



IUPUI

Summer 2015

SCHOOL OF HEALTH
AND REHABILITATION
SCIENCES

INDIANA UNIVERSITY
Indianapolis

RESEARCH DATES TO REMEMBER/CONSIDER

| | |
|--------|--|
| Sep 11 | Indiana CTSI 7 th Annual Meeting |
| Sep 30 | CTSI Pilot Funding for Research Use of Core Facilities due date |
| Oct 5 | NIH R01 new submission due date (internal routing deadline: Sep 28) |
| Oct 15 | IUPUI Research Support Funds Grant due date |
| Oct 16 | NIH R03 and R21 new submission due date (internal routing deadline: Oct 9) |
| Oct 26 | NIH R15 new submission due date (internal routing date: Oct 19) |
| Nov 13 | IU SHRS Interdisciplinary Research and Continuing Education Conference (1-5pm) |
| Dec 11 | Indiana Spinal Cord and Brain Injury Research Fund Grant due date |

EXTERNAL GRANTS AND CONTRACTS

Awarded

| Project Director | Sponsor | Title | Start | End | Proposal Total Amt |
|------------------|---------------|---|-----------|------------|--------------------|
| Brown, M. Beth | NIH-NHLBI | Elucidating Mechanisms to Optimize Exercise for Pulmonary Arterial Hypertension | 7/20/2015 | 6/30/2018 | \$454,815 |
| Massie, Crystal | AM HEART ASSN | Functional motor cortex stimulation to repair damaged movement representations after stroke | 1/1/2015 | 12/31/2015 | \$77,000 |

Submitted

| Project Director | Sponsor | Title | Start | End | Proposal Total Amt |
|--------------------|---------------------|--|-----------|------------|--------------------|
| Warden, Stuart | NIH | Sustainability of exercise-induced gains in bone structure and estimated strength | 4/1/2016 | 3/31/2021 | 2,169,287.00 |
| Agho, Austin O | HRSA | Indiana University Health Careers Opportunity Program | 9/1/2015 | 8/31/2018 | 1,941,099.00 |
| Thompson, William | US DEPT OF DEFENSE | Effect of Low Magnitude Mechanical Signals on Breast Cancer Bone Metastases | 10/1/2016 | 9/30/2019 | 702,772.00 |
| Warden, Stuart | NIH | Localizing the skeletal effects of serotonin transporter inhibition | 4/1/2016 | 3/31/2019 | 468,000.00 |
| Brown, M. Beth | NIH | Elucidating Mechanisms to Optimize Exercise for Pulmonary Arterial Hypertension | 4/1/2016 | 3/31/2019 | 468,000.00 |
| Thompson, William | NIH | Mechanical Partitioning of mTORC2 to Direct Mesenchymal Stem Cell Fate | 4/1/2016 | 3/31/2019 | 462,400.00 |
| Crabtree, Jeffrey | UNIV OF WISCONSIN | The TransFACT Assessment Mobile App: Optimizing Personal Community Transit | 10/1/2015 | 9/30/2020 | 300,000.00 |
| Altenburger, Peter | PURDUE UNIVERSITY | Training to Improve Gate and Balance in Everyday Situations | 11/1/2015 | 10/31/2018 | 261,151.00 |
| Massie, Crystal | IND STATE DEPT HLTH | Randomized control trial of non-invasive brain stimulation plus upper-extremity robotic rehabilitation for individuals with traumatic brain injury | 7/1/2015 | 6/30/2017 | 159,486.00 |
| Comer, Amber | AM HEART ASSN | The Long-term Effect of State Stroke Legislation on Patient Health Outcomes | 1/1/2016 | 12/31/2017 | 154,000.00 |
| Li, Wei | ALZHEIMER ASSN | Type 2 Diabetes and Neurodegeneration in AD and PD | 10/1/2015 | 9/30/2017 | 150,000.00 |
| Munk, Niki | MASSAGE THERAPY FDN | Trigger point self-treatment for chronic neck pain | 10/1/2015 | 9/30/2016 | 30,000.00 |
| Massie, Crystal | AM HEART MIDWEST | Kinematic and Clinical Evaluation of Motor Cortex Stimulation in Stroke | 6/1/2015 | 8/31/2015 | 4,000.00 |

PUBLICATIONS

1. **Avin KG**, Bloomfield SA, Gross TS, **Warden SJ**. Biomechanical aspects of the muscle-bone interaction. *Curr Osteoporos Rep* 2015;13:1-8.
2. **Avin KG**, Hanke TA, Kirk-Sanchez N, McDonough CM, Shubert TE, Hardage J, Hartley G. Management of falls in community-dwelling older adults: clinical guidance statement from the Academy of Geriatric Physical Therapy of the American Physical Therapy Association. *Phys Ther* 2015;95:815-34.
3. **Avin KG**, Moorthi RN. Bone is not alone: the effects of skeletal muscle dysfunction in chronic kidney disease. *Curr Osteoporos Rep* 2015;13:173-9.
4. **Bayliss AJ**, **Strunk V**. Measurement of empathy changes during a physical therapist's education and beyond. *J Phys Ther Educ* 2015;29:6-12.
5. Bennett K, McElroy JA, Johnson AO, **Munk N**, Everett KD. A persistent disparity: smoking in rural sexual and gender minorities. *LGBT Health* 2015;2:62-70.
6. Bonsaksen T, Meidert U, Schuman D, Kvarsnes H, Haglund L, Prior S, Forsyth K, Yamada T, **Scott PJ**. Does the Role Checklist measure occupational participation? *Open J Occup Ther* 2015;3:(14 pages).
7. **Brown MB**, Chingombe TJ, Zinn AB, Reddy JG, Novack RA, Cooney SA, Fisher AJ, Presson RG, Lahm T, Petrache I. Novel assessment of haemodynamic kinetics with acute exercise in a rat model of pulmonary arterial hypertension. *Exp Physiol* 2015;100:742-54.
8. Brown T, **Crabtree JL**, Mu K, Wells J. The entry-level occupational therapy clinical doctorate: advantages, challenges, and international issues to consider. *Occup Ther Health Care* 2015;29:240-51.
9. Cowan SM, Hart HF, **Warden SJ**, Crossley KM. Infrapatellar fat pad volume is greater in individuals with patellofemoral joint osteoarthritis and associated with pain. *Rheumatol Int* 2015;35:1439-42.
10. de la Motte S, **Arnold BL**, Ross SE. Trunk-rotation differences at maximal reach of the star excursion balance test in participants with chronic ankle instability. *J Athl Train* 2015;50:358-65.
11. Frump AL, Goss KN, Vayl A, Albrecht M, Fisher A, Tursunova R, Fierst J, Whitson J, Cucci AR, **Brown MB**, Lahm T. Estradiol improves right ventricular function in rats with severe angioproliferative pulmonary hypertension: effects of endogenous and exogenous sex hormones. *Am J Physiol Lung Cell Mol Physiol* 2015;308:L873-90.
12. Goss KN, Cucci AR, Fisher AJ, Albrecht M, Frump A, Tursunova R, Gao Y, **Brown MB**, Petrache I, Tepper RS, Ahlfeld SK, Lahm T. Neonatal hyperoxic lung injury favorably alters adult right ventricular remodeling response to chronic hypoxia exposure. *Am J Physiol Lung Cell Mol Physiol* 2015;308:L797-806.
13. Hooker RA, Chitteti BR, Egan PH, Cheng YH, Himes ER, Meijome T, Srour EF, **Fuchs RK**, Kacena MA. Activated leukocyte cell adhesion molecule (ALCAM or CD166) modulates bone phenotype and hematopoiesis. *J Musculoskelet Neuronal Interact* 2015;15:83-94.
14. Lai X, Price C, Modla S, **Thompson WR**, Caplan J, Kirn-Safran CB, Wang L. The dependences of osteocyte network on bone compartment, age, and disease. *Bone Res* 2015;3:15009 (11 pages).
15. **Li W**. Practicing orthopedic medicine by physician assistants. *J Exerc Sports Orthop* 2015;2:1-2.
16. **Li W**. The underlying mechanisms for resveratrol superinduction effects. *Int J Health Sci* 2015;3:39-59.
17. **Massie CL**, Kantak SS, Narayanan P, Wittenberg GF. Timing of motor cortical stimulation during planar robotic training differentially impacts neuroplasticity in older adults. *Clin Neurophysiol* 2015;126:1024-32.
18. Meijome TE, Hooker RA, Cheng Y, Walker W, Horowitz MC, **Fuchs RK**, Kacena MA. GATA-1 deficiency rescues trabecular but not cortical bone in OPG deficient mice. *J Cell Physiol* 2015;230:783-90.
19. Rohe BG, Carter R, **Thompson WR**, Duncan RL, Cooper CR. Experimental integrative muscular movement technique enhances cervical range of motion in patients with chronic neck pain: a pilot study. *J Altern Complement Med* 2015;21:223-8.
20. Styner M, Pagnotti GM, Galior K, Wu X, **Thompson WR**, Uzer G, Sen B, Xie Z, Horowitz MC, Styner MA, Rubin C, Rubin J. Exercise regulation of marrow fat in the setting of PPAR-gamma agonist treatment in female C57BL/6 mice. *Endocrinology* 2015;156:2753-61.
21. **Thompson WR**, Keller BV, Davis ML, Dahners LE, Weinhold PS. Low-magnitude, high-frequency vibration fails to accelerate ligament healing but stimulates collagen synthesis in the Achilles tendon. *Orthop J Sports Med* 2015;3 (8 pages).
22. **Thompson WR**, Uzer G, Brobst KE, Xie Z, Sen B, Yen SS, Styner M, Rubin J. Osteocyte specific responses to soluble and mechanical stimuli in a stem cell derived culture model. *Sci Rep* 2015;5:11049 (12 pages).
23. Uzer G, **Thompson WR**, Sen B, Xie Z, Yen SS, Miller S, Bas G, Styner M, Rubin CT, Judex S, Burrridge K, Rubin J. Cell mechanosensitivity to extremely low-magnitude signals is enabled by a LINCed nucleus. *Stem Cells* 2015;33:2063-76.
24. Zanjani F, Davis T, Newsham P, Kruger TM, **Munk N**, Schoenberg N, Martin C. Management of psychiatric appointments by telephone. *J Telemed Telecare* 2015;21:61-3.