

**Southwestern School of Health Professions (SSHP)  
Scholarly Activity Report  
FY 2017-2018**

As a responsibility of the SSHP Research Advisory Committee, this listing has been developed to recognize the research activities of the UT Southwestern School of Health Professions faculty (included on the SSHP Faculty Roster). The publications and grants listed represent responses from faculty members to a request for this information for the fiscal year September 1, 2017 – August 31, 2018. Programs for individuals not listed reported no publications/grants for the time period requested.

*SSHP Faculty Publications and Grants Summary FY 2017-2018*

**Research Grants and Contracts**

<i>Grants Submitted, Award Decision Pending</i>	18
<i>Grants Awarded</i>	45
<i>Grants Submitted But Not Funded</i>	18
<b>Total Grant Submissions</b>	<b>81</b>

**Publications**

<i>Refereed journals</i>	50
<i>Refereed journals under review</i>	19
<i>Non-refereed journals</i>	1
<i>Book Chapters</i>	6
<i>Books</i>	0
<i>Other:</i>	
A. Published scientific review	7
B. Abstracts (platform or poster presentations)	55
C. Editorials, position papers, background papers	2
D. Original invited lectures and presentations published for distribution	3
<b>Total Publications</b>	<b>143</b>

<b>Presentations</b>	<b>65</b>
<b>Membership on Editorial Boards</b>	<b>19</b>

SSHP Faculty Publications and Grants Summary FY 2017-2018, by  
Department

**Clinical Nutrition**

Research Grants and Contracts

<i>Grants Submitted, Award Decision Pending</i>	3
<i>Grants Awarded</i>	6
<i>Grants Submitted But Not Funded</i>	4
<b>Total Grant Submissions</b>	<b>13</b>

Publications

<i>Refereed journals</i>	10
<i>Refereed journals under review</i>	0
<i>Non-refereed journals</i>	0
<i>Book Chapters</i>	3
<i>Books</i>	0
<i>Other:</i>	
A. Published scientific review	3
B. Abstracts (platform or poster presentations)	1
C. Editorials, position papers, background papers	1
D. Original invited lectures and presentations published for distribution	0
<b>Total Publications</b>	<b>18</b>

Presentations

**18**

Membership on Editorial Boards

**6**

**Clinical Rehabilitation Counseling**

Research Grants and Contracts

<i>Grants Submitted, Award Decision Pending</i>	0
<i>Grants Awarded</i>	1
<i>Grants Submitted But Not Funded</i>	1
<b>Total Grant Submissions</b>	<b>2</b>

Publications

<i>Refereed journals</i>	0
<i>Refereed journals under review</i>	0
<i>Non-refereed journals</i>	0
<i>Book Chapters</i>	0
<i>Books</i>	0
<i>Other:</i>	
A. Published scientific review	0
B. Abstracts (platform or poster presentations)	0
C. Editorials, position papers, background papers	0
D. Original invited lectures and presentations published for distribution	0
<b>Total Publications</b>	<b>0</b>

<u>Presentations</u>	7
<u>Membership on Editorial Boards</u>	1

## **Health Care Sciences**

<u>Research Grants and Contracts</u>	
<i>Grants Submitted, Award Decision Pending</i>	6
<i>Grants Awarded</i>	17
<i>Grants Submitted But Not Funded</i>	4
<b>Total Grant Submissions</b>	<b>27</b>

<u>Publications</u>	
<i>Refereed journals</i>	10
<i>Refereed journals under review</i>	11
<i>Non-refereed journals</i>	1
<i>Book Chapters</i>	0
<i>Books</i>	0
<i>Other:</i>	
A. Published scientific review	1
B. Abstracts (platform or poster presentations)	15
C. Editorials, position papers, background papers	0
D. Original invited lectures and presentations published for distribution	0
<b>Total Publications</b>	<b>38</b>

<u>Presentations</u>	16
<u>Membership on Editorial Boards</u>	6

## **Physical Therapy**

<u>Research Grants and Contracts</u>	
<i>Grants Submitted, Award Decision Pending</i>	5
<i>Grants Awarded</i>	14
<i>Grants Submitted But Not Funded</i>	3
<b>Total Grant Submissions</b>	<b>22</b>

<u>Publications</u>	
<i>Refereed journals</i>	18
<i>Refereed journals under review</i>	4
<i>Non-refereed journals</i>	0
<i>Book Chapters</i>	3
<i>Books</i>	0
<i>Other:</i>	
A. Published scientific review	1
B. Abstracts (platform or poster presentations)	11

C. Editorials, position papers, background papers	0
D. Original invited lectures and presentations published for distribution	0
<b>Total Publications</b>	<b>37</b>

<u>Presentations</u>	<b>20</b>
<u>Membership on Editorial Boards</u>	<b>5</b>

## **Physician Assistant Studies**

<u>Research Grants and Contracts</u>	
<i>Grants Submitted, Award Decision Pending</i>	1
<i>Grants Awarded</i>	3
<i>Grants Submitted But Not Funded</i>	2
<b>Total Grant Submissions</b>	<b>6</b>

<u>Publications</u>	
<i>Refereed journals</i>	12
<i>Refereed journals under review</i>	4
<i>Non-refereed journals</i>	0
<i>Book Chapters</i>	0
<i>Books</i>	0
<i>Other:</i>	
A. Published scientific review	0
B. Abstracts (platform or poster presentations)	24
C. Editorials, position papers, background papers	0
D. Original invited lectures and presentations published for distribution	0
<b>Total Publications</b>	<b>40</b>

<u>Presentations</u>	<b>3</b>
<u>Membership on Editorial Boards</u>	<b>0</b>

## **Prosthetics-Orthotics**

<u>Research Grants and Contracts</u>	
<i>Grants Submitted, Award Decision Pending</i>	3
<i>Grants Awarded</i>	4
<i>Grants Submitted But Not Funded</i>	4
<b>Total Grant Submissions</b>	<b>11</b>

<u>Publications</u>	
<i>Refereed journals</i>	0
<i>Non-refereed journals</i>	0
<i>Book Chapters</i>	0
<i>Books</i>	0
<i>Other:</i>	
A. Published scientific review	2
B. Abstracts (platform or poster presentations)	4

C. Editorials, position papers, background papers	1
D. Original invited lectures and presentations published for distribution	3
<b>Total Publications</b>	<b>10</b>

<u>Presentations</u>	1
<u>Membership on Editorial Boards</u>	1

**Southwestern School of Health Professions (SSHP)**  
**Scholarly Activity Report**  
**Department of Clinical Nutrition 2017-2018**

**Research Grants and Contracts**

*Grant Submitted, Award Decision Pending*

**Title:** Origins of Excess Acid in Uric Acid Urolithiasis (R01DK115703)

**Purpose:** To enhance pediatric literacy among homeless women and children.

**Funding Agency:** NIH

**Funding Dates:** 09/01/18-08/31/23

**Co-Investigator:** J. Browning

**Title:** "The effects of Vitamin-C enriched gelatin supplementation on functional outcomes following Achilles tendon rupture."

**Purpose:** To investigate the effectiveness of nutritional supplementation of vitamin-C enriched gelatin on clinical outcomes following Achilles tendon rupture.

**Funding Agency:** SSHP Interdisciplinary Research Grant Program

**Funding Requested:** \$10,000

**Principal Investigator:** M. Huang

**Co-Investigator:** T. Campbell

**Title:** Targeting Insulin Resistance to Improve Abnormal Cardiovascular Control in Diabetes

**Purpose:** To determine the mechanisms underlying the heightened blood pressure response to exercise in type 2 diabetes mellitus.

**Funding Agency:** UT Southwestern School of Health Professions Interdisciplinary Research Grant Program

**Funding Dates:** FY 2018-2019.

**Amount requested:** \$20,000. Status: Submitted, Decision Pending.

**Co-Investigator:** H. Yeganehjo, 10% effort

*Grants Awarded*

**Title:** 13C Asymmetry in Blood Glucose as a Marker of Oxidative Stress in Liver (R01DK099289)

**Purpose:** This study will determine if glucose released from the liver given a 13C tracer is informative about the redox disruption occurred in high-impact liver diseases including non-alcoholic fatty liver disease and drug-induced hepatotoxicity.

**Funding Agency:** NIH-RO1

**Funding Dates:** 07/01/14-06/30/18

**Amount Awarded:** \$696,000

**Co-Investigator:** J. Browning

**Title:** HRSA grant: Predoctoral Training in General, Pediatric and Public Health Dentistry and Dental

**Purpose:** Enhance training to support integration of oral health within the broader health care delivery system and promote interdisciplinary education.

**Funding Agency:** Department of Health and Human Services Public Health Services

**Funding Dates:** 7/1/15 – 6/30/20

**Amount Awarded:** \$571,182

**Principal Investigator:** N. Gimpel

**Co-Investigator:** L. Michalsky, 20% effort

**Title:** Teaching of Recommended Dietary Patterns to Reduce Cardiac Risk to First-Year Medical Students

**Purpose:** To develop, implement, and evaluate a curriculum to improve first-year medical students' certainty and knowledge in areas including (1) dietary patterns recommended to reduce cardiac risk, (2) effect of recommended dietary patterns on key metrics (blood pressure, lipids, and cardiac events), and (3) appropriate selection of diets for hospitalized patients.

**Funding Agency:** Southwestern Academy of Teachers (SWAT)

**Funding Dates:** 7/11/2018 – 7/11/2019

**Amount awarded:** \$2,500 awarded

**Principal Investigator:** S. Rodder, 10% effort

**Title:** Impact of Geranylgeraniol and *d*- $\delta$ -Tocotrienol on the Cognitive Function and Hippocampal Protein Biomarkers in Streptozotocin-Induced Alzheimer's Rat Models

**Purpose:** To investigate the neuroprotective properties and potential molecular mechanisms of geranylgeraniol and *d*- $\delta$ -tocotrienol, two natural dietary isoprenoids, in Alzheimer's disease (AD).

**Funding Agency:** UT Southwestern School of Health Professions Interdisciplinary Research Grant Program

**Funding Dates:** FY 2017-2018.

**Amount Awarded:** \$14,000. Amount Requested: \$20,000. Status: Ongoing

**Principal Investigator:** H. Yeganehjo, 40% effort

**Title:** Preventing Hypertension and Sympathetic Overactivation by Targeting Phosphate.

**Purpose:** To determine whether excess phosphate consumption causes hypertension in human.

**Funding Agency:** NIH-RO1

**Funding Dates:** 04/01/17 - 03/31/21

**Funding amount:** \$1,956,676.00

**Principle Investigator:** Wanpen Vongpatanasin

**Co-Investigator:** L. Sandon, 5% effort

**Title:** Phase 2 Study of Obeticholic Acid for Lipodystrophy Patients (1R01DK10194101A1)

**Purpose:** designed to study efficacy of OCA, a strong FXR ligand, in reducing hepatic triglyceride levels in patients with hepatic steatosis and Familial Partial Lipodystrophy (FPLD).

**Funding Agency:** NIH

**Funding Dates:** 12/01/14 - 11/30/17

**Funding amount:** \$652,500

**Co-Investigator:** J. Browning

*Grants Submitted but Not Funded*

**Title:** “Academy of Nutrition and Dietetics Diversity Promotion Grant”

**Purpose:** To increase the percentage of qualified individuals from underrepresented minority groups who matriculate into UT Southwestern Medical Center’s School of Health Professions Master of Clinical Nutrition-Coordinated Program.

**Funding Agency:** Academy of Nutrition and Dietetics

**Funding Requested:** \$10,000

**Funding Dates:** July 2018 to June 2020

**Principal Investigator:** T. Campbell

**Title:** Impact of Dietary Geranylgeraniol and  $\delta$ -Tocotrienol on Cognitive Function, Learning, and Memory: Potential Protective Role against Cognitive Decline in Alzheimer’s Disease

**Purpose:** To evaluate and unravel the efficacy of geranylgeraniol and  $\delta$ -tocotrienol in improving memory and cognition.

**Funding Agency:** DIFM DPG (Dietitians in Integrative and Functional Medicine Dietetic Practice Group) Research Grant

**Funding Dates:** FY 2017-2018.

**Amount requested:** \$5,000. Status: Submitted but not funded.

**Principal Investigator:** H. Yeganehjoo, 10% effort

**Co-Investigator:** L. Sandon

**Title:** Investigating approaches to enhance weight loss with the GLB-AIM among minority groups with mobility limitations using a SMART design

**Funding Agency:** NIH NHLBI RO1 within a PO1

**Funding Dates:** 04/01/2019 – 03/31/2024

**Funding amount:** \$529,521.00

**Principle Investigator:** Heather Kitzman-Carmichael, Katherine Froehlich-Grobe

**Co-Investigator:** L. Sandon, 25% effort



**Title:** Rehabilitation Research and Training Center: Developing an Evidence-Base to Reduce CVD Risk and Promote Healthy Aging for People with Long-Term Physical Disabilities

**Funding Agency:** DHHS Administration for Community Living, National Institute on Disability, Independent Living, and Rehabilitation Research

**Funding amount:** \$366,030

**Principle Investigator:** Katherine Froehlich-Grobe

**Co-Investigator:** L. Sandon, 25% effort

## Publications

### *Refereed journals*

Cooksey R, Wu SY, Klesse L, Oden J, Bland RE, Hodges JC II, Gargan L, **Vega GL**, Bowers DC. Metabolic Syndrome is a sequela of radiation therapy in hypothalamic obesity among survivors of childhood brain tumors. *J. Invest. Med.* Submitted 2018.

Aspry KE, Van Horn L, **Carson JAS**, Wylie-Rosett J, Kushner RF, Lichtenstein AH, Devries S, Freeman AM, Crawford A, Kris-Etherton PM. Medical nutrition education, training, and competencies to advance guideline-based diet counseling by physicians: A science advisory from the American Heart Association. *Circulation.* 2018; 137:e821-e841.

Neeland IJ, Singh S, McGuire DK, **Vega GL**, Roddy T, Reilly DF, Castro-Perez J, Kozlitina J, Scherer PE. Relation of Plasma Ceramides to Visceral Adiposity, Insulin Resistance, and the Development of Type 2 Diabetes Mellitus: The Dallas Heart Study. *Diabetologia*, 2018 in press.

DeFina L, Barlow C, Radford N, Leonard D, Wilson R, Cooper T, S. Clark TM, Willis B, **Vega GL**, Farrell S, Gibbons L, Yildiz B, Gruntmanis U. The association of cardiorespiratory fitness, body mass index, and age with screening testosterone in otherwise healthy men undergoing preventive medicine examinations: The Cooper Center Longitudinal Study. *Mauritas* 2018, in press.

Johnson RK, Lichtenstein AH, Anderson CAM, **Carson JA**, Despres JP, Hu FB, Kris-Etherton PM, Otten JJ, Towfighi A, Wylie-Rosett J. Low-calorie sweetened beverages and cardiometabolic health: A science advisory from the American Heart Association. *Circulation.* 2018; on line version published Jul 30, 2018.

Grundy SM, Williams C, **Vega GL**. Upper body fat predicts metabolic syndrome similarly in men and women. *Eur J Clin Invest.* 2018 Jul;48(7):e12941. doi: 10.1111/eci.12941. Epub 2018 May 15. PubMed PMID: 29682733.

Tremelling K, **Sandon L**, **Vega GL**, McAdams CJ. Orthorexia Nervosa and Eating Disorder Symptoms in Registered Dietitian Nutritionists in the United States. *J Acad Nutr Diet.* 2017 Oct;117(10):1612-1617. doi: 10.1016/j.jand.2017.05.001. Epub 2017 Jun 15. PubMed PMID: 28624376; PubMed Central PMCID: PMC5623148.

Davis KE, Li X, Adams-Huet B, **Sandon LF**. Infant feeding practices and dietary consumption of US infants and toddlers: NHANES 2003-2012. *Public Health Nutr.* Published online Sep. 25, 2017. doi: 10.1017/S1368980017003184

Farrell SW, Finley CE, Barlow CE, Willis BL, DeFina LF, Haskell WL, **Vega GL**. Moderate to High Levels of Cardiorespiratory Fitness Attenuate the Effects of Triglyceride to High-Density Lipoprotein Cholesterol Ratio on Coronary Heart Disease Mortality in Men. *Mayo Clin Proc.* 2017 Dec;92(12):1763-1771. doi: 10.1016/j.mayocp.2017.08.015. Epub 2017 Nov 17. PubMed PMID: 29157534.

Boumosleh JM, Grundy SM, Phan J, Neeland IJ, Chang A, **Vega GL**. Metabolic Concomitants of Obese and Nonobese Women With Features of Polycystic Ovarian Syndrome. *J Endocr Soc.* 2017 Nov 2;1(12):1417-1427. doi: 10.1210/js.2017-00323.eCollection 2017 Dec 1. PubMed PMID: 29264465; PubMed Central PMCID: PMC5695651.

*Refereed journals under review*

*Non-refereed journals*

*Book Chapters*

**Gilmore A**, Oldham, K. Hematological Malignancies. In: Voss, A, Williams V. *Oncology Nutrition in Clinical Practice*, Second Edition. Under Review.

Kris-Etherton PM, Van Horn L, **Carson J**, Sikand G. Disorders of Lipid Metabolism. *Academy of Nutrition and Dietetics Nutrition Care Manual*, 2017.

**Sandon L**. Computerized food and nutrition analysis systems. In *Munoz N., Ed. Nutrition Assessment: Clinical and Research Applications*. Burlington, MA: Jones and Bartlett Learning, 2019.

*Books*

*Other*

A. Published scientific review

Rich NE, Oji S, Mufti A, **Browning JD**, Parikh ND, Odewole M, Mayo H, Singal A. Racial and ethnic disparities in nonalcoholic fatty liver disease prevalence, severity, and outcomes in the United States.: A meta-analysis. *Clin. Gastroenterol. Hepatol.* 2018; 16:198-210.

Potts A, Uchida A, Deja S, Berglund ED, Kucejova B, Duarte JAG, Fu X, **Browning JD**, Magnuson MA, Burgess SC. Cytosolic phosphoenolpyruvate carboxykinase as a

cataplerotic pathway in the small intestine. Am. J. Physiol. Gastrointest. Liver Physiol. 2018; 315; G249-G258.

Jin ES, **Browning JD**, Murphy RE, Malloy CR. Fatty liver disrupts glycerol metabolism in gluconeogenic and lipogenic pathways in humans. J. Lipid Res. 2018; doi: 10.1194/jlr.M086405

#### B. Abstracts (Platform or Poster Presentations)

Ryan J, **Sandon L**, Carlton D, Froehlich-Grobe K. Predictive equations overestimate energy needs in individuals with mobility impairment enrolled in a weight-loss program. Presented at Texas Academy of Nutrition and Dietetics Annual Nutrition Conference, Houston, TX, April 2018.

#### C. Editorials, position papers, background papers

**Sandon, L.** Guide to Nutrition Communication, Section 3, Chapters 10 – 15. [Reviewer] March 2018.

#### D. Original invited lectures and presentations published for distribution

#### **Presentations**

**Sandon, L.** Healthy eating for kids with Juvenile Arthritis. JA National Conference. Seattle, Washington June 28, 2018; and Washington D.C., August 3, 2018.

**Carson JAS.** Dietary Fats and Cardiovascular Disease: Calming the Controversy. American Society for Preventive Cardiology Congress. Albuquerque, New Mexico. July, 2018. Invited Presentation.

**Rodder, S.** How to Give Effective Dietary Advice to Patients. Society of Cardiovascular Computed Tomography, 2018 Cardiovascular Disease Prevention Symposium, Dallas-Ft. Worth. July 2018. Invited Presentation.

**Vega GL.** “Body composition analysis by dual x-ray absorptiometry” Continuing Medical Education Program. Cooper Institute, Dallas, Texas. June 2018.

**Gilmore A.** Ask the Dietitian. 2018 PBCers Conference. Houston, TX May 2018. Invited Platform Presentation.

**Yeganehjoo H.** Isoprenoids: Potential Role as Anticancer and Neuroprotective Compounds. University of Guelph, Department of Food Science, Guelph, Ontario, Canada. May 2018. Invited Platform Presentation.

**Browning, J.** Hepatocytes: ethanol, fatty liver, and cirrhosis. Metabolic Imaging of Disease, Department of Biomedical Engineering, University of Texas at Dallas. April 2018. Local. Accepted platform presentation.

**Rodder, S.** Can We Be Flexible When it Comes to Full Fat? New Mexico Academy of Nutrition and Dietetics, Annual Conference, Albuquerque, New Mexico. April 2018. Invited Presentation.

**Sandon, L.** Supplementing Your Arthritis Diet. Arthritis Foundation Symposium, Dallas Chapter, Presbyterian Hospital, Dallas, April 21, 2018.

**Sandon, L.** Anthropometric measurements: Nutrition focused physical exam pre-conference workshop. Texas Academy of Nutrition and Dietetics Food and Nutrition Conference and Expo, Houston, TX, April 12, 2018.

**J. Browning.** Liver disease and aspects of liver injury. Medical Nutrition Therapy in Liver Disease, Department of Clinical Nutrition, University of Texas Southwestern Medical Center. March 2018. Local. Accepted platform presentation.

**Sandon, L.** What to Eat When You Have Arthritis. Arthritis United, National Arthritis Foundation. Washington D.C., Mar. 11, 2018.

**J. Browning.** Non-alcoholic fatty liver disease: From observation to intervention and beyond. Capra Interdisciplinary Healthcare Symposium, School of Health Professions, University of Texas Southwestern Medical Center. February 2018. Local. Invited platform presentation.

**Rodder, S.** Can We Be Flexible When it Comes to Full Fat? Texas Academy of Nutrition and Dietetics Northeast Region Winter Conference, Dallas, TX. Feb 2018. Invited Presentation.

**J. Browning.** Non-alcoholic fatty liver disease, nuclear magnetic resonance spectroscopy, and stable isotope tracers. Human Biology and Disease, Graduate School of Biomedical Sciences, University of Texas Southwestern Medical Center. January 2018. Local. Accepted platform presentation.

**Rodder, S.** The Association between the Mediterranean Diet and Stroke. 7<sup>th</sup> Annual UTSW Stroke Symposium 2017: Critical Decisions in Stroke, Dallas. Nov 2017. Invited Presentation.

**Gilmore A.** Fighting cancer from your kitchen. Dallas Arboretum "A Tasteful Place." Dallas, Texas October 2017. Platform Presentation.

**J. Browning.** Metabolism and Research. Nutrition in Metabolism, Department of Clinical Nutrition, University of Texas Southwestern Medical Center. September 2017. Local. Accepted platform presentation.

## **Membership on Editorial Boards**

**Vega, G.** 2014 – present Deputy Editor. [Journal of Investigative Medicine](#); American Federation for Medical Research.

**Vega, G.** 2007 – present Associate Editor. [Journal of Clinical Lipidology](#). National Lipid Association.

**Vega, G.** 2007 – present Associate Editor. [Metabolic Syndrome and Related Disorders](#).

**Vega, G.** 2012 – present Associate Editor. [Nutrients](#)

**Vega, G.** 2011 – present Associate Editor. [Cholesterol](#)

**H. Yeganehjoo.** 2017 (ad hoc reviewer on two manuscripts). Frontiers in Physiology (Section: Exercise Physiology)

## Department of Clinical Rehabilitation Counseling 2017-2018

### Research Grants and Contracts

*Grants Submitted, Award Decision Pending*

*Grants Awarded*

**Title:** Effectiveness of a short education series to reduce anxiety for health professions graduate students  
**Purpose:** To determine if a short education series can reduce anxiety and increase health behaviors in first-year graduate students  
**Funding Agency:** Southwestern School of Health Professions  
**Funding Dates:** 09/1/2017-08/31/2018  
**Amount Requested:** \$3750.00  
**Principal Investigator:** Karen Brewer-Mixon, Ph.D., 10% effort  
**Awarded:** \$3000.00

*Grants Submitted but Not Funded*

**Title:** Impact of a multidisciplinary approach to freezing of gait and festination in individuals living with Parkinson's disease  
**Purpose:** To determine the usefulness of a combination of physical therapy and group psychotherapy intervention in reducing gait disturbances in person's with Parkinson's disease.  
**Funding Agency:** Community-Based Research Awards; UTSW  
**Funding Dates:** 07/01/2018-07/01/2020  
**Amount Requested:** \$75,000  
**Co-Principal Investigators:** Karen Brewer-Mixon, PhD, CRC & Staci Shearin, PT, PhD, NCS  
Community Partner: Dallas Area Parkinsonism Society;  
Executive Director, Mike Miles

### Publications

*Refereed journals*

*Refereed journals under review*

*Non-refereed Journals*

*Book Chapters*

*Books*

*Other*

A. Published scientific review

B. Abstracts (Platform or Poster Presentations)

C. Editorials, position papers, background papers

D. Original invited lectures and presentations published for distribution

### Presentations

**Brewer-Mixon K.** Improving TWC brain injury services. Texas Workforce Commission Board of Directors meeting; 2018 May 15. Fort Worth, TX (regional); invited platform presentation.

**Brewer-Mixon K.** Cognitive rehabilitation & psychotherapy with cognitively impaired patients. UT Southwestern Multiple Sclerosis Clinic; 2018 February 14. Dallas, TX (local); invited platform presentation.

**Brewer-Mixon K, Shearin S.** Effectiveness of a short education series to reduce anxiety for health professions graduate students. Southwestern School of Health Professions Capra Interdisciplinary Healthcare Symposium; 2018 February 7. Dallas, TX; invited platform presentation.

**Brewer-Mixon K et al.** Interprofessional care of an older adult with mild cognitive impairment and osteoporosis: Rehabilitation Counseling. 2018 IDEAL symposium; 2018 January 17; invited panel platform presentation.

**Brewer-Mixon K.** Research advances in brain injury. Dallas Acquired Brain Injury Support Group; 2017 October 3. Dallas, TX (local); accepted platform presentation.

**Brewer-Mixon K, Nguyen A.** What is Rehab Counseling? UTSW Research and Health Careers Conference 2017 September 30. Dallas, TX (local); invited platform presentation.

**Brewer-Mixon K.** Mentorship in the SSHP: A faculty mentor system. Southwestern School of Health Professions Fall Faculty Assembly. 2017 September 13. Dallas, TX (local); invited platform presentation.

### **Membership on Editorial Boards**

**Brewer-Mixon K.** *Applied Neuropsychology* (reviewer); 2015-present

## Department of Health Care Sciences and Education 2017-2018

### Research Grants and Contracts

*Grant Submitted, Award Decision Pending*

**Title:** The effects of vitamin-C enriched gelatin supplementation on clinical outcomes following Achilles tendon rupture

**Purpose:** To investigate the potential benefits of vitamin-C enriched gelatin supplementation post Achilles tendon rupture.

**Funding Agency:** UTSW School of Health Professions Interdisciplinary Research Grant Program

**Funding Dates:** 09/2018-08/2019

**Amount requested:** \$4,000 (with \$8,000 departmental matching funds). Status: Submitted, Decision Pending.

**Principal Investigator:** M. Huang, 50% effort.

**Title:** Clinical assessments of central pain processing disorders in patients with chronic pain

**Purpose:** To determine the ability of quantitative sensory testing to predict clinical outcomes and profiles.

**Funding Agency:** UTSW School of Health Professions Interdisciplinary Research Grant Program

**Funding Dates:** 09/2018-08/2019

**Amount requested:** \$2,900 (with \$2,000 departmental matching funds). Status: Submitted, Decision Pending.

**Co-Investigator:** M. Huang, 25% effort.

**Title:** The clinical impact and molecular mechanism of heat therapy on left ventricular diastolic function for prevention of developing heart failure

**Purpose:** To determine if left ventricular diastolic function can be modulated by using heat therapy in patients with left ventricular hypertrophy.

**Funding Agency:** UT Southwestern Center for Translation Medicine – Swim with the Sharks! A Team Science Pilot Grant Competition

**Funding Dates:** 03/2019-04/2020

**Amount requested:** \$25,000 Status: Submitted, Decision Pending.

**Co-Principal Investigator:** M. Huang, 20% effort.

**Title:** The Role of Insulin Resistance in Augmenting Exercise Pressor Reflex Function in Diabetes

**Purpose:** These studies are designed to determine the contributions of hyperinsulinemia to the development of exercise pressor reflex dysfunction in diabetes.

**Funding Agency:** Grant-in-Aid for Scientific Research Kokusai-Kyousai, Japan Society for the Promotion of Science

**Funding Dates:** 04/01/2019-03/31/2023

**Amount requested:** \$1,881,600

**Principal Investigator:** Norio Hotta



**Role:** Collaborator: **M. Mizuno**, 10% effort.

**Title:** The Role of Insulin Resistance in Augmenting Exercise Pressor Reflex Function in Diabetes

**Purpose:** These studies are designed to determine the contributions of hyperinsulinemia to the development of exercise pressor reflex dysfunction in diabetes.

**Funding Agency:** Grants for foreign study, The Kanae Foundation for the Promotion of Medical Science

**Funding Dates:** 04/01/2019-03/31/2020

**Amount Awarded:** \$10,000

**Principal Investigator:** Ishizawa Rie

**Role:** Mentor: **M. Mizuno**, 5% effort.

**Title:** Project Ntarupt – Dallas Teenage Pregnancy Prevention Program (Tier 1B) in Dallas, TX.

**Purpose:** Provide behavioral interventions with teenagers ages 13 – 19 and parents/guardians of teens in this age group in four five zip codes, 75203, 75212, 75216, 75216, 75220.

**Funding Agency:** The Dallas Foundation

**Funding Dates:** 07/01/2016 – 06/30/2017

**Amount Requested:** \$75,943.29 Status: pending SPA approval

**Principal Investigator:** **Jon Williamson**, In-kind

#### *Grants Awarded*

**Title:** Effects of “The Origami Embryo”, a hands-on exercise, on the understanding of early embryonic development

**Purpose:** To provide an enhanced intervention activity to increase student knowledge of early embryonic development

**Funding Agency:** Southwestern Academy of Teachers (SWAT) Junior Faculty Development Fund.

**Funding Dates:** 08/01/18-06/30/19.

**Amount Awarded:** \$1607.34.

**Collaborator:** **C. Faulkner**, 5% effort.

**Title:** Miniature Wireless Neuromodulation for the Treatment of Hypertension

**Purpose:** To develop a biomedical device that can lower blood pressure

**Funding Agency:** American Heart Association, Collaborative Science Award

**Funding Dates:** 06/01/18-05/31/21

**Amount Awarded:** \$750,000

**Principal Investigator:** M. Romero

**Role:** Co-PI, **S.A. Smith**, 10% effort

**Title:** Medical Monitoring Project

**Purpose:** HIV/AIDS Surveillance System

**Funding Agency:** Texas Department of State Health Services

**Funding Dates:** June 1, 2018 - May 31, 2019  
**Amount Requested:** \$315,774  
**Principal Investigator:** Jon Williamson

**Title:** Hyperinsulinemia Augments Exercise Pressor Reflex Function in Diabetes  
**Purpose:** These studies are designed to determine the contributions of hyperinsulinemia to the development of exercise pressor reflex dysfunction in diabetes.  
**Funding Agency:** Grants for scientific research-The Nakatomi Foundation  
**Funding Dates:** 04/01/2018-03/31/2019  
**Amount Awarded:** \$10,000  
**Principal Investigator:** Norio Hotta  
**Role:** Collaborator: **M. Mizuno**, 5% effort.

**Title:** HIV Prevention in Dallas, TX.  
**Purpose:** Provide targeted testing, linkage to care, and behavioral interventions with people at high risk for HIV and people living with HIV/AIDS in Dallas.  
**Funding Agency:** Department of State Health Services  
**Funding Dates:** 01/01/2018 – 07/01/2019  
**Amount Requested:** \$766,662 Status: Awarded  
**Principal Investigator:** **Jon Williamson**, In-kind

**Title:** Molecular HIV Surveillance (Incidence) in Texas.  
**Purpose:** Provide training and technical assistance, as approved by DSHS, to local Human Immunodeficiency Virus/Acquired Immunodeficiency Syndrome (HIV/AIDS) surveillance sites, health care providers, and Disease Intervention Specialists within the State of Texas, and laboratory staff on collection of HIV Incidence Surveillance data elements and incidence surveillance activities.  
**Funding Agency:** Department of State Health Services  
**Funding Dates:** 01/01/2018 – 12/31/2019  
**Amount Requested:** \$538,617 Status: awarded  
**Principal Investigator:** **Jon Williamson**, In-kind

**Title:** National HIV Behavioral Surveillance  
**Purpose:** Public health surveillance activity that helps to measure risks associated with HIV infection in populations at increased risk for infection. HIV testing is included and linkage to care is provided for newly diagnosed individuals.  
**Funding Agency:** Department of State Health Services  
**Funding Dates:** 01/01/2018 – 12/31/2018  
**Amount Requested:** \$400,824 Status: awarded  
**Principal Investigator:** **Jon Williamson**, In-kind

**Title:** Hepatitis C Surveillance  
**Purpose:** Develop and examine Hepatitis C Surveillance in Texas and partner with the state's prevention programs to link infected people to testing, care, and other services. Develop transition plan and establish a transition date for moving Hepatitis C

surveillance to the TB/HIV/DTD and Viral Hepatitis Unit. Facilitate the transitioning of surveillance and reporting.

**Funding Agency:** Department of State Health Services

**Funding Dates:** 01/01/2018 – 12/31/2018

**Amount Requested:** \$402,824 Status: awarded

**Principal Investigator:** **Jon Williamson**, In-kind

**Title:** Impact of geranylgeraniol and d-8-tocotrienol on the cognitive function and hippocampal protein biomarkers in streptozotocin-induced Alzheimer's rat models.

**Purpose:** These studies are designed to determine effect of geranylgeraniol and d-8-tocotrienol diet on the cognitive function in Alzheimer's disease.

**Funding Agency:** SHP Interdisciplinary Research Grant Program-UTSW

**Funding Dates:** 09/01/2017-08/31/2018

**Amount Awarded:** \$14,000

**Principal Investigator:** H. Yeganehjoo

**Role:** Co-Investigator: **M Mizuno**, 15% effort.

**Title:** *HIV Continuing Education for Community Health Workers and Facilitation of HIV-Focused Interprofessional Education*

**Purpose:** CE for Community Health Workers with Interprofessional Education

**Funding Agency:** South Central Aids Education Training Center

**Funding Dates:** July 1, 2017- June 30, 2018

**Amount Requested:** \$35,000

**Program Director:** **Kim Hoggatt Krumwiede**, 3% effort

**Title:** Preventing Hypertension and Sympathetic Overactivation by Targeting Phosphate  
**Purpose:** To determine the mechanisms underlying phosphate-induced high blood pressure

**Funding Agency:** National Institutes of Health-NHLBI, RO1

**Funding Dates:** 06/01/17-05/31/21

**Amount Awarded:** \$1,960,000

**Principal Investigator:** **S.A. Smith**, 10% effort

**Role:** Collaborator: **M. Mizuno**, 20% effort

**Title:** The Role of Insulin in Augmenting Exercise Pressor Reflex Function in Diabetes

**Purpose:** These studies are designed to determine the contributions of hyperinsulinemia to the development of exercise pressor reflex dysfunction in diabetes.

**Funding Agency:** Grant-in-Aid for Scientific Research -Japan Society for the Promotion of Science (JSPS)

**Funding Dates:** 04/01/2017-03/31/2020

**Amount Awarded:** \$46,800

**Principal Investigator:** N. Hotta

**Role:** Collaborator: **M. Mizuno**, 10% effort.

**Title:** Hepatitis C Program  
**Purpose:** HCV Incidence Surveillance  
**Funding Agency:** Texas Department of State Health Services  
**Funding Dates:** January 1, 2017 - December 31, 2018  
**Amount Requested:** \$1,123,222  
**Principal Investigator:** Jon Williamson

**Title:** Investigating the Validity of Clinical Reasoning Rubrics in Assessment of Medical Student SOAP Notes  
**Purpose:** To enhance clinical reasoning for the pre-clerkship student population  
**Funding Agency:** UT System Health Science Education Small Grants Program  
**Funding Dates:** 01/01/17-05/31/18.  
**Amount requested:** \$1045. Status: Awarded.  
**Co-Principal Investigator:** P.J. Longo, 10% effort.

**Title:** Deconstruction of Clinical Reasoning into Three Competency Components: A Pilot Investigating Methodology  
**Purpose:** To enhance clinical reasoning competency for our physician assistance student population  
**Funding Agency:** Southwestern Academy of Teachers (SWAT)  
**Funding Dates:** 07/1/16-06/2018  
**Amount Awarded:** \$2,675.  
**Co-Principal Investigator:** P. J. Longo, 10% effort.

**Title:** Applicant Awareness and Enrichment Program 2.0  
**Purpose:** To increase the number of African-American and Hispanic students in allied health professional programs  
**Funding Agency:** Texas Higher Education Coordinating Board, Minority Health Research and Education Grant  
**Funding Dates:** 09/01/16-05/31/18  
**Amount Awarded:** \$150,000  
**Principal Investigator:** S.A. Smith, 10% effort  
**Co-Principal Investigator:** Kim Hoggatt Krumwiede, 5% effort-Project Director

**Title:** HIV Incidence Surveillance  
**Purpose:** HIV Surveillance System  
**Funding Agency:** Texas Department of State Health Services  
**Funding Dates:** September 1, 2016 - December 31, 2018  
**Amount Requested:** \$2,019,281  
**Principal Investigator:** Jon Williamson

### *Grants Submitted but Not Funded*

**Title:** P2C

**Purpose:** Creating PrEP clinic at UTSW CPIU and home visits PrEP clinic that compare PrEP uptakes in both groups. Provide education and outreach to Texas providers and residents about benefits of PrEP.

**Funding Agency:** NIH

**Funding Dates:** 12/01/2018-08/31/2019

**Amount Requested Year 1:** \$1,200,000 Status: Submitted, but not funded

**Co-Principal Investigator:** Jon Williamson, In-kind

**Co-Principal Investigator:** Amneris Luque, MD. 15% effort

**Title:** Targeting insulin resistance to improve abnormal cardiovascular control in diabetes

**Purpose:** These studies are designed to determine the contributions of hyperinsulinemia to the development of exercise pressor reflex dysfunction in diabetes.

**Funding Agency:** NIH

**Funding Dates:** 09/01/2018-08/31/2023

**Amount Awarded:** \$ 1,250,000

**Principal Investigator:** M. Mizuno

**Role:** Principal Investigator, 30% effort

**Role:** Co-Investigator, S. A. Smith, 10% effort

**Title:** The Role of Insulin Resistance in Augmenting Exercise Pressor Reflex Function in Diabetes

**Purpose:** These studies are designed to determine the contributions of hyperinsulinemia to the development of exercise pressor reflex dysfunction in diabetes.

**Funding Agency:** Overseas Research Fellowships, Japan Society for the Promotion of Science

**Funding Dates:** 04/01/2019-03/31/2021

**Amount Awarded:** \$125,560

**Principal Investigator:** Ishizawa Rie

**Role:** Mentor: M. Mizuno, 5% effort.

**Title:** Validation of a Novel Animal Model for Predicting Therapeutic Utility of Interventions for Autonomic Dysreflexia Following Spinal Cord Injury

**Purpose:** To develop a rodent model of autonomic dysfunction in spinal cord injury

**Funding Agency:** National Institutes of Health – NINDS, R21/R33

**Funding Dates:** Not Funded

**Amount requested:** \$300,000

**Principal Investigator:** Z. Minic

**Role:** Co-Investigator, S. A. Smith, 10% effort

### **Publications**

*Refereed journals*

**Longo, P.J.**, Orcutt, V.L., James, K., Kane, J., and V. Coleman. Clinical Reasoning and Knowledge Organization: Bridging the Gap Between Medical Education and Neurocognitive Science. *Journal of Physician Assistant Education*, **2018 (in press)**.

Gavinski, K., Covin, Y. & **P. J. Longo**. Learning how to build Illness Scripts. *Academic Medicine*. **2018 (in press)**.

Tejani AS, Middleton EF, **Huang M**, Lynch K, Meyers G, Dimeff RF. Implementing a standardized interventional exercise regimen to improve functional movements in female athletes. *International Journal of Sports Physical Therapy*. Accepted August 2018 – In press

**Huang M**, Brothers RM, Ganio MS, Lucas AIR, Cramer MN, Morales G, Convertino VA, Crandall CG. Tolerance to a hemorrhagic challenge during heat stress is improved with inspiratory resistance breathing. *Exp Physiol*. 2018 Sep;103(9):1243-1250.

**Huang M**, Frantz J, Morales G, Sabo T, Davis PF, Davis SL, Bell K, Purkayastha S. Reduced resting and increased elevation of heart rate variability with cognitive task performance in concussed athletes. *J Head Trauma Rehabil*. 2018 May 31. [Epub ahead of print]

Mueller PJ, Clifford PS, Crandall CG, **Smith SA**, Fadel PJ. Integration of central and peripheral regulation of the circulation during exercise: acute and chronic adaptations. *Comprehensive Physiology*, 8: 103-151, 2018.

Weis J, Wagner J, Farr D, Ginsburg C, Guttman O, **Krumwiede K**, Kho K, Martinez J, Reed G, Rege R, Sulistio M, Scott D, The integration of a new simulation center within a Competency-Based Curriculum: an opportunity for holistic undergraduate medical education curriculum redesign, *MedEdPublish*, 2018, 7, [2], 69, doi:<https://doi.org/10.15694/mep.2018.0000137.1>

Downey RM, **Mizuno M**, Mitchell JH, Vongpatanasin W, **Smith SA**.. Mineralocorticoid receptor antagonists attenuate exaggerated exercise pressor reflex responses in hypertensive rats. *American Journal of Physiology Heart and Circulatory Physiology*. Vol. 313, No.4: H788-794, 2017.

Ganguly, A., **Faulkner, C.**, Sendelbach, D. (2017) Association of group composition diversity and performance outcomes in team-based learning. *Medical Education*. Manuscript rejected for publication. Under revision for another publication.

Gong, He. & **Piller, Y.** (2017). Differences in Parental Involvement and Perception of Video Games: A Pilot Study on American-Born and Immigrant Parents. *Eurasia Journal of Mathematics, Science and Technology Education*, 14(3), 785-796.

*Refereed journals under review*

**Huang M**, Yoo JK, Stickford ASL, Moore JP, Parker RS, Roberts-Reeves MA, Crandall CG, Levine BD, Fu Q. Parallel changes in muscle sympathetic nerve activity, blood pressure, and perception of pain in response to a cold pressor test. *Experimental Physiology*. Submitted August 2018 – Under review.

**Krumwiede K**, Wagner J, Kirk L, Duval T, Dalton T, Daniel K, Huffman A, Adams-Huet B, Rubin C. A Team Disclosure of Error Educational Activity: Objective Outcomes. *Journal of the American Geriatric Society* (submitted August 2018)

Weis J, Clegg d, Sulistio M, Farr D, Ginsgurg C, Guttman O, **Hoggatt Krumwiede K**, Kho K, Martinez J, Reed G, Rege R, Thiele D, Wagner J, Scott D . Assessing Quality and Resources During Campus-Wide Simulation Integration. *Surgery*. (submitted August 2018)

Covin, Y., Wick, N. & **Longo, PJ**. A novel clinical reasoning assessment strategy to identify actionable feedback for clerkship medical students. *Diagnosis*. Submitted, August 10, 2018.

Peri-Okonny P, Baskin KK, Iwamoto G, Mitchell JH, **Smith SA**, Kim HK, Szweda LI, Bassel-Duby R, Fujikawa T, Castorena CM, Cohen J, Richardson J, Shelton JM, Ayers C, Berry JD, Malladi VS, Hu MC, Moe OW, Scherer PE and Vongpatanasin W. High phosphate diet induces exercise intolerance and impairs fatty acid metabolism in mice. *Circulation*. Submitted August 2018. Under review.

Romero SA, Moralez G, Jaffery MF, **Huang M**, Crandall CG. Vasodilator function is impaired in burn injury survivors. *AJP Regulatory, Integrative, and Comparative Physiology*. Accepted in September 2018 – In press.

Burani, J., & **Longo, PJ**. Undernutrition in the isolated Elderly Poor: Perspectives from a Developing Country Humanitarian Program. *African Journal of Food, Agriculture, Nutrition and Development*. Original submission, May 1, 2018. Revision submitted, July 17, 2018.

Samuel TJ, Nelson MD, Nasirian A, Jaffrey M, Moralez G, Romero S, Cramer M, **Huang M**, Kouda K, Sarma S, Crandall CG. Cardiac structure and function in long-term burn survivors. *The Journal of Burn Care & Research*. Submitted June 2018 – Under review.

Lodhi H, Peri-Okonny P, Schesing K, Phelps K, Ngo C, Evans H, Arbique D, Price A, Vernino S, Phillips L, Mitchell J, **Smith SA**, Yano Y, Das SR, Wang T, Vongpatanasin W. Usefulness of blood pressure variability indices derived from 24-hour ambulatory blood pressure monitoring in detecting autonomic failure. *Journal of the American Heart Association*. Submitted June 2018. Under revision.

Allen DR, **Huang M**, Morris NB, Chaseling GC, Jay O, Davis SL. Impaired thermoregulatory function during dynamic exercise in multiple sclerosis. In review: *Medicine & Science in Sports & Exercise*. Submitted April 2018 – Under review.

Peri-Okonny P, Velasco A, Lodhi H, Wang Z, Arbique D, Adams-Huet B, Iwamoto G, Mitchell J, **Mizuno M**, **Smith S** and Vongpatanasin W. Differential effects of eplerenone vs amlodipine on muscle metaboreflex function in hypertensive humans. *American Journal of Physiology*. Submitted April 2018. Under revision.

#### *Non-refereed Journals*

**Piller, Y.** & Ponners, P. (2018). Implementing a New Learning Management System: Developing a Roadmap for Migration. In INTED Proceedings, pp. 3623-3620.

#### *Book Chapters*

#### *Books*

#### *Other*

#### A. Published scientific review

Ishizawa R, **Mizuno M.** (*corresponding author*). The risk of hypertension and blood pressure response during exercise (In Japanese, Invited Review). *Journal of Physical Education, Health and Recreation*. In press

#### B. Abstracts (Platform or Poster Presentations)

**Huang M**, Jaffery MF, Moralez G, Cramer MN, Crandall CG. Mismatch between perception of disability and functional outcomes in individuals with large burn injuries. *ACSM Annual Meeting. May 29-June 2, 2018, Minneapolis, MN USA*. Accepted poster presentation.

Moralez G, Romero SA, Cramer MN, Adams AN, Manall JF, **Huang M**, Crandall CG. Cardiovascular responses to steady state exercise in well-healed burned survivors after six months of exercise training. *ACSM Annual Meeting. May 29-June 2, 2018, Minneapolis, MN USA*. Accepted poster presentation.

Cramer MN, Moralez G, **Huang M**, Crandall CG. No evidence of thermoregulatory impairment in donor skin during exercise-induced hyperthermia. *ACSM Annual Meeting. May 29-June 2, 2018, Minneapolis, MN USA*. Accepted poster presentation.

Hotta N, Katanosaka K, Mizumura K, Mitchell JH, Smith SA, **Mizuno M**. Insulin Potentiates Neuronal Responses to Chemical Stimulation in Thin Muscle Afferents and Dorsal Root Ganglia. *65th Annual Congress of the American College of Sports Medicine, Minneapolis USA, May-June, 2018. National, Poster presentation*



Allen DR, **Huang M**, Lenz KM, Bezan-Petric U, Keller DM, Davis SL. Carotid baroreflex responses to simulated hypotension are blunted during passive whole-body heat stress in young women. *Experimental Biology*. April 21-25, 2018, San Diego, CA USA. Accepted poster presentation.

**Huang M**, Yoo JK, Stickford ASL, Hendrix JM, Moore JP, Crandall CG, Fu Q. Individual differences in response to cold-pressor test: Are the corresponding blood pressure, sympathetic, and pain perception responses associated to a family risk of hypertension? *Experimental Biology*. April 21-25, 2018, San Diego, CA USA. Accepted poster presentation.

Cramer MN, Moralez G, **Huang M**, Crandall CG. Critical environmental limits for prolonged work in the heat using a simulated burn injury model. *Experimental Biology*. April 21-25, 2018, San Diego, CA USA. Accepted poster presentation.

Moralez G, Hieda M, Sarma S, Romero SA, Cramer MN, **Huang M**, Crandall CG. Left ventricular systolic function is improved in well-healed burned survivors after six months of exercise training. *Experimental Biology*. April 21-25, 2018, San Diego, CA USA. Accepted poster presentation.

Crandall CG, Cramer MN, Moralez G, **Huang M**. Donor sites appropriately contribute to whole-body thermoregulation during an exercise-induced hyperthermic challenge. *American Burn Association Annual Meeting*. April 10-13, 2018, Chicago, IL USA. Accepted poster presentation.

Hotta N, Katanosaka K, Mizumura K, Mitchell JH, Smith SA, **Mizuno M**. Neural Responses to Mechanical Stimulation in Thin Muscle Afferents and Dorsal Root Ganglia are Sensitized by Insulin. *Experimental Biology 2018*, San Diego, USA, April, 2018. Featured Topic - Battle of the Reflexes: Chemo- versus Baroreflexes during Physiological Stressors, Aging and Cardiovascular Disease. *National, Oral presentation (as presenter)*

Stephens BY, Kaur J, Vranish JR, Barbosa TC, Johnson AL, Blankenship JK, Vongpatanasin W, **Smith SA**, Fadel PJ. The effect of acute high phosphate intake on muscle metaboreflex activation in young, healthy men. *Poster presentation at: Experimental Biology; April 2018, San Diego, CA*.

Covin, Y., Wick, N., Gavinski, K., Wagner, J. & **Longo, PJ**. Investigating the Validity of Clinical Reasoning Rubrics in Assessment of Medical Student SOAP Notes. Society for General Internal Medicine Annual Meeting, Denver CO, April 20, 2018.

Covin, Y., Wick, N. & **Longo, PJ**. A Novel Clinical Reasoning Think Aloud Protocol to Identify Actionable Feedback for Clerkship Medical Students. *Ottawa/International Conference in Medical Education*, Abu Dhabi, UAE. March 12, 2018.

Covin, Y., Wick, N., Gavinski, K., Wagner, J. & **Longo, PJ**. Investigating the Validity of Clinical Reasoning Rubrics in Assessment of Medical Student SOAP Notes. *University of Texas Shine Academy of Innovations in Health Science Education Conference*, February 15, 2018. Houston, Texas.

Gavinski, K. Covin, Y. & **Longo, PJ**. Best Evidence for Teaching Illness Scripts to Preclinical Students. Annual John Hopkins GIM Housestaff Research Award, Baltimore, MD, December 7, 2017.

C. Editorials, position papers, background papers

D. Original invited lectures and presentations published for distribution

## **Presentations**

**K. Hoggatt Krumwiede**. Educational Technology in the Future of Interprofessional Education (IPE), Nexus Summit 2018, *Creating Results: Interprofessional Vision to Action*, Minneapolis, MN, July 2018

**Smith, S**. Central Mechanisms of Baroreflex Resetting. American College of Sports Medicine National Meeting, **Minneapolis, MN**. June 2018. Invited Platform Presentation.

**Smith, S**. Translational Research Primer: Understanding Hypertension through Animal and Human Investigation. Danish Cardiovascular Research Academy, **Copenhagen, Denmark**. May 2018. Invited Platform Presentation.

**Smith, S**. A Runaway Train? Exercise Pressor Reflex Overactivity and Impaired Functional Sympatholysis in Hypertension. Texas American College of Sports Medicine Spring Lecture Tour, Texas A&M University, **College Station, TX**. April 2018. Invited Platform Presentation.

**Smith, S**. Navigating a Career in Exercise Science: Personal Experiences of a Physiologist, Educator and Administrator. Texas American College of Sports Medicine Spring Lecture Tour, Stephen F. Austin State University, **Nacogdoches, TX**. April 2018. Invited Platform Presentation.

**Smith, S**. A Runaway Train? Exercise Pressor Reflex Overactivity and Impaired Functional Sympatholysis in Hypertension. Texas American College of Sports Medicine Spring Lecture Tour, Texas A&M-Corpus Christi, **Corpus Christi, TX**. April 2018. Invited Platform Presentation.

**Faulkner, C**. Interpreting Multiple Choice and Standardized Exam Metrics. Southwestern Academy of Teachers Annual Symposium (SWAT), Dallas, TX. April 2018. Invited Presentation.

**Piller, Y. & Ponnens, P.** (2018). Implementing a New Learning Management System: Developing a Roadmap for Migration (Presentation). Presented at 12th annual International Technology, Education and Development Conference (INTED), New Challenges in Education and Research, Valencia (Spain).

**Smith, S.** From Hypertension to Heart Failure: Neural Mechanisms of Abnormal Cardiovascular Responses to Exercise. Texas American College of Sports Medicine Spring Lecture Tour, West Texas A&M, **Canyon, TX**. March 2018. Invited Platform Presentation.

**Smith, S.** From Hypertension to Heart Failure: Neural Mechanisms of Abnormal Cardiovascular Responses to Exercise. Texas American College of Sports Medicine Spring Lecture Tour, Texas Woman's University, **Denton, TX**. March 2018. Invited Platform Presentation.

**Smith, S.** How to Become a Medical Research Scientist: From Secondary Education to Gainful Employment. Dallas Independent School District, Science, Technology, Engineering & Medicine Fair, **Dallas, TX**. January 2018. Invited Platform Presentation.

**Faulkner, C.** Desire2Learn: The New Learning Management System is Here. Effective Teaching Series Seminar (ETS), Dallas, TX. December 2017. Invited Presentation.

**Smith, S.** The use of Physiologic, Pharmacologic and Bioengineering Approaches in the Fight Against Hypertension. Advanced Seminars in Biomedical Engineering-Basic/Translational Frontiers, University of Texas at Dallas, **Richardson, TX**. October 2017. Invited Platform Presentation.

**K. Hoggatt Krumwiede.** A Model for Educational Technology in the Future of Interprofessional Education (IPE) The Association of Schools of Allied Health Professions (ASAHP) 2017 Annual Conference: ASAHP at 50: Reflections on the Past, a Window to the Future of Healthcare, San Antonio, Texas. October 2017.

**K. Hoggatt Krumwiede.** The Future of Interprofessional Education at UTSouthwestern. UT Southwestern Effective Teacher Lecture Series, UT Southwestern Medical Center, Dallas, Texas, October 2017.

Ponnens, P., **Piller, Y.**, Wakefield, J., Szu-Yueh, J.C. (2017). Engaging the Learner through Tiered and Interactive Instructional Design (DELT Panel Discussion). Association for Educational Communications and Technology Annual Convention (AECT) 2017, Jacksonville, FL, (USA).

### **Membership on Editorial Boards**

**Mizuno M.** 2016-present. Associate Editor, *BMC Cardiovascular Disorder*

**Mizuno M.** 2011-present. Review Editor, *Frontiers in Physiology*

**Smith S.** 2018 – present. Reviewing editor. *American Journal of Physiology-Heart and Circulatory Physiology*.

**Smith S.** 2017 – present. Reviewing editor. *Experimental Physiology*.

**Smith S.** 2011 – present. Reviewing editor. *Frontiers in Integrative Physiology*.

**Piller, Y.** 2014– present. Association for Educational Communications and Technology (AECT)

## **Department of Physical Therapy 2017-2018**

### **Research Grants and Contracts**

*Grant Submitted, Award Decision Pending*

**Title:** The Effects of Vitamin-C Enriched Gelatin Supplementation on Clinical Outcomes following Achilles Tendon Rupture

**Purpose:** To investigate the effectiveness of a nutraceutical supplementation on the functional outcomes following Achilles tendon injury

**Funding Agency:** UT Southwestern School of Health Professions Interdisciplinary Grant Program

**Funding Dates:** 2019

**Amount Requested:** \$8,000

**Principal Investigator:** Huang M; Role: **E. Mulligan**, Co-Investigator

**Title:** Using an evidence-based self-management early intervention to attain physical activity goals after stroke

**Purpose:** To determine the feasibility and early efficacy of delivering an evidence-based self-management intervention, Problem Solving Training, during the inpatient rehabilitation stay, to promote physical activity after stroke

**Funding Agency:** Southwestern School of Health Professions Interdisciplinary Research Grant Program

**Funding Dates:** 10/2018-8/31/2019

**Amount Requested:** \$6,500 Status: submitted, decision pending

**Principal Investigator:** **E Perez**, 5% effort

**Title:** The Use of High-Frequency Vibration for the Rehabilitation of Scar Tissue

**Purpose:** The purpose is to use a randomized control trial design to investigate the use of a high-frequency oscillations (Rapid Release Technology, RRT) to accelerate the healing and tissue compliance in scar tissue post-surgery.

**Funding Agency:** Rapid Release Technology, corporate collaboration

**Funding Dates:** 10/2018-10/2019.

**Amount Awarded:** \$25,000.

**Principal Investigator:** **R. Query**, 10% effort.

**Title:** Effectiveness of Repositioning and Cranial Remolding in Infants with Cranial Deformation

**Purpose:** To compare final head shape and patient compliance with two different

treatment methods for deformational head shapes in infants as well as compare treatment outcomes with concurrent physical therapy.

**Funding Agency:** UT Southwestern School of Health Professions Interdisciplinary Research Grant Program (Matching funds through the Prosthetics-Orthotics Program)

**Funding Dates:** 09/15/18-8/31/19.

**Amount requested:** \$20,000. Status: Submitted, Decision Pending.

**Principal Investigator:** T. Graham, 20% effort.

**Co-investigator:** S Simpkins

**Title:** Validation of ACTIVE to Quantify Change in Children and Adults Following Spinraza Treatment

**Purpose:** To validate novel objective outcome measures in patients with spinal muscular atrophy

**Funding Agency:** Biogen, Inc. submitted as sub recipient of Nationwide Children's Hospital, Columbus Ohio

**Funding Dates:** 02/01/2018 – 02/01/2020

**Amount requested:** \$29,202. Status: Submitted, Decision Pending.

**Principal Investigator:** L. Nelson, 10% effort.

#### *Grants Awarded*

**Title:** The Dallas Heart and Aging Study

**Purpose:** Characterize the underlying biology of functional aging in Hispanics

**Funding Agency:** UT Southwestern Medical Center

**Funding Dates:** 7/1/18-7/1/19

**Amount Awarded:** \$500,000

**Role: Co-Investigator:** R Querry, 5% effort

**Role: Co-Investigator:** J Zafereo

**Title:** Community Boxing Program for Individuals with Parkinson's disease

**Purpose:** To evaluate the impact of a boxing program on gait, upper extremity function, posture, and quality of life in persons with Parkinson's disease

**Funding Agency:** National Parkinson Foundation

**Funding Dates:** July, 2018 through August, 2019

**Amount Awarded:** \$20,000

**Role: Principle Investigator:** S. Shearin

**Role: Co-investigator:** R Querry

**Title:** Development of a Methodology for Clinical Assessment of Autonomic Nervous System Dysfunction and Central Sensitization in Patients with Pain

**Purpose:** To assess for responsiveness of QST in patients completing a 4-week pain program, and to determine the ability of QST to predict clinical outcomes and profiles within a pain program

**Funding Agency:** The David M. Crowley Foundation

**Funding Dates:** 2/20/18-2/20/19

**Amount Awarded:** \$75,000

**Role: Principal Investigator: J Zafereo, 10% effort**

**Title:** Effectiveness of Repositioning and Cranial Remolding in Infants with Cranial Deformation

**Purpose:** To compare final head shape and patient compliance with two different treatment methods for deformational head shapes in infants as well as compare treatment outcomes with concurrent physical therapy.

**Funding Agency:** American Prosthetic & Orthotic Association (AOPA)

**Funding Dates:** 06/15/18-01/01/23.

**Amount Awarded:** \$73,848. Status: Awarded.

**Principal Investigator:** T. Graham, 20% effort.

**Co-investigator: S Simpkins**

**Title:** High frequency repetitive transcranial magnetic stimulation (rTMS) combined with body weight supported treadmill training (BWSTT) after stroke: a pilot study

**Purpose:** To evaluate the effect of rTMS on gait in persons with subacute stroke

**Funding Agency:** American Society of Neurorehabilitation

**Funding Dates:** January 2018 – January 2019

**Amount Awarded:** \$5,000

**Co-Investigator: K McCain, PT, DPT, NCS, 5% effort**

**Title:** Multi-Center Orthopedic Outcome Network (MOON) Arthroscopic Rotator Cuff Trial: Operative versus Non-Operative Treatment of Atraumatic Rotator Cuff Tears: A Multicenter Randomized Controlled Pragmatic Trial

**Purpose:** To investigate the effectiveness of surgical intervention in patients with MRI-demonstrated full thickness rotator cuff tears.

**Funding Agency:** Patient-Centered Outcomes Research Institute

**Funding Dates:** 03/01/17-06/01/23

**Amount Awarded:** \$1,500.

**Principal Investigator:** N. Jain; Role: **E. Mulligan**, Data Collection, 1% effort

**Title:** Acute Hospital Treadmill Exercise Training in Adults with Cystic Fibrosis Exacerbation

**Purpose:** To identify the effects of treadmill training on patients admitted to the hospital with Cystic Fibrosis on pulmonary function at discharge and occurrence rates for readmission

**Funding Agency:** Internal funding Department of Physical Therapy, Clements University Hospital

**Funding Dates:** 9/2016-8/18

**Amount Awarded:** Internally funded, no direct funding

**Co-Investigator: R. Querry, 3% time and effort donated**

**Title:** Effectiveness of a short education series to reduce anxiety for health professions graduate students

**Funding Agency:** Research Advisory Committee

**Funding Dates:** September, 2017 through August, 2018

**Amount Awarded:** \$3,000  
**Role: Co- Investigator: S Shearin**

**Title:** Motor Adaptation of Unanticipated Locomotor Transitions in Individuals with Parkinson's Disease

**Purpose:** To identify motor learning processes involved in the locomotor transitions of individuals with and without Parkinson's disease

**Funding Agency:** UTSW Mobility Foundation

**Funding Dates:** May, 2017 through June, 2018

**Amount Awarded:** \$95,551

**Co- Investigator: S Shearin, PT, NCS, effort 10%**

**Title:** Community Boxing Program for Individuals with Parkinson's Disease

**Purpose:** To evaluate the impact of a boxing program on gait, upper extremity function, posture, and quality of life in persons with Parkinson's disease

**Funding Agency:** National Parkinson Foundation

**Funding Dates:** July 2017 through August, 2018

**Amount Awarded:** \$12,500

**Principle Investigator: S Shearin, PT, NCS, effort 5%**

**Title:** Investigating Bone and Skeletal Muscle Interaction in Men with Prostate Cancer Treated with Androgen Deprivation Therapy

**Purpose:** To identify the effects of androgen deprivation on muscle strength, bone quality, and pain perception

**Funding Agency:** Charles Y.C. Pak Foundation

**Funding Dates:** 1/1/17-7/1/18

**Amount Awarded:** \$100,000

**Role: Co-Investigator: J Zafereo, 5% effort**

**Role: Consultant: R Querry, 5% effort**

**Title:** Predictive Validity of Lumbopelvic Stress Tests to Determine Those Who Will Benefit from Lumbar Traction: A Pilot Study

**Purpose:** To identify a subset of patients who may benefit from lumbar traction

**Funding Agency:** Texas Woman's University Research Enhancement Program

**Funding Dates:** 11/1/16-11/1/18

**Amount Awarded:** \$10,000

**Role: Co-Investigator: J Zafereo, 5% effort**

**Title:** The Effectiveness of Manual Therapy and Supervised Physical Therapy vs. Home Exercise Instruction in the Management of Femoroacetabular Impingement Syndrome

**Purpose:** To investigate the effectiveness of therapeutic exercise and manual therapy in patients with non-arthritis hip pain

**Funding Agency:** Texas Physical Therapy Foundation Grant

**Funding Dates:** 10/01/16-10/01/18

**Amount requested:** \$3,300

**Principal Investigator: E Mulligan, 3% effort**

**Title:** Impact of carbon fiber AFOs on gait and resulting changes in quality of life across time in persons with Parkinson's disease

**Purpose:** To evaluate the impact of bracing design on gait and quality of life in persons with Parkinson's disease

**Funding Agency:** American Orthotic and Prosthetic Association

**Funding Dates:** July, 2016 through August, 2019 (no cost extensions)

**Amount Awarded:** \$15,000

**Principle Investigator:** S Shearin, PT, NCS, effort 10%

*Grants Submitted but Not Funded*

**Title:** Impact of a Multidisciplinary Approach to Freezing of Gait and Festination in Individuals Living with Parkinson's Disease

**Purpose:** To evaluate the impact of physical therapy alone or physical therapy with cognitive behavior training/mindfulness on freezing of gait and festination in persons with Parkinson's disease

**Funding Agency:** Community-based Research Awards at UTSW

**Funding Dates:** July, 2018 through August, 2019

**Award Amount:** \$75,000

**Co-Principle Investigator:** S Shearin, PT, NCS, effort 10%

**Title:** Comparing the Effectiveness of Repositioning Therapy and Cranial Remolding Orthoses for Infants with Cranial Deformation at Parkland Community-Oriented Primary Care Clinics

**Purpose:** To compare treatment outcomes and patient compliance with different treatment methods for deformational head shapes and muscular torticollis in infants from Parkland Community-Oriented Primary Care Clinics in the DFW Metroplex.

**Funding Agency:** UT Southwestern Community-Based Research Awards

**Funding Dates:** 06/1/18-05/31/20.

**Amount Requested:** \$73,474. Status: Not awarded.

**Principal Investigator:** T Graham, 20% effort.

**Co-investigator:** S Simpkins

**Funding Agency:** NIH-RO3, 2017

**Submitted:** \$250,000

**Project Title:** Lidocaine Infusion for Pain Control in Opioid-Dependent Patient

**Role: Co-Investigator:** J Zafereo, 5% effort

**Publications**

*Refereed journals*

Van Pelt M, Athey A, Yao J, Kassem L, Ennin K, **Mulligan EP**, Lalli T, Liu GT. Is routine hardware removal following open reduction internal fixation of tarsometatarsal joint fracture/dislocations necessary? *J Foot Ankle Surgery*. Accepted for publication August 4, 2018.



**Dickson T**, and Taylor B. Factors that Predict Institutional Adoption of Entry-Level Physical Therapy Programs. *Physical Therapy*. In press.

Tejani A, **Middleton E**, Huang M, Dimeff R. Implementing a Standardized Interventional Exercise Regimen to Improve Functional Movements in Female Collegiate Athletes. *International Journal of Sports Physical Therapy*. Accepted July 2018.

Glanzman AM, Mazzone ES, Dunaway Young S, Gee R, Rose K, Mayhew A, **Nelson L**, Yun C, Alexander K, Darras B, Zolkipli-Cunningham Z, Tennekoon G, Day JW, Finkel RS, Mercuri E, De Vivo D, Baldwin R, Bishop K, Montes J. Evaluator training and reliability for SMA global Nusinersen trials. *Journal of Neuromuscular Diseases*. 2018; 5:159-166.

Nichols C, Jain MJ, Meilleur KG, Wu T, Collins J, Waite MR, Dastqir J, Salman A, Donkervoort S, Duong T, Keller K, Leach ME, Lott DJ, McGuire MN, **Nelson L**, Rutkowski A, Vuillerot C, Bonnemann CG, Lehky TJ. Electrical impedance myography (EIM) in individuals with COL6 and LAMA2 congenital muscular dystrophy: a cross-sectional and two-year analysis. *Muscle & Nerve*. 2018; 57(1):54-60.

Brizzolara, K, Wang-Price, S, **Zafereo, J**. Assessment of Abdominal Muscle Thickness in Postpartum Women Who Have Undergone Cesarean Section as Compared to Vaginal Births: A Pilot Study. *Journal of Women's Health Physical Therapy*. 2018. In Press.

Wang-Price, S, **Zafereo, J**, Brizzolara, K, Psychometric Properties of Pressure Pain Thresholds Measured in Two Positions for Adults with and without Neck-Shoulder Pain and Tenderness. *Journal of Manipulative and Physiological Therapeutics*. 2018. In Press.

Wang-Price, S, **Zafereo, J**, Brizzolara, K, Anderson, E. Effects of tactile feedback on lumbar multifidus muscle activity in asymptomatic healthy adults and patients with low back pain. *Journal of Bodywork & Movement Therapies*. 2018. In Press.

Nasr, A, **Zafereo, J**. The effects of dry needling and slump tensioners on idiopathic neuropathy: a case report. *Journal of Bodywork & Movement Therapies*. 2018. In Press.

White, P, **Zafereo, J**, Elvir, L, Hernandez, H. Treatment of drug-resistant fibromyalgia symptoms using high-intensity laser therapy: a case-based review. *Rheumatology International*. 2018. 38(3): 517-523.

**Zafereo, J**, Wang-Price, S, Roddey, T, Brizzolara, K. Regional manual therapy and motor control exercise for chronic low back pain: A randomized clinical trial. *Journal of Manual and Manipulative Therapy*. 2018. 26(4): 193-202.

McDonald C, Cambell C, Torricelli RE, Vita G, Flanigan K, Goemans N, Hydemann P, Kaminska A, Kirschner J, Muntoni F, Nascimento A, Schara U, Sejersen T, Shieh P, Sweeney HL, Topaloglu H, Tulinius M, Vilchez JJ, Voit T, Wong B, Elfring G, Kroger H, Luo X, McIntosh J, Ong T, Riebling P, Souza M, Spiegel RJ, Peltz SW, Mercuri E, Alfano L, Eagle M, James MK, Lowes LP, Mayhew A, Mazzone ES, **Nelson LL**, Rose KJ, Abdel-Hamid HZ, Apkon S, Barohn RJ, Bertini E, Bloetzer C, et al. Ataluren in patients with nonsense mutation Duchenne muscular dystrophy (ACT DMD): a multicentre, randomised, double-blind, placebo-controlled, phase 3 trial. *The Lancet*. 2017; 390(10101):1489-1498.

**McCain KJ, Shearin SM**. The Impact of Modified Standardized Task-Specific Training (MSTT) on Gait Outcomes in Persons with Subacute Stroke: A Case Report. *Cogent Medicine*. 2017 (4) 1417669.

**McCain KJ, Shearin SM**. Case Narrative: 47-Year-Old Woman with Stroke. *IV STEP Conference Proceedings 2016: Prevention, Prediction, Plasticity, and Participation*, Lippincott Nursing Center 2017.

Khazzam M, **Mulligan EP**, Brunette M, Shirley Z. Sleep Quality in Patients with Rotator Cuff Disease. *J Amer Acad Ortho Surg*. 2018. 26(6): 215-222.

**Mulligan EP**, Anderson A, Watson S, Dimeff RJ. The diagnostic accuracy of the lever sign test for detecting anterior cruciate ligament injury. *Int J Sports Phys Ther*. 2017 Dec; 12(7): 1057-1067.

Reyes BA, Hull BR, Kurth AB, Kuskowski N, **Mulligan EP**, Khazzam M. Do MRI Characteristics of Full-thickness Rotator Cuff Tears Correlate with Sleep Disturbance? *Ortho J Sports Med*. 2017 Nov 1;5(11):2325967117735319

**Mulligan EP, DeVahl J**. Sports physical therapy curricula in physical therapist professional degree programs. *Int J Sports Phys Ther*. 2017 Oct; 12(5): 787-797.

*Refereed journals under review*

**Dickson, T.**, Chen, D., and Taylor, B. Impact of funding allocation on physical therapist research productivity and DPT student graduates: An analysis using panel data. *Advances in Health Sciences Education*. Under Review.

**Dickson T**, Hoggatt Krumwiede, K. Item response theory as a method to evaluate the goodness of fit for attitudes towards interprofessional healthcare teams. *Journal of Interprofessional Education & Practice*. Submitted.

**Shearin SM**, Hall H, Bauzaite E, **McCain KJ**. Application of carbon fiber ankle foot orthoses to enhance gait outcomes for individuals with neurologic gait dysfunction. *Prosthetics and Orthotics International*. Under review.

Early D, Thompson M, **Simpkins S**, Luedtke-Hoffmann K, Poskey, G. Parental Perceptions of Therapy Services for Children with Down Syndrome: A Grounded Theory

Approach. *Physical Therapy*. Submitted April 2018. Under revision

*Non-refereed journals*

*Book Chapters*

Iannaccone ST, **Nelson LL**. (2017). Spinal Muscular Atrophy Clinical Trials: Lessons Learned. In: Sumner CJ, Paushkin S, Ko C, eds. *Spinal Muscular Atrophy: Disease Mechanisms and Therapy*. London, United Kingdom: Academic Press, an imprint of Elsevier, Inc. 423-428.

Pinto Zipp G, **Simpkins S**, Fell D. (2018) Making Clinical Decisions: The Process That Leads to Optimal Therapeutic Plan of Care and Outcomes. *Lifespan Neurorehabilitation: A Patient-Centered Approach from Examination to Interventions to Outcomes*. Philadelphia, PA: FA Davis Company. 23-50

**Simpkins S**, Pinto Zipp, G Fell D. (2018). Functional Activity Intervention: Upright Mobility. *Lifespan Neurorehabilitation: A Patient-Centered Approach from Examination to Interventions to Outcomes*. Philadelphia, PA: FA Davis Company. 1132-1188

*Books*

*Other*

A. Published scientific review

Truong M, **Middleton E**, Vargas B. Multidisciplinary Management of Post-Traumatic Headache. Accepted January 2018.

B. Abstracts (Platform or Poster Presentations)

Pickle, N, **Shearin, S**, Fey, N. A machine learning approach to targeted balance rehabilitation in people with Parkinson's disease using a sparse sensor set; Accepted for the International Conference of the IEEE Engineering in Medicine and Biology Society, Honolulu, HI, July 17-21, 2018.

Dunaway Young S, Montes J, Mazzone ES, Glanzman AM, Gee R, Mayhew A, Rose K, **Nelson L**, McDermott MP, Yun C, Baldwin R, Alexander K, Schneider E, Bennett F, Bishop K, Chiriboga CA, Tennekoon G, Day JW, Finkel R, Darras B, DeVivo D. Scoliosis is Negatively Associated with Motor Function in Children with Later-Onset SMA. Poster session presented at: CureSMA 22nd SMA Researcher Meeting; 2018 Jun 14-16; Dallas, TX.

**DeVahl J**, Perez E, Walag H, Buchl J. Integrated Clinical Experiences (ICE) to Bridge the Gap: Translating Book Knowledge to Clinical Skills. Poster session presented at Bridging the Acute Care Gap: Advancing Acute Care Physical Therapy Education and Educators; 2018 May 18-20; Indianapolis, IN.

**McCain KJ, Shearin SM,** Neuman R, Fey NP. Impact of Novel Hip Flexion Orthosis on Electromyography (EMG) Activity in Individuals With Multiple Sclerosis; poster accepted to annual conference of American Congress of Rehabilitation Medicine, accepted May 2018.

**Shearin SM, McCain KJ,** Neuman R, Fey NP. Impact of Novel Hip Flexion Orthosis on Ground Reaction Forces (GRF) in Individuals With Multiple Sclerosis; poster accepted to annual conference of American Congress of Rehabilitation Medicine, accepted May 2018.

Lynch K, **Mulligan EP, Middleton, E.** Medical Management of Post-Concussive Syndrome in an Elite Hockey Player. APTA Combined Sections Meeting. Research Posterior Presentation. National Level. New Orleans, LA. February 2018

**Mulligan EP,** Khazzam M. Sleep Quality at Various Stages of Adhesive Capsulitis. APTA Combined Sections Meeting. Research Poster Presentation. National Level. New Orleans, LA. February 2018.

**Simpkins S,** Inanoglu D, Hallac R, Tulchin-Francis K, Fey N. Effects of selective percutaneous myofascial release on gait in children with spasticity. Women in Science and Medicine Poster Session 2018 Feb, Dallas, TX

Wang-Price, S, Anderson, E, **Zafereo, J,** Brizzolara, K. Does Tactile Feedback Increase Lumbar Multifidus Muscle Activation in Asymptomatic Healthy Adults and Patients with Low Back Pain? Poster presentation, Combined Sections Meeting, New Orleans, LA, February 2018.

**Mulligan EP,** Gehrig T, McCarty MR, Bates M. Reliability of Scapular Repositioning Maneuvers During Empty Can Testing. TPTA Annual Conference. Research Poster Presentation. State Level. Corpus Christi, TX. October 2017

Wang-Price, S, **Zafereo, J,** Anderson, E, Brizzolara, K. Effects of Tactile Feedback on Lumbar Multifidus Muscle Activity in Asymptomatic Healthy Adults and Patients with Low Back Pain. Platform presentation, AAOMPT Annual Conference, Salt Lake City, UT, October 2017.

C. Editorials, position papers, background papers

D. Original invited lectures and presentations published for distribution

## **Presentations**

**Dickson, T.,** Smith, C., Turner, M. & **Mulligan, E.** Clinical Orthopedic Residency Education Series, Weekend 3: Physical Therapy Management of the Shoulder, Elbow, Wrist, and Hand. University of Texas Southwestern Medical Center, Dallas, TX, August, 2018 (local). Invited Course.

**Mulligan EP.** Common Musculoskeletal Injuries: Evidence-Based Clinical Rehabilitation Guidelines. Department of Family and Community Medicine Grand Rounds. UT

Southwestern Medical Center. Dallas, TX. August 2018. Local Level. Invited 1-hour presentation.

**Nelson L**, Duong T. Lifespan Approach to Life and Exercise. CureSMA Annual Conference. Dallas, TX. June 14-17, 2018. Invited Platform Presentation.

**Zafereo, J**, Physical Therapy Management of the Spine and TMD (CORE Series). Two-day workshop, Summer 2018 (Dallas, TX)

**Mulligan EP**. Evaluation and Treatment of Athletic Hip Injuries. Primary Care Sports Medicine Musculoskeletal Series. UT Southwestern Medical Center. Dallas TX. May 2018. Local Level. Invited 1.5-hour lecture.

**DeVahl J**, Anderle D. Clinical Instructor Certification Course, Part II. Instructional course presented on behalf of the Texas Consortium for Physical Therapy Clinical Education. University of North Texas Health Science Center, Fort Worth, TX. May 2018. State. Invited Course.

**McCain KJ, Perez E**. Outcome Measures for the Lower Extremity in Stroke; Co-presenters for a preconference, annual meeting of the American Congress of Rehabilitation Medicine, accepted May 2018.

**McCain KJ, Shearin SM**. Optimizing Gait Recovery Through the use of Novel Orthotic Applications in Neurologic Populations; presentation for the annual conference of the American Congress of Rehabilitation Medicine, accepted May 2018.

**McCain KJ**. Optimizing Gait Recovery after Stroke: Raising the Bar. UTSW Physical Medicine and Rehabilitation Grand Rounds, May 2018.

**McCain KJ**. Evaluating Gait Patterns in Myelopathic Patients. Co-presenter, American Academy of Neurology Annual Meeting, Los Angeles, California, April 2018.

**Nelson L**. Best Practices in Rehabilitation for SMA in patients with later onset SMA. MDA Clinical Conference. Arlington, VA. March 11-14, 2018. Invited Platform Presentation.

**Querry R**. Motivational Interviewing for Compliance of Exercise Prescription for Application in Wellness Programs. Local invited lecture, Viverae, 3/2018

**Zafereo, J**, Physical Therapy Management of the Cervicothoracic Region and TMJ (CORE Series). Two-day workshop, Spring 2018 (Salina, KS) and Fall 2017 (Tyler, TX)

**Shearin S**. "Effectiveness of a Short Education Series to Reduce Anxiety for Health Professions Graduate Students", UTSW Capra Symposium, February 2018.

**Mulligan EP**, Garrison C, DeWitt J. Entry Level and Post-Professional Sports Physical Therapy Education in the United States. APTA Combined Sections Meeting. National Level. New Orleans, LA. February 2018. National. 2-hour invited lecture

**Querry R.** Clinical Correlations: Concepts of Muscle Physiology for Application in Rehabilitation. Invited Lecture, UT Southwestern MS-1 Medical Students 11/2017

**Mulligan EP**, Bates M, McCarty R. Evaluation and Management of Shoulder Osteoarthritis and Post-Operative Total Shoulder Replacement. Texas Physical Therapy Association Annual Conference. Corpus Christi, TX. Oct 2017. State Level. 3-hour instructional lecture.

**Nelson L**, Glanzman A. Spinal Muscular Atrophy: Evaluation and Management for the Rehabilitation Specialist: Considerations for Infantile Onset SMA. Columbia University Medical Center, Program in Physical Therapy. New York, NY. October 20-21, 2017. Invited Platform Presentation.

**Shearin S.** "Move it or lose it!", Keep Moving Symposium, Dallas Area Parkinson Society, October 2017.

**Bauzaite, E.** BPPV clinical practice guidelines (Updated 2017). UT Southwestern Medical Center, Department of Otolaryngology, Dallas, Texas. March 2015.

### **Membership on Editorial Boards**

**DeVahl J.** 2006-Present. Texas Physical Therapy Association Continuing Competence Approval Program.

**Middleton, E.** 2015 – Present. International Journal of Sports Physical Therapy

**Mulligan E.** 2017 - present. Sports Health: A Multidisciplinary Approach

**Mulligan E.** 2013 – present. Journal of Manual Therapy

**Mulligan E.** 2011 – present. Physical Therapy in Sport Journal

## Department of Physician Assistant Studies 2017-2018

### Research Grants and Contracts

*Grant Submitted, Award Decision Pending*

**Title:** Interprofessional service-learning for the promotion of fitness and nutrition behaviors among children attending community schools in Dallas, TX.

**Purpose:** To enhance interprofessional service-learning experiences and improve fitness and nutrition outcomes among underserved school-aged children.

**Funding Agency:** University of Texas Southwestern School of Health Professions Grants Program

**Amount Requested:** \$6,000, Decision Pending.

**Principal Investigator:** T. Kindratt and L. Sandon

*Grants Awarded*

**Title:** Utilization of the Multiple Mini-interview (MMI) within the Admission Processes of Physician Assistant Programs in the United States.

**Purpose:** Identify the current use of the MMI within 12 PA programs.

**Funding Agency:** Physician Assistant Education Association.

**Funding Dates:** 09/22/16- 08/31/18.

**Amount Awarded:** \$5,330.

**Principal Investigator:** K. James

**Role:** Faculty Research Mentor: V Orcutt

**Title:** Promoting Oral Health Screening and Education at a Student-Run Free Clinic through Student Manager Training

**Purpose:**

**Funding Agency:** nccPA Health Foundation Oral Health Grants Program

**Funding Dates:** 09/01/2018-06/30/2018

**Amount Awarded:** \$500

**Principal Investigator:** T. Bui (Class of 2018)

**Role:** Faculty Research Mentor: T Kindratt

**Title:** Deconstruction of Clinical Reasoning into Three Competency Components: A Pilot Investigating Methodology

**Purpose:** To investigate and establish concurrent validity among methodologies used to examine clinical reasoning and knowledge network organization.

**Funding Agency:** Southwestern Academy of Teachers (SWAT)

**Funding Dates:** 07/01/16 – 06/30/18.

**Amount Awarded:** \$2,180

**Principal Investigator:** V. Orcutt

*Grant Submitted But Not Funded*

**Title:** Reach Out and Read for Texas: Determining the Feasibility of a Multi-Site Pediatric Literacy Curriculum in Pediatric Residency Programs

**Purpose:** To evaluate the feasibility of implementing an online didactic and OSCE training for the promotion of early literacy development in pediatric residency programs across Texas.

**Funding Agency:** Academic Pediatrics Association

**Funding Dates:** 03/01/2018-02/28/2019

**Amount Requested:** \$15,000, Not Funded

**Principal Investigator:** T. Kindratt

**Title:** Developing Best Practice Guidelines to Promote Cognitive Diversity, Equity and Inclusive Excellence in PA Education. A Multicenter Randomized Control Trial (Divine Trial)

**Purpose:** To develop best practice guidelines specific to PA education to promote cognitive diversity, equity pedagogy, and inclusive excellence. Based on these guidelines, the project will develop and validate an On-going Self-Assessment Tool to benchmark diversity and inclusive excellence in Physician Assistant programs.

**Funding Agency:** Physician Assistant Education Association

**Submission Date:** 10/01/2017

**Amount Requested:** \$50,000, Not Funded

**Role: Co-Investigator:** C Bradley-Guidry, 3%

## Publications

*Refereed journals*

**Orcutt VL, James K, Bradley-Guidry C, Jones PE.** Similarities and Differences between Physician Assistant Program and Medical School Mission Statement Themes. *J Physician Assist Educ*, 2018. 29(1), 7-11

Rodder SG, **Kindratt TB, Orcutt V**, Koch C, McIlvaine K. Neville MA. Teaching and evaluating smartphone applications: An interprofessional curriculum expansion. *Educ Health (Abingdon)*. Accepted August 8, 2018. In Press.

**Kindratt T**, Pagels P, Bernard B, Webb J. Teaching Future Primary Care Providers about Parent-Provider Literacy Communication. *Education for Primary Care*. 2018 Jul 31:1-2. doi: 10.1080/14739879.2018.1493952. [Epub ahead of print].

Longo PJ, **Orcutt VL, James K, Kane J, Coleman V.** Clinical Reasoning and Knowledge Organization: Bridging the Gap Between Medical Education and Neurocognitive Science. *J Physician Assist Educ*. Manuscript Accepted May, 23, 2018. In Press.

Kane TD, Tubog TD, **Kane JP.** Effect of epidural volume extension on quality of combined spinal epidural anesthesia for cesarean delivery: a systematic review and meta-analysis. *J AANA*. 2018; 86(2):109-118.



Triolo TM, Fouts A, Pyle L, Yu L, Gottlieb PA, Steck AK; **Type 1 Diabetes TrialNet Study Group (Sturges D)**. Identical and Nonidentical Twins: Risk and Factors Involved in Development of Islet Autoimmunity and Type 1 Diabetes. *Diabetes Care*. 2018 Jul 30. pii: dc180288. doi: 10.2337/dc18-0288. [Epub ahead of print]

Redondo MJ, Geyer S, Steck AK, Sharp S, Wentworth JM, Weedon MN, Antinozzi P, Sosenko J, Atkinson M, Pugliese A, Oram RA; Type 1 Diabetes **TrialNet Study Group (Sturges D)**. A Type 1 Diabetes Genetic Risk Score Predicts Progression of Islet Autoimmunity and Development of Type 1 Diabetes in Individuals at Risk. *Diabetes Care*. 2018 Sep;41(9):1887-1894. doi: 10.2337/dc18-0087. Epub 2018 Jul 12.

**Sturges D**. Imposter phenomenon and underrepresented minorities: What PA educators need to know. *J Physician Assist Educ*. 2018;29(2):126-128.

**Kindratt TB**, Dallo FJ, Roddy J. Cigarette smoking among US- and Foreign-Born European and Arab American Non-Hispanic White Men and Women. *Journal of Racial and Ethnic Health Disparities*. 2018 Mar 9. doi: 10.1007/s40615-018-0476-z. [Epub ahead of print].

Gimpel NE, **Kindratt TB**, Dawson A, Pagels P. Community Action Research Track (CART): Community-based participatory research and service-learning experiences for medical students. *Perspectives on Medical Education*. 2018 Jan 26. doi: 10.1007/s40037-017-0397-2. [Epub ahead of print].

**Kindratt TB**, Gonzalez JR. Perceived Maternal Relationship as a Predictor of Pap Test Utilization: Results from The Longitudinal Study of Adolescent to Adult Health. *Journal of Adolescent and Family Health*. 2018. Jan;9(1):1-23.

**Kindratt TB**, Pagels P, Chung K, Moehlman M. Improving the Reach Out and Read Program at a Student-Run Free Clinic for Homeless Women and Children. *Journal of Student Run Clinics*. 2017. Nov;3(1):1-8.

*Refereed journals under review*

Bui T, **Kindratt T**, Reddy S, Pagels P. Promoting Oral Health through Manager Training and Dental Referral at a Student-Run Homeless Shelter Clinic. *Journal of Student-Run Clinics*. Under Review. Submitted August 14, 2018.

Cocke K, **Klocko DJ**, **Kindratt T**. Screening for undetected depression in physician assistant students. *J Physician Assist Educ*. Under Review. Submitted July 24, 2018.

LeLacheur SF, Bester V, Huggins Oxendine L, **Bradley-Guidry C**, Bowen D, Ryujin D, Samuels K, Maldonado A, Himmerick K. Minority Physician Assistant Faculty: A Phenomenological Assessment of Factors Leading to Retention in the Faculty Role. *J Physician Assist Educ*. Manuscript Under Review.

**Sturges D**, Dickey-Laprocido G, Gallegos I, et al. The influence of health educators in clinical settings: Addressing social determinants of health. *J Physician Assist Educ*. Submitted 2018.

*Non-refereed journals*

*Book Chapters*

*Books*

*Other*

A. Published scientific review

B. Abstracts (Platform or Poster Presentations)

Weerasinghe IS, **Kindratt T**, Golman M, Wood N. Analyzing Long-Acting Reversible Contraceptive Access for Adolescents in Dallas, Texas. AAPA Annual Conference. New Orleans, LA. May 23, 2018. Poster Presentation.

Gemmell A, Watson E, Pirzadeh-Miller S, Bishop C, Vu L, **Coleman V**, Minter R, Kubiliun N, Mansour J, Choti M, Gaurav K, Ross T. Pancreatic Cancer Prevention Clinic: An Institutional Experience. American College of Medical Genetics and Genomics Annual Clinical Genetics Meeting 2018. Charlotte, NC. April 10 – 14, 2018. Poster Presentation.

**Klocko D**, **Orcutt V**, Pearson J. What's in Your Teaching Toolkit? 8th Annual Southwestern Academy of Teachers (SWAT) Education Symposium. Dallas, TX. April 6, 2018. Platform Presentation.

**Kindratt T**, Atem F, Dallo FJ, Allicock M, Balasubramanian B. The influence of face-to-face and e-mail patient provider communication on breast cancer screenings. UT Health Research beyond Boundaries National Public Health Week, Dallas, TX. April 9-13, 2018. Poster Presentation.

Day PG, **Kindratt T**, Hill H, Doucette S, Patel M, Reeder J, Miller D, Bridges K, Yost A, Hussain S, Brisbon J, Fitzgerald S, Hardie B, Gimpel N. Promoting physical fitness, nutrition education and health eating through service learning experiences. 8th Annual Southwestern Academy of Teachers (SWAT) Education Week, Dallas, TX. April 5, 2018. Poster Presentation.

**Kindratt T**, Atem F, Dallo FJ, Allicock M, Balasubramanian B. The influence of face-to-face and e-mail patient provider communication on breast cancer screenings. UT Health Research beyond Boundaries National Public Health Week Event, Dallas, TX. April 4, 2018. Platform Presentation.

**Coleman V**. The Pancreas....What Lies Beneath. Americas Hepato-Pancreato-Biliary Association 2018 Annual Meeting. Miami, FL. March 7 – 11, 2018. Platform Presentation.

Bui T, Reddy S, Pagels P, **Kindratt T**. Promoting Oral Health Education through Student Manager Training and Dental Referral. Society of Student Run Free Clinics Annual Conference. Omaha, NE. February 25, 2018. Poster Presentation.

Rodder SG, **Kindratt TB**, Orcutt V, Koch C, McIlvaine K, Neville MA. Teaching and Evaluating Smartphone Applications: An Interprofessional Curriculum Expansion. University of Texas Southwestern Celebration of Women in Science and Medicine. Dallas, TX. February 7, 2018. Poster Presentation.

Burnet P, Hoese J, Saleh M, **Coleman V**, Pagels P, **Kindratt T**. Assessing Knowledge, Attitudes, and Barriers to Prenatal Care in Women of the Izabal Department in Guatemala. University of Texas Southwestern Celebration of Women in Science and Medicine. Dallas, TX. February 7, 2018. Poster Presentation.

Gemmell A, Watson E, Pirzadeh-Miller S, Bishop C, Vu L, **Coleman V**, Minter R, Kubiliun N, Mansour J, Choti M, Gaurav K, Ross T. Pancreatic Cancer Prevention Clinic: An Institutional Experience. University of Texas Southwestern Celebration of Women in Science and Medicine. Dallas, TX. February 7, 2018. Poster Presentation.

**Coleman V**. Professionalism in the PA Profession. Texas Academy of Physician Assistants Winter CME Conference. Irving, TX. February 3, 2018. Platform Presentation.

Nesbit S, **Bradley-Guidry C**. Quality of Care: You, Your Team, and Your Patient. Texas Academy of Physician Assistants 43<sup>rd</sup> Annual Conference. Irving, TX. February 2018. Platform Presentation.

**Kindratt T**, Pagels P, Bernard B, Webb J. Parent-Provider Literacy Communication: Training Future Primary Care Providers while Enhancing Pediatric Literacy among Homeless Women and their Children in Dallas, TX. North American Primary Care Research Group's 45th Annual Meeting. Montreal, Canada. November 13-17, 2017. Poster Presentation.

Egbonim E, Vizzini S, Batts T, **Kindratt T**, Day C, Gimpel N. Barriers to Continuity of Care at a Community-Based Free Clinic. North American Primary Care Research Group's 45th Annual Meeting. Montreal, Canada. November 13-17, 2017. Poster Presentation.

**Kindratt T**, Dallo F, Reddy J. Disparities in Tobacco Use among Non-Hispanic Whites: Heterogeneity among Foreign-Born Arab and European Americans. American Public Health Association Annual Meeting and Exposition. Atlanta, GA. Nov 2017. Poster Presentation.

**Kindratt T**, Callendar L, Cobbaert M, Wondrack J, Bandiera F, Salvo D. Association between Health Information Technology Use and Influenza Vaccine Uptake among US

Adults (2011-2015). American Public Health Association Annual Meeting and Exposition. Atlanta, GA. Nov 2017. Platform Presentation.

Bester V, **Bradley-Guidry C**, Bolden A, Domenech-Rodriguez M. Faculty Diversity: Arriving Through Discourse and Dialogue. Physician Assistant Education Association Annual Education Forum, Denver, CO. October 2017. Platform Presentation.

**Coleman V**. MMI: Show Me the Evidence. Physician Assistant Education Association. Denver, CO. October 26, 2017. Platform Presentation.

Esrock L, **Sturges D**. Evaluation of Novel In-Class Review Techniques in Physician Assistant Education. Physician Assistant Education Association Education Forum, Denver, Colorado. October 25-29, 2017. Poster Presentation.

Saleh M, Hoese J, Burnet P, Pagels P, **Kindratt T**. Assessing Knowledge, Attitudes, and Barriers to Prenatal Care in Women of the Izabal Department in Guatemala. American Academy of Family Physicians Global Health Summit. Houston, TX. October 6, 2017. Poster Presentation.

**Kindratt T**. Development and Evaluation of a Research Extension Experience in Directed Studies (REEDS) for Physician Assistant Students. Texas Society of Allied Health Professional Annual Conference, Houston, TX. September 21, 2017. Platform Presentation.

**Bradley-Guidry C**, Bester V, LeLacheur S, Huggins-Oxendine L, Bowen D, Ryujin D, Samuels K, Maldonado A, Himmerick K. A Phenomenological Assessment of Minority Physician Assistant Faculty Retention. National Association of Medical Minority Educators. Long Beach, CA. September 2017. Poster Presentation.

Gemmell A, Watson E, Pirzadeh-Miller S, Bishop C, Vu L, **Coleman V**, Minter R, Kubiliun N, Mansour J, Choti M, Gaurav K, Ross T. Pancreatic Cancer Prevention Clinic: An Institutional Experience. National Society of Genetic Counselors Annual Conference. Columbus, OH. September 13 – 16, 2017. Poster Presentation.

C. Editorials, position papers, background papers

D. Original invited lectures and presentations published for distribution

## **Presentations**

**Coleman V, Kane J**. Advanced Suturing Workshop. Texas Academy of Physician Assistants Winter CME Conference. Irving, TX. February 2, 2018. Workshop.

**Klocko D**, EKG Workshop. Texas Academy of Physician Assistants' Winter CME Conference. Irving, TX. February 2, 2018. Workshop.

**Sturges D**, Pathways to Education. PAEA Education Forum. Denver, CO. October 25-29, 2017. Invited Panelist.

## **Membership on Editorial Boards**

### **Department of Prosthetics-Orthotics 2017-2018**

## **Research Grants and Contracts**

*Grant Submitted, Award Decision Pending*

**Title:** Effectiveness of Repositioning and Cranial Remolding in Infants with Cranial Deformation

**Purpose:** To compare final head shape and patient compliance with two different treatment methods for deformational head shapes in infants as well as compare treatment outcomes with concurrent physical therapy.

**Funding Agency:** UT Southwestern School of Health Professions Interdisciplinary Research Grant Program (Matching funds through the Prosthetics-Orthotics Program)

**Funding Dates:** 09/15/18-8/31/19.

**Amount requested:** \$20,000. Status: Submitted, Decision Pending.

**Principal Investigator:** T. Graham, 20% effort.

**Title:** Wearable ultrasound technologies for control of robotic knee-ankle prostheses and assessment of user response

**Purpose:** To enable advanced bionic technologies that target enhanced daily ambulation capability, a key contributor to improving independence and quality of life of impaired individuals. The overall objective is to inform, implement and clinically-test robotic knee-ankle prosthesis control strategies capable of enhancing daily ambulation of transfemoral amputees.

**Funding Agency:** NIH- NATIONAL INST OF CHLD HLTH & HMN DEV (R01)

**Funding Dates:** September 2019 – August 2023

**Amount requested:** Time to be billed to Grant PI, Status: Submitted, Pending

**Co-Investigator:** Gray L, 3% effort.

**Title:** State estimation to enable individuals with above-knee amputation – Personalized robotic assistance for differing mobility and etiology.

**Purpose:** The primary benefit in this research is the development of a superior lower-limb prosthesis and associated control system. The goal is to open a new branch of translational science and demonstrate exciting new potential to improve ambulation in lower-limb amputees, including the ability to walk more safely in uncertain environments.

**Funding Agency:** NSF

**Funding Dates:** September 2019 – August 2023

**Amount requested:** Prosthetist time to be billed to Grant PI, Status: Submitted, Pending

**Co-Investigator:** Gray L, 3% effort.

### *Grants Awarded*

**Title:** Controlling Locomotion over Continuously Varying Activities for Agile Powered Prosthetic Legs

**Purpose:** The overall goal of this project is to model and control human locomotion over continuously varying tasks for the design of agile, powered prostheses that require little to no tuning.

**Funding Agency:** NIH-NATIONAL INST OF BIOMEDICAL IMAGING (R01)

**Funding Dates:** September 2018 – August 2023

**Amount requested:** \$106,817 for subcontract. Status: Awarded.

**Co-Investigator (and PI of a UTSW subcontract):** Gray L, 3% effort.

**Title:** Effectiveness of Repositioning and Cranial Remolding in Infants with Cranial Deformation

**Purpose:** To compare final head shape and patient compliance with two different treatment methods for deformational head shapes in infants.

**Funding Agency:** American Prosthetic & Orthotic Association (AOPA)

**Funding Dates:** 06/15/18-01/01/23.

**Amount Awarded:** \$73,848. Status: Awarded.

**Principal Investigator:** T Graham, 20% effort.

**Title:** Outcome Effects of Initial Age and Severity in Cranial Remolding Orthotic Treatment for Infants with Deformational Plagiocephaly

**Purpose:** To retrospectively compare treatment outcomes for cranial remolding orthotic treatment of Deformational Plagiocephaly by examining the effects of initial age, initial severity, and developmental comorbidities.

**Funding Agency:** UT Southwestern Center for Translational Medicine (CTM)

**Funding Dates:** 06/01/18-09/20/18.

**Amount Awarded:** 24 hours of statistical support (valued at \$2,880). Status: Awarded.

**Principal Investigator:** T Graham, 3% effort.

**Title:** Effectiveness of Cranial Remolding Orthoses in Reducing Cranial Deformation in Patients with Asymmetrical Brachycephaly

**Purpose:** To retrospectively compare treatment outcomes for cranial remolding orthotic treatment of Deformational Asymmetrical Brachycephaly by examining the effects of initial age, initial severity, and developmental comorbidities.

**Funding Agency:** UT Southwestern Center for Translational Medicine (CTM)

**Funding Dates:** 07/24/18-10/22/18.

**Amount Awarded:** 16 hours of statistical support (valued at \$1,920). Status: Awarded.

**Principal Investigator:** T Graham, 3% effort.

### *Grants Submitted but Not Funded*

**Title:** Comparing the Effectiveness of Repositioning Therapy and Cranial Remolding Orthoses for Infants with Cranial Deformation at Parkland Community-Oriented Primary Care Clinics

**Purpose:** To compare treatment outcomes and patient compliance with different treatment methods for deformational head shapes and muscular torticollis in infants from Parkland Community-Oriented Primary Care Clinics in the DFW Metroplex.

**Funding Agency:** UT Southwestern Community-Based Research Awards

**Funding Dates:** 06/1/18-05/31/20.

**Amount Requested:** \$73,474. Status: Not awarded.

**Principal Investigator:** T Graham, 20% effort.

**Title:** Effectiveness of Repositioning and Cranial Remolding in Infants with Cranial Deformation

**Purpose:** To compare final head shape and patient compliance with two different treatment methods for deformational head shapes in infants.

**Funding Agency:** Orthotics and Prosthetic Education and Research Foundation (OPERF)

**Funding Dates:** 06/1/18-12/31/19.

**Amount Requested:** \$25,000. Status: Not awarded.

**Principal Investigator:** T. Graham, 20% effort.

**Title:** An Innovative and Interactive Learning Module for Prosthetic Foot Selection and Proper Alignment

**Purpose:** To develop, implement, and assess an innovative learning module on able-bodied prosthetic foot simulators for UT Southwestern School of Health Professions students and UT Southwestern Medical residents, including, but not limited to; prosthetic-orthotic students, physical therapy students, and Physical Medicine and Rehabilitation residents.

**Funding Agency:** Southwestern Academy of Teachers (SWAT), UT Southwestern

**Funding Dates:** July 1, 2018-June 30, 2019

**Amount requested:** \$5,000. Status: Submitted, Not Funded.

**Principal Investigator:** Wilson DG, 3% effort.

**Title:** Clinical and Biomechanical Evaluation of Personalized Knee-Ankle Powered Prosthesis Control Compared to Passive Device

**Purpose:** The overall objective of this proposal is to inform, implement and clinically-test robotic knee-ankle prosthesis control strategies capable of enhancing daily ambulation of people with transfemoral amputation by testing the hypothesis that continuous estimation of task-relevant variables through additional sensing and machine learning can enable robotic prosthesis controllers to deliver improved personalized assistance in a range of daily ambulation tasks—quantified via metabolic cost and bilateral mechanics.

**Funding Agency:** US Department of Defense (DOD)

**Funding Dates:** 2018-2013

**Amount requested:** Status: Submitted, Pending

**Co-Investigator:** Gray L, 3% effort.

## **Publications**

*Refereed journals*

*Refereed journals under review*

*Non-refereed journals*

*Book Chapters*

*Books*

*Other:*

A. Published scientific review

**Mojica MN**, Foot Orthoses. Webster JB, Murphy, DP. Atlas of Orthoses and Assistive Devices, 5th ed., Philadelphia,. PA: ELSEVIER, 2018:233-238.

**Mojica MN**, Early JS. Foot Biomechanics. Webster JB, Murphy, DP. Atlas of Orthoses and Assistive Devices, 5th ed., Philadelphia,. PA: ELSEVIER, 2018:216-228.

B. Abstracts (Platform or Poster Presentations)

**Graham T**, Gilbert, N, Witthoff, K Gregory, T, Harris, J, Walsh, M. Effectiveness of Cranial Remolding Orthoses in Reducing Asymmetry in Patients with Plagiocephaly in Relation to Start Age and Severity. Poster Session at: The American Academy for Orthotics & Prosthetics National Meeting; 2018 February 14-17; New Orleans, LA.

**Graham T**, Gilbert, N, Witthoff, K Gregory, T, Harris, J, Walsh, M. Effectiveness of Cranial Remolding Orthoses in Reducing Asymmetry in Patients with Plagiocephaly in Relation to Start Age and Severity. Poster session at: UTSW Women in Science and Medicine Poster Session; 2018 February 7; Dallas, TX.

**Wilson D.G.**, Bradley R, Lesieutre M, Zermeno J. *The Effect of Variations in Carbon Fiber Lay-Up of Custom AFOs on Gait in Chronic Stroke Patients: A Case Study*. Poster presented at 44th Academy Annual Meeting and Scientific Symposium; 2018 February 14-17; New Orleans, LA.

**Wilson D.G.**, Brock MT, Nguyen K, Levine AE. *The Effects of Carbon Content on Stiffness in Carbon-Infused Polypropylene AFOs*. Poster presented at 44th Academy Annual Meeting and Scientific Symposium; 2018 February 14-17; New Orleans, LA.

C. Editorials, position papers, background papers

**Graham T.** (2018). Dermatological Conditions Often Seen During Cranial Remolding Orthotic Treatment. *The Academy Today*, 14(3):5-7.

D. Original invited lectures and presentations published for distribution

**Graham T.** Skin Conditions Seen During Cranial Remolding Treatment. Invited Platform Presentation at: The American Academy for Orthotics & Prosthetics National Meeting; 2018 February 14-17; New Orleans, LA. Available online for Continuing Education credit at: <http://olc.oandp.org>.



**Gray L.** (2017, October). "Upper Extremity Prosthetics" Invited lecture at Orthopedic Short Course: Orthotics & Prosthetics, Dallas, TX.

**Wilson DG,** (2017, October). "Lower Limb Prosthetic Components & Functional Design". Invited lecture at Dallas Orthopedic Short Course: Orthotics & Prosthetics, Dallas, TX.

### **Presentations**

**Graham T,** Gilbert, N, Witthoff, K Gregory, T, Harris, J, Walsh, M. Effectiveness of Cranial Remolding Treatment in Deformational Plagiocephaly. Accepted Platform Presentation at: Texas Chapter of the American Academy for Orthotics & Prosthetics Meeting General Scientific Session; 2018 August 11; Dallas, TX

### **Membership on Editorial Boards**

**Graham T.** Peer Reviewer 2018-present. Journal of Prosthetics & Orthotics