hand position on the EMG response to arm cranking exercise. Presented at the 3<sup>rd</sup> Australasian Biomechanics Conference. Gold Coast, Australia, January 31 to February 1, 2000. (International)
- **Bressel, E.** The influence of pedaling direction on peak patellofemoral joint forces. Presented at the Fifth International Olympic Committee (IOC) World Congress on Sports Sciences. Short-listed for the best physical science paper award. Sydney, Australia, October 31 to November 5, 1999. (International)

- Bachman, G., Heise, G.D., and **Bressel, E.** The symmetry of the human leg spring: Spring coefficients between right and left legs during running. Presented at the 1999 ASB annual meeting. Pittsburgh, PA, October 21-24, 1999. (National)
- **Bressel, E.** Neuromechanics of reverse pedaling: hip flexor moments, the solution to paradoxical muscle activity. Presented at the International Society of Biomechanics XVII<sup>th</sup> Congress. Calgary, Canada, August 8-13, 1999. (International)
- **Bressel, E.** A kinematic study of a novel approach for imparting forces to a bicycle. Presented at the North American Congress on Biomechanics (1998 ASB annual meeting). Waterloo, Canada, August 15, 1998. (International)
- Heise, G.D., **Bressel, E.**, Bachman, G., and Morgan, D.W. The influence of running speed on the duration of bi-articular muscle coactivation. Presented at the North American Congress on Biomechanics (1998 ASB annual meeting). Waterloo, Canada, August 15, 1998. Also presented by **E. Bressel** at the Annual University of Northern Colorado Scholarship Symposium. Greeley, CO, April 8, 1998. (International/Regional)
- **Bressel, E.**, and Heise, G.D. Neuromuscular responses to reverse arm cranking. Presented at the 1998 ACSM annual meeting. Orlando, FL, June 6, 1998. Also presented by **E. Bressel** at the Annual University of Northern Colorado Scholarship Symposium. Greeley, CO, April 8, 1998. (National/Regional)
- Pavlat, D., Nordvall, M.P., Dennehy, C.A., **Bressel, E.**, and Schneider, C.M. Conjoint use of cardiac markers to reduce false positives. Presented at the 1998 ACSM annual meeting. Orlando, FL, June 6, 1998. (National)
- **Bressel, E.**, and Heise, G.D. The effect of arm cranking direction on economy of propulsion: An alternative mode. Presented at the 1999 Rocky Mountain Chapter ACSM annual meeting. Frisco, CO, February 5-7, 1999. (Regional)
- **Bressel, E.**, and Heise, G.D. A neuromuscular and metabolic comparison between forward and reverse pedaling. Presented at the 1998 Rocky Mountain Chapter ACSM annual meeting. Frisco, CO, February 4-6, 1998. (Regional)
- Heise, G.D., **Bressel, E.**, Carroll, S., Ciapponi, T., and Smith, J. The relative importance of joint flexibility and muscle activity patterns to the stiffness of the leg spring during hopping. Presented at the 1997 ASB annual meeting. Clemson, SC, September, 1997. (National)
- Morales, J., and **Bressel, E.** Anaerobic power, leg volume, and muscle composition as factors influencing efficiency of cycle ergometry. Presented at the 1996 ACSM annual meeting. Cincinnati, OH, June, 1996. Also presented by **E. Bressel** at the California State University, Fresno, Exercise Science Symposium. Fresno, CA, April 26, 1996. (National/Regional)

#### Abstracts (Non-refereed)

- Vakula, MN., Kim, Y., and **Bressel, E.** Effect of water immersion on cognitive function? Poster presented at the 2018 World Aquatic Health Conference. Charleston, South Carolina, October 16-18, 2018. (International)
- Kim, Y., Vakula, MN., and **Bressel, E.** Effect of water immersion on grip strength? Poster presented at the 2018 World Aquatic Health Conference. Charleston, South Carolina, October 16-18, 2018. (International)
- Gaballah, A. and **Bressel, E.** A physical rehabilitation program for acute shoulder dislocations. Logan, UT, April 14, 2016. (Regional)
- Bunnell, C. and **Bressel, E.** Dynamic stability on land and in waist deep water: Comparison between young and middle-aged adults. Logan, UT, April 14, 2016. (Regional)
- Louder, T., Searle, C., and **Bressel, E.** Aquatic plyometric. Presented at the 2015 USU Graduate Student Symposium. Logan, UT, April 9, 2015. (Regional)
- Horlbeck, W., Louder, T., and **Bressel, E.** Association between Pelvic Motion and Hand Velocity in College-Aged Baseball Pitchers. Presented at the 2014 USU Graduate Student Symposium. Logan, UT, April 10, 2014. (Regional)
- Louder, T., Popoca, T., and **Bressel, E.** Functional Strength in the Context of Plyometric Training: Verbal Cues and Impulse-Momentum Revisited. Presented at the 2014 USU Graduate Student Symposium. Logan, UT, April 10, 2014. (Regional)
- Popoca, T., Louder, T., and **Bressel, E.** Effect of Verbal Instruction on Depth Jump Performance. Presented at the 2014 USU Undergraduate Symposium and Student Showcase. Logan, UT, April 11, 2014. (Regional)
- Olsen, J., Miller, AI., Heath, EM., and **Bressel, E.** Comparison of Peak Power on Four Cycling Modes. Presented at the 2012 USU Undergraduate Symposium and Student Showcase. Logan, UT, April 3, 2012. (Regional)
- Denning, W., Gibbons, M., and **Bressel, E.** Effect of whole-body vibration on lower body flexibility. Presented at the 2010 USU Intermountain Graduate Student Symposium. Logan, UT, March 31, 2010. (Regional)
- Gibbons, M., Denning, W., and **Bressel, E.** Effect of static stretching with and without whole body vibration on vertical jump performance. Presented at the 2010 USU Intermountain Graduate Student Symposium. Logan, UT, March 31, 2010. (Regional)
- Nash, D., and **Bressel, E.** Association between different physical characteristics of cyclists and elevated bicycle seat pressure. Presented at the 2010 USU Undergraduate Symposium and Student Showcase. Logan, UT, March 30, 2010. (Regional)
- Martin, M., and **Bressel, E.** Structural and functional predictors of bicycle seat pressure. Presented at the 2009 USU Undergraduate Symposium and Student Showcase. Logan, UT, March 31, 2009. (Regional)

- Ensign, J., Brown, S., and **Bressel, E.** Effect of Stretching Technique on Hamstring and Low Back Flexibility. Presented at the 2009 USU Graduate Student Symposium. Logan, UT, April, 2009. (Regional)
- Sobolewski, E., Barrett, D., and **Bressel, E.** Effect of an acute bout of stretching of the plantar and dorsal flexors on proprioception. Presented at the 2007 USU Graduate Student Symposium. Logan, UT, April 4, 2007. (Regional)
- Mitchell, B., and **Bressel, E.** The effect of anterior pelvic tilt on viscoelastic properties of the plantar flexor muscles. Presented at the 2005 Undergraduate Posters on the Hill Showcase. Salt Lake City, UT, January 20, 2005. (Regional). Also presented at the 2005 UAHPERD conference. Provo, UT, March 12, 2005. (Regional)
- Guymon, K., and **Bressel, E.** A comparison of peak impact accelerations between stationary aerobic exercise equipment. Presented at the 2004 USU Undergraduate Symposium and Student Showcase. Logan, UT, April 8, 2004. (Regional)
- Nelson, A., Wood, H., and **Bressel, E.** A comparison of static and ballistic stretching on hamstring flexibility and stiffness. Presented at the 2004 USU Intermountain Graduate Paper/Poster Symposium. Logan, UT, March 4, 2004. (Regional)
- Exeter, A., and **Bressel, E.** Bicycle seat interface pressure: Reliability, validity, and influence of hand position and workload. Presented at the 2004 USU Undergraduate Symposium and Student Showcase. Logan, UT, April 8, 2004. (Regional)
- Schiess, B., and **Bressel, E.** Acceleration and kinematics of the lower extremity during running on treadmills of different compliance. Presented at the 2003 UAHPERD conference. Sandy, UT, April 12, 2003. (Regional)
- Mortenson, C., and **Bressel, E.** Measuring muscle fatigue in the upper extremity, while using the computer mouse, for extended periods. Presented at the 2003 UAHPERD conference. Sandy, UT, April 12, 2003. (Regional)
- Birch, T., Hammer, R., Dyer, D., and **Bressel, E.** A comparison of static and proprioceptive neuromuscular facilitation stretching techniques over a two-week period. Presented at the 2002 USU Intermountain Graduate Paper/Poster Symposium. Logan, UT, March 15, 2002. (Regional)
- Seeley, M., and **Bressel, E.** Passive ankle joint stiffness: Is it an invariant feature between legs? Presented at the 2002 USU Intermountain Graduate Paper/Poster Symposium. Logan, UT, March 15, 2002. (Regional)
- Langeveld, E.V., Lewis, D.J., Howells, J.J., and **Bressel, E.** The effect of forearm position on upper extremity neuromuscular responses to a one-handed lifting task using an infant carrier. Presented at the 2001 USU Intermountain Graduate Paper/Poster Symposium. Logan, UT, March 31, 2001. (Regional)

## Grants

Funded Grants (External)

- **Bressel, E.**, and Dolny, D. (April, 2017). Recipient, Hydroworx International, \$25,000.
- **Bressel, E.**, and Willardson, J. (August, 2016). Recipient, Allstar Products Group, \$19,777.
- **Bressel, E.** (April, 2015). Recipient, Bowswim®, \$12,346.
- **Bressel, E.**, Schaefer, S.Y., and Dolny, D. (April, 2015). Recipient, Hydroworx International, \$25,000.
- Louder, T. and **Bressel, E.** (August, 2014). Recipient, National Swimming Pool Foundation, \$2,000.
- **Bressel, E.**, Schaefer, S.Y., and Dolny, D. (September, 2013). Recipient, National Swimming Pool Foundation, \$16,220.
- Dolny, D., and **Bressel, E.** (May 2012). HydroWorx International, \$11,880
- Willardson, J. and **Bressel, E.** (February, 2011). Recipient, Fitness IQ, LLC, \$46,000.
- Ward, B., Hintze, K., and **Bressel, E.** (November, 2010). Recipient, United Dairyman of Idaho, \$90,951.60.
- **Bressel, E.**, and Dolny, D. (September, 2010). Recipient, National Swimming Pool Foundation, \$15,552.
- Dolny, D., Smith, G., and **Bressel, E.** (August, 2010). Recipient, Bosco Systems (Nemeses, and muscle lab), \$25,000.
- **Bressel, E.**, and Willardson, J. (February, 2009). Recipient, software development grant, Primal Pictures Ltd, \$17,000.
- **Bressel, E.** (October, 2009). Recipient, Cache Valley Specialty Hospital access grant for radiological services (MRI and X rays), \$10,000.
- Dolny, D., Smith, G., and **Bressel, E.** (2009). Recipient, Freemotion Fitness, \$6,000.
- **Bressel, E.**, Dolny, D., and Heath, E. (August, 2008). Recipient, National Swimming Pool Foundation, \$36,456.
- **Bressel, E.**, and Ensign, J. (August, 2008). Recipient, National Swimming Pool Foundation Fellowship, \$2,000.
- **Bressel, E.** (January, 2007). Recipient, Cache Valley Specialty Hospital access grant for radiological services (MRI and X rays), \$25,000.

- Cronin, J., and **Bressel, E.** (May 2004). Recipient, Auckland University of Technology Contestable Research Grant, \$8,800NZ.
- **Bressel, E.** (November, 2004). Recipient, Cache Valley Specialty Hospital access grant for radiological services (MRI and X rays), \$8,000.
- **Bressel, E.** (February 2003). Recipient, ICON Health and Fitness equipment grant, \$10,075.
- **Bressel, E.**, and McNair, P.J. (July 2000). Recipient, Neurological Foundation of New Zealand Research Grant, \$5,000NZ.
- **Bressel, E.** (April 1998). Recipient, International Society of Biomechanics Matching Dissertation Grant, \$4,000.
- Bressel, M.E., **Bressel, E.**, and Heise, G.D. (April 1998). Recipient, American Physical Therapy Association Colorado Chapter Bob Doctor Research Grant, \$150.
- **Bressel, E.** (August 1998). Recipient, American Society of Biomechanics Student Travel Award, \$250.

#### Funded Grants (Internal)

- Seedall, R., **Bressel, E.**, and Novak, J. (June, 2018). Recipient, Utah Agriculture Experiment Station Grant, \$99,385.00.
- Dakin, C. and **Bressel, E.** (January, 2017). Recipient, Utah State University, Research Catalyst, \$19,967.00.
- Louder, T., and **Bressel, E.** (January, 2014). Recipient, Graduate Student Senate Research Grant, \$1,000.
- Studenka, B. and **Bressel, E.** (July, 2013). Recipient, Utah State University, Research Catalyst, \$19,967.00.
- Walker, C., Walker, K., and **Bressel, E.** (April, 2013). Recipient, Undergraduate Research & Creative Opportunities (URCO) Grant, \$2,000.
- Gibbons, M., and **Bressel, E.** (January, 2010). Recipient, Graduate Student Senate Research Grant, \$1,000.
- Nash, D., and **Bressel, E.** (October, 2009). Recipient, Undergraduate Research & Creative Opportunities (URCO) Grant, \$2,000.
- **Bressel, E.**, Higbee, T., and Smith, G. (December, 2008). Recipient, Utah State University, Research Catalyst, \$19,077.
- Martin, K., and **Bressel, E.** (September 2008). Recipient, Undergraduate Research & Creative Opportunities (URCO) Grant, \$2,000.

- Willardson, J., and **Bressel, E.** (October 2007). Recipient, Eastern Illinois University College of Education and Professional Studies Development Grant, \$800.
- Oliverson, B., and **Bressel, E.** (March 2007). Recipient, Undergraduate Research & Creative Opportunities (URCO) Grant, \$2,000.
- **Bressel, E.** (December, 2006). Recipient of an ADVANCE grant for faculty development at Utah State University, Grant, \$3,500.
- Reeve, T., and **Bressel, E.** (November 2004). Recipient, Undergraduate Research & Creative Opportunities (URCO) Grant, \$435.
- Mitchell, B., and **Bressel, E.** (March 2004). Recipient, Undergraduate Research & Creative Opportunities (URCO) Grant, \$300.
- Exeter, A., and **Bressel, E.** (March 2003). Recipient, Undergraduate Research & Creative Opportunities (URCO) Grant, \$200.
- **Bressel, E.** (February 2002). Recipient, Gardner Junior Faculty Travel Fellowship Grant, \$1,485.
- **Bressel, E.** (May 2001). Recipient, Women and Gender Research Institute Research Grant, Utah State University, \$400.
- **Bressel, E.** (February 2001). Recipient, Utah State University New Faculty Research Grant, \$21,600.
- **Bressel, E.** (December 2000). Recipient, Gardner Junior Faculty Travel Fellowship Grant, \$1,816.
- **Bressel, E.** (November 2000). Recipient, College of Education Bureau of Research Services Faculty Pilot Data Grant, \$1,400.
- **Bressel, E.** (Fall 1998). Recipient, University of Northern Colorado Graduate Student Assistance Fellowship and Grant Program, \$1000.
- **Bressel, E.** (April 1997). Recipient, Summer Graduate Research Grant for Doctoral Students. Awarded \$4,242 and tuition support. University of Northern Colorado.

#### Grants Submitted and Not Funded

- Dakin, C. (P.I.) and Bressel, E. (February 2021). R01 NIH/NIA (PA-19-091) # 4395351. Vestibular Intervention for Fall Risk Reduction, \$1,661,577.62
- Mason, J.B., **Bressel, E.** et al. (February, 2018). Human-Animal Interaction (HAI) Research R21 (PAR-18-650). \$275,000. Resubmission is February, 2019.
- **Bressel, E.**, and Dolny, D. (Submitted May 2012). HydroWorx International, \$6,700.

- Dolny, D., **Bressel, E.**, Smith, G., and Olson, L. (Submitted July 2011). Nemeses Bosco Systems, \$100,000.
- **Bressel, E.**, and Samaha, A. (Submitted August 2010) Autism Speaks, Requested \$46,231.59
- Smith, G., **Bressel, E.**, et al (2010, February). National Science Foundation (NSF # 09-506), \$ 1,172,164. Strategies with bodies in motion: using human activities to enhance student interest in physics and biology.
- Willardson, J., and **Bressel, E.** (Submitted January 2009). Perfect Pushup, LLC, Requested \$25, 000.
- Ball, T., Graven, N., **Bressel, E.**, and Scharmman, S. (Submitted March 2008). The Massage Therapy Foundation, Requested \$20,000.
- **Bressel, E.**, Higbee, T., and Cronin, J. (Submitted February 2008) Autism Speaks Complementary and Alternative Medicine Pilot Grant, Requested \$ 46,758.49.
- Ward, R.E., and **Bressel, E.** (Submitted November 2007). Dairy Management, Inc /National Dairy Council, Requested \$50,000.
- Cronin, E., and **Bressel, E.** (Submitted April 2006). Sport and Recreation New Zealand Research Grant. Requested \$ 23,000 NZ.
- **Bressel, E.** (Submitted January 2004). American College of Sports Medicine Foundation Research Grant. Requested \$8,719.
- Heath, E., **Bressel, E.**, and Hendricks, D. (Submitted January 2004). Western Dairy Center Research Grant. Requested \$84,436.
- **Bressel, E.** (submitted July 2001). The Aircast Foundation: Orthopaedic Medicine Research Grant. Requested \$82,313.

### Teaching

- Teaching philosophy statement: I feel that an outstanding teacher not only helps students learn about a particular topic but inspires them to pursue knowledge throughout their lifetime.
- Teaching qualification: Face-to-face, online, and broadcast learning, mentoring undergraduate and graduate students, continuing education with teaching skill development, and learning management systems.

### Courses Taught and Evaluation Scores (Utah State University) response rate > 75%

- KIN 3250 – Anatomical Kinesiology (undergraduate; n = 50-60)
  - a. Overall quality of course on a 5 pt scale =  $4.7 \pm .19$
  - b. Overall quality of instructor on a 5 pt scale =  $4.6 \pm .24$

- KIN 4200 – Introduction to Biomechanics (undergraduate; n = 40-60)
  - a. Overall quality of course on a 6 pt scale =  $5.3 \pm .29$
  - b. Overall quality of instructor on a 6 pt scale =  $5.4 \pm .27$
- KIN 6540 – Neuromuscular Adaptations (graduate; n = 3-28)
  - a. Overall quality of course on a 6 pt scale =  $5.6 \pm .29$
  - b. Overall quality of instructor on a 6 pt scale =  $5.6 \pm .39$
- KIN 6610 – Topics in Biomechanics (graduate; n = 5-25)
  - a. Overall quality of course on a 5 pt scale =  $4.6 \pm .25$
  - b. Overall quality of instructor on a 5 pt scale =  $4.8 \pm .32$
- KIN 6620 – Methods in Biomechanics (graduate; n = 3-15)
  - a. Overall quality of course on a 5 pt scale =  $5.0 \pm .12$
  - b. Overall quality of instructor on a 5 pt scale =  $5.0 \pm .05$

#### Courses Taught and Evaluation Scores (University of New England)

- ATC 333 – Gross Anatomy with cadaveric labs (undergraduate; n = 21)
  - a. Overall quality of course: 100% of responses = good to excellent
  - b. Overall quality of instructor: 77% of responses = excellent
- SPT 420 - Research Methods (undergraduate; n = 18)
  - a. Overall quality of course: 85% of responses = good to excellent
  - b. Overall quality of instructor: 70% of responses = excellent
- SPT 120 – Personal Health and Wellness (undergraduate; n = 38)
  - a. Overall quality of course: 89% of responses = good to excellent
  - b. Overall quality of instructor: 99% of responses = excellent
- EXS 130 – Motor Learning (undergraduate; n = 27)
  - a. Overall quality of course: 88% of responses = good to excellent
  - b. Overall quality of instructor: 86% of responses = excellent

#### Graduate Theses Chaired (39 MS and 4 PhD)

- Vakula, M. (2022). Effects of obesity on knee extensor structure, function, and gait: a systematic review and meta-analysis. (PhD)
- Kim, Y. (2021). Balance control and exercise-based intervention in older adults. (PhD)
- Costa-Scorse, B. (2019). Injury surveillance to implementation: strategies to ameliorate alpine skiing and snowboarding injuries in New Zealand. (PhD co-chaired with John Cronin)
- Teson, E.F. (2018). A review of open access to evidence based medicine for athletic trainers. (MS)

- Bishop, C. (2018). A review of impact testing used for the diagnosis of concussion and the influence of language of test administration. (MS)
- Louder, T. (2017). Establishing a kinetic assessment of reactive strength. (PhD)
- Patterson, D. (2017). Effect of an aquatic environment on dual-task performance in older adults. (MS)
- Nielson, S. (2017). Comparison of land and aquatic loaded countermovement jump landings in female collegiate athletes. (MS)
- Jeon, D. (2017). Comparison of ground reaction forces between novice and experienced ballet dancers performing a second position jump landing. (MS)
- Searle, C. (2016). Jump landings on land and in waist-deep water: comparison between young and middle-aged adults. (MS)
- Roberts, L. (2016). Dose-response relationship between aquatic treadmill running and change to SI in land treadmill running. (MS)
- Horlbeck, W. (2015). Association between Pelvic Motion and Hand Velocity in College-Aged Baseball Pitchers. (MS)
- Foster, S. (2015). A systematic review of aquatic exercise programs on balance measures in older adults. (MS)
- Brittini, K. (2015). A systematic review of the effects of aquatic environments on cognitive function in healthy adults. (MS)
- Baldwin, M. (2014). Effect of aquatic jet intensity and water depth on static and dynamic balance. (MS)
- William, H. (2014). Association between pelvic motion and hand velocity in college-aged baseball pitchers. (MS)
- Louder, T. (2013). Effect of water immersion on standing balance; Validity and reliability issues of aquatic assessment of balance. (MS)
- Ensign, J. (2011). Effect of aquatic and body weight supported treadmill exercise on physiological and biomechanical performance. (MS)
- Gibbins, M. (2011). Effect of whole body vibration on repetitive behaviors of young children with Autism. (MS)
- Anderson, E. (2010). Kinematic comparison of cheerleading stunt landings. (MS)
- Branscomb, J. (2010). Biomechanics of aquatic treadmill exercise in osteoarthritis patients. (MS)

- Denning, W. (2009). Biomechanics of aquatic treadmill exercise in osteoarthritis patients. (MS)
- Workman, C. (2008). Influence of foot position during a soccer goal kick on ball trajectory. (MS)
- Thompson, B. (2008). Core muscle activity during weightlifting on stable and unstable surfaces. (MS)
- Jackson, K. (2008). Seasonal knee strength changes during the competitive season in female college soccer players. (MS)
- Sobolewski, E. (2008). Effects of static stretching on isokinetic peak torque about the knee at two angular velocities. (MS)
- Nuckles, J. (2008). Effect of graded seat pressure on perineal compression. (MS)
- Mitchell, B. (2006). The effect of lumbar position on ankle joint biomechanics. (MS)
- Reeve, T. (2006). Influence of bicycle seat pressure on compression of the perineum: A MRI analysis. (MS)
- Williams, D. (2005). A comparison of hip abduction strength between the uninvolved and involved limb in Division I collegiate track athletes previously diagnosed with iliotibial band syndrome. (MS)
- Lowes, M. (2004). Effect of shock absorbing safety mats on ground reaction forces during the Yurchenko vault. (MS)
- Bowser, B. (2004). Flexibility and stiffness: Relation to sprint running performance.
- Jonker, J. (2004). Comparison of static and dynamic balance in female collegiate soccer, basketball, and gymnastics athletes. (MS)
- Schiess, B. (2003). Acceleration and kinematics of the lower extremity during running on treadmills of different compliance. (MS)
- Mortenson, C.R. (2003). Measuring muscle fatigue in the upper extremity, while using the computer mouse, for extended periods. (MS)
- Jorgensen, K.B. (2003). Biomechanical comparison of roller skiing and cross-country skiing. (MS)
- Finn, L. (2002). The effect of instruction on reducing ground reaction forces in the landing phase of the volleyball spike. (MS)
- Howells, J.J. (2002). Effect of load placement on back muscle activity using two different backpack designs. (MS)

- Mecham, C. (2002). The influence of bicycle saddle design on pelvic angle, trunk angle, and EM signals of the lower back in novice and experienced cyclists. (MS)
- Seeley, M.K. (2002). A comparison of upper extremity kinetics in the Yurchenko vault and floor exercise. (MS)
- Larson, B. T. (2002). Viscoelastic and passive elastic stiffness of the plantar flexor muscle-tendon unit in persons who have ruptured the Achilles tendon. (MS)
- O'Brian, G. (2002). Worker compensation costs, employee incident, severity and illness rates associated with development and implementation of an ergonomics program. (MS)
- Willardson, J. (2001) Predicting equivalent workloads between the free weight parallel squat and 45-degree angled leg press. (MS)

### **Service**

#### *National/International Service*

#### Consulting

- HydroWorx International, Inc. 1420 Stoneridge Dr. Middletown, PA. Responsible for serving on the Scientific Advisory Board, 2019-2023
- ICON Health and Fitness, Inc. Logan, UT. Responsible for assessing the merit of research designs for equipment validation, 2015-2017
- Pearl Izumi, Louisville, CO. Responsible for assessing chamois effect on bicycle seat pressure, 2009-2011
- Alston & Bird, LLP, New York, NY. Responsible for the interpretation of scientific language in patent infringement cases associated with bicycle seats, 2006-2007

#### Committees

- Member, Board of Directors, American Kinesiology Association, three-year term beginning on February 1, 2023 and ending on January 31, 2026.
- Publications Committee Member for the American Kinesiology Association. December 2021-
- Vice President of Public Relations for the International Society of Biomechanics for Sports. August 2004-2006.
- Student representative for the American Society of Biomechanics. August 1998-October 1999.

#### Ad Hoc Reviewer

- a. Scottish Government Health Directorates, grant reviewer, 2023-
- b. PLOS ONE, 2017-present
- c. Journal of Musculoskeletal and Neuronal Interactions, 2015-present
- d. International Journal of Therapy and Rehabilitation, 2014-present
- e. Research in Sports Medicine, 2013-present
- f. Journal of Advanced Research, 2012-present
- g. International Journal of Aquatic Research and Education, 2011-present
- h. Applied Ergonomics, 2010-present
- i. Doctoral thesis reviewer for the School of Exercise, Biomedical and Health Sciences
- j. Edith Cowan University dissertations (3 reviewed), 2009-2013
- k. Journal of Biomechanics, 2007-present
- l. Journal of Sexual Medicine, 2007-present
- m. Research Quarterly for Exercise and Sport, 2007-present
- n. American Society of Biomechanics abstract reviewer, 2007
- o. Journal of Science and Medicine in Sport, 2006-present
- p. Medicine & Science in Sports & Exercise, 2006-present
- q. Physical Therapy and Sport, 2006-present
- r. Clinical Biomechanics, 2005-present
- s. Sports Biomechanics, 2005-present
- t. Book reviewer for Manual of Structural Kinesiology, 15<sup>th</sup> edition, Clem W. Thompson and R.T. Floyd, 2004
- u. National Institute for Occupational Safety and Health, Robert A. Taft Laboratories (3 reviewed), 2003-2005
- v. Journal of Applied Biomechanics, 2003-present
- w. Thesis reviewer for Auckland University of Technology (8 reviewed), 2003-2012
- x. Book reviewer for Divine, Inc. Publishing, Lisle, IL, 2002-2005
  - Basic Biomechanics, 4<sup>th</sup> edition, Susan J. Hall
  - Progress in Motor Control, Vol. 2, Mark L. Latash
  - Biomechanical Basis of Human Movement, 2<sup>nd</sup> edition, Joseph Hamill and Kathleen M. Knutzen
  - Sport Mechanics for Coaches, 2<sup>nd</sup> edition, Gerry Carr
  - Innovative Analyses of Human Movement: Analytical Tools for Human Movement Sciences, Nicholas Stergiou
- y. Grant proposal and thesis reviewer for the Department of Physiotherapy at Auckland University of Technology, 2001-2005
- z. Journal of Science and Medicine in Sport, 1999-present

#### *State Service*

#### Ad Hoc Reviewer

- Thesis reviewer for the Department of Kinesiology and Health Science at Utah State University, 2002-2005
- Dissertation proposal reviewer for the Emma Eccles Jones College of Education & Human Services at Utah State University, 2002-2005

#### Committees

- Athletics Council, 2018-2024

- Central Committee member for reviewing Promotion and Tenure, 2014-2016
- Utah State University IRB board member, 2009-2014
- Pre-health professions evaluation committee member, 2009
- College of Education and Human Services teaching coach/faculty mentor, 2010-2012
- AAHRPP research investigator for IRB review, Fall 2008
- Utah State University honors committee member, Fall 2002-2018
- Utah State University faculty panel member for Connections, Fall 2002, 2009.
- College of Education and Human Services technology committee member at Utah State University. Spring, 2003-2005
- Committee positions for the Department of Kinesiology and Health Science at Utah State University, Fall, 2000
  - a. Pre-physical therapy club advisor
  - b. Occupational therapy club advisor
  - c. Chair, promotion and tenure committee (8 faculty)
  - d. Committee member, promotion and tenure committee (10 faculty)
  - e. Kinesiology undergraduate and graduate curriculum committee
  - f. Ombudsperson
  - g. Department head search committees, member (3 )
  - h. Exercise science search committees, member and chair (5)
- Gear-UP STEM education experience for Mount Logan Middle School, 2016
- Participant in the Multistate Collaboration to Advance Learning Outcomes Assessment (MSC), an initiative organized by The Utah System of Higher Education in collaboration with the Organization of State Higher Education Executive Officers (SHEEO), 2014

### **Continuing Education**

- Teaching learning circle and teaching scholar training via the Empowered Teaching Excellence program at USU, 2005-present
- Certified Utah State University Leader, HR Leadership Development Program, 2022
- Fellow of the American Kinesiology Leadership Institute, 2021
- National Institute of Health (NIH) regional seminar. Indianapolis, IN, April 17-18, 2012

### **Professional Affiliations**

- American Kinesiology Association (AKA), 2018-
- American College of Sports Medicine (ACSM), 1990-
- International Society of Biomechanics in Sports (ISBS), 1997-2015
- American Society of Biomechanics (ASB), 1996-2014

### **Awards**

- Recipient, Employee of the Year for the Department of Kinesiology and Health Science, Utah State University, Logan UT, 2016-2017
- Recipient, Excellence in Aquatic Physical Therapy Award by the American Physical Therapy Association Aquatic Section, 2016
- Recipient, Researcher/Scholar of the Year Award for the Department of Kinesiology and Health Science, Utah State University, Logan UT, 2009 & 2012
- Recipient, Teacher of the Year Award for the Department of Kinesiology and Health Science, Utah State University, Logan UT, 2006-2007
- Recipient, Top Professor Award by the Mortar Board Senior Honor Society, Utah State University, Logan UT, 2003-2004
- Recipient, Outstanding Undergraduate Research Mentor of the Year Award for the College of Education and Human Services, Utah State University, Logan UT, 2003-2004
- Recipient, Professor of the Year Award by the Presidents Leadership Council, Utah State University, Logan UT, 2000-2001
- Recipient, Dean's Citation for Excellence Award, University of Northern Colorado, Greeley CO, 1999
- Recipient, Teaching Assistant of the Year Award by the Student Representative Council, University of Northern Colorado, Greeley CO, 1997-98
- Recipient, Research Merit Award, California State University, Fresno, CA, 1995

### **Selected Achievements as Department Head since October 2018 (a shared governance approach founds these achievements)**

- Secured resources to add four new three-track faculty positions, two-term appointment faculty positions (i.e., lecturer), a full-time academic advisor, a full-time director, a staff assistant for the lifetime activity program, and one department-funded post-doctoral research.

- Advanced a climate of inclusivity through more deliberate structure/training/advertising in faculty/staff searches, faculty spotlights, student surveys to seek student voices, ease of access, and use of online materials. Developed and implemented a teaching load policy or ‘guidance’ document to help improve teaching load equity.
- Secured resources to develop and implement a fully online master's of sports management degree program. In just two years, the program reached capacity (> 60 students) and provided extra revenue for the department. Secured resources for creating a minor and certificate in outdoor adventure leadership to meet the region's needs by preparing students for entry-level positions in outdoor recreation settings.
- Secured support to gain new spaces and create a body composition laboratory, graduate student offices, academic advisor offices, renovated conference rooms, and, most recently, a physical activity behavior laboratory and sports psychology laboratory
- Organized a collaboration between our majors/minors and local businesses that assisted our graduates in finding employment in the community
- Secured over \$500,000 of competitive internal equipment funds to purchase a DEXA scanner, a Biodex System 4 dynamometer, a fNIRS system, and a mobile metabolic cart for field testing
- Instituted department seminar series and weekly “snack and chat” social to support collective intellectual exchange and socializing opportunities that build teamwork and collegiality.
- Addressed faculty compression, inversion, and pay equity issues by adjusting the salary of over 90% of all faculty and staff in the department that fell below the regional average based on the classification of instructional program (CIP) codes specific to R1 land grant institutions.