



University of Iowa Carver College of Medicine

Department of Physical Therapy & Rehabilitation Science

ANNUAL

RESEARCH DAY

FRIDAY, APRIL 24, 2015

1:00-2:00 PM—2117 MERF

Research Presentation

**“The Therapeutic Potential of Acute Intermittent Hypoxia:
Current Knowledge and Future Challenges”**

Brendan Dougherty, PhD, PT

Post-Doctoral Research Fellow

Department of Comparative Biosciences

University of Wisconsin—Madison

2:00-4:00 PM—MERF Building Atrium

Poster Presentations

Please Join Us! Refreshments will be served.

Individuals with disabilities are encouraged to attend all University of Iowa-sponsored events. If you are a person with a disability who requires a reasonable accommodation in order to participate in this program, please contact the Department of Physical Therapy & Rehabilitation Science in advance at 319-335-9791.

Listing of Poster Presentations:

1. Post-activation depression is modulated by electrical stimulation frequency in individuals with spinal cord injury. Yen C-L, Shields RK.
2. Motor acquisition and learning in a dynamic upper extremity task. Yen C-L, Hoak KE, Hayek MJ, Wilson RG, Bernard KS, Mangan AM, McDermott ML, Nguyen FT, Shields RK.
3. Influence of motor learning on long latency reflex in the upper extremity. Yen C-L, McDermott ML, Nguyen FT, Bernard KS, Hayek MJ, Hoak KE, Mangan AM, Wilson RG, Shields RK.
4. Influence of PAS on motor learning. Yen C-L, Bernard KS, Mangan AM, Hoak KE, Hayek MJ, Wilson RG, McDermott ML, Nguyen FT, Shields RK.
5. The reliability of testing observational gait analysis. Steffen TB, Hayden NL, Washington JD, Means ML, Alt PW, Yack HJ, Sass KJ.
6. The relationship between pain, fatigue, sleep, disease severity and function in women with fibromyalgia. Dailey DL, Vance CG, Rakel BA, Goldman SE, Malow B, Miriam B, Zimmerman L, Crofford J, Sluka KA.
7. Body diagram prediction of pain and quality of life in people with fibromyalgia. Dailey DL, Steele AL, Sluka KA.
8. A novel method to obtain higher intensity TENS stimulation in clinical application. Vance CGT, Dailey DL, Rakel BA, Geasland KM, Darghosian L, Alemo Munters L, Merriwether EN, Crofford LJ, Sluka KA.
9. Skin impedance is not a factor in TENS analgesia. Vance CGT, Dailey DL, Rakel BA, Sluka KA.
10. Association between heart rate and accelerations in estimating physical activity. Byl HC, Kleckner NR, Hannasch KM, Sluka KA, Frey Law LA.
11. Use of accelerometry to estimate oxygen consumptions across cohorts. Jansa KR, Fleener LG, Vogel DP, Helms TL, Sluka KA, Frey Law LA.
12. Comparison of accelerations between upper and lower extremity activities. Dailey D, Mueller MR, Treichler BC, Yerk LC, Sluka KA, Frey Law LA.
13. A comparison of two mathematical models to estimate V_{O2} using accelerometry. Ward AM, McGrane GM, Krutsinger JJ, Frey Law LA, Sluka KA.
14. Exercise attenuate LPS-induced musculoskeletal hyperalgesia in mice by preventing excessive macrophage activation. Abdelhamid R, Merriwether E, Kolker S, Allen L, Sluka KA
15. Skeletal muscle blood flow: effect of exercise training on rapid vasodilation in older adults. Huber S, Stralina SM, Turner SR, Treichler DP, Ueda K, Casey DP.
16. Changes in peripheral resistance and aortic pressure wave reflection: influence of body posture. Kramer C, Piotter AK, Stecker BT, Hughes WE, Casey DP.
17. Validating the use of accelerometry to assess single leg vertical jump height. Wilson CJ, Mier JL, Kuhlmann KM, Hersom PD, Walter SS, McDevitt MD, Robbins DP, Williams GN.
18. The walk and step down task in people after knee surgery: association with quadriceps function and patient-reported outcome. Robbins DP, Cobian DG, Williams GN.