



## Dean's Quarterly Updates

### Student Learning and Success

April - June 2017

#### Undergraduate Student Learning and Success

- Undergraduate student Breann Johnson\* (UROP program) completed her undergraduate research internship in **Mary Beth Brown's** laboratory and presented research at the IUPUI 2017 Student Research Day, April 2017.
- Undergraduate students Kate Ulrich\* and Braden Warner\* (LHSI) completed their undergraduate research internships in **Mary Beth Brown's** laboratory and presented research at the IUPUI LHSI Research Symposium, April 2017.
- **Amber Comer** escorted 30 undergraduate students to the Indiana State House to witness her testimony in front of the legislature on Senate Bill 175.
- **Amber Comer** presented a poster with undergraduate student, Britney Reynolds\* at the Life Health Sciences Internship Poster Session. "Assessing the Effect of an Ethics Course on Undergraduate Student's Ethical Judgement."
- **Robyn Fuchs** served as a mentor for the Indianapolis Project Seed High School Summer Research Program. Walter Brown\*, a Cathedral High School junior completed an internship with Dr. Fuchs where he learned how to image bone tissue.
- **Niki Munk's** student research worker Arash Zakers\* presented "Negative Implications of Inconsistencies and Deficits in Case Reports for Massage Related Adverse Events for the Therapeutic Massage and Bodywork Field: A Systematic Audit through mid-2016" as a poster at the IUPUI 2017 Student Research Day on April, 7, 2017.

#### Graduate and Graduate Professional Education

- The 2017 IU Occupational Therapy Award for Best Research went to Laura Messmer\*, Gina Zerbini\*, Shane Steinbach\*, and Nadja Fields\* for their paper *Unpacking Barriers to Occupational Role Participation and Satisfaction*. Faculty Advisor, **Dr. Patricia Scott**.
- **Robyn Janson** and OT students A. Garabrant\*, J. Pulliam\*, M. Parton\* and E. Poor\* participated in the 2017 IU MakerHealth Faire Exhibit. Their presentation was *3D Printing Applications in Occupational Therapy*.
- PhD student Gary Long\* presented a research poster at the American College of Sports Medicine's Annual Meeting in Denver, May 2017, and was awarded the highest student poster award, the President's Cup Award for: *Exercise Responses Indicate Right Ventricular Failure in a Novel Rat Model of Chronic Thromboembolic Pulmonary Hypertension*.
- PhD student Sarah Shue\* successfully defended her dissertation proposal *Exploring the Impact of Career Transition on Athletes and Military Personnel: a Mixed Methods Study*. She is supported by the Block Grant. Committee Members: **Drs. Niki Munk**, Marrienne Matthias, Dennis Watson, and **Kristine Miller**.

### Advances in Health and Life Sciences

#### Research and Creative Activity

##### Abstracts

- **Comer A.** "Coming to a Hospital Near You: The Future of Physician Aid in Dying in the United States." American Public Health Association Annual Meeting. Atlanta, GA.
- **Comer A, Robbins S \*** "Choosing Death over Suffering: Informing Patients about the Possibility of Physician Aid in Dying as an End-of-Life Option". American Public Health Association Annual Meeting. Atlanta, GA.

##### Grants

- **Comer A.** Submitted NIH KO1 Grant. "The Quest to Diminish Suffering: Developing an intervention to improve communication and medical decision making for older adults with severe stroke." Awarded \$648,634.
- **Fuchs RK (PI).** NIH R01 application submitted entitled "Long term benefit to the proximal femur of exercise completed when young". Awarded \$2,928,711.
- **Fuchs RK (PI).** Internal grant funded. "Long term benefit to the proximal femur of exercise completed when young. Awarded \$10,317.
- **Loghmani MT.** Release Time for Research (RTR), Title: The effects of soft tissue manipulation on mesenchymal stem cell mobilization and homing, inflammation, pain and behavior in rodents with chemically-induced low back pain. Awarded up to \$10,000 of summer salary.



## Dean's Quarterly Updates

### Advances in Health and Life Sciences

#### Research and Creative Activity (cont.)

##### Grants (cont.)

- **Loghmani MT.** IU SHRS Promoting External Applications for Research (PEAR) Grant (Category D) - Equipment Support. [PI]. Title: The effects of soft tissue manipulation on mesenchymal stem cell mobilization and homing, inflammation, pain and behavior in rodents with chemically-induced low back pain. Awarded: \$2,785.
- **Loghmani MT.** IU RTC – Rose Hulman Ventures Project Award [PI]. Title: Mechatronic QSTM (Quantifiable Soft Tissue Mobilization) Device. Awarded \$15,000.
- **Thompson W.** IUPUI Research Support Funds Grant (PI): “Matrix Regulation of Osteocytes via Auxiliary Calcium Channel Subunits” (06/01/2017-06/30/2018). A one-year award using localized surface plasmon resonance to determine the subdomains of the ECM molecule perlecan that bind the  $\alpha 2\beta 1$  auxiliary VSCC subunit. Awarded \$35,000.
- **Warden SJ** (PI). NIH R15 award. “Localizing the skeletal effects of serotonin transporter inhibition.” Awarded \$472,500.

##### Poster Sessions

- **Brown MB,** Frump A\*, Long G\*, Fisher A\*, Presson R\*, Lahm T\*. *High Intensity Interval Training in a Rat Model of Severe, Angioproliferative Pulmonary Arterial Hypertension.* American College of Sports Medicine's Annual Meeting, May 2017. Denver, CO.
- **Brown MB,** Frump A\*, Long G\*, Owens M\*, Wiseman A\*, Blessinger J\*, Kurzhal T\*, Studebaker S\*, Jay K\*, Troutman A\*, Fisher A, Presson R\*, Lahm T. *Six Weeks of Treadmill Training with a High Intensity Interval or Mild Continuous Exercise Approach Increases Cardiac Output in a Sugen-Hypoxia Rat Model of Pulmonary Arterial Hypertension.* American Thoracic Society's Annual Meeting in Washington DC, May 2017.
- **Comer A,** Reynolds B\*. *Assessing the Effect of an Ethics Course on Undergraduate Student's Ethical Judgement.* Life Health Sciences Poster Session, IUPUI, Indianapolis, IN.
- **Munk N,** Evans E, Froman A, Kline M, Bair MJ. *Care-Ally Assisted Massage Training and Application to Address Chronic Neck Pain in US Veterans: A 4-Year Clinical Trial.* International Congress Integrative Medicine & Health Conference, May 3-5, 2017, Berlin, Germany.
- **Munk N,** Zakeresfahani A, Foote RT, Ralston R, Boulanger KT. *Negative Implications of Inconsistencies and Deficits in Case Reports for Massage Related Adverse Events for the Therapeutic Massage and Bodywork Field: A Systematic Audit through mid-2016.* International Congress Integrative Medicine & Health Conference, May 3-5, 2017, Berlin, Germany.
- **Pape S.** Innovative IPE Collaborations within a Student-Run Free Clinic to Enhance Role Understanding and Collaborative Practice Competency. IUPUI Bringle Civic Engagement Showcase. April 11, 2017, Indianapolis, IN.

##### Presentations

- **Comer A.** *Biomedical Ethics and Religion Workshop.* Carmel, IN.
- **Hemmersbach SA.** *YouTube and Mental Health: A Comprehensive Analysis of YouTube Content.* Interdisciplinary Conference on Communication, Medicine and Ethics. Indianapolis, IN. June 2017.
- **Janson R.** *IU MakerHealth Faire Panelist: 3D Printing in Occupational Therapy.* Indianapolis, IN. April 2017.
- Lieberman D, Arbesman M, **Liu CJ,** Molitor W. *Systematic review on occupational therapy and productive aging.* American Occupational Therapy Association Annual Conference and Expo, Philadelphia, PA. April 2017.
- McKinney R, Smiley J, Perron J, **Scott PJ.** *Role Checklist Version 3: Feasibility and Utility.* AOTA Annual Conference & Centennial Celebration. Philadelphia, PA, April 2017.
- **Pape S,** Baxley A, Coker-Bolt P, Giles A, Lyle Illges A, Mathis K, Tom L. *How to Start a Successful Student-Run Free Clinic: A Multi-Institutional Panel.* American Occupational Therapy Association Annual Conference. Philadelphia, PA. April 2017.
- **Scott PJ,** Bercovitz A\*. *Interprofessional Teaching Grand Rounds: Experiences and Outcomes 2017 AOTA Annual Conference & Centennial Celebration.* Philadelphia, PA. April 2017.
- **Scott PJ.** *The Disconnect: Survival ≠ meaningful life: Recovery post-liver transplantation.* Interdisciplinary Conference on Communication, Medicine and Ethics. Indianapolis, IN. June 2017.



## Dean's Quarterly Updates

### Advances in Health and Life Sciences

#### Research and Creative Activity (cont.)

##### Publications

- **Altenburger P**, Wilson AM. A Volunteer Basketball Clinic for Children with Disabilities: The Professional Development Impact on Student Athletes and Physical Therapy Students. *Journal of Allied Health* 2017; 46(2): 65-71.
- Firulli BA, Milliar H, Toolan KP, Harkin J, **Fuchs RK**, Robling AG, Firulli AB. Defective Hand1 phosphoregulation uncovers essential roles for Hand1 in limb morphogenesis. *Development*, 2017; 144(13):2480.
- Friedrich-Nel H, **Mac Kinnon J**. Assessment central to quality doctoral education. In: Lategan LOK, editor. *Get Ready, Get Set, Go*. Bloemfontein, South Africa: Sun Media; 2017. p. 77-82.
- George L, **Altenburger P**, Banas K, Bellew J, Bemenderfer S, Cappel M, Hornstein M, Savage C, Loghmani MT. A model for providing free patient care and integrating student learning and professional development in an interprofessional student-led clinic. *Journal of Physical Therapy Education*. 2017;31(2):54-66.
- Kennedy AB, **Munk N**. (2017). Experienced Practitioners' Beliefs Utilized to Create a Conceptual Model of a Successful Massage Therapist: A Qualitative Investigation. *International Journal of Therapeutic Massage and Bodywork*. 2017. 10(2), 9-19.
- Kindler JM, Pollock NK, Laing EM, Oshri A, Jenkins NT, Isales CM, Hamrick MW, Ding KH, Hausman DB, McCabe GP, Martin BR, Hill Gallant KM, Warden SJ, Weaver CM, Peacock M, Lewis RD. Insulin resistance and the IGF-I-cortical bone relationship in children ages 9-13 years. *Journal of Bone and Mineral Research* 2017;32:1537-45.
- **Mac Kinnon J, Comer A**. The influence of culture, values and faith in end-of-life decisions. In: Lategan LOK, Van Zyl G, editors. *Healthcare Ethics for Healthcare Professionals*. Bloemfontein, South Africa: Sun Media; 2017. p. 54-63.
- **Mac Kinnon J, Comer A**. Healthcare Ethics for Healthcare Practitioners. Editors Laetus O.K. Lategan and Gert J. Van Zyl. Book chapter "The Influence of culture, values, and faith on end-of-life decisions."
- Moorthi RN, **Avin KG**. Clinical relevance of sarcopenia in chronic kidney disease. *Current Opinion in Nephrology and Hypertension* 2017;26:219-28.
- Neto-Neves EM, **Brown MB**, Zaretskaia MV, Reznia S, Goodwill AG, McCarthy BP, Persohn SA, Territo PR, Kline JA. Chronic embolic pulmonary hypertension caused by pulmonary embolism and vascular endothelial growth factor inhibition. *American Journal of Pathology* 2017;187:700-12.
- Olivos DJ, 3rd, Alvarez M, Cheng YH, Hooker RA, Ciovacco WA, Bethel M, McGough H, Yim C, Chitteti BR, Eleniste PP, Horowitz MC, Srour EF, Bruzzaniti A, **Fuchs RK**, Kacena MA. Lnk deficiency leads to TPO-mediated osteoclastogenesis and increased bone mass phenotype. *Journal Cellular Biochemistry* 2017;118:2231-40.
- Poore JA, Stephenson E, Jerolimov D, **Scott PJ**. Development of an Interprofessional Teaching Grand Rounds. *Nurse Educator*. 2017. 42(4), 164-167.
- Salazar TE, Richardson MR, Beli E, Ripsch MS, George J, Kim Y, Duan Y, Moldovan L, Yan Y, Bhatwadekar A, Jadhav V, Smith JA, McGorray S, Bertone AL, Traktuev DO, March KL, Colon-Perez LM, **Avin KG**, Sims E, Mund JA, Case J, Deng X, Kim MS, McDavitt B, Boulton ME, Thinschmidt J, Li Calzi S, Fitz SD, **Fuchs RK, Warden SJ**, McKinley T, Shekhar A, Febo M, Johnson PL, Chang LJ, Gao Z, Kolonin MG, Lai S, Ma J, Dong X, White FA, Xie H, Yoder MC, Grant MB. Electroacupuncture promotes central nervous system-dependent release of mesenchymal stem cells. *Stem Cells*. 2017. 335(5):103-1315.
- **Scott PJ**, Cacich D, Morgan Keener KM, Whiffen K. Establishing Concurrent Validity of the Role Checklist Version 2 with the OCAIRS in Measurement of Participation: A Pilot Study. *Occupational Therapy International*, 2017. (Article ID 6493472), 6 pages.
- **Scott PJ**, McKinney K, Perron J, Ruff E, Smiley J. Measurement of Participation: The Role Checklist v3: Satisfaction and Performance. In M. Huri (Ed.), *Occupational Therapy - Occupation Focused Holistic Practice in Rehabilitation*. online: InTechOpen. 2017. pp. 107-19.
- Shue S, Richmond AK, Mulvihill T, **Munk N**. Treating individuals with amputations in therapeutic massage and bodywork practice: a qualitative study. *Complementary Therapies in Medicine*. 2017. 32, 98-104.
- Vogel KA, Martin BR, McCabe LD, Peacock M, **Warden SJ**, McCabe GP, Weaver CM. The effect of dairy intake on bone mass and body composition in early pubertal girls and boys: a randomized controlled trial. *American Journal of Clinical Nutrition* 2017;105:1214-29.
- **Warden SJ**, Weatherholt AM, Gudeman AS, Mitchell DC, **Thompson WR, Fuchs RK**. Progressive skeletal benefits of physical activity when young as assessed at the midshaft humerus in male baseball players. *Osteoporos Int*. 2017. 28(7):2155.



## Dean's Quarterly Updates

### Advances in Health and Life Sciences

#### Research and Creative Activity (cont.)

##### *Video/Audio Podcasts, Blogs, and Other Contributions*

- **Niki Munk** published two invited and non-referred original articles online via Spine Universe May 31, 2017. "Top 5 Questions About Massage for Spine Pain Answered" available at: <https://www.spineuniverse.com/treatments/alternative/massage/top-5-questions-about-massage-spine-pain-answered> and "Massage for Spine Health: 5 Tips for Choosing a Massage Therapist" available at: <https://www.spineuniverse.com/treatments/alternative/massage/massage-spine-health-5-tips-choosing-massage-therapist>.

### Contributions to the Well-being of the Citizens of Indianapolis, Indiana, and Beyond

#### Community Engagement

- **Amber Comer** testified in front of the Indiana House of Representatives Committee on Public Health regarding Senate Bill 175. She played a vital role in the passage and implementation of Indiana Senate Bill 175, which was signed into law and became effective on July 1, 2017.
- The **IU Department of Physical Therapy** was presented with an honorable mention award from The Foundation for Physical Therapy for their fundraising efforts through the 2016-2017 VCU-Marquette Challenge. Indiana University was also inducted into the Cornerstone Society of the Marquette Challenge Philanthropy Circle for their cumulative giving efforts totaling over \$50,000 throughout 13 years of participation in the Challenge. Honorable mention is awarded to schools who show dedication to the Challenge by raising \$3,000 or more. Notably, IU students raised over \$5,073 for physical therapy research this year.
- **Robin Janson** presented an introduction to occupational therapy to participants of the IU Health Careers Opportunity Program (HCOP), June 2017.
- **Robin Janson** presented an introduction to 3D printing to participants of the IU Health Careers Opportunity Program (HCOP), June 2017.
- **Niki Munk** mentored two high school STEM SEED students in her lab as an introduction for them to health and life sciences.

#### Faculty and Staff

- **Patricia Scott** has been appointed Interim Chair of the Department of Occupational Therapy as of July 1, 2017. Occupational Therapy has two one-year visiting faculty starting August 1st. Please welcome Dr. Victoria Wilburn, and Dr. Wen-Pin Chang.
- **Caily Wolma** has joined the Department of Occupational Therapy Department as Program Assistant starting in July.

#### Professional Engagement

- **Mary Beth Brown** was appointed to the 2017 American Heart Association Scientific Sessions Meeting Program Committee for which she served as reviewer as well as session builder.
- **Mary Beth Brown** was a reviewer for Indiana CTSI CTR Grant applications, spring 2017 cycle.
- **Mary Beth Brown** was appointed to serve on the American Council of Academic Physical Therapy (ACAPT) National Student Honors Society Task Force.
- **Mary T. Loghmani** served as the representative for the Regenerative Rehabilitation initiative as one of the five strategic initiatives of the newly inaugurated APTA council, Frontiers in Rehab Science and Technology (FiRST) at its initial planning meeting during the APTA National NEXT Conference in Boston, June 2017.
- **Niki Munk** served on the Massage Therapy Foundation's Research Grant Review Board.
- **Stuart Warden** was appointed as Senior Associate Editor of the British Journal of Sports Medicine.
- **Stuart Warden** served as reviewer for the National Children's Research Centre, Ireland.
- **Stuart Warden** served as external reviewer for dissertations from the University of Cape Town, South Africa and University of British Columbia, Canada.