



**Center of Excellence for Integrative Health  
(CEIH)  
Annual Report  
2019**

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## Summary

The Center of Excellence for Integrative Health (CEIH) was approved by Dr. Berk in January 2018 and was waived for the 2018 center annual report. Thus, this summary covers the progress made in both 2018 and 2019, as listed below:

- Up to December 2019, over 44 faculty members have joined the Center. The Center website is established (<https://www.ttuhsu.edu/centers-institutes/integrated-health-research/default.aspx>) to include member profiles, funded grant awards, etc.
- Dr. Shen presented “Establishing the Center of Excellence for Integrative Health at Texas Tech University Health Sciences Center” as her Executive Leadership in Academic Medicine (ELAM) project on May 4, 2019, in Philadelphia, PA.
- Hosted two Center Steering Committee Meetings to discuss future plan for the Center.
- Hosted two Annual Membership Meetings on February 23, 2018 (16 members attended in person) and May 16, 2019 (29 members attended in person and 1 via Techlink).
- Hosted two member research discussion sessions in Lubbock, Texas.
- Co-sponsored and hosted 2<sup>nd</sup> Annual Integrative Medicine Symposium on April 12, 2019. Two keynote speakers (Dr. Margaret A. Chesney, PhD, title: Combating the opioid crisis: integrative approaches for pain management; Dr. Bruce A. Watkins, title: Natural products and chronic pain). Printed Center banner for use in promotion of symposium.
- Dr. Shen has presented CEIH to directors of Centers and Institutes to promote visibility.
- Sponsored two medical students to participate in the 2019 Medical Student Summer Research Program.
- Worked with Department of Medical Education for summer rotation activities of the Family Medicine Accelerated Track (FMAT) to apply integrative health to chronic disease management.
- TTUHSC is an active member of the Academic Consortium for Integrative Medicine and Health. <https://imconsortium.org/>
- In the section titled “Publications, Presentations, and Other Scholarly Activity” are detailed lists of publications, awards, and presentations by individual members of the Center.
- A summary table of grant award activities of all center members from the past 5 years is also included in this report.

## Vision/Mission

### VISION

- To improve the health of individuals through integrative health research discoveries and high-quality education.

### MISSION

- To support the strategic objectives and academic mission of School of Medicine and TTUHSC in enhancing research and research-related education.
- To foster and facilitate synergistic, interdisciplinary, trans-disciplinary, and inter-professional collaboration among researchers/colleagues committed to integrative health research and to assist the professional development of new researchers.

- To promote thoughtful and compassionate healthcare in the broad field of integrative health through innovative and rigorous research at basic, translational, clinical, and population levels, and assist and support researchers in conducting cutting edge research that will grow the empirical evidence base for integrative approaches to health.
- To promote research-associated educational opportunities for medical students.

**Strategic Plan**

- The key goals for the Center are:
1. Establish a critical mass of outstanding faculty with an emphasis on those doing integrative health research through basic, translational, clinical, community, and health service research.
  2. Promote and establish collaborations in basic, translational, clinical, community, and health service research in integrative health among TTUHSC campuses, TTU, and other institutions.
  3. Enable a significant increase in peer-reviewed integrative health research funding (i.e. foundations, federal funding, industries) to TTUHSC and other TTU Systems.
  4. Participate in consortium member meeting of the Academic Consortium for Integrative Medicine and Health to report Center activities, increase research collaboration, and improve medical education in the area of integrative health.

**Membership**

- Over 44 faculty members have joined the Center including 3 different schools (School of Medicine, School of Health Professions, and School of Nursing) from TTUHSC, and 4 colleges (College of Arts & Sciences, College of Human Sciences, College of Engineering, and College of Education) from TTU. Detailed member profiles can be found in the Center website <https://www.ttuhschool.edu/centers-institutes/integrated-health-research/default.aspx>
- Current Steering Committee Members include Dr. Volker Neugebauer, Dr, Michael Blanton, Dr. Betsy Jones, Dr. Naima Moustaid-Moussa, and Dr. Yan Zhang).

**MEMBER PROFILE**  
**Center of Excellence for Integrative Health**

Name/departm ent/school	Contact Information	Research Interest/Expertise	Research Keywords
Al-Rahawan, Mohamad MD, MPH/Pediatric Hematology Oncology TTUHSC	<a href="mailto:m.al@ttuhsc.edu">m.al@ttuhsc.edu</a> Office: (806) 775-8600	Pediatric Cancer treatment and prevention. Vitamin deficiency and supplementation in survivors of childhood cancer.	

<p><b>Blanton, Michael P.</b> PhD/ Pharmacology &amp; Neuroscience/ SOM-Lubbock, TTUHSC</p>	<p><a href="mailto:michael.blanton@ttuhs.c.edu">michael.blanton@ttuhs.c.edu</a> Office: (806) 743-3496 Cell: (806) 319-1778</p>	<p>Structure/function of neuronal nicotinic acetylcholine receptors; development of smoking cessation agents and PAMs (positive allosteric modulators) for the treatment of Alzheimer's, Parkinsonism, and other disorders of the nervous system. <a href="http://legacy.ttuhs.c.edu/medicine/pharmacology/faculty/blanton.aspx">http://legacy.ttuhs.c.edu/medicine/pharmacology/faculty/blanton.aspx</a></p>	
<p><b>Brismée, Jean-Michel</b> PT, ScD/ Rehabilitation Sciences-SHP- Lubbock, TTUHSC</p>	<p><a href="mailto:Jm.brismee@ttuhsc.edu">Jm.brismee@ttuhsc.edu</a> Office: (806)743-3243 Cell: (806) 789-0387</p>	<p>Clinical trials, intervertebral disc hydration/height, musculoskeletal health including, osteoarthritis, osteoporosis, diagnostics, manipulative therapy, mind-body therapies including yoga, meditation, Tai Chi.</p>	
<p><b>Chyu, Ming-Chien</b> PhD/Mechanical Engineering/TTU</p>	<p><a href="mailto:m.chyu@ttu.edu">m.chyu@ttu.edu</a> Office: (806) 834-8982</p>	<p>Non-pharmacological approaches in musculoskeletal issues-healthcare engineering approach- biomechanics.</p>	
<p><b>Dufour, Jannette</b> PhD/Cell Biology and Biochemistry/SOM-Lubbock, TTUHSC</p>	<p><a href="mailto:jannette.dufour@ttuhs.c.edu">jannette.dufour@ttuhs.c.edu</a> Office: (806) 743-2616</p>	<p>Use of immunoprotective Sertoli cells in transplantation. Specifically, mechanisms of Sertoli cell immune privilege, transplantation of genetically modified, immune privileged Sertoli cells and co-transplantation of Sertoli cells and pancreatic islets.</p>	<p>Sertoli cells, Immune privilege, Transplantation, Diabetes, Islets, Gene therapy, Cell Therapy</p>
<p><b>Enakpene, Christopher A</b> MD / Maternal-Fetal Medicine / Obstetrics &amp; Gynecology / SOM, TTUHSC Midland/Permian Basin</p>	<p><a href="mailto:christopher.a.enakpene@ttuhsc.edu">christopher.a.enakpene@ttuhsc.edu</a> Cell: 347 217 5127</p>	<p>Diabetes in pregnancy and obesity. On going clinical trial on randomization of early diabetes screening in obese pregnant women. Impact of gestational diabetes and impaired glucose tolerance on short and long-term maternal and child health. Multimodal approach in the prevention of preterm birth.</p>	<p>Clinicaltrial.gov. REDSOAP Study: NCT03116009. Clinicaltrial.gov ARABIN Study NCT03052270</p>
<p><b>Figuerola, Arturo</b> MD, PhD/ Kinesiology and Sport Management/TTU</p>	<p><a href="mailto:arturo.figuerola@ttu.edu">arturo.figuerola@ttu.edu</a> Office: (806) 834-5587</p>	<p>Arterial function and skeletal muscle health (mass and strength) in middle-aged and older adults, especially in women. Aging, hypertension, obesity, type 2 diabetes, sarcopenia/dynapenia, and cardiovascular diseases. Resistance exercise training and dietary supplements with vascular effects.</p>	<p>Arterial stiffness, aortic hemodynamics, wave reflection, blood flow,</p>

			endothelial function, L-citrulline supplementation, resistance exercise, muscle metaboreflex
<b>Jones, Betsy</b> PhD/Medical Education/TTU HSC	<a href="mailto:Betsy.jones@ttuhsc.edu">Betsy.jones@ttuhsc.edu</a>	Medical education	
<b>Jung, Kwanghee</b> PhD/Educational Psychology/TTU	<a href="mailto:kwanghee.jung@ttu.edu">kwanghee.jung@ttu.edu</a> Office: (806) 834-0023	Multivariate Statistics and Functional Data Analysis, Psychological Measurement and Testing Theory, Data Analytics and Big Data Analytics, Bio-medical Data and Patient-Reported Outcomes Research, Human Brain and Mental Health Research, Statistical Software Development, Virtual Reality/Augmented Reality Development	
<b>Kahathuduwa, Chanaka</b> MD, PhD/Laboratory Sciences & Primary Care-SHP/Psychiatry-SOM-Lubbock, TTUHSC	<a href="mailto:chanaka.kahathuduwa@ttuhsc.edu">chanaka.kahathuduwa@ttuhsc.edu</a> ; <a href="mailto:chanaka.kahathuduwa@ttu.edu">chanaka.kahathuduwa@ttu.edu</a>	Neurophysiological mechanisms underlying human cognitive and neurophysiological mechanisms. Obesity and metabolic derangements-related human ingestive behavior. Developmental disorders such as ADHD and autism spectrum disorders.	
<b>Kaur, Gurvinder</b> PhD/Medical Education/SOM-Lubbock, TTUHSC	<a href="mailto:gurvinder.kaur@ttuhsc.edu">gurvinder.kaur@ttuhsc.edu</a>	1) Diabetes (both type 1 and type 2) 2) Transplantation immunology (allo and xeno-transplantation, rodents) 3) Islet isolation (from rodents and pigs) 4) Immune cell (T cells, macrophages and dendritic cells) analysis by immunostaining and flow cytometry 5) Amyloid formation in beta cells	
<b>Lawrence, John (Josh)</b> PhD/Pharmacology & Neuroscience/SOM-Lubbock, TTUHSC	<a href="mailto:John.lawrence@ttuhsc.edu">John.lawrence@ttuhsc.edu</a>	Genetic predisposition Epigenetic modification	Autism Epilepsy Late onset of AZ
<b>Lee, Jaehoon (Jason)</b> PhD/ Educational Psychology/TTU	<a href="mailto:Jaehoon.lee@ttu.edu">Jaehoon.lee@ttu.edu</a> Office: (806) 834-5907	high dimensional data analysis, experimental design and sample size calculation, as well as multiple testing adjustments	

<p><b>Lee, Sue Ann S.</b> PhD, CCC-SLP/Speech-Language-Hearing Sciences, SHP, TTUHSC</p>	<p><a href="mailto:sueann.lee@ttuhsc.edu">sueann.lee@ttuhsc.edu</a> Office (806) 743-9051</p>	<p>Speech and language in children with hearing loss and cleft palate, Bilingual speech and language development, treatment effectiveness using ultrasound and telepractice</p>	<p>Speech-language impairment, bilingualism, speech-language intervention, speech-language instrumentation, ultrasound, telepractice</p>
<p><b>Luk, Hui Ying</b> PhD/Kinesiology &amp; Sport Management/TTU</p>	<p><a href="mailto:Huiying.luk@ttu.edu">Huiying.luk@ttu.edu</a> Office: 806-834-0827</p>	<p>Immunoendocrine response on skeletal muscle regeneration and hypertrophy</p>	<p>Musculoskeletal recovery and growth/strength and conditioning/inflammation/hormones/muscle mass</p>
<p><b>Lyford, Conrad</b> PhD Agricultural &amp; Applied Economics, TTU</p>	<p><a href="mailto:Conrad.lyford@ttu.edu">Conrad.lyford@ttu.edu</a> Office: (806) 834-6881</p>	<p>Behavioral change towards healthy behavior and disease prevention. Community/school interventions for obesity prevention. Cost-benefit analysis. Developing country food security and health systems</p>	
<p><b>Narasimhan, Madhusudhan</b> PhD/Pharmacology &amp; Neuroscience/SOM-Lubbock, TTUHSC</p>	<p><a href="mailto:madhu.narasimhan@ttuhsc.edu">madhu.narasimhan@ttuhsc.edu</a> Office: (806) 743-4079</p>	<p>Molecular mechanisms underlying fetal alcohol developmental toxicity, Neuropathic pain mechanisms and treatments, Oncogenic signaling in cancer progression and metastasis and oncogene-directed treatment options</p>	
<p><b>Mello, Inola</b> DNP, APRN, FNP-C Family Practice/SON TTUHSC</p>	<p><a href="mailto:inola.mello@ttuhsc.edu">inola.mello@ttuhsc.edu</a> Office: (806) 743-7282</p>	<p>Vitamin D, sexual health, sleep patterns/anxiety, recreation drug use/misuse in college health</p>	
<p><b>Moustaid-Moussa, Naima</b></p>	<p><a href="mailto:naima.moustaid-moussa@ttu.edu">naima.moustaid-moussa@ttu.edu</a> Office: (806) 834-7946</p>	<p>Basic and integrated nutrition and obesity research.</p>	

PhD/Nutritional Sciences /TTU		Endocrine function of adipose tissue and nutrient-gene interactions in metabolic diseases. Beta cell function in diabetes and childhood obesity	
<b>Murimi, Mary</b> PhD RD: Nutritional Sciences/TTU	<a href="mailto:Mary.murimi@ttu.edu">Mary.murimi@ttu.edu</a> <a href="tel:(806)834-1812">Office : (806)834-1812</a>	Investigates the effects of the community environment on the nutrition status of the residents, and coping strategies for food insecure households especially among low-income populations. Applies Community based participatory research. Dr. Murimi has collaborative relationship with institutions in both Ethiopia and Kenya.	Food security, maternal and child nutrition, Nutrition education
<b>Nair, Nandini</b> PhD. MD. /Cardiology/ SOM-Lubbock, TTUHSC	<a href="mailto:Nandini.nair@ttuhsc.edu">Nandini.nair@ttuhsc.edu</a>	Basic/translational/clinical research in heart failure. Proteomics and genomics. cardia transplant and mechanical assist device.	
<b>Neugebauer, Volker</b> MD, PhD/Pharmacology & Neuroscience/SOM-Lubbock, TTUHSC	<a href="mailto:Volker.neugebauer@ttuhsc.edu">Volker.neugebauer@ttuhsc.edu</a> Office: (806) 743-3880	Neurobiological mechanisms of brain dysfunction in preclinical setting related to chronically relevant disorders, such as chronic pain, comorbid conditions of anxiety, depression, alcohol use disorder, and epileptogenesis.	
<b>Oldewage-Theron, Wilna</b> PhD, RD (SA)/Nutritional Sciences/TTU	<a href="mailto:wilna.oldewage@ttu.edu">wilna.oldewage@ttu.edu</a> Office: (806) 834-0567	Community Nutrition using food fortification, supplementation, nutrition education, food product development and implementation, as well as school feeding programs on food insecurity, dietary diversity and nutritional status of women and children as well as the elderly.	
<b>Palmer, Ty</b> PhD/Kinesiology and Sport Management/TTU	<a href="mailto:Ty.palmer@ttu.edu">Ty.palmer@ttu.edu</a> Office: (806) 834-7884	Impact of age-related disparities on muscular function. Interventional strategies to improve functional performance in older adults	
<b>Park, Oak-Hee</b> PhD/Nutritional Sciences/TTU	<a href="mailto:Oak-hee.park@ttu.edu">Oak-hee.park@ttu.edu</a>	Community nutrition. Food environment.	
<b>Pelly, John</b> MBA, PhD/Medical Education/SOM-Lubbock, TTUHSC	<a href="mailto:John.pelly@ttuhsc.edu">John.pelly@ttuhsc.edu</a>	Mindfulness strategies in learning and mind-body wellness, integrative medicine education	education
<b>Phy, Jennifer</b> MD/ Obstetrics & Gynecology/SOM-Lubbock, TTUHSC	<a href="mailto:Jennifer.phy@ttuhsc.edu">Jennifer.phy@ttuhsc.edu</a> Office: (806) 743-4256	Polycystic ovary syndrome and weight loss by dietary modification. Acupuncture on vascular tone and stress levels in infertile women undergoing in vitro fertilization.	

<p><b>Narissra M. Punyanunt-Carter, PhD</b></p> <p>Communication , College of Media &amp; Communication TTU</p>	<p><a href="mailto:n.punyanunt@ttu.edu">n.punyanunt@ttu.edu</a> Office: (806)834-3273</p>	<p>Health communication; health advocacy, the crafting of messages about health, and strategies for the promotion of health-care services.</p>	
<p><b>Ramalingam, Latha</b> PhD/Nutritional Sciences/TTU</p>	<p><a href="mailto:Latha.Ramalingam@ttu.edu">Latha.Ramalingam@ttu.edu</a> Office: (806) 834-0841</p>	<p>Bioactives in maternal obesity. Renin Angiotensin System (RAS) in beta cells, and the interactions between adipocytes and beta cells and their influence on diabetes and obesity.</p>	
<p><b>Rivas, Eric</b> PhD / Kinesiology and Sport Management/T TU</p>	<p><a href="mailto:eric.rivas@ttu.edu">eric.rivas@ttu.edu</a> Office: 806-834-8563</p>	<p>Exercise and Thermal Physiology. Acute and chronic exercise, cold, heat, and hypoxia effects on metabolic and vascular function in healthy, obesity, diabetes, and hypertension. <a href="https://www.depts.ttu.edu/ksm/research_lab/E.Rivas.php">https://www.depts.ttu.edu/ksm/research_lab/E.Rivas.php</a></p>	<p>Exercise training, microvascular, macrovascular, metabolic, body temperature regulation</p>
<p><b>Schlabritz-Lutsevich, Natalia</b> PhD, OB/GYN, Odessa</p>	<p><a href="mailto:Natalia.Schlabritz-Lutsevich@ttuhsc.edu">Natalia.Schlabritz-Lutsevich@ttuhsc.edu</a></p>	<p>normal and pathological pregnancies. Materno-placental-fetal interaction in maternal obesity, maternal alcohol consumption, pre-eclampsia and racial discrepancies Microbiome and its role in the reproduction</p>	<p>Maternal health Obesity Microbiome</p>
<p><b>Shen, Leslie</b> PhD, CCRP/ Pathology/ SOM-Lubbock, TTUHSC</p>	<p><a href="mailto:Leslie.Shen@ttuhsc.edu">Leslie.Shen@ttuhsc.edu</a> Office: (806) 743-2815 Cell: (806) 787-6971</p>	<p>Clinical trials and animal studies – dietary supplement/phytochemicals in musculoskeletal health and obesity. Mind-body exercise (clinical only) in musculoskeletal health and obesity.</p>	<p>Clinical trials - obesity-related chronic diseases (diabetes, metabolic syndrome)</p>
<p><b>Shin, Andrew</b> PhD / Nutritional Sciences / TTU</p>	<p><a href="mailto:andrew.shin@ttu.edu">andrew.shin@ttu.edu</a> Office: 806-834-1713</p>	<p>Neurobiology of appetite control, body weight regulation, nutrient metabolism. Behavioral neuroscience, Mechanisms underlying bariatric surgery</p>	<p>Branched-chain amino acids, Roux-en-Y gastric bypass, brain, Alzheimer's disease, obesity, diabetes</p>
<p><b>Singh, Sharda</b> PhD</p>	<p><a href="mailto:Sharda.singh@ttuhsc.edu">Sharda.singh@ttuhsc.edu</a></p>	<p>Clinical trials and animal studies – dietary supplement/phytochemicals in prevention</p>	

TTUHSC	<a href="tel:(806)743-1540">Office: (806) 743-1540</a>	of doxorubicin induced cardiotoxicity. Molecular mechanisms involved in protein-protein interaction that prevents cancer development.	
<b>Sizer, Phillip S. Jr.</b> PT, PhD, OCS, FAAOMPT/Rehabilitation Sciences/SHP-Lubbock, TTUHSC	<a href="mailto:Phil.sizer@ttuhsc.edu">Phil.sizer@ttuhsc.edu</a> Office: (806) 743-3902	Clinical pathoanatomy, sensorimotor control and functional biomechanics of the spine and extremities Tissue and movement screening	
<b>Huaxin Song</b> PhD/School of Nursing TTUHSC	<a href="mailto:Huaxin.song@ttuhsc.edu">Huaxin.song@ttuhsc.edu</a> Office: 806-743-2661	Chronic Disease Management through interprofessional collaborative practice; Childhood obesity prevention; Big Data and measurement matrix for research and quality improvement programs for healthcare system.	Chronic Disease Management/ Geriatric care/ Childhood obesity
<b>Sun, Grace</b> DNP, APRN, FNP-BC TTUHSC/School of Nursing/TTU Student Health and Wellness	<a href="mailto:Grace.sun@ttuhsc.edu">Grace.sun@ttuhsc.edu</a> Office: (806) 743-9246	University Student Health and Wellness; Gastroenterology/Hepatology; Interprofessional education; Nutrition, Physiology, Metabolism	
<b>Tinsley, Grant</b> PhD/Kinesiology & Sport Management/TTU	<a href="mailto:Grant.tinsley@ttu.edu">Grant.tinsley@ttu.edu</a> Office: (806) 834-5895	Body composition assessment methodology, lifestyle interventions to improve body composition, intermittent fasting, dietary supplementation, resistance training	Body composition assessment; intermittent fasting; fat mass; muscle mass; resistance training
<b>Vellers, Heather</b> PhD, RCEP/Kinesiology & Sport Management/TTU	<a href="mailto:Heather.Vellers@ttu.edu">Heather.Vellers@ttu.edu</a> Office: (806) 834-8890	Mitochondrial biology and genetics-role in exercise training response and pathological etiologies	Mitochondrial genetics, mtDNA, aerobic exercise training
<b>Wang, Shu</b> PhD/Nutritional Sciences/TTU	<a href="mailto:Shu.wang@ttu.edu">Shu.wang@ttu.edu</a> Office: (806) 834-4050	nutrition and nanomedicine for prevention and treatment of chronic diseases, especially cardiovascular disease and obesity	
<b>Zhang, Fangyuan</b> PhD/Mathematics	<a href="mailto:fangyuan.zhang@ttu.edu">fangyuan.zhang@ttu.edu</a> Office: (806) 834-2587	Developing statistical methods to detect genetic effects, epigenetic effects, and interaction effects between genes and	Statistical genetics,

cs and Statistics/TTU		environment associated with human complex diseases. Application of biostatistical methods to real data analysis.	biostatistics
Zhang, Yan PhD, LAc/Texas Christian University	<a href="mailto:Yan.zhang@tcu.edu">Yan.zhang@tcu.edu</a> Office: 806-743-6056	Clinical trials-acupuncture and mind-body intervention Health services research-secondary data analysis (NHIS) on CAM related topics, patient-outcome study Complementary and integrative health education	Clinical trials-acupuncture and mind-body intervention, integrative pain management study Health services research-secondary data analysis, patient-outcome study
Zook, Julie Ph. D./Architecture/TTU	<a href="mailto:Julie.zook@ttu.edu">Julie.zook@ttu.edu</a> Office: (806) 834-0699	Environmental determinants of health related to architectural and urban/community design; use of EHR data to better understand functioning of healthcare architecture	Architecture Healthcare workers Patient experience
Zumwalt, Mimi MD/Orthopedic Surgery/ Sports Medicine TTUHSC	<a href="mailto:mimi.zumwalt@ttuhsc.edu">mimi.zumwalt@ttuhsc.edu</a> Office: (806) 743-2465	Female athletes/Injury prevention Exercise techniques/training Rx Natural/alternative nutrition Sex/Gender differences	female athletes sex/gender musculoskeletal injury/strength & conditioning

**Achieved Goals and Objectives**

*Summarize goals, objectives, and success toward meeting goals and objectives. Describe any changes to goals and objectives with explanation. (Please include the matrix submitted with the center's original application. If not included in original application, please include a matrix that can be used to assess how well the mission and goals of the Center are being met.)*

The following are the Center Goals, Objectives, and Matrix submitted with the center's original application:

**GOALS and OBJECTIVES:**

**Research:**

- To foster transdisciplinary/multi-disciplinary collaborations for high quality basic, translational, and clinical research in integrative health within TTUHSC, TTU, and beyond.
- To assist and support researchers in conducting cutting edge research that will grow the empirical evidence base for integrative approaches to healthcare.
- To collaborate with basic scientists to develop biological correlates of integrative health clinical outcomes and explore potential mechanisms of action in effectiveness and efficacy studies.
- To build academic and community research partnerships.
- To rigorously test the safety and effectiveness of integrative health approaches for treatment and management of diseases.
- To present, publish, and disseminate reliable information in integrative health using public and professional outlets.

#### **Education:**

- To provide research opportunities for medical students.
- To develop a month-long research elective for 4<sup>th</sup>-year medical students.
- To host research and education integrative health conference.

#### **METRICS**

Achievement of mission and goals will be assessed using the following outcome measures:

- Attendance rate of activities/events organized by the Center.
- Presentations by members (especially invited speaking engagements).
- Publications (abstracts, case-report, full-length manuscripts): joint publications by two or more center members on projects funded by the Center.
- Joint grant applications and new individual applications based on Center projects. These would be expected to be applications to regional and national organizations.
- Participation of number of medical students in research activity related to integrative health.

Based on the Metrics, the following are our achieved goals and objectives:

*Attendance rate of activities/events organized by the Center.*

- Increased attendance at Annual Membership Meetings from 2018 to 2019: 16 members at the 2018 Annual Membership Meetings compared to 29 members at the 2019 Annual Membership Meeting. Up to December 2019, 45 faculty have joined the Center.
- Proposal discussions had low turnout (<10 members per discussion). We suspect low attendance was due to the specialized nature of the proposal topic. We are currently considering broader topic(s) for future proposal discussions to increase involvement and expertise related to the topic(s).
- Good attendance rate for 2<sup>nd</sup> Annual Integrative Medicine Symposium (~ 80 attendants including non-members).

*Presentations by members (especially invited speaking engagements):*

- Based on 25 member reports, there was a total of **85** presentations, including oral and poster presentations at national and international symposiums. Please see more detailed presentation list in the section of “Publications, Presentations, and Other Scholarly Activity.”

*Publications (abstracts, case-reports, full-length manuscripts, joint publications by two or more Center members on projects funded by the Center):*

- Based on 25 member reports, there were **139** publications by Center members in 2019. Please see more detailed publication list in the section of “Publications, Presentations, and Other Scholarly Activity”.

*Joint grant applications and new individual applications based on Center projects:*

- Attached is a summary of grant awards awarded to Center members in the past 5 years.
- Individual Center members or groups of 2 or more Center members received grant awards, including 3 SOM seed grant awards. Please see more detailed list of grants in the section titled “Funding.”

*Number of medical students participating in research activities related to integrative health:*

- Approximately 10 medical students are involved in research activities related to integrative health. Need to promote more in 2020.

*Others*

- Center members are active in teaching medical students, graduate students, and undergraduate students from TTUHSC and TTU.

**Descriptions of Center Progress and Activities**

*Include training activities, meetings sponsored, research, education, services, ongoing research projects, and intellectual property development.*

Listed are the following activities that were not included in the Achieved Goals and Objectives section above:

- The steering committee has met twice a year and reviewed the progress of each goal. The meeting minutes and strategic adjustments were documented in a timely fashion and shared with responsible parties.
- Center members have met once a year at the Annual Membership Meeting and presented/shared research highlights.
- Co-sponsored and hosted the 2<sup>nd</sup> Annual Integrative Medicine Symposium on April 12, 2019, with ~ 80 attendants in attendance. Two keynote speakers included Drs. Margaret A. Chesney (Presentation title: Combating the opioid crisis: integrative approaches for pain management) and Bruce A. Watkins (Presentation title: Natural products and chronic pain). Printed Center banner and used in promotion of symposium.
- Sponsored two medical students to participate in the 2019 Medical Student Summer Research Program.

- Worked with Department of Medical Education for summer rotation activities of the Family Medicine Accelerated Track (FMAT) to apply integrative health to chronic disease management.
- TTUHSC is an active member of the Academic Consortium for Integrative Medicine and Health. <https://imconsortium.org/>

### **Publications, Presentations, and Other Scholarly Activity**

Please see attached appendix for list of publications, presentations, and other scholarly activity from our 25 Center members who provided this information to include in the report.

### **Funding**

*List grants submitted, grants funded, endowments, program project/center grants, and contracts.*

Please see attached appendix for table of past 5 years of grant activity from Center members.

### **Future Plans**

*Include areas in need of improvement and detailed, proposed solutions.*

The following areas are our 2020 plans:

- To promote Center visibility locally and nationally.  
*Locally:* To organize the 2020 CEIH symposium planning committee for upcoming annual CEIH meetings.  
*Nationally:* To present our Center progress/update at the upcoming 2020 International Congress on Integrative Medicine and Health on April 28, 2020, in Cleveland, OH.
- To host the 2020 Center Steering Committee Meeting in spring 2020 regarding the future direction of CEIH.
- To host the 2020 Center Membership Meeting in spring-summer 2020.
- To increase research collaboration/discussion among center members as evidenced by increased collaborative grant proposal submissions and manuscript publications.
- To promote integrative health/medicine in medical student education.
- To continue public and professional integrative health/medicine education.
- To continue professional training in Integrative Medicine Education for medical student electives and clubs, and in grand rounds for Internal Medicine residents and Family Medicine palliative care fellows.
- To provide research opportunities for medical students or trainees.
- To provide seed funding for center members in collecting preliminary data for future proposal submission.
- To provide/exchange information at the Academic Consortium for Integrative Medicine and Health with center members for career development/growth in the area of Integrative Medicine and Health.

**Other Highlights**

*Provide any other information not already covered in this report.*

**Budget**

*Include itemized expenses, and proposed budget for upcoming fiscal year.*

**2019 & Current:**

- There is currently no budget designated from the School of Medicine for CEIH.
- The Center received funding of \$17,174 from a Center member, Dr. Yan Zhang's, unspent seed grant fund.

## 2019 CEIH ANNUAL REPORT

### PUBLICATIONS, PRESENTATIONS, AND OTHER SCHOLARLY ACTIVITY

#### AL-RAHAWAN, MOHAMAD

##### **Publications**

1. Turner A, Preston D, Mamlok V, Belirgen M, Al-Rahawan MM. Atypical Presentation of Multinodular and Vacuolating Neuronal Tumor of the Cerebrum in a Boy, *J Neurosci Rural Pract*. 2019, In Press.
2. Averitt G, Al-Rahawan MM, Levent F. Neonatal Disseminated Herpes Simplex Virus Infection Triggering Extreme Hyperferritinemia Concerning for Hemophagocytic Lymphohistiocytosis. *J Investig Med High Impact Case Rep*. 2019 Jan-Dec; 7: 2324709619862840.
3. Eldem İ, Al-Rahawan MM, Levent F. How to Treat Cytomegalovirus-induced Hemophagocytic Lymphohistiocytosis in a Child With Leukemia. *J Pediatr Hematol Oncol*. 2019 Jul 10

##### **Presentations**

##### **Other Scholarly Activity**

- |   |             |
|---|-------------|
| • Alex Lemonade Stand Foundation                          | \$38,807.00 |
| • South Plains Foundation                                 | \$13,000.00 |
| • Local PI for UMC at the Children's Oncology Group (COG) | \$16,450.00 |
| • Joon Park, MD; UMC Endowed Chair in Medical Excellence  | \$30,000.00 |
| • Cancer Prevention & Research Institute of Texas (CPRIT) | \$73,398.00 |

#### BLANTON, MICHAEL

##### **Publications**

##### **Presentations**

##### **Other Scholarly Activity**

1. September 1, 2018 - August 31, 2019, Blanton MP, Blanton Research Support from GSBS, \$9,000 (Total Amount). (Funded)
2. September 1, 2019 - August 31, 2020, Blanton MP, Blanton Research Support from GSBS, \$9,000 (Total Amount). (Funded)

#### BRISMÉE, JEAN-MICHEL

##### **Publications**

1. Mabry LM\*, Boyles RE, Brismée JM, Agustsson H, Smoliga JM. Physical Therapy Musculoskeletal Imaging Authority: A Survey Of The World Confederation For Physical Therapy Nations. *Physiotherapy Research International*. 2019:e1822. <https://onlinelibrary.wiley.com/doi/epdf/10.1002/pri.1822>
2. Davis AJ, Wilhelm MP, Pendergrass TJ, Sechrist DA, Brismée JM, Sizer PS, Gilbert KK\*. Anatomical Relationship of Palmar Carpal Bone Landmarks Used in Locating the Lunate and Capitate During Palpation: A Cadaveric Investigation. *Journal of Hand Therapy*. 2019;32(4):463-469.
3. Riley SP\*, Tafuto V, Cote M, Brismée JM, Wright A, Cook C. Reliability and Relationship of the Fear-Avoidance Beliefs Questionnaire with the Shoulder Pain and Disability Index and Numeric Pain Rating Scale in Patients with Shoulder Pain. *Physiotherapy Theory and Practice*. 2019;35(5):464-470.
4. Brismée JM\*. The Journal of Manual and Manipulative Therapy is now Indexed in MEDLINE. *Journal of Manual and Manipulative Therapy*. 2019;27(4):185.
5. Majdalani C, Boudier-Revéret M, Pape JM, Brismée JM, Michaud J, Luong DH, Grabs D, Chang KV, Chen WS, Wu CH, Sobczak S. Accuracy of Two Ultrasound-Guided Coracohumeral Ligament Injection Approaches: A Cadaveric Study. *Physical Medicine and Rehabilitation*. 2019;11(9):989-995.
6. Hage R, Buisseret F, Pitance L, Brismée JM, Detrembleur C, Dierick F. Head-Neck Rotational Movements Using Didren Laser Test Indicate Children and Seniors' Lower Performance. *PLoS One*. 2019;14(7):e0219515 <https://journals.plos.org/plosone/article/file?id=10.1371/journal.pone.0219515&type=printable>.
7. Riley SP, Swanson BT, Brismée JM, Sawyer SF, Dyer EJ. Low reproducibility of randomized clinical trials methodology related to sampling: a systematic methodological review. *Journal of Manual and Manipulative Therapy*. 2019;27(1):1-9.

8. Tammany J, O'Connell J, Allen B, Brismée JM. Are Productivity Goals in Rehabilitation Practice Associated with Unethical Behaviors? *Archives of Rehabilitation Research and Clinical Translation*. 2019;1,100002  
<https://reader.elsevier.com/reader/sd/pii/S2590109519300011?token=21835A30E86D5D7C546787F9B461957EA144F67DDF08884DA211BA55A27FA908D0F622597DFA466A8C75FB81AA65982A>
9. Froment FP\*, Olson KA, Hooper TL, Shaffer SM, Sizer PS, Woodhouse LJ, Brismée JM. Large Variability Found in Musculoskeletal Physiotherapy Scope of Practice Throughout WCPT and IFOMPT Affiliated Countries: An International Survey. *Musculoskeletal Science and Practice*. 2019;42:104-119.
10. Kearns G, Fernández-De-Las-Peñas C, Brismée JM, Gan J, Doidge J. New perspectives on dry needling following a medical model: are we screening our patients sufficiently? *Journal of Manual and Manipulative Therapy*. 2019;19:1-8.

## **Presentations**

## **Other Scholarly Activity**

## **DUFOUR, JANNETTE**

### **Publications**

1. Kaur G, Wright K, Greer RH, Mueller K, Haynes A, Dufour JM. Chapter 6: Sertoli cell immune regulation within in the testis. In: C. Yan Cheng (Ed.) *Spermatogenesis: Biology and Clinical Implications*. CRC Press 2018
2. Kaur G, Thompson LA, Babcock RL, Mueller K, Dufour JM. 2018 Sertoli cells engineered to express insulin lower blood glucose in diabetic mice. *DNA and Cell Biology* doi: 10.1089/dna.2017.3937. *Cover photo*
3. Kaur G, Dufour JM. 2018 An update on the School of Medicine's Medical Student Research Program at Texas Tech University Health Sciences Center. *The Southwest Respiratory and Critical Care Chronicles* doi: 10.12746/swrccc.v6i24.471.
4. Kaur G, Helmer RA, Smith LA, Martinez-Zaguilan R, Dufour JM, Chilton BS. 2018 Alternative splicing of helicase-like transcription factor (Hlft): intron retention-dependent activation of immune tolerance at the fetomaternal interface. *PLOS One* 13(7) doi: 10.1371/journal.pone.0200211
5. Shen CL, Kaur G, Wanders D, Sharma S, Tomison MD, Ramalingam L, Chung E, Moustaid-Moussa N, Mo H, Dufour JM. 2018 Annatto-extracted tocotrienols improve glucose homeostasis and bone properties in high-fat diet-induced type II diabetic mice by decreasing the inflammatory response. *Scientific Reports* 8(1):11377 doi:10.1038/s41598-018-29063-9.
6. Chung E, Campise SN, Joiner HE, Tomison MD, Kaur G, Dufour JM, Cole L, Ramalingam L, Moustaid-Moussa N, Shen CL. 2019 Effect of annatto-extracted tocotrienols and green tea polyphenols on glucose homeostasis and skeletal muscle metabolism in obese male mice. *Journal of Nutritional Biochemistry* 67:36- 43. doi: 10.1016/j.jnutbio.2019.01.021.
7. Kaur G, Dufour JM. 2019 Highlighting the importance of medical research: School of Medicine medical student research program. *The Southwest Respiratory and Critical Care Chronicles* doi: 10.12746/swrccc.v7i29.550.
8. Chung E, Grue KA, Kaur G, Mallory B, Serrano CR, Ullevig SL, Kottapalli KR, Lee SC, Dufour JM, Shen CL, Umeda M. 2019 Maternal exercise before and during pregnancy alleviates metabolic dysfunction associated with high-fat diet in pregnant mice, without significant changes in gut microbiota. *Nutrition Research* 69: 42-57. DOI: 10.1016/j.nutres.2019.08.002
9. Kaur G, Wright K, Verma S, Haynes A, Dufour JM. The good, the bad and the ugly of testicular immune regulation: a delicate balance between immune function and immune privilege. *Molecular Mechanisms in Spermatogenesis* (in press).

### **Abstracts**

1. Shen CL, Tomison MD, Ramalingam L, Chung E, Moustaid-Moussa N, Dufour J. Synergistic effect of dietary delta-tocotrienol and geranylgeraniol on bone properties in obese C57BL/6J mice with obesity-associated type 2 diabetes mellitus. *International Congress on Integrative Medicine & Health* (Baltimore, MD, May 8-11, 2018).
2. Wankhade U, Chintapalli S, Piccolo BD, Tomison MD, Wright K, Gabrielska R, Kaur G, Dufour J, Shankar K, Shen CL. Effects of tocotrienol and statin supplementation on microbiome and glucose homeostasis in inbred obese mice. *Nutrition* 2018. (Boston, MA, June 9-12, 2018). (Oral Presentation)
3. Mueller K, Dufour J. The Effects of Genetically Engineered Sertoli Cell produced C-peptide on Expression of Key Endothelial Cell Genes in Hyperglycemic Environments. 2018 American Physician Scientists Association South Regional Meeting (Houston, TX, September 29, 2018).
4. Wright K, Kaur G, Mital P, Dufour J. Induction of regulatory macrophages after Neonatal Pig Sertoli cell xenotransplantation. 2018 American Physician Scientists Association South Regional Meeting (Houston, TX, September 29, 2018). (Best Poster)

5. Kaur G, Dufour JM. Mechanisms of Sertoli Cell Immune Regulation. 52<sup>nd</sup> Annual Gene Families and Isozymes (GFI) Conference (Protrero, Costa Rica, December 6, 2018). (Mini-symposium)
6. Kaur G, Helmer RA, Dufour JM, Chilton BS. Hltf-deletion causes immune destruction of pancreatic beta cells during development. ENDO 2019 (New Orleans, LA, March 23, 2019).
7. Dufour JM, Kaur G. Mechanisms of Sertoli Cell Immune Regulation. 44<sup>st</sup> Annual American Society of Andrology Meeting (Chicago, Illinois, April 6-9, 2019). (Mini-symposium)
8. Shen CL Kaur G, Dufour JM, Ramalingam L, Chung E, Moustaid-Moussa N, Chao JJ. Effect of geranylgeraniol and green tea polyphenols on high-fat-diet-induced bone deterioration in male B6 mice. Nutrition 2019 (Baltimore, MD June 8-11, 2019).
9. Dufour JM, Mueller K, Moreno T, Kaur G. Effects of Sertoli cell secreted C-Peptide on high glucose induced endothelial cell damage. 52<sup>th</sup> Annual Meeting for the Society for the Study of Reproduction (San Jose, CA, July18-21, 2019).

### **Presentations**

1. Using Sertoli Cells to Treat Diabetes. Center of Emphasis in Diabetes and Metabolism, Biomedical Sciences, TTUHSC (El Paso, TX, September 12, 2018).
2. Using Sertoli Cells to Treat Diabetes. Student and Faculty Retreat, Graduate School of Biomedical Sciences (Lubbock, TX, September 21, 2018) (Keynote Lecture)
3. Mechanisms of Sertoli Cell Immune Regulation. 52<sup>nd</sup> Annual Gene Families and Isozymes (GFI) Conference (Bahia del Sol, Potrero, Costa Rica, December 6, 2018)
4. Mechanisms of Sertoli Cell Immune Regulation. "Fertility and Men's Health" American Society of Andrology 44<sup>st</sup> Annual Conference (Chicago, IL, April 6-9, 2019).

### **Other Scholarly Activity**

1. Wilson Foundation, "Genetically engineered Sertoli cells as a vehicle for cell based gene therapy." (\$420,000, 12/01/2014-11/30/2020)
2. Dufour (Principal Investigator), Kaur (Co- Investigators). Ted Nash Long Life Foundation, "Reducing cardiovascular risks using Sertoli cell-based gene therapy." (\$300,000, 12/01/2016-11/30/2019)
3. Dufour (Principal Investigator), Kaur (Co- Investigators). Laura W. Bush Institute for Women's Health and University Medical Center Women's Health Seed Grant Award, "Utilizing tocotrienols to prevent the formation of islet amyloid deposits – a novel treatment for diabetes mellitus.," (\$20,000, 11/1/2017-10/31/2019)
4. Kaur (Principal Investigator), Dufour, Shen, Cornwall (Co- Investigators). NIH R15AI109398, "Regulatory T cells to improve Sertoli cell protection of transplanted islets." (\$448,871, 07/01/2014 – 06/30/2017, no cost extension to 6/30/2018) Dufour (Principal Investigator)
5. South Plains Foundation "Examining the mechanism of porcine Sertoi cell survival to improve xenotransplantation." (\$15,0000 Total, 9/01/2017–08/31/2018). Kaur (Principal Investigator), Dufour (Co- Investigators)

## **ENKPENE, CHRISTOPHER A**

### **Publications**

1. Della Torre MD, Enakpene C, Ravagard S, et al. Pharmacokinetics of 17-alpha hydroxyporgesterone caproate (17-OHPC) in singleton pregnancy and its influence of maternal body size measures. American Journal of Obstetrics and Gynecologist MFM. 2Volume 1, Issue 4, November 2019, 100051.
2. Majeed NK, Oramas D, Lindgren V, Garzon S, Wiley DE, Enakpene C, Emmadi R. A Case of Osteogenesis Imperfecta Type II With Additional Balanced Translocation t(1;20)(p13;p11.2). Fetal Pediatr Pathol. 2019 Jun;38(3):263-271.
3. Enakpene CA, Pontarelli KN, Della Torre M. Comparison of Continuation of Low-Molecular-Weight Heparin versus Switching to Unfractionated Heparin in the Peripartum. American Journal of Perinatology. 2019 Feb 28. doi: 10.1055/s-0039-1678667, PMID: 30818405
4. Reply to letter to the editor Enakpene CA, DiGiovanni L, Della Torre M American Journal of Obstetrics and Gynecologist. 2019 Feb; 220 (2): 210. Doi: 10.1016/j.ajog.2018.10.019. PMID: 30342002.

### **Presentations**

1. Della Torre MD, Enakpene CA, Ravangard S, Sutherland M, DiGiovanni L, Whelan A, Fischer JH. Influence of maternal body size on pharmacokinetics of weekly 17 alpha Hydroxyprogesterone Caproate (17OHPC). AJOG, January 2019Volume 220, Issue 1, Supplement, Pages S15–S16

2. Sutherland MB, Garvey S, Enakpene, CA, DiGiovanni LM, Della Torre M. Barriers to Vaginal Progesterone in the Treatment of Incidental Short Cervix. *Obstetrics & Gynecology*: May 2019 - Volume 133 - Issue - p 91S-92S doi: 10.1097/01.AOG.0000558766.94444.2c
3. Enakpene CA, Jones TN. Della Torre M, Knazze LR, Jin M, DiGiovanni LM. Perinatal Outcomes of Gestational Impaired Glucose Tolerance Without Diagnosis of Gestational Diabetes. *Obstetrics & Gynecology*: May 2019 - Volume 133 - Issue - p 56S-57S doi: 10.1097/01.AOG.0000559013.88531.70
4. Enakpene CA, Tan C, Morgan T, Sutherland MB; DiGiovanni LM, Della Torre M. Prenatal Genetic Diagnostic Testing in the Era of Cell Free Fetal DNA For Aneuploidy Screening. *Obstetrics & Gynecology*: May 2019 - Volume 133 - Issue - p 44S doi: 10.1097/01.AOG.0000558967.83655.63

### **Other Scholarly Activity**

### **KAUR, GURVINDER**

#### **Publications**

1. Helmer RA, Kaur G, Smith LA, Chilton BS. 2019 Helicase-like transcription factor (Hltf) gene-deletion promotes oxidative phosphorylation (OXPHOS) in colorectal tumors of AOM/DSS-treated mice. *PLoS ONE* 14(8): e0221751.
2. Kaur G, Dufour JM. 2019 Highlighting the importance of medical research: School of Medicine medical student research program. *The Southwest Respiratory and Critical Care Chronicles* 7(29):1-2.
3. Chung E, Grue KA, Kaur G, Mallory B, Serrano CR, Ullevig SL, Kottapalli KR, Lee SC, Dufour JM, Chen CL, Umeda M. 2019 Maternal exercise before and during pregnancy alleviates metabolic dysfunction associated with high-fat diet in pregnant mice, without significant changes in gut microbiota. *Nutr Res.* 69: 42-47.
4. Chung E, Campise SN, Joiner HE, Tomison MD, Kaur G, Dufour JM, Cole L, Ramalingam L, Moustaid-Moussa N, Chen CL. 2019 Effect of annatto-extracted tocotrienols and green tea polyphenols on glucose homeostasis and skeletal muscle metabolism in obese male mice. *J Nutr Biochem.* 10(67): 36-43.

#### **Presentations**

1. Dufour JM, Mueller K, Moreno T, Kaur G. Effects of Sertoli cell secreted C-peptide on high glucose induced endothelial cell damage. 52<sup>nd</sup> Annual Meeting for the Society for the Study of Reproduction (San Jose, CA, July 18-21, 2019).
2. Kaur G, Lee VH, Williams S, Higgins K, Schneider B. Can formative assessments preemptively identify “at risk” medical students? American Association of Clinical Anatomists (ACCA) Annual Meeting (Tulsa, OK, June 11-15, 2019). *Published in Clinical Anatomy Journal (Finalist for AACA Clinical Anatomy Membership Award)*.
3. Shen CL, Kaur G, Dufour JM, Ramalingam L, Chung E, Moustaid-Moussa N, Cao JJ. Effect of geranylgeraniol and green tea polyphenols on high-fat-diet-induced deterioration in male C57BL/6J mice. Annual Nutrition Science Meeting (Baltimore, MD, June 8-11, 2019).
4. Kaur G, Dufour JM. Mechanisms of Sertoli cell immune regulation. Fertility and Men’s Health, American Society of Andrology 44<sup>th</sup> Annual Conference (Chicago, IL, April 6-9, 2019). (Oral presentation).
5. Kaur G, Helmer RA, Dufour JM, Chilton BS. 2019 Hltf-deletion causes immune destruction of pancreatic beta cells during development. ENDO 2019 (New Orleans, LA, March 23- 26, 2019).
6. Jones B, Benejan K, Brown T, Darter J, Edwards D, Kaur G, Kruczek C, Loya C, Mendez E, Mitchell J, Pires B, Reynolds J, Sorenson J. A Student-Generated, Peer-Led teaching activity for MSK and bone disorders. 2019 Society of Teachers of Family Medicine (STFM) Conference on Medical Student Education (Jacksonville, FL, Jan 31-Feb 3, 2019).

### **Other Scholarly Activity**

Jasper & Jack Wilson Foundation (\$50,000) Kaur (Co-I, 3% effort) 12/01/2018-11/30/2020

Genetically Engineered Sertoli Cells as Vehicle Cell Based Gene therapy.

The focus of this project is to genetically engineer Sertoli cells with insulin in order to use these immune privileged cells as a vehicle for cell-based gene therapy, specifically ameliorating diabetes.

### **LEE, JAEHOON**

#### **Publications**

1. Alsayedhassan, B., Banda, D., Lee, J., Kim, Y.\*, & Griffin-Shirley, N. (2019). A survey of parents’ perceptions of the picture exchange communication system for children with autism spectrum disorders and other developmental disabilities. *Clinical Archives of Communication Disorders*, 4(1), 1–9.
2. Alsayedhassan, B., Lee, J., Banda, D., Kim, Y.\*, & Griffin-Shirley, N. (in press). Practitioners’ perceptions of the picture exchange communication system for children with autism. *Disability and Rehabilitation*.

3. Chu, S.-Y., Barlow, S. M., Lee, J., & Wang, J. (in press). Effects of utterance rate and length on the spatiotemporal index in Parkinson's disease. *International Journal of Speech-Language Pathology*.
4. Emerson, A. M., Smith, S., Lee, J., Kelly, P. J., & Ramaswamy, M. (in press). Effectiveness of a Kansas City, jail-based intervention to improve cervical health literacy and screening, one-year post-intervention. *American Journal of Health Promotion*.
5. Hunt, P., Kozleski, E., Lee, J., Mortier, K., Fleming, D., Hicks, T., Balasubramanian, L., Leu, G., Bross, L. A., Munandar, V., Dunlap, K., Stepaniuk, I., Aramburo, C., & Oh, Y.\* (in press). Implementing comprehensive literacy instruction for students with severe disabilities in general education classrooms. *Exceptional Children*.
6. Jung, K., Cho, S., Lee, J., Kim, S.\*, & Ryoo, J. (in press). An illustrative application of generalized structured component analysis for brain connectivity research. *Behaviormetrika*.
7. Jung, K., Lee, J., Gupta, V., & Cho, G. (in press). Comparison of bootstrap confidence interval methods for GSCA using Monte Carlo simulations. *Frontiers in Psychology*, 10, 2215.
8. Kim, S. Y., Lee, J., Wester, S., & Fouad, N. A. (in press). Do "manly" men believe other men are happier? Social comparison, masculine norms, and positive work-family spillover. *Psychology of Men & Masculinity*.
9. Loeb, D. F., Imgrund, C. M., Lee, J., Barlow, S. M. (in press). Language, motor, and cognitive outcomes of toddlers who were born preterm. *American Journal of Speech-Language Pathology*.
10. Pati, D., Valipoor, S., Cloutier, A., Yang, J., Freier, P., Harvey, T. E., & Lee, J. (in press). Physical design factors contributing to patient falls. *Journal of Patient Safety*.
11. Ptomey, L. T., Washburn, R. A., Lee, J., Greene, A. N., Szabo-Reed, A. N., Sherman, J. R., Danon, J. C., Osborne, L. N., Little, T. D., & Donnelly, J. E. (in press). Individual and family-based approaches to increase physical activity in adolescents with intellectual and developmental disabilities: Rationale and design for an 18 month randomized trial. *Contemporary Clinical Trial*.
12. Smith, P., Kumi-Yeboah, A., Chang, R., Lee, J., & Frazier, P. (in press) Rethinking '(under)performance' for Black English speakers: Beyond achievement to opportunity. *Journal of Black Studies*.
13. Szabo-Reed, A. N., Willis, E., Lee, J., Hillman, C. H., Washburn, R. A., & Donnelly, J. E. (2019). The influence of classroom physical activity participation and time-on-task on academic achievement. *Translational Journal of the American College of Sports Medicine*, 4(1), 84 –95.

### **Presentations**

1. Count, Multicategory, & Survival, Dept. of Psychology, Indiana University–Purdue University Indianapolis, Indianapolis, IN, 09/2019.
2. Propensity Score Methods for Applied Clinical Research, Menninger Dept. of Psychiatry and Behavioral Sciences, Baylor College Medicine, Houston, TX, 08/2019.

### **Other Scholarly Activity**

1. A dyadic approach for a remote physical activity intervention in adults with Alzheimer's disease and their caregivers, Donnelly & Ptomey (PIs), NICHD R01HD094704, 09/15/2019–05/31/2024, \$3,635,657.
2. Revised Calculus Concept Inventory: Measuring the learning gains of first year calculus students, Moskal (PI), NSF 1916751, 10/01/2019-09/30/2022, \$300,000.
3. Sexual health empowerment for jail-involved women's health literacy and prevention, Ramaswamy (PI), NCI R01CA181047, 04/01/2019–03/31/2024, \$1,602,097
4. Teacher Incentive Allotment, Hamman (PI), Texas Education Agency, 11/01/2019–10/31/2020, \$7,904,193
5. Competitive Edge Seed Grant: Development of institutional research analytics tools and platform, Jung & Lee (PIs), Texas Tech University, 06/01/2019–08/31/2021, \$15,000.
6. International Research and Development Seed Grant: Development of a new machine learning-based predictive model for ADHD diagnosis using ADHD-200 brain imaging datasets, Jung & Lee (PIs), Texas Tech University, 09/01/2019–08/31/2020, \$2,000.
7. The influence of parents' work-family conflict on adolescents' school-work-family conflict, academic and psychological well-being: A daily diary study (Kim, PI), Texas Tech University, 01/01/2019–12/31/2019, \$4,000.

## **LEE, SUEANN**

### **Publications**

1. Lee SAS (2019). Virtual speech-language therapy for individuals with communication disorders: Current evidence, limitations, and benefits. *Current Developmental Disorders Reports*.
2. Bae Y, Lee SAS, \*Velik K, \*Liu Y, \*Beck C, Fox R. (Accepted) Differences in nasalance and nasal perception between Texas South and Midland dialect in English. Accepted for publication, Journal of Acoustical Society of America

### **Presentations**

1. Lee SAS (2019). Assessment and Intervention for pediatric speech disorders, 40 hour workshop. Vietnam National University, School of Medicine, Hanoi, Vietnam. 2019
2. Lee SAS (2019) Introduction to Evidence-Based Practice in Speech-Language Pathology, Dept of Communication sciences and disorders, Dae Gu University. 2019

### **Other Scholarly Activity**

1. Lee SAS (PI) "Teaching words and grammatical morphology via telepractice". The CH Foundation, Lubbock TX, \$27,000
2. Lee SAS (PI) Effectiveness of telepractice intervention for children with SLI. Seed grant for submitting a federal grant agency (NIH), TTUHSC, School of Health Professions. \$10,000
3. Lee SAS (PI) Fulbright Research and Teaching grant to Vietnam, US Department of State. Project title: Phonological development milestones in Vietnamese-speaking children. \$40,000

## **LUK, HUIYING**

### **Publications**

1. Luk, HY., Levitt, DE., Boyett, JC., Rojas, S., Flader, SM., McFarlin, BK., Vingren, JL. (2019). Resistance exercise-induced hormonal response promotes satellite cell proliferation in untrained men but not in women, *American Journal of Physiology: Endocrinology and Metabolism*, 317: E421-E432.

### **Presentations**

### **Other Scholarly Activity**

## **MOUSTAID MOUSSA, NAIMA**

### **Publications**

1. Oliveira TE, Castro E, Belchior T, Andrade ML, Silva MO, Moreira RJ, Moreno MF, Chaves-Filho AB, Inague A, Yoshinaga MY, Miyamoto S, Moustaid-Moussa N, Festuccia WT. Uncoupling protein 1-mediated thermogenesis is not involved in the protection from obesity and glucose intolerance induced by a high fish oil diet. *Mol Nutr Food Res* 2019 Apr; 63(7): e1800813. doi: 10.1002/mnfr.201800813.
2. Pahlavani M, Ramalingam L, Scoggin S, Festuccia WT, Moustaid-Moussa N. At thermoneutrality, uncoupling protein 1 is not required for regulation of brown adipose tissue and energy metabolism by eicosapentaenoic acid. *Mol Nutr Food Res* 2019 Apr; 63(7):e1800821. doi: 10.1002/mnfr.201800821
3. Bouyanfif A, Jayarathne S, Koboziev I, Moustaid-Moussa N. The nematode *C. elegans* as a model organism to study metabolic effects of omega 3 polyunsaturated fatty acids in obesity. *Adv Nutr* 10(1):165-178, 2019
4. Maqsudur Rashid A, Ramalingam L, Al-Jawadi A, Moustaid-Moussa N, Moussa H. Low dose radiation, inflammation, cancer and chemoprevention. *Int J Radiat Biol*. 2019 Apr;95(4):506-515. doi: 10.1080/09553002.2018.1484194.
5. Albracht-Schulte K, Gonzalez S, Jackson A, Wilson S, Ramalingam L, Kalupahana NS, Moustaid-Moussa N. Eicosapentaenoic Acid Improves Hepatic Metabolism and Reduces Inflammation Independent of Obesity in High-Fat-Fed Mice and in HepG2 Cells. *Nutrients* 12; 11 (3), 2019
6. Menikdiwela KR, Ramalingam L, Allen L, Scoggin S, Kalupahana NS, Moustaid-Moussa N. Angiotensin II Increases Endoplasmic Reticulum Stress in Adipose Tissue and Adipocytes. *Sci Rep* 9 (1):8481, pages 1-14; 2019 [Current IF: 4.122; 5 Year IF: 4.7]
7. Kumar N, Awoyemi O, Willis A, Schmitt C, Ramalingam L, Moustaid-Moussa N, Crago J. Comparative Lipid Peroxidation and Apoptosis in Embryo-Larval Zebrafish Exposed to 3 Azole Fungicides, Tebuconazole, Propiconazole, and Myclobutanil, at Environmentally Relevant Concentrations. *Environ Toxicol Chem* 38(7):1455-1466, 2019
8. Chung E, Campise SN, Joiner HE, Tomison MD, Kaur G, Dufour JM, Cole L, Ramalingam L, Moustaid-Moussa N, Shen CL. Effect of annatto-extracted tocotrienols and green tea polyphenols on glucose homeostasis and skeletal muscle metabolism in obese male mice. *J Nutr Biochem* 67:36-43, 2019.
9. Ramalho T, Ramalingam L, Filgueiras L, Jancar S, Moustaid-Moussa N. Leukotriene-B4 modulates macrophage metabolism and fat loss in type 1 diabetic mice. In review. *J Leukoc Biol* 2019 Jun 26. doi: 10.1002/JLB.MA1218-477RR
10. Jayarathne S, Stull AJ, Park OJ, Kim JH, Thompson L, Moustaid-Moussa N. Protective effects of anthocyanins in obesity-associated inflammation and changes in gut microbiome. *Mol Nutr Food Res* 2019 Oct;63(20):e1900149. doi: 10.1002/mnfr.201900149. Epub 2019 Aug 26

11. Kahathuduwa CN, West BD, Blume J, Dharavath N, Moustaid-Moussa N, Mastergeorge A. The risk of overweight and obesity in children with autism spectrum disorders: A systematic review and meta-analysis. *Obes Rev*. 2019 Dec;20(12):1667-1679. doi: 10.1111/obr.12933. Epub 2019 Oct 8. Review.
12. Rasha F, Ramalingam L, Gollahon L, Rahman RL, Rahman SM, Menikdiwela K, Moustaid-Moussa N. Mechanisms linking the renin-angiotensin system, obesity, and breast cancer. *Endocr Relat Cancer*. 2019 Dec 1;26(12):R653-R672. doi: 10.1530/ERC-19-0314. Review.
13. Rivas E, Crandall CG, Suman OE, Moustaid-Moussa N, Ben-Ezra V. Exercise heat acclimation causes post-exercise hypotension and favorable improvements in lipid and immune profiles: A crossover randomized controlled trial. *J Therm Biol*. 2019 Aug;84:266-273. doi: 10.1016/j.jtherbio.2019.07.017. Epub 2019 Jul 13.
14. Albracht-Schulte K, Rosairo S, Ramalingam L, Wijetunge S, Ratnayake R, Kotakadeniya H, Dawson JA, Kalupahana NS, Moustaid-Moussa N. Obesity, adipocyte hypertrophy, fasting glucose, and resistin are potential contributors to nonalcoholic fatty liver disease in South Asian women. *Diabetes Metab Syndr Obes*. 2019 Jun 10;12:863-872. doi: 10.2147/DMSO.S203937. eCollection 2019.
15. Ramalho T, Ramalingam L, Filgueiras L, Festuccia W, Jancar S, Moustaid-Moussa N. Leukotriene-B4 modulates macrophage metabolism and fat loss in type 1 diabetic mice. *J Leukoc Biol* 2019 Sep;106(3):665-675. doi: 10.1002/JLB.MA1218-477RR. Epub 2019 Jun 26.
16. Menikdiwela KR, Ramalingam L, Allen L, Scoggin S, Kalupahana NS, Moustaid-Moussa N. Angiotensin II Increases Endoplasmic Reticulum Stress in Adipose Tissue and Adipocytes. *Sci Rep* 2019 Jun 11;9(1):8481. doi: 10.1038/s41598-019-44834-8.

Synergistic effects of tart cherry anthocyanins and omega 3 fatty acids	USDA NIFA	2019-2022	PI
Maternal dietary obesity and metabolic disorders in offspring	AHA	2017-2019	Co-I
Gene and miRNA networks mediating effects of fish oil	USDA NIFA Postdoctoral fellowship (Mandana Pahlavani)	2018-2020	Mentor/Sponsor
Role of HSP proteins in diabetes and obesity	Qatar Biomedical Research Institute	2018-2020	PI
Effects of lean beef proteins and pH on reducing obesity, diabetes and cancer	Empirical Foods Inc	2018-2021	PI
Systematic Review on role of beef proteins on gut microbiome	NBCA (Beef checkoff)	2019	PI
miRNAs mediating effects of omega 3 fatty acids in fatty liver disease	USDA Pre-doctoral fellowship (Kembra Albracht-Schulte)	2017-2019	Mentor/Sponsor
Antiobesity effects of omega 3 fatty acids in brown adipose tissue	NIH/NCCIH	2016-2020	PI
Protective effects of omega 3 fatty acids in Alzheimer's Disease	Supplement to above award from NIA	2018-2020	PI

## **NEUGEBAUER, VOLKER**

### ***Publications***

1. Navratilova E, Ji G, Phelps CE, Qu C, Hein M, Yakhnitsa V, Neugebauer V, Porreca F. Kappa opioid signaling in the central nucleus of the amygdala promotes disinhibition and aversiveness of chronic neuropathic pain. *Pain* 160:824–832, 2019. PMID 30681985. *PMC6424634*. [Featured Article: Editor's Choice].
2. Boccella S, Marabese I, Iannotta M, Belardo C, Neugebauer V, Mazzitelli M, Pieretti G, Maione S, Palazzo E. Metabotropic glutamate receptor 5 and 8 modulate the ameliorative effect of ultramicrosized palmitoylethanolamide on cognitive decline associated with neuropathic pain. *Int J Mol Sci* 20:1757, 2019. PMID: 30970677. *PMC6480075*.
3. Mazzitelli M, Neugebauer V. Amygdala group II mGluRs mediate the antinociceptive effects of a systemic group II agonist in a rodent model of arthritis pain. *Neuropharmacology* 158:107706, 2019. PMID: 31306647. *PMC6745268*.
4. Ji G, Neugebauer V. Contribution of CRF1 receptor to 5-HT2C receptor function in amygdala neurons in a neuropathic pain model. *Int. J. Mol. Sci.* 20:4380. 2019. PMID: 31489921. *PMC6770811*
5. Navratilova E, Nation K, Remeniuk B, Neugebauer V, Bannister K, Dickenson AH, Porreca F. Selective modulation of tonic aversive qualities of neuropathic pain by morphine in the right central nucleus of the amygdala requires endogenous opioid signaling in the anterior cingulate cortex. *Pain (in press)* PMID: 31725062 DOI: 10.1097/j.pain.0000000000001748.

- Chen Y, Moutal A, Navratilova E, Kopruszinski C, Yue X, Ikegami M, Chow M, Kanazawa I, Bellampalli SS, Xie J, Patwardhan A, Rice KC, Fields HL, Akopian A, Neugebauer V, Dodick D, Khanna R, Porreca F. The prolactin receptor long isoform regulates nociceptor sensitization and opioid-induced hyperalgesia selectively in females. *Sci Translat Med (accepted)*.
- Thompson JM, Neugebauer V. Cortico-limbic pain mechanisms. *Neurosci. Lett.* 702:15-23, 2019. PMID 30503916. *PMC6520155*.
- Palazzo E, Neugebauer V, Maione, S. Metabotropic glutamate receptors and neurological/psychiatric disorders. *Front Mol Neurosci* 12:67-68, 2019. PMID: 30967761. *PMC6438890*.

### **Abstracts 2019**

- Mazzitelli, M., Neugebauer, V. Group II metabotropic glutamate receptors, particularly mGluR2, in the amygdala regulate sensory and affective responses in a rodent model of arthritis pain. 31<sup>st</sup> Annual Student Research Week, TU48, p. 30, 2019.
- Presto, P.D., Ji, G., Neugebauer, V. Sex differences in fear extinction learning ability predicting pain behaviors. 31<sup>st</sup> Annual Student Research Week, TH78, p. 86, 2019.
- D'Souza, P., Kiritoshi, T., Yakhnitsa, V., Neugebauer, V. Assessing the activity of CRF neurons in the central amygdala following application of Kappa Opioid Receptor agonist. 31<sup>st</sup> Annual Student Research Week, W88, p. 67, 2019.
- Hein, M.A., Yakhnitsa, V., Ji, G., Navratilova, E., Porreca, F., Neugebauer, V. Kappa opioid receptor mediated disinhibition of amygdala CRF neurons. 31<sup>st</sup> Annual Student Research Week, W4, p. 38, 2019.
- \* Kiritoshi, T., Yakhnitsa, V.A., Neugebauer, V. Correlation between pain-related behaviors and synaptic transmission in amygdala CRF neurons in a neuropathic pain model. *Soc. Neurosci. Abstr.* 49:422.21, 2019.
- \* Neugebauer, V., Mazzitelli, M., Yakhnitsa, V. Optogenetic stimulation of amygdala CRF neurons modulates pain-related behaviors in a rodent model of neuropathic pain. *Soc. Neurosci. Abstr.* 49:482.22, 2019
- \* Hein, M.A., Ji, G., Navratilova, E., Porreca, F., Neugebauer, V. Kappa opioid receptor blockade restores inhibition of amygdala CRF neurons in a functional pain model. *Soc. Neurosci. Abstr.* 49:482.23, 2019.
- \* Ji, G., Navratilova, E., Porreca, F., Neugebauer, V. Kappa opioid receptors mediate hyperactivity of central amygdala neurons in a functional pain model. *Soc. Neurosci. Abstr.* 49:482.24, 2019.
- \* Mazzitelli, M., Neugebauer, V. Group II metabotropic glutamate receptors modulate synaptic transmission in CRF-CeA neurons in an arthritic pain model. *Soc. Neurosci. Abstr.* 49:482.25, 2019.
- \* Yakhnitsa, V.A., Kiritoshi, T., Neugebauer, V. Phenotypic differences in potassium (SK) channel dysfunction in the amygdala in a rat model of neuropathic pain. *Soc. Neurosci. Abstr.* 49:482.26, 2019.
- \* Hossain, M.A., Ji, G., Abbruscato, T.J., Neugebauer, V., German, N.A. Development of selective kappa opioid receptor antagonist for the treatment of chronic neuropathic pain. *Soc. Neurosci. Abstr.* 49: 661.07, 2019.
- \* Arandia, G., Boles, A., Lopes, V., Neugebauer, V. Diabetes as a Risk Factor for Mild Cognitive Impairment in Older Residents of Rural West Texas. 71st Annual Scientific Meeting of The Gerontological Society of America (GSA). *Innovation in Aging* 3, S1: 860, 2019.

### **Presentations**

- Neugebauer, V. "Behavioral assessment in preclinical pain models". Neuroscience School of Advanced Studies, Venice, Italy.
- Neugebauer, V. "Brain activity measurements in preclinical pain models". Neuroscience School of Advanced Studies, Venice, Italy.
- Neugebauer, V. "Phenotypic differences in neuropathic pain - role of the amygdala". Topical workshop proposal (566495: Active roles of amygdala plasticity in neuropathic pain in diabetes and nerve injury models), 7<sup>th</sup> International Congress for Neuropathic Pain, London, UK.
- Neugebauer, V. "Amygdala plasticity and pain". Center for Biomedical Research Excellence for the Study of Pain and Sensory Function, University of New England, Biddeford, ME.
- Neugebauer, V. "Novel opioid actions in the amygdala". Center of Excellence for Translational Neuroscience and Therapeutics, Collaboration across Pain Science and Practice, TTUHSC, Lubbock, TX.
- Neugebauer, V. 03-29-2019 "Amygdala plasticity and pain". Department of Biological Sciences, Duquesne University, Pittsburgh, PA.
- Neugebauer, V. 03-27-2019 "Amygdala plasticity and pain". Pittsburgh Center for Pain Research, University of Pittsburgh, Pittsburgh, PA.

### **Other Scholarly Activity**

- R01 NS109255 – NIH/NINDS. "Pronociceptive and antinociceptive opioid mechanisms in the central nucleus of the Amygdala". MPI, Edita Navratilova (Contact), Guangchen Ji Co-I, Volker Neugebauer. Total costs: \$2,544,148

2. R01 AA027096 – NIH/NIAAA 07/01/19 - 06/30/23 “The neuroimmune model of excessive alcohol consumption: Transition to Alcohol Use Disorder”. PI, Igor Ponomarev. Co-I, Volker Neugebauer. Total costs: \$2,868,750 (original start date, 09/10/2018; transferred to TTUHSC with \$573,750/year on 07/01/19)
3. R01 NS038261 - NIH/NINDS “Amygdala Pain Mechanisms”. PI, Volker Neugebauer  
Total costs: \$1,673,440 (\$334,688/year).
4. R01 NS106902 – NIH/NINDS. “Stress-induced descending facilitation from amygdala kappa opioid receptors in functional pain” PI, Volker Neugebauer PI (Contact), Frank Porreca (University of Arizona) Total costs: \$ 2,740,180 (TTUHSC subcontract, \$1,295,245; \$259,049 /year)
5. PN-CTNT 2018-12 LSVNBAW 12/1/18 - 11/30/19 Center of Excellence for Translational Neurosciences and Therapeutics, TTUHSC. “Tai Chi for pain management: a pilot mechanistic study”. PI, Volker Neugebauer. PI (Contact), Leslie Shen Total costs: \$18,000

## **OLDEWAGE-THERON, WINA**

### ***Publications***

1. Theophilus RT, Miller M, Oldewage-Theron WH, Dawson J. The winning weaning food (WWF): The development of a complementary food for food-insecure infants and young children in Malawi. *Nutrients*, 2019; 11: 2292. 17 pages. <https://www.doi.org/10.3390/nu/1102292>.
2. Jamshidi-Naeini Y, Bavi AK, Egal A, Oldewage-Theron WH. Hemoglobin and ferritin concentrations are positively associated with blood pressure and hypertension risk in older adults: a retrospective cross-sectional study, Sharpeville, South Africa. *Asia Pacific Journal of Clinical Nutrition*, 2019;28(3): 533-543. <http://apjcn.nhri.org.tw/server/APJCN/28/3/533.pdf>
3. Ghvanidze S, Velikova N, Dodd T, Oldewage-Theron WH. Are sustainable consumers health conscious? A segmentation study of wine consumers. *Journal of Food Products Marketing*, 2019; 25(6): 24 pages. <https://doi.org/10.1080/10454446.2019.1640160>
4. Abu B, Oldewage-Theron WH. Food insecurity among college students in West Texas. *British Food Journal*, 219;121(3): 738-754. <https://doi.org/10.1108/BFJ-12-2018-0804>
5. Egal A, Oldewage-Theron WH. Extruded food products and their potential impact on food and nutrition security. *South African Journal of Clinical Nutrition*, 2019;2 pages. <https://doi.org/10.1080/16070658.2019.1583043>
6. Saha S, Abu B, Oldewage-Theron WH, Egal A. Available food options at local shops in relation to food insecurity among older adults in Sharpeville, South Africa. *African Journal of Food, Agriculture, Nutrition and Development*, 2019;19(2): 14500-14516. Mar 20-19. <https://doi.org/10.18697/ajfand.85.18035>

### ***Presentations***

1. Oldewage-Theron WH, Egal A, Grobler C. 2019. Cardiovascular risk factors and dietary intakes in 6-18 year old children from Rural Eastern Cape, South Africa. *Journal of the Academy of Nutrition and Dietetics*, 119(9): A-20.
2. Oldewage-Theron WH, Morales S, Egal A. 2019. Impact of a Soy Education Intervention on Knowledge of Smallholder South African Soy Farmers. *Journal of Nutrition Education and Behavior*, 51(7S): S65.
3. Saha S, Oldewage-Theron WH. 2019. Behavior-Specific Nutrition Education Intervention Improves Fruit and Vegetable Preference among Elementary School Children. *Journal of Nutrition Education and Behavior*, 51(7S): S57.
4. Miller M, Oldewage-Theron WH. 2019. Nutrition Education Needs Assessment of Farmers Market Participants in Lubbock, Texas. *Journal of Nutrition Education and Behavior*, 51(7S): S114.

### ***Other Scholarly Activity***

1. Texas Tech University College of Human Sciences 2018-2019 Undergraduate Research Experience grant to support Carter Janes (undergraduate student) (2018-2019) (Advisor)  
US\$750.00
2. Texas Tech University VPR Open Access Publication Initiative award for publishing in “Nutrients” (PI 100%)  
US\$1,000
3. Texas Tech University College of Human Sciences 2018-2019 Undergraduate Research Experience grant to support Jennifer N Rivera (undergraduate student) (2019-2020) (Advisor)  
US\$750.00

## **PALMER, TY**

### ***Publications***

1. Palmer T B (2019). Acute effects of constant-angle and constant-torque static stretching on passive stiffness of the posterior hip and thigh muscles in healthy, young and old men. *Journal of Strength and Conditioning Research*, 33(11): 2991-2999.
2. Palmer TB, Pineda JG, Cruz MR, Agu-Udemba CC (2019). Duration-dependent effects of passive static stretching on musculotendinous stiffness and maximal and rapid torque and surface electromyography characteristics of the hamstrings. *Journal of Strength and Conditioning Research*, 33(3), 717-726.
3. Palmer TB, Thiele RM (2019). Passive stiffness and maximal and explosive strength responses after an acute bout of constant-tension stretching. *Journal of Athletic Training*, 54(5), 519-526.

### **Presentations**

### **Other Scholarly Activity**

## **PARK, OAK HEE**

### **Publications**

1. Yuan J, Yi S, Williams H, Park O (2019). US Consumers' perceptions of imperfect "Ugly" produce. *British Food Journal*, 121(11), 2666-2682. Corresponding Author
2. Jayarathne S, Stuld AJ, Park O, Kim JH, Thompson L, Moustaid-Moussa N (2019). Protective Effects of Anthocyanins in Obesity-Associated Inflammation and Changes in Gut Microbiome. *Molecular Nutrition and Food Research*, 63(20), 1900149.
3. Murimi M, Nguyen B, Moyeda-Carabaza AF, Lee H, Park O (2019). Factors that contribute to effective online nutrition education interventions: A systematic review. *Nutrition Reviews*, 77(10), 663-690.

### **Presentations**

### **Other Scholarly Activity**

1. TTU-COHS-Come N' Go Grant; Great Greens (GG): Innovative Nutrition and Gardening Curriculum for Obesity Prevention among Early Adolescent; 1-year project (10/15/09-10/14/2020); Expected Total Amount: \$5,000; Role: PI (100% Credit)

## **PUNYANUNT-CARTER, NARISSRA**

### **Publications**

1. Niehuis S, Reifman A, Weiser D, Punyanunt-Carter N, Flora J, Arias Sanchez V, Oldham C. (2019). Guilty pleasure? Communicating sexually explicit content on dating-apps and disillusionment with app usage. *Human Communication Research*, 46(1).
2. Dibble, J. S., Drouin, M., Punyanunt-Carter, N. (2019). An empirical comparison of back burners, hookups, and friends with benefits relationships in young adults. *Communication Research Reports*, 36(5), 415-425.
3. Punyanunt-Carter N, Oviedo M, Melhem S (2019). College Students' Perceptions of Television Portrayals of Hispanics. *Qualitative Research Reports in Communication*. <https://doi.org/10.1080/17459435.2019.1650817>
4. Punyanunt-Carter N, LaFreniere JR, Norman MS, Colwell M (2019). Analyzing college students' family communication patterns and interpersonal communication motives for communicating. *Southern Communication Journal*, 84, 219 - 232. <https://doi.org/10.1080/1041794X.2019.1641544>
5. Wrench J, Punyanunt-Carter N, Garcia A (2019). Understanding college students' perceptions regarding mindfulness the impact on intellectual humility, faith development, religious communication apprehension, and religious communication. *Journal of Religion and Health*.
6. Melhem SS, Punyanunt-Carter N (2019). Using Cultivation Theory to Understand American College Students' Perceptions of Arabs in the Media. *Journal of Muslim Minority Affairs*, 39(2), 259-271. <https://doi.org/10.1080/13602004.2019.1625258>
7. Punyanunt-Carter N (2019). Dealing with the Development of Children's Ethnic Identity in Interracial Marriages (with an Asian parent and non-Asian parent). In Sarah Symonds-LeBlanc (Ed.), *Casing the Family: Theoretical and Applied Approaches to Understanding Family Communication*.

### **Presentations**

1. Dubuque IA, Kendall-Hunt J, Punyanunt-Carter NM (Presenter & Author), Norman MS, Colwell M. (Author Only), National Communication Association, "Viewer perceptions of stepfamilies, stepfathers, and stepmothers in media," National, peer-reviewed/refereed. (November 2019).
2. Punyanunt-Carter N. Texas Tech Terry Scholars, Lubbock, Texas, "How to Handle Difficult People." (March 6, 2019).

3. Punyanunt-Carter N, Raiders who Rock Awards Ceremony, Lubbock, Texas. (April 9, 2019).
4. Dibble J, Drouin M, Punyanunt-Carter N. National Communication Association, Baltimore, Maryland, "Widening the Rainbow of Human Sexuality: An Empirical Comparison of Back Burners, Hookups, and Friends with Benefits Relationships in Emerging Adults.," peer-reviewed/refereed. (November 2019).
5. Rasmussen EE, Punyanunt-Carter N, Shimkowski J, Norman MS, Kimball T. International Communication Association, International Communication Association, Washington DC, "The serially mediated relationship between emerging adults' social media use and well-being," peer-reviewed/refereed. (May 2019).
6. Punyanunt-Carter N, Wrench J, De La Cruz JJ. Partnership for Progress on the Digital Divide 2019, Washington, D.C., "Understanding College Students' Perceptions Regarding Tinder motives, Dating Apps, Trolling Behavior, and Communication Apprehension.," peer-reviewed/refereed. (May 2019).
7. Niehuis S, Weiser D, Reifman A, Punyanunt-Carter N, Flora J, Arias Sanchez V, Oldham C. Western Communication Association, Seattle, WA, "Guilty pleasure? Communicating sexually explicit content on dating apps and attitudes toward the self, other people, and marriage," Regional, peer-reviewed/refereed. (February 2019).

### **Other Scholarly Activity**

### **RIVAS, ERIC**

#### **Publications**

1. Newmire DE, Rivas E, Deemer SE, Willoughby DS, Ben-Ezra V. (2019). The Impact of a Large Bolus Dose of L-leucine and L-isoleucine on Enteroendocrine and Pancreatic Hormones, and Glycemia in Healthy, Inactive Adults. *Nutrients*, 11(11).
2. Rivas E, Crandall CG, Suman OE, Moustaid-Moussa N, Ben-Ezra V. (2019). Exercise heat acclimation causes post-exercise hypotension and favorable improvements in lipid and immune profiles: A crossover randomized controlled trial. *Journal of thermal biology*, 84, 266-273.
3. Rivas E, Allie KN, Salvador PM (2019). Progressive dry to humid hyperthermia alters exercise cerebral blood flow. *Journal of thermal biology*, 84, 398-406.
4. Rivas E, Huynh HM, Galassetti PR (2019). Obesity Affects Submaximal Oxygen Uptake-Heart Rate Relationship and Exercise Economy Differently in Pre- and Post-pubescent Boys and Girls. *International journal of exercise science*, 12(3), 748-763.
5. Borgman MA, Zaar M, Aden JK, Schlader ZJ, Gagnon D, Rivas E, Kern J, Koons NJ, Convertino VA, Cap AP, Crandall C. (2019). Hemostatic responses to exercise, dehydration, and simulated bleeding in heat-stressed humans. *American journal of physiology. Regulatory, integrative and comparative physiology*, 316(2), R145-R156.

#### **Presentations**

Poster ( \*mentored undergraduate and #graduate students)

1. Allie K\*, Kilpatrick J#, Salvador P\*, Rivas E Low intensity exercise has greater acute vascular benefits for reducing arterial stiffness in hot compared to neutral conditions Texas Regional Chapter of the American College of Sports Medicine 2019 Ft Worth TX.
2. Kilpatrick J#, Salvador P\*, Allie, K\*, Rivas E Exercise cerebral blood flow hemodynamics differ in hot dry and humid conditions Texas Regional Chapter of the American College of Sports Medicine 2019 Ft Worth TX.
3. Salvador P\*, Kilpatrick J#, Allie, K\*, Rivas E Skin Temperature and High Dew Point in Hot Environments Affects Self-Paced Exercise Texas Regional Chapter of the American College of Sports Medicine 2019 Ft Worth TX.
4. Allie, K\*, Kilpatrick J#, Salvador P\*, Rivas E Systolic Pressure Post-Maximal Exercise is Associated with Arterial Stiffness and Baroreflex Sensitivity 2019 Experimental Biology, Orlando, FL
5. Kilpatrick J#, Allie, K\*, Suman OE, Rivas E Boys with Obesity have Attenuated Cardiorespiratory Fitness Independent of Fat Mass 2019 American College of Sports Medicine, Orlando, FL
6. Rivas E, Suman OE, Ben-Ezra, V Heat Acclimation Causes Profound Post-Exercise Hypotension and Favorable Improvements in Lipid and Immune Profiles 2019 American College of Sports Medicine, Orlando, FL

### **Other Scholarly Activity**

Year	Title of Current Research or Grant	Granting Agency	Amount \$	Chief Investigators & Faculty Members in order	Percent Contribution
2019	Effect of Pulsatile Pressure and Long Sleep Duration on Cerebral Vascular Function	American Heart Association	\$197,451	Gonzales, J. (Principal), Rivas, E. (Co-Principal), Vellers, H. (Co-Principal)	10%

2019	Adiposity awareness study: A randomized controlled trial to increase physical activity in normal weight obesity	American Heart Association	\$106,532	Wijayatunga, N. (Principal), Dhurandhar, E. (Co-Principal), Kim, Y. (Co-Principal), Binks, M. (Co-Principal), Day, A. (Co-Principal), Rivas, E. (Co-Principal)	10%
2019	Mechanistic study of omega 3s and heat therapy on vascular function	American Physiological Society	\$19,535	Rivas, E. (Principal), Moustaid-Moussa, N. (Co-Principal), Massett, M. (Co-Principal)	30%

### **Active Non-Funded Research**

Status	Research Type	Working Title	Collaborators
Current	Scholarly	High-intensity exercise and cerebral blood flow	Gonzales, J
Current	Scholarly	Assessment of vascular health, fitness, and movement in young adults with autism spectrum disorder	Harry, J., Vellers, H.

### **SCHLABRITZ-LUTSEVICH, NATALIA**

#### **Publications**

1. Gandhi K, Montoya-Urbe V, Martinez S, David S, Jain B, Shim G, Li C, Jenkins S, Nathanielsz P, Schlabritz-Loutsevitch N. Ontogeny and programming of the fetal temporal cortical endocannabinoid system by moderate maternal nutrient reduction in baboons (*Papio spp.*) *Physiological reports*, 2019/3, VOLUME 7, ISSUE 6, E14024
2. Schlabritz-Loutsevitch N, Carrillo M, Li C, Nathanielsz P, Maguire C, Maher J, Dick Jr, E, Hubbard G, Stanek J. *Journal of medical primatology*, 2019/2 VOLUME 48, Issue 1, pages 68-73
3. Higgins PB, Folli F, Andrade MCR, Foster J, Mattern V, Paroni R, Schlabritz-Loutsevitch N, et al. *Acta diabetologica*. 2019/2/6. *Acta diabetologica*. Volume 56, Issue 2, Pages 227-236
4. Kodeih H, Maher JE, Moore L, Schlabritz-Lutsevich N (2019). The management of a pregnant patient with malaria in West Texas. *The Southwest Respiratory and Critical Care Chronicles* 7(28): 47-52.

#### **Presentations**

1. A Fa, J Maher, K Gandhi, E Esquivel, B Gudenkauf, K Alpadi, K Shreyder and Natalia Schlabritz-Loutsevitch. Maternal Obesity in Early Pregnancy Is Associated with the Decreased Active IGF-I Availability and Increased Leptin Concentrations. Laura Bush Symposium for women's health, Lubbock, October 25th, 2019.
2. Jennifer Gray, DO, PGY-2, Shuheung (Steven) Lee, MD, Shannon Corbitt Natalia Schlabritz-Lutsevich and Gary Ventolini. Obesity related vaginal discharge in third trimester of pregnancy: A protein pathway analysis. FIRST PLACE IN THE BASIC SCIENCE CATEGORY.
3. West, Andy (MS3), (presenting), Lisa Platner, Gracie Flores, Vani Selvan, Juan Carlos Lopez-Alvarenga, Stephanie Moses, Natalia Schlabritz-Lutsevich and Elisa Brown. Measurement of Changes in Student Attitude, Self-Efficacy, and Intent after Participation in an Abbreviated Abstinence-Plus Sex Education Curriculum
4. Suheung Lee, James Maher, Lee David Moore, Jennifer Gray, Glenn Bennion, Guangchen Ji, Shane Scoggin, Naima Moustaid-Moussa, Natalia Schlabritz-Lutsevich. ADIPOSOMES-PLACENTA INTERACTION IN MATERNAL OBESITY. Invited presentation: center of excellence for translational neuroscience and therapeutics (April 11<sup>th</sup> 2019). Fetal programming of endocannabinoid deficiency. N. Schlabritz-Lutsevich
5. SAT-LB045 Alice Fa, James Maher, Kushal Ghandi, Esteban Esquivel, Brent Gudenkauf, KANNAN ALPADI, Katherine Shreyder, Natalia Schlabritz-Lutsevich. Maternal Obesity in Early Pregnancy Is Associated with the Decreased Active IGF-I Availability and Increased Leptin Concentrations. *Journal of the Endocrine Society*, Volume 3, Issue, Supplement\_1, Pages. SAT-LB045. Endocrine Society meeting 2019/4/30
6. Society for studying reproduction, March 2019 (Paris, France). Selective Expression of 2-AG (2-Arachidonoyl Glycerol) Pathway in Mammary Gland Tissues. Brent Gudenkauf, Kushal Gandhi, Nadezhda German, Ashraf

### **Other Scholarly Activity**

1. American Heart Association, August 13, 2019, Schlabritz-Lutsevich N (Co-Investigator), Chemitiganti R (Principal Investigator), Sethi P (Co-Investigator), IMPACT OF GLP-1 RECEPTOR AGONIST IN COMBINATION WITH MEDITERRANEAN DIET ON MYOCARDIAL METABOLISM AND FUNCTION IN PRE-DIABETES and Type 2 Diabetes Mellitus
2. NIH, RO1 June 5, 2019, Schlabritz-Lutsevich N (Principal Investigator), German N (Co-Investigator), FETAL ENDOCANNABINOID DEFICIENCY SYNDROME AS A NOVEL MECHANISM OF DEVELOPMENTAL PROGRAMMING.
3. DOD Schlabritz-Lutsevich N (Principal Investigator), Protective fetal sex-specific effect of maternal pre-eclampsia on breast cancer development
4. NIH-R21 Schlabritz-Lutsevich N (Principal Investigator), Ventolini G (Co-Principal Investigator), Hamood AN (Co-Principal Investigator), Mechanism of Vulvodynia: Endocannabinoid Deficiency Syndrome.

### **SHEN, CHWAN-LI (LESLIE)**

#### **Publications**

1. \*Chung E, Campise SN, Joiner HE, Tomison MD, Kaur G, Dufour JM, Cole L, Ramalingam L, Moustaid-Moussa N, Shen CL (corresponding author). Effect of annatto-extracted tocotrienols and green tea polyphenols on glucose homeostasis and skeletal muscle metabolism in obese male mice. *Journal of Nutritional Biochemistry*. 2019; 67: 36-43.
2. \*Mo H, Jeter R, Bachmann A, Yount ST, Shen CL, Yeganehjoo H. The potential of isoprenoids in adjuvant cancer therapy to reduce adverse effects of statins. *Frontier in Pharmacology*. 2019 Jan 4;9:1515. doi: 10.3389/fphar.2018.01515. eCollection 2018
3. \*Shen CL (corresponding author), Mo H. (2019) Effects of dietary tocotrienol on age-related bone health. *The Spectrum (published by the Healthy Aging dietetic practice group of the Academy of Nutrition and Dietetics)*. Spring issue, 1-6.
4. \*Zhang J, Nie S, Zu Y, Abbasi M, Cao J, Li C, Wu D, Labib S, Brackee G, Shen CL, Wang S. Anti-atherogenic effects of CD36-targeted epigallocatechin gallate-loaded nanoparticles. *Journal of Controlled Release* 2019;303:263-273
5. \*Chung C, Grue KA, Kaur G, Mallory B, Serrano CR, Ullevig SL, Kottapalli KR, Lee SC, Dufour J, Shen CL, Umeda M. Maternal exercise before and during pregnancy alleviates metabolic dysfunction associated with high-fat diet in pregnant mice, without significant changes in gut microbiota. *Nutrition Research* 2019;69:42-57.

#### **Articles and case reports in press**

1. \*Shen CL, Zhang Y, Mo H, Chyu MC, Tang L, Wang JS. Green tea catechins and tocotrienols in bone protection: evidence from preclinical studies. Book chapter.

#### **Presentations**

##### **Oral presentation:**

1. Shen CL. "Establishing the Center of Excellence for Integrative Health (CEIH) at Texas Tech University Health Sciences Center (TTUHSC). Executive Leadership in Academic Medicine (ELAM). May 1, 2019.
2. Shen CL. "Career path in integrative medicine. Endowed Lecture Series". Therapeutic Innovations & Integrative Medicine Club, School of Medicine, September 12, 2019. Lubbock, TX.
3. Shen, CL. "Clinical trials of FDA-IND natural bioactive components for bone health". Annual meeting of Society of Clinical Research Associates (SoCRA), September 27, 2019. Orlando, FL.
4. Shen CL. "Career path in integrative medicine. Endowed Lecture Series". School of Health Professions, October 4, 2019. Lubbock, TX.
5. Shen, CL. "The beneficial effect of tea on musculoskeletal system". Taiwanese Osteoporosis Association. October 20, 2020, Taipei, Taiwan.
6. Shen CL. "My career path in integrative medicine". Department of Food and Nutrition, Providence, Taichung, Taiwan. October 21, 2019.

##### **Poster presentation at annual meeting:**

1. Shen CL, Kaur G, Dufour J, Ramalingam L, Chung E, Moustaid-Moussa N, Cao JJ. Effect of geranylgeraniol and green tea polyphenols on high-fat-diet-induced bone deterioration in male B6 mice. Nutrition 2019 (Annual Meeting of American Society for Nutrition), June 7-11, 2019. Baltimore, MD.

2. Elmassry MM, Hamood A, Shen CL. Anatto-extracted tocotrienol and green tea polyphenols reshape the gut microbiome of obese male mice. *ObesityWeek 2019 (Annual Meeting of The Obesity Society)*, November 6, 2019. Las Vegas, NV.

### **Other Scholarly Activity**

1. Title: Treating Vitamin D insufficiency in community dwelling elderly to improve arterial stiffness. Peiris A (PI). Shen CL (collaborator). Funding agency: School of Medicine, TTUHSC. The goal of this study is to evaluate one-year vitamin D supplementation on the CVD of elderly. \$20,000. 7/1/2018-6/30/2020.
2. Title: Utilizing tocotrienols to prevent the formation of islet amyloid deposits- a novel treatment for diabetes mellitus. Kaur Gurvinder (PI). Co-PI: Shen CL, Dufour J, Cornwell G. Funding agency: LWBIWH/UMC Women's Health grant program. The goals of this study is test the novel ideal of utilizing tocotrienol to prevent islet amyloid deposits. \$20,000. 10/2017-9/2019.
3. Title: Actions of dietary tocotrienols on obesity: a pilot clinical study. Shen CL (PI). Aryaie A (co-PI). Lee J (co-I), Tinsley G (co-I), Watkins BA (co-I). Funding agency: School of Medicine, Texas Tech University Health Sciences Center. The goal of this pilot study is to test a dietary tocotrienol supplementation for feasibility, and to quantitatively assess its potential anti-obesity effects on postmenopausal women. \$20,000. 7/1/2018-6/30/2019.
4. Title: Dietary tocotrienol (vitamin E isomer) supplement for postmenopausal women: aspects of metabolomics and gut microbiome. Shen CL (PI). Funding agency: Laura W. Bush Institute for Women's Health. The goal of this study is to test dietary tocotrienol supplementation on metabolites and gut microbiome of obese women. \$10,000. 8/1/2018-7/31/2019.
5. Title: Effect of ginger extract on pain management: an animal pilot study. Shen CL (PI). Funding agency: Department of Pathology. The goal of this study is to collect preliminary data on how ginger extract may help with pain reduction, in terms of pain behaviors of rats, in the spinal nerve ligation pain model. \$5,000. 1/1/2019-12/31/2019.
6. Title: Tai Chi for pain management: a pilot mechanistic study. Funding agency: Center of Excellence for Translational Neurosciences and Therapeutics, TTUHSC. Shen CL (PI). Neugebauer V (Co-PI). Watkins BA (Co-PI). Brismee JM (Co-I), Zumwalt M (Co-I), Lee J (Co-I), Chyu M-C (Co-I), Luk H-Y (Co-I), O'Boyle M (Co-I). The goal of this study is to collect preliminary data on how Tai Chi may help with pain management of postmenopausal women with knee osteoarthritis and explore the molecular mechanism. \$18,000 from CTNT. \$6,000 matching fund Texas Tech University Neuroimaging Institute (TTNI). Study 12/1/2018-11/30/2019.

### **Extramural awards funded**

Local but not from TTUHSC

1. Title: Tocotrienols supplementation for postmenopausal women with sarcopenia: a pilot study. Shen CL (PI). Culberson, J (co-I), Palmer T (co-I), Yang, SP (co-I), Luk HY (co-I), Robyn Richmond (Co-I), Watkins BA (co-I). Funding agency: South Plains Foundation. The goal of study is to test the hypothesis that tocotrienol supplementation improves muscular outcomes in postmenopausal women with sarcopenia, and to explore the underlying mechanisms. \$15,000. 9/1/2018-8/31/2019.
2. Title: Levels of vitamins D and infection risk in pediatric patients undergoing chemotherapy. Al-Rahawan (PI). Shen CL (Co-I), Urias E (co-I), Lee J (Co-I), Singhal E (Co-I). Funding agency: South Plains Foundation. The goal of study is to measure the serum levels of vitamin D in children undergoing chemotherapy and track changes after 6 months and to investigate the relationship between vitamin D levels and the incidence of fever as a marker for infection in this population. 9/1/19-8/31/20.
3. Title: Actions of dietary tocotrienols on obesity: ARN supplemental fund. Shen CL (PI). Funding agency: American River Nutrition, Inc., Hadley, MA. The goal of study is to test the hypothesis that tocotrienol supplementation improve lipid profiles and modify endocannabinoid and oxylipins in obese postmenopausal women. \$70,000. 11/1/2018-10/31/2020.
4. Title: Tocotrienols supplementation for postmenopausal women with low muscle strength: ARN supplemental fund. Shen CL (PI). Funding agency: American River Nutrition, Inc., Hadley, MA. The goal of study is to test the hypothesis that tocotrienol supplementation modify endocannabinoid and oxylipins in postmenopausal women with low muscle strength. \$30,000. 11/1/2018-10/31/2020.

### **SHIN, ANDREW C**

#### **Publications**

1. Siddik MAB, Shin AC. Recent progress on branched-chain amino acids in obesity, diabetes, and beyond. *Endocrinology and Metabolism* (Invited Review), 2019 Sep; 34(3): 234-246.
2. Shah H, Shin AC. Meal patterns after bariatric surgery in mice and rats. *Appetite* (Special Issue on Bariatric Surgery – Invited Review), 2019 June 29 [Epub ahead of print].

3. Patkar PP, Hao Z, Mumphrey MB, Townsend BL, Berthoud HR, Shin AC. Unlike calorie restriction, Roux-en-Y gastric bypass surgery does not increase hypothalamic AgRP and NPY in mice on a high-fat diet. *International Journal of Obesity – Nature*, 2019 Feb (2018 Dec Epub ahead of print).
4. Shin AC, MohanKumar SMJ, Balasubramanian P, Sirivelu MP, Linning K, Woolcock A, James M, MohanKumar PS. Responsiveness of HPA axis to leptin is impaired in diet-induced obese rats. *Nutrition & Diabetes - Nature*, 2019 Mar; 9(1): 10

## **Presentations**

### **Oral**

1. 2019 Seminar, Texas Tech University Health Sciences Center, Department of Internal Medicine. *Potential link between BCAAs and Alzheimer's disease*
2. 2019 Speaker, Korean Neuroendocrine Study Group, Incheon, South Korea. *CNS control of BCAAs and bariatric surgery*
3. 2019 Seminar, Asan Medical Center, Department of Medicine, Seoul, South Korea *Mouse bariatric surgery techniques*
4. 2019 Seminar, Seoul National University, Department of Functional Neuroanatomy, Seoul, South Korea. *Link between BCAA metabolism and Roux-en-Y gastric bypass surgery.*
5. 2019 Seminar, Yonsei University, Taste Sensing Division, Department of Dentistry, Seoul, South Korea. *CNS control of BCAAs and bariatric surgery*
6. 2019 Speaker, McNair Scholars Program, TTU, Lubbock, Texas, USA
7. 2019 Speaker, 7th Seoul International Congress of Endocrinology and Metabolism, Seoul, South Korea. *Divergent roles of AgRP and POMC neurons in the control of adipose tissue metabolism*
8. Harkins C, Patkar PP, Hao Z, Berthoud HR, Shin AC. Roux-en-Y gastric bypass (RYGB) surgery, but not caloric restriction, enhances reward-related genes in the ventral tegmental area in high-fat fed mice. ObesityWeek, Las Vegas, NV, November 2019
9. Akheruzzaman M, Shin AC, Hegde V, Dhurandhar NV. Reduced endogenous insulin due to improved glycemic control concomitantly impacts lipid metabolism. ObesityWeek, Las Vegas, NV, November 2019
10. Siddik MAB, Zabet-Moghaddam M, Hegde V, Shin AC. Branched-chain amino acid metabolism is impaired in mice and humans with Alzheimer's disease. American Society for Nutrition Conference, Baltimore, MD, June 2019

### **Poster:**

#### **CONFERENCE POSTER PRESENTATIONS**

1. Siddik MAB, Zabet-Moghaddam M, Hegde V, Shin AC. Alzheimer's disease is associated with impaired hepatic BCAA metabolism. Obesity Research Institute Annual Meeting, TTU, 2019.
2. Siddik MAB, Zabet-Moghaddam M, Hegde V, Shin AC. Branched-chain amino acids (BCAAs) – a new player in Alzheimer's disease. Alzheimer's Association International Conference, Los Angeles, CA, July 2019.
3. Siddik MAB, Zabet-Moghaddam M, Hegde V, Shin AC. Branched-chain amino acid metabolism is impaired in mice and humans with Alzheimer's disease. 18th Annual Graduate Student Research Poster Competition, Texas Tech University, March 2019.
4. Harkins C, Patkar PP, Berthoud HR, Shin AC. Roux-en-Y gastric bypass (RYGB) surgery restores reward-related genes in the mesolimbic pathway in diet-induced obese mice. Undergraduate Research Conference, TTU, April 2019

### **Other Scholastic Activities**

1. National Science Foundation (NSF) National I-Corps. Novel diagnostic tool and compound repurposing for early detection and alleviation of Alzheimer's disease, 2019 (PI: Andrew C. Shin).
2. National Science Foundation (NSF) Regional I-Corps Program Repurposing a compound to treat Alzheimer's disease, 2019 (PI: Andrew C. Shin)

## **SONG, HUAXIN**

### **Publications**

1. Song H, Hughes JR, Turner RT, Iwaniec UT, Doerge DR, Helferich WG (2019). (±)-Equol does not interact with genistein on estrogen-dependent breast tumor growth. *Food and Chemical Toxicology*, doi.org/10.1016/j.fct.2019.110979
2. Ashcraft AS, Owen DC, Johnson K, Song H (2019). LONG TERM CARE FEASIBILITY OF NURSING HOME LVNS USING AN ALGORITHM-GUIDED ASSESSMENT SUPPORT TOOL. *Innovation in Aging*, 3(Supplement\_1), S506-S507.

## Presentations

## Other Scholarly Activity

### TINSLEY, GRANT

#### Publications

1. Moore ML<sup>†</sup>, Benavides ML<sup>†</sup>, Dellinger JR<sup>†</sup>, Adamson BT<sup>†</sup>, Tinsley GM<sup>\*</sup>. Segmental Body Composition Evaluation by Bioelectrical Impedance Analysis and Dual-Energy X-Ray Absorptiometry: Quantifying Agreement Between Methods Clinical Nutrition (Accepted). JCR Impact Factor<sup>2018</sup>: 6.402; Rank: 6/87 (Q1) in Nutrition & Dietetics category.
2. Fedewa MV, Nickerson BS, Tinsley GM, Esco MR, Dunbar EG, Boucher AG, DeLeon RM. Examining Race-Related Error in Two-Compartment Models of Body Composition Assessment: A Systematic Review and Meta-Analysis. Journal of Clinical Densitometry (In Press) 21 (4): 541-549. JCR Impact Factor<sup>2018</sup>: 2.184; Rank: 107/145 (Q3) in Endocrinology & Metabolism category. doi.org/10.1016/j.jocd.2019.10.002
3. Tinsley GM<sup>\*</sup>, Moore ML<sup>†</sup>, Dellinger JR<sup>†</sup>, Adamson BT<sup>†</sup>, Benavides ML<sup>†</sup>. Digital anthropometry via three-dimensional optical scanning: evaluation of four commercially available systems. European Journal of Clinical Nutrition (In Press). JCR Impact Factor<sup>2018</sup>: 3.114; Rank: 37/86 (Q2) in Nutrition & Dietetics category. doi.org/10.1038/s41430-019-0526-6
4. Tinsley GM<sup>\*</sup>, Moore ML<sup>†</sup>, Silva AM, Sardinha LB. Cross-sectional and longitudinal agreement between two multifrequency bioimpedance devices for resistance, reactance, and phase angle values. European Journal of Clinical Nutrition (In Press). JCR Impact Factor<sup>2018</sup>: 3.114; Rank: 37/86 (Q2) in Nutrition & Dietetics category. doi.org/10.1038/s41430-019-0496-8
5. Tinsley GM<sup>\*</sup>, Moore ML<sup>†</sup>, Graybeal AJ<sup>†</sup>. Precision of Dual-Energy X-Ray Absorptiometry Reflection Scans in Muscular Athletes. Journal of Clinical Densitometry (In Press). JCR Impact Factor<sup>2018</sup>: 2.184; Rank: 107/145 (Q3) in Endocrinology & Metabolism category. doi.org/10.1016/j.jocd.2018.09.005
6. Graybeal AJ<sup>†</sup>, Moore LM<sup>†</sup>, Cruz MR<sup>†</sup>, Tinsley GM<sup>\*</sup>. Body Composition Assessment in Male and Female Bodybuilders: A Four-Compartment Model Comparison of DXA and Impedance-Based Devices. Journal of Strength and Conditioning Research (Ahead-of-Print). JCR Impact Factor<sup>2018</sup>: 3.017; Rank: 18/83 (Q1) in Sports Sciences category. doi.org/10.1519/JSC.0000000000002831
7. Schoenfeld BJ, Nickerson BS, Wilborn CD, Urbina SL, Hayward SB, Krieger J, Aragon AA, Tinsley GM. Comparison of Multifrequency Bioelectrical Impedance Vs. Dual-Energy X-Ray Absorptiometry For Assessing Body Composition Changes After Participation In A 10-Week Resistance Training Program. Journal of Strength and Conditioning Research (Ahead-of-Print). JCR Impact Factor<sup>2018</sup>: 3.017; Rank: 18/83 (Q1) in Sports Sciences category. doi.org/10.1519/JSC.0000000000002708
8. Grgic J, Garofolini A, Pickering C, Duncan MJ, Tinsley GM, Del Coso J. Isolated effects of caffeine and sodium bicarbonate ingestion on performance in the Yo-Yo test: A systematic review and meta-analysis. Journal of Science and Medicine in Sport (2020) 23:41-47. JCR Impact Factor<sup>2018</sup>: 3.623; Rank: 12/83 (Q1) in Nutrition & Dietetics category. doi.org/10.1016/j.jsams.2019.08.016
9. Tinsley GM<sup>\*</sup>, Harty PS<sup>†</sup>, Moore ML<sup>†</sup>, Grgic J, Silva AM, Sardinha LB. Changes in total and segmental bioelectrical resistance are correlated with whole-body and segmental changes in lean soft tissue following a resistance training intervention. Journal of the International Society of Sports Nutrition (2019) 16:58. JCR Impact Factor<sup>2018</sup>: 3.841; Rank: 9/83 (Q1) in Sport Sciences category; 23/87 (Q2) in Nutrition & Dietetics category. doi.org/10.1186/s12970-019-0326-3
10. Zaragoza J, Tinsley G, Urbina S, Villa K, Santos E, Juaneza A, Tinnin M, Davidson C, Mitmesser S, Zhang Z, Taylor L. Effects of acute caffeine, theanine and tyrosine supplementation on mental and physical performance in athletes. Journal of the International Society of Sports Nutrition (2019) 16:56. JCR Impact Factor<sup>2018</sup>: 3.841; Rank: 9/83 (Q1) in Sport Sciences category; 23/87 (Q2) in Nutrition & Dietetics category. doi.org/10.1186/s12970-019-0326-3
11. Tinsley GM<sup>\*</sup>, Paoli A. Time-restricted eating and age-related muscle loss. Aging (2019) 11(20):8741- 8742. JCR Impact Factor<sup>2018</sup>: 5.515; Rank: 42/193 (Q1) in Cell Biology category; 5/53 (Q1) in Geriatrics & Gerontology category. doi.org/10.18632/aging.102384
12. Tinsley GM<sup>\*</sup>, Moore ML<sup>†</sup>, Graybeal AJ<sup>†</sup>, Paoli A, Kim Y, Gonzales JU, Harry JR, VanDusseldorp TA, Kennedy DN<sup>†</sup>, Cruz MR<sup>†</sup>. Time-restricted feeding plus resistance training in active females: a randomized trial. American Journal of Clinical Nutrition (2019) 110(3):628-640. JCR Impact Factor<sup>2018</sup>: 6.568; Rank: 5/86 (Q1) in Nutrition & Dietetics category. doi.org/10.1093/ajcn/nqz126

13. Tinsley GM, Urbina S, Santos E, Villa K, Foster C, Wilborn C, Taylor L. A Purported Detoxification Supplement Does Not Improve Body Composition, Waist Circumference, Blood Markers, or Gastrointestinal Symptoms in Healthy Adult Females. *Journal of Dietary Supplements* (2019) 16(6):649-658. JCR Impact Factor<sup>2018</sup>: N/A. doi.org/10.1080/19390211.2018.1472713
14. Tinsley GM<sup>\*</sup>, Trexler ET, Smith-Ryan AE, Paoli A, Graybeal AJ<sup>†</sup>, Campbell BI, Schoenfeld BJ. Changes in Body Composition and Neuromuscular Performance Through Preparation, Two Competitions, and a Recovery Period in an Experienced Female Physique Athlete. *Journal of Strength and Conditioning Research* (2019) 33 (7): 1823–1839. JCR Impact Factor<sup>2018</sup>: 3.017; Rank: 18/83 (Q1) in Sports Sciences category. doi.org/10.1519/JSC.0000000000002758
15. Tinsley GM<sup>\*</sup>, Nickerson BS. Exclusion of Trunk Region Reduces Biological Error but Increases Technical Error of DXA Lean Soft Tissue Estimates from Non-Fasted Assessments. *International Journal of Sport Nutrition and Exercise Metabolism* (2019) 29 (3): 309-314. JCR Impact Factor<sup>2018</sup>: 2.217; Rank: 31/83 (Q2) in Sport Sciences category; 56/86 (Q3) in Nutrition & Dietetics category. doi.org/10.1123/ijsnem.2018-0132
16. Nickerson BS, Tinsley GM, Esco MR. Validity of Field and Laboratory Three-Compartment Models in Healthy Adults. *Medicine & Science in Sports & Exercise* (2019) 51 (5): 1032-1039. JCR Impact Factor<sup>2018</sup>: 4.478; Rank: 6/83 (Q1) in Sports Sciences category. doi.org/10.1249/MSS.0000000000001876
17. Paoli A, Tinsley G, Bianco A, Moro T. The influence of meal frequency and timing on health in humans: the role of fasting, obesity, cardiovascular health, diabetes. *Nutrients* (2019) 11: 719. JCR Impact Factor<sup>2018</sup>: 4.171; Rank: 16/86 (Q1) in Nutrition & Dietetics category. https://doi.org/10.3390/nu11040719
18. Tinsley GM<sup>\*</sup>, Graybeal AJ<sup>†</sup>, Moore ML<sup>†</sup>. Resting metabolic rate in muscular physique athletes: validity of existing methods and development of new prediction equations. *Applied Physiology, Nutrition, and Metabolism* (2019) 44: 397-406. JCR Impact Factor<sup>2018</sup>: 3.455; Rank: 13/83 (Q1) in Sports Sciences Category; 31/86 (Q2) in Nutrition & Dietetics category. doi.org/10.1139/apnm-2018-0412
19. Tinsley GM<sup>\*</sup>, Graybeal AJ<sup>†</sup>, Moore LMT<sup>†</sup>, Nickerson BS. Fat-free mass characteristics of muscular physique athletes. *Medicine & Science in Sports & Exercise* (2019) 51 (1): 193-201. JCR Impact Factor<sup>2018</sup>: 4.478; Rank: 6/83 (Q1) in Sports Sciences category. http://www.doi.org/10.1249/MSS.0000000000001749

### **Presentations**

### **Other Scholarly Activity**

## **VELLERS, HEATHER**

### **Publications**

1. Vellers HL, Schmitt EE (2019). Chapter 11: Toxicant and Dietary Exposures as Unique Environmental Factors that Affect the Genetic Regulation of Activity. *Routledge Handbook of Sport and Exercise Systems Genetics*.
2. Snyder RJ, Verhein KC, Vellers HL, Burkholder AB, Randell SH, Garantziotis S, Kleeberger SR (2019). In Dr. Håkan Wallin (Ed.), *Multi-walled carbon nanotubes upregulate mitochondrial gene expression and trigger mitochondrial dysfunction in primary human bronchial epithelial cells*. (10th ed., vol. 13, pp. 1344-1361). England: Taylor & Francis Online. https://www.ncbi.nlm.nih.gov/pubmed/31478767 5 = Outstanding recognition in field, highly prestigious, refereed. Author's Contribution: 15%.

### **Presentations**

1. Vellers, H.L. (Presenter Only), ENGL 5393: Grants and Proposals for the Academy and Industry, Lubbock, "Grant Writing in the Basic Sciences," Local. (November 4, 2019).
2. Vellers, H.L. (Presenter Only), Center of Excellence for Integrative Health Annual Member Meeting, Texas Tech Health Science Center, School of Pathology, Lubbock, "Genetics as a Predictor of how we Respond to Aerobic Exercise Training," Local. (May 16, 2019).
3. Vellers, H. L. (Presenter Only), 2019 TTU Obesity Research Institute Annual Meeting, Texas Tech University, Lubbock, "Mitochondrial DNA Sequence Variant Associations with Endurance Exercise Trainability," Local, published elsewhere. (May 8, 2019).
4. Vellers, H. L. (Presenter Only), 2019 Spring Obesity Research Seminar Series, Texas Tech University, Department of Nutritional Sciences, Lubbock, "Association between Mitochondrial DNA Sequence, Heteroplasmy, and Indels with Response to Aerobic Exercise Training," Local, published elsewhere. (February 4, 2019).
5. Vellers, H.L. (Presenter Only), Annual Departmental Teaching Workshop, Department of Kinesiology & Sport Management, TTU, Lubbock, "A Method to Enhance Student Accountability & Active Engagement during Class Discussions," Local. (August 23, 2019).

6. Vellers, H.L. (Presenter Only), Kinesiology Journal Club, Department of Kinesiology & Sport Management, TTU, Lubbock, "The Role of Mitochondrial DNA in Pain and Inflammation," Local. (March 27, 2019).
7. Vellers, H. L. (Presenter & Author), Verhein, K. C. (Author Only), Bouchard, C. (Author Only), Lightfoot, J. T. (Author Only), Kleeberger, S. R. (Author Only), National American College of Sports Medicine Conference, American College of Sports Medicine, Orlando, FL, "Association between Mitochondrial DNA Sequence and Endurance Training Adaptations," National, peer-reviewed/refereed, published in proceedings. (May 28, 2019).

### **Other Scholarly Activity**

1. 2019. Effect of Pulsatile Pressure and Long Sleep Duration on Cerebral Vascular Function American Heart Association \$197,451. Gonzales, J. (Principal), Rivas, E. (Supporting), Vellers, H. (Supporting)
2. 2019. Role of Genetic Background on Age-Related Changes in Mitochondrial Genome Dynamics: Influence of Aerobic Exercise San Antonio Nathan Shock Center \$30,000. Vellers, H. L. (Principal) 100%

## **WANG, SHU**

### **Publications**

1. Feizy Z, Peddibhotla S, Hossain KMS, Hegde V, Wang S, and Dhurandhar N. Nanoparticle-mediated in-vitro delivery of E4orf1 to preadipocytes is a clinically relevant delivery system to improve glucose uptake. *International Journal of Obesity*. (Accepted) (IF: 5.337)
2. Zhang J, Nie S, Zu Y, Abbasi M, Cao J, Li C, Wu D, Labib S, Brackee G, Shen CL, Wang S\*. Anti-atherogenic effects of CD36-targeted epigallocatechin gallate-loaded nanoparticles. *J Control Release*. 2019 Apr 15;303:263-273. (IF: 7.877)
3. Hao L\*, Scott S, Abbasi M, Zu Y, Khan MSH, Yang Y, Wu DY, Zhao L, Wang S\*. Beneficial metabolic effects of mirabegron in vitro and in high-fat diet-induced obese mice. *J Pharmacol Exp Ther*. 2019 Jun;369(3):419-427. (IF: 3.867)
4. Islam N, Hoque MNF, Li W, Wang S, Warzywoda J, Fan Z. Vertically edge-oriented graphene on plasma pyrolyzed cellulose fibers and demonstration of kilohertz high-frequency filtering electrical double layer capacitors. *Carbon*. 2019 January; 141:523-530. (IF: 7.466)

### **Presentations**

### **Other Scholarly Activity**

1. NIH 1R15AT010395-01. PI (Wang). Title "Browning white adipose tissue for diabetes treatment".
2. NSF CMMI 1931737. PI (Fan and Wang) \$380,971 09/01/2019--08/31/2022. Title "Manufacturing of High-Performance Lithium-Sulfur Batteries Using Microbial Nanomachines"
3. American Heart Association 19AIREA34480011. PI (Wang) \$154,000 06/01/2019--05/31/2021 Title "Browning white adipose tissue inhibits atherosclerosis development"

## **ZHANG, FANGYUAN**

### **Publications**

1. Zhang F, Khalili A, Lin S. (2019). Imprinting and Maternal Effect Detection Using Partial Likelihood Based on Discordant Sibship Data. *Statistica Sinica*. 4 = Highly respected in field, refereed.
2. Chen D, Zhang F, Lin S. (2019). AIJ: Joint Test for Simultaneous Detection of Imprinting and Allelic Expression Imbalance. *Mathematical Biosciences and Engineering*. 3 = Good reputation, selective in publication, refereed.

### **Presentations**

### **Oral Presentation**

1. Aavani, P. (Author Only), Trindade, A. (Author Only), Zhang, F. (Presenter & Author), New Researcher Conference, Colorado State University, "Detecting imprinting and maternal effects using Monte Carlo expectation maximization algorithm," peer-reviewed/refereed. (July 25, 2019).

### **Poster**

1. Xue, S. (Presenter & Author), Zhang, F. (Author Only), Scientific Computing meets Machine Learning and Life Sciences, National Science Foundation, the Department of Mathematics & Statistics at Texas Tech University, and the Horn Professorship of Linda J. S. Allen, Texas Tech University, "Detect differentially methylated regions using non-homogeneous hidden Markov model," peer-reviewed/refereed. (October 8, 2019).
2. Zhai, Q. (Presenter & Author), Zhang, F. (Author Only), Scientific Computing meets Machine Learning and Life Sciences, National Science Foundation, the Department of Mathematics & Statistics at Texas Tech University,

and the Horn Professorship of Linda J. S. Allen, Texas Tech University, "NETWORK CLUSTERING WITH ENTROPY-BASED MONTE CARLO METHOD," peer-reviewed/refereed. (October 8, 2019).

3. Nguyen, X. T. (Presenter & Author), Zhang, F. (Author Only), Scientific Computing meets Machine Learning and Life Sciences, National Science Foundation, the Department of Mathematics & Statistics at Texas Tech University, and the Horn Professorship of Linda J. S. Allen, Texas Tech University, "Testing for marginal independence between two categorical variables with multiple responses," peer-reviewed/refereed. (October 8, 2019).

## **ZUMWALT, MIMI**

### ***Publications***

1. Dylan Homen MD, Mathew Helm/EL Domingo-Johnson MS2s, Melinda Schalow/Mimi Zumwalt MD. *Triceps Tendon Rupture-Arm Injury/Carpentry. Medicine and Science in Sports and Exercise*. Vol. 49 No. 5 Supplement S343 June 2019
2. Mimi Zumwalt MD & Arubala Reddy PhD. Stem Cells and Their Applications to Human Diseases-Topical Journal of Biochimica et Biophysica Acta (BBA)-Molecular Basis of Disease: Stem Cells for Treatment of Musculoskeletal Conditions-Orthopaedic/Sports Medicine Applications, In press.

### ***Presentations***

1. Triceps Rupture-Carpentry Accident Causing Arm Injury. Dylan Homen, PGY2 Melinda Schalow, MD Mimi Zumwalt, MD. ACSM Annual Meeting May 2019
2. Gender Differences in Seeking Healthcare for Orthopaedic Conditions GSBS Student Research Week TTUHSC, TX Fall 2019.
3. Hunter Miers, MS2, John Chappa MD, Anudeep Dasaraju MD; Amanda Weaver & Rhett Butler, MS4, Ali Ashraf MD, Adam Wooldridge MD, Phillip Watkins & Mimi Zumwalt, MD. SOM Research Week TTUHSC, TX Spring 2019
4. Addressing Healthcare Provider Competency in Identification of Sex Trafficking Victims. Region IV APAMSA (Asian Pacific American Medical Student Association) conference May 2019
5. Victoria Chu et al. 8<sup>th</sup> Annual (GSMWH) Gender-Specific Medicine & Women's Health Symposium Posters October 2019
6. Gender Differences in Seeking Healthcare for Orthopaedic Conditions. Hunter Miers, Mimi Zumwalt, et al Assessing Sex Trafficking Identification Competence Among Family Medicine Nurses Following Education.

### ***Other Scholarly Activity***

1. Gender/Ethnic Differences in Seeking Healthcare PLUS Time of Recovery from Procedures for Shoulder/Knee/Ankle Conditions. Mimi Zumwalt, MD George Brindley, MD J. Speight Grimes, MD Matthew Ferguson, MD Adam Wooldridge, MD. \$14,850 UMC/LWBIWH Research Scholar Grant
2. Lubbock Anti-Sex Trafficking Project. TMA Foundation Board of Trustees 2017 Medical Community Grant \$1320. Zumwalt, Schalow, Tarbox
3. Human Trafficking Initiative-Sticker Campaign. LWBIWH Internal Seed Grant-Sisters First 2018 Community Grant \$8827. Zumwalt, Schalow, Tarbox
4. Tai Chi for pain management: a pilot mechanistic study. Funding agency: Center of Excellence for Translational Neurosciences and Therapeutics, TTUHSC. Shen CL (PI). Neugebauer V (Co-PI). Watkins BA (Co-PI). Brismee JM (Co-I), Zumwalt M (Co-I), Lee J (Co-I), Chyu M-C (Co-I), Luk H-Y (Co-I), O'Boyle M (Co-I). Study period: 12/1/2018-11/30/2019. \$18,000

<b>Name</b>	<b>Project title</b>	<b>Institute</b>	<b>Year</b>	<b>Role</b>
<b>Al-Rahawan, M.M.</b>	Vitamin levels in the serum of children with cancer.	South Plains Foundation	2019	PI
	Exploring the Effect of hematological variables on HbA1c in Diabetic Children	CH Foundation.	2018-2019	PI
	Banking of Tissue and Establishing Continuous Cell Lines and Xenografts from Neoplasia	South Plains Oncology Consortium	2015-2019	PI
	Adolescent and Childhood Epidemiology and Susceptibility Service	CPRIT	2018-2019	Co-I
<b>Awasthi, S.</b>	The Effect of Curcumin on Cognition in Breast Cancer Patients	LWBIWH & UMC Women's Health Research Scholar Program	2016-2019	PI
<b>Brismée, J.-M</b>	Tai Chi for pain management: a pilot mechanistic study	Center of Excellence for Translational Neurosciences & Therapeutics/TTUSHC	2018-2020	Co-I
	The effects of upper limb neurodynamic mobilization on intraneural fluid dispersion in un-embalmed cadavers.	SOHP/TTUHSC	2016 – 2018	PI
<b>Chyu, M.-C.</b>	Tai Chi for pain management: a pilot mechanistic study	Center of Excellence for Translational Neurosciences & Therapeutics/TTUSHC	2018-2020	Co-I
	Learning Lessons from Hurricane Harvey: Improving Hospital Natural Disaster Policies and Practices	TTU	2017-2018	Co-I
<b>Dufour, J.M.</b>	Genetically engineered Sertoli cells as a vehicle for cell based gene therapy	Wilson Foundation	2014-2019	PI

	Reducing cardiovascular risks using Sertoli cell-based gene therapy	Ted Nash Long Life Foundation	2016-2019	PI
	Utilizing tocotrienols to prevent the formation of islet amyloid deposits- a novel treatment for diabetes mellitus.	LWBIWH & UMC Women's Health Research Scholar Program	2017-2019	Co-I
	Regulatory T cells to improve Sertoli cell protection of transplanted islets	NIH R15AI109398	2014-2017	PI
	Effects of Bioactive Compounds (Tocotrienols and Geranylgeraniol) on Type 2 diabetic rats	American River Nutrition, Inc	2015-2017	Co-I
	Sertoli cells secreting processed proinsulin: A unique therapy for reducing cardiovascular risks in diabetes	AHA Predoctoral Fellowship	2015-2016	PI
	Importance of regulatory T cells in Sertoli cell immune protection of transplanted pancreatic islets	Diabetes Action Research & Education Foundation,	2014-2014	PI
	Transplantation of genetically modified, immune-privileged Sertoli cells	NIH R01HD067400	2010-2014	PI
<b>Figueroa, A.</b>	Effects of 2 strength training modes on arterial function, inflammation, and walking capacity in older adults with peripheral arterial disease.	Florida State University CRC-Planning Grant	2014-2017	PI
	Regular apple consumption improves cardiovascular risk factors and glycemic control in type 2 diabetics.	US Apple Association	2014-2016	PI
	Tart cherry improves cardiovascular risk factors associated with metabolic syndrome.	Cherry Research Committee	2014-2016	PI
	Daily incorporation of strawberries into a diet favorably improves vascular function and lowers aortic blood	US California Strawberry Commission	2013-2015	Co-PI

	pressure in postmenopausal women with prehypertension.			
<b>Kahathuduwa, C.</b>	Mechanism of action of L-theanine in improving visual target discrimination in healthy young-adults: a magnetic resonance spectroscopy study	TTU, CoHS	2018-2019	PI
	Effects of L-theanine and caffeine on attention and attention-related brain activity of male children and adolescents with attention deficit hyperactivity disorder: a proof of concept fMRI study.	TTNI	2017-2018	PI
	Gender differences in risk proneness, gratification delay, self-control, self- efficacy, executive functions and their neuroanatomical and neurophysiological correlates in early adolescents.	TTNI	2017-2019	Co-I
	Neural correlates of the associations between sleep functioning, self- regulation, school functioning and problem behaviors in late adolescents.	TTNI	2018-2019	Co-I
	Neurophysiological correlates of L- theanine, caffeine and their combination on improving selective attention in a visual reaction time task: A functional magnetic resonance imaging study.	TTU, CoHS	2015-2016	Co-I
<b>Kaur, G.</b>	Utilizing tocotrienols to prevent the formation of islet amyloid deposits- a novel treatment for diabetes mellitus.	LWBIWH & UMC Women's Health Research Scholar Program	2017-2019	Co-I
	Tocotrienols for Alzheimer's Disease.	American River Nutrition, Inc.	2015-2018	Co-I

<b>Lee, J.</b>	Actions of dietary tocotrienols on obesity: a pilot clinical study	SOM/TTUHSC	2018-2019	Co-I
	Teacher vs. remotely delivered classroom physical activity breaks.	NIH/NIDDK 2R01DK085317-07	2018–2023	Co-I
	Actigraphy planned missingness.	Child Trends Inc.,	2017–2018	Co-PI
	College and Career Readiness Standards review and revision project–English/Language Arts and Mathematics.	Texas Higher Education Coordinating Board	2017–2018	Co-PI
	Panhandle pipeline (P2): Assessing the impact of mandatory vs. self-selected structured activities on STEM undergraduate student success.	NSF 1644179	2017–2022	Co-I
	Strengthening and expanding STEM education in rural West Texas via curricular revision and new associate degree program development.	DOE P031S170115	2017–2022	Co-I
	Engaging in STEM	DOE P031C160244	2016–2021	Co-I
	Engaging students: The path to STEM success.	DOE P031C160219	2016–2021	Co-I
	Exposure to violence and subsequent weapons use: Mediating and moderating processes.	NIH/NICHHD R01HD084652-01A1	2016–2021	Co-I
	Kansas-Missouri nutrition incentive collaborative.	USDA	2016-2019	Co-I
	Somatosensory modulation of salivary gene expression and oral feeding in preterm infants.	NIH/NICHHD 1R01HD086068-01	2016-2021	Co-I
	Implementing an emergent literacy curriculum for students with intellectual disabilities in general education classrooms.	IES R324A150021	2015–2018	Co-I

Project WOWii: Developing and testing a web-based intervention to promote exercise among those with spinal cord injury.	NIDILLR 90IF0091-01-00	2015-2018	Co-I
Sexual health empowerment for cervical health literacy and cancer prevention.	NIH/NCI 1R01CA181047-01A1	2014–2019	Co-I
A televideo exercise and nutrition program for adult survivors of pediatric cancer.	University of Kansas Cancer Center	2015–2016	Co-I
A virtual reality intervention (Second Life) to improve weight maintenance.	NIH/NIDDK 5R01DK094833-04	2013-2016	Co-I
Develop a prioritized list of physical design interventions to reduce patient falls.	NIH 1R03HS025021-01	2016-2017	Co-PI
Exposure to violence and subsequent weapons use: Mediating and moderating processes.	NIH/NIDDK 1R01HD084652	2016-2018	Co-I
Identifying patient perceptions and attitudes regarding statin-associated diabetes mellitus.	Kowa Pharmaceuticals America, Inc.	2016	Co-I
Pilot evaluation of K-5 Second Step social-emotional learning and bully prevention units.	University of Florida	2016-2017	Co-PI
Preventing youth violence and teen dating violence: Cluster randomized trial of a gender enhanced middle school violence prevention program.	CDC R01CE002340	2013–2017	Co-PI
Topic 5, Goal 5: Assessing self-determination in the era of evidence-based practices: The development and validation of student and adult measures of self-determination.	IES R324A130065	2013-2017	Co-I

	Translating the GLB to promote healthy weight in people with impaired mobility.	CDC 15-277211520-FB44	2014-2017	Co-I
<b>Lee, S.-A.</b>	Teaching words and grammatical morphology via telepractice	CH Foundation	2019-2020	PI
	Effectiveness of telepractice intervention for children with SLI	TTUHSC/SHP	2019	PI
	Phonological development milestones in Vietnamese-speaking children	Fulbright Research and Teaching grant to Vietnam, US Department of State.	2019	PI
	The effect of animation in learning novel words in children with specific language impairment	TTU	2018-2019	Co-PI
	Ultrasound biofeedback for children with cleft palate	TTU	2017-2018	PI
	Telepractice intervention using animation: A pilot study	TTU-TTUHSC	2015-2016	PI
	Phonological awareness intervention via telepractice for children with hearing loss	The CH Foundation	2013-2014	PI
	The effects of speech therapy via telepractice for children with speech disorders	South Plains Foundation	2013-2014	PI
	Speech perception in Korean-English bilingual children	TTUHSC/SOHP	2013-2014	PI
<b>Luk, H.Y.</b>	Tocotrienols supplementation for postmenopausal women with low muscle strength	American River Nutrition, Inc., Hadley, MA.	2018-2020	CO-I
	Tocotrienols Supplementation for Postmenopausal Women with Sarcopenia: A Pilot Study	South Plains Foundation	2018-2020	CO-I

	Tai Chi for pain management: a pilot mechanistic study	Center of Excellence for Translational Neurosciences and Therapeutics, TTUHSC	2018-2019.	CO-I
	Effect of the transient resistance exercise-induced testosterone increase on satellite cell activation	National Strength and Conditioning	2015-2017	PI
	The influence of resistance exercise-induced testosterone on satellite cell proliferation	American College of Sports Medicine Texas Chapter	2015	PI
	Travelling and Exercise Performance	National Strength and Conditioning	2013-2014	PI
<b>Lyford, C.</b>	Enhancing Access to Agricultural Extension Services and Market Opportunities for Smallholder Farmers with a Special Focus on Female Smallholder Farmers in Northern Ghana	USDA - Foreign Agricultural Service	2017-2019	PI
	OIA 2019 Mandela Washington Fellowship	US Department of State	2019	Co-PI
	Graduate Education at the Nexus of Global Horticulture and Human Nutrition to Enhance Community Resilience and Food Security	USDA-NIFA CSREES	2017-2020	Co-PI
<b>Moustaid-Moussa, N.</b>	Synergistic effects of tart cherry anthocyanins and omega 3 fatty acids	USDA NIFA	2019-2022	PI
	Maternal dietary obesity and metabolic disorders in offspring	AHA	2017-2019	Co-I
	Gene and miRNA networks mediating effects of fish oil	USDA NIFA Postdoctoral fellowship (Mandana Pahlavani)	2018-2020	Mentor/Sponsor

	Role of HSP proteins in diabetes and obesity	Qatar Biomedical Research Institute	2018-2020	PI
	Effects of lean beef proteins and pH on reducing obesity, diabetes and cancer	Empirical Foods Inc	2018-2021	PI
	Systematic Review on role of beef proteins on gut microbiome	NBCA (Beef checkoff)	2019	PI
	miRNAs mediating effects of omega 3 fatty acids in fatty liver disease	USDA Pre-doctoral fellowship (Kembra Albracht-Schulte)	2017-2019	Mentor/Sponsor
	Antiobesity effects of omega 3 fatty acids in brown adipose tissue	NIH/NCCIH	2016-2020	PI
	Protective effects of omega 3 fatty acids in Alzheimer's Disease	Supplement to above award from NIA	2018-2020	PI
	Developing the <i>C elegans</i> as a model organism for nutritional studies	USDA-NIFA AFRI Exploratory Award	2015-2017	PI
	Effects of bioactive compounds (tocotrienols and geranylgeraniol) on type 2 diabetic rats	American River Nutrition, Inc.	2015-2018	Co-I
	Organosolv extractions and value added products from switchgrass	USDA-NIFA AFRI	2013-2017	Co-PI
	Inactivation of adipocyte angiotensinogen prevents inflammation and insulin resistance	AHA Southwest Affiliate	2013-2016	PI
	Extractives in switchgrass: value added products to prevent adipocyte inflammation	USDA/Bioenergy - Sungrant Southeast Center	2013-2015	Co-PI
<b>Nair, N</b>	Amgen's Galactic Trial	Novartis		Site PI

<b>Narasimhan, M.</b>	Neuroprotection from ETOH-mediated apoptosis: Nrf2/ARE control of GSH homeostasis.	NIH/NIAAA	2010-2015	Key Personnel
	Role of EAAC1 in Autism: Is N-acetyl cysteine dendrimer a possible intervention?	The CH Foundation	2019	PI
	Neuroprotection from alcohol: Control of fetal neuron cyseine and GSH homeostasis by Cys transport/synthesis.	NIH/NIAAA	2016-2021	Co-I
	Mechanisms of cannabinoid tolerance.	NIH/NIDA	2018-2023	Co-I
	Reductive stress induces proteotoxic cardiac disease.	NIH/NHLBI	2018-2023	Co-I
<b>Neugebauer, V.</b>	Tai Chi for pain management: a pilot mechanistic study	Center of Excellence for Translational Neurosciences & Therapeutics/TTUSHC	2018-2020	Co-I
	Pronociceptive and antinociceptive opioid mechanisms in the central nucleus of the Amygdala	NIH/NINDS	2019-2024	Co-I
	The neuroimmune model of excessive alcohol consumption: Transition to Alcohol Use Disorder	NIH/NIAAA	2029-2023	Co-I
	Stress-induced descending facilitation from amygdala kappa opioid receptors in functional pain	NIH/NINDS	2018-2023	PI
	Amygdala Pain Mechanisms	NIH/NINDS	2016-2021	PI
	Activin A-follistatin signaling: A novel mechanism and target of chronic neuropathic pain	SOM/TTUHSC		
	Amygdala Serotonin Neurotransmission and Neuropathic Pain	NIH/NINDS	2013-2018	PI
	Kappa Antagonists to Treat Pain	Pain Research Challenge Award	2017-2018	Co-PI

	Novel Treatment of Chemotherapy-Induced Neuropathic Pain	The CH Foundation	2016	Co-PI
	Gender differences in Multiple Sclerosis-related pain, correlation with burden of disease, and responsiveness to pain-relieving interventions	LWBIWH/UMC Women's Health grant program	2015-2016	Co-PI
<b>Oldewage-Theron, W.</b>	Cardiovascular risk markers and genetic polymorphisms in black South African children aged 6-18 years old	TTU	2017-2018	PI
	Harnessing baobab in addressing iron deficiency anaemia in Ghana	TTU	2016-2017	Co-I
	US Department of Education for the East Lubbock Promised Neighbourhood project	US Department of Education	2015-2016	PI
	Development of soy-based snack foods and SMME training and development	Oilseeds Advisory Committee	2014-2017	PI
<b>Palmer, T.</b>	Time course effects of manually-applied passive stretches on hamstrings musculotendinous stiffness and postural stability.	Mid-America Athletic Trainers Assoc	2017	Co-PI
	Tocotrienols supplementation for postmenopausal women with low muscle strength	South Plains Foundation	2018-2019	Co-PI
<b>Park, O.-H.</b>	East Lubbock Promise Neighborhood	US Department of Education	2013-	Co-PI
	Effect of food-based tart cherry anthocyanins on cardiometabolic biomarkers and dietary risk for obesity	TTU/COHS	2016	Co-I
	A pilot study: Sustainable life skills to reduce obesity risk by improving protective factors for youth	TTU/COHS	2017	Co-PI

<b>Phy, J.</b>	Effect of Acupuncture on Vascular Biomarkers and Psychological Well-Being of Women Undergoing In Vitro Fertilization (IVF)	LWBIWH/UMC Women's Health grant program	2014-2017	PI
	Effect of Dietary Reduction of Carbohydrates from Starch on Clinical and Biochemical Symptoms of Polycystic Ovary Syndrome	LWBIWH/UMC Women's Health grant program	2012-2014	PI
<b>Ramalingam, L.</b>	Effects of bioactive compounds (tocotrienols and geranylgeraniol) on type 2 diabetic rats	American River Nutrition, Inc.	2015-2018	Co-I
	Early life programming by omega-3s fatty acids in obesity associated Inflammation	AHA	07/17-06/19	PI
	Anti-obesity effects of omega 3 fatty acids in brown adipose tissue	NIH/NCCIH	08/16-08/19	Co-I
<b>Rivas, E.</b>	Texas Tech Startup funds	TTU	2017-2020	PI
	6 weeks of heat therapy and omega 3 on micro- and microvasculature in obese Hispanics	TTU	2018-2019	PI
	Amino acid supplementation in recovery from severe burn	Shriners Hospitals for children	2016	Postdoc
	NIH Clinical Translational Science Award (CTSA) program	NIH	2015-2016	Postdoc
	Effects of Exercise plus Oxandrolone on Glucose Tolerance and Incretin Response in Burned Children	NIH	2017	Postdoc
<b>Schlabritz-Lutsevich, N</b>	Fetal Cerebrovascular endocannabinoid System (eCB) as a Target of Maternal Alcohol Consumption	R21 AA 22433-01	2014-2016	Correspondent PI (Multiple PI-Bukiya)

	Development of fetal gender-specific therapy, targeting placental glutathione (GSH) antioxidant system in maternal obesity and alcohol consumption	LWBIWH/UMC Women's Health grant program	2015-2017	Co-PI
	Point-of-care monitoring of feto-placental oxygen uptake	R43 HD095348-01	2018-2019	Co-PI
	Adipose Tissue Derived Exosomes Placental Axis as a Novel Target for Prevention Pregnancy Complication	LWBIWH/UMC Women's Health grant program	2018-2020	PI
	Gut-placental axis in maternal obesity	UTHSC, Molecular Biology core	2013	PI
<b>Shen, C.-L.</b>	Tai Chi for pain management: a pilot mechanistic study	Center of Excellence for Translational Neurosciences & Therapeutics/TTUSHC	2018-2020	PI
	Actions of dietary tocotrienols on obesity: a pilot study	SOM/TTUHSC/LWBIWH/American River Nutrition	2018-2020	PI
	Tocotrienols supplementation for postmenopausal women with low muscle strength	South Plains Foundation	2018-2020	PI
	Utilizing tocotrienols to prevent the formation of islet amyloid deposits- a novel treatment for diabetes mellitus	LWBIWH/UMC Women's Health grant program	2017-2019	Co-I
	Tocotrienols for Alzheimer's Disease	American River Nutrition, Inc.	2015-2018	PI
	Effects of bioactive compounds (tocotrienols and geranylgeraniol) on type 2 diabetic rats	American River Nutrition, Inc.	2015-2018	PI
	Effect of tocotrienols on bone health: a pilot study.	American River Nutrition, Inc.	2014-2017	PI
	Clinical Outcomes of an Interprofessional Collaborative Practice (IPCP) Program for Cardiovascular Risk Reduction (CRR) Among Chronic Disease Patients in a Nurse-Managed Health Center	SON/TTUHSC	2016-2018	collaborator

<b>Shin, A.C.</b>	Novel diagnostic tool and compound repurposing for early detection and alleviation of Alzheimer's disease	NSF I-Corps Program - National	2019-2020	PI
	Repurposing a compound to treat Alzheimer's disease	NSF I-Corps Program - Regional	2019	PI
	Reward-related gene expression changes in the ventral tegmental area of HF-fed mice after RYGB surgery	TTU	2019	PI
	A new culprit for heart failure – Control of BCAA metabolism in cardiac function	TTU Systems	2017-2018	PI
	A pilot study to identify blood biomarkers for association between diabetes and Alzheimer's disease	TTU	2017-2018	Co-PI
	Role of brain insulin in the regulation of branched-chain amino acid metabolism	NIH / NIDDK	2013-2018	PI
<b>Sizer, P.</b>	TKQuant Business Plan	TTU Accelerator Program	2017	PI
	Tissue Kinematics Quantification	NSH-National-Crops Initiative	2017	PI
	Fluid Dynamics of the Cervical Nerve Roots During Upper Limb Movements in Cadavers- Transducer Development.	TTUHSC SOAHS	2015	PI
	Nerve Related Pain	TTUHSC SOAHS Niche Grant	2015	PI
<b>Song, H.</b>	ACCION for Rural West Texas –Colorectal Cancer Screening Program	Texas CPRIT	11/2014- 11/2017	
	Nurse Education, Practice, Quality, and Retention (NEPQR) Program – Interprofessional collaborative practice for cardiovascular risk reduction	HRSA	07/2014- 06/2017	
	CMS Strong Start Program	CMS	02/2013- 08/2017	

	Early Childhood Obesity Prevention program	Aetna Foundation	2012-2013	
<b>Sun, G. H.</b>	Interprofessional Medicare Wellness Clinic	Texas Speech-Language-Hearing Foundation	2013-2015	Provider
	Developing an Interdisciplinary Medicare Wellness Clinic for Elderly Patients in a Primary Care Setting	TTUHSC	2012	Co-PI
<b>Tinsley, G.M.</b>	Time-restricted feeding and HMB supplementation during resistance training in active females	MTI Biotech, Inc.	Nov 2017 – Dec 2018	PI
	Effects of HMB supplementation on muscle protein breakdown during acute fasting: Implications for intermittent fasting programs	MTI Biotech, Inc.	Nov 2016 – Dec 2017	PI
<b>Vellers, H.L.</b>	Effect of Pulsatile Pressure and Long Sleep Duration on Cerebral Vascular Function	American Heart Association	2019-2021	Co-PI
	Role of Genetic Background on Age-Related Changes in Mitochondrial Genome Dynamics: Influence of Aerobic Exercise	San Antonio Nathan Shock Center	July 2019 – July 2020	PI
	Effect of Chronic Overfeeding on Voluntary Physical Activity in Mice	American College of Sports Medicine	June 2014 – June 2015	PI
<b>Wang, S.</b>	Browning white adipose tissue for diabetes treatment	NIH/NCCIH	2019-2022	PI
	Manufacturing of High-Performance Lithium-Sulfur Batteries Using Microbial Nanomachines	NSF	2019-2022	Co-PI
	BCA2's modulation of NF- $\kappa$ B and its role in proviral latency	NIH	2018-2020	Co-I
	Burning fat by nanoparticles for obesity treatment (FatBuringNano™)	NSF	2018-2019	PI

	Anti-obesity effects of adipose-targeting resveratrol nanoparticles	NIH/NCCIH	2015-2019	PI
	Establishing C Elegans as a model for nutritional studies	USDA	2015-2018	Co-I
	Effect of tocotrienols on bone health: A pilot study	American River Nutrition, Inc.	2015-2017	Co-I
<b>Zhang, F.</b>	Gender differences in 30-day mortality rates and unplanned readmission for patients treated for heart attack and stroke	LWBIWH & UMC Women's Health Research Scholar Program	2016-2019	Co-PI
	Effect of Acupuncture on hypogalactia (decreased milk supply): A pilot study	SOM/TTUHSC	2018-2019	PI
	Gender differences in 30-day mortality rates and unplanned readmission for patients treated for heart attack and stroke	LWBIWH & UMC Women's Health Research Scholar Program	9/1/2017-8/31/2019	PI
<b>Zhang, Y.</b>	Effect of Acupuncture on Vascular Biomarkers and Psychological Well Being of Women Undergoing In Vitro Fertilization (IVF).	LWBIWH & UMC Women's Health Research Scholar Program	2014-2018	Co-I
	Characterizing the Effect of Oriental Medical Treatment of Tinnitus.	The CH Foundation	9/1/2015-8/31/2016	Co-I
	Acupressure's Impact on Knee Pain among Osteoarthritic Women	LWBIWH & UMC Women's Health Research Scholar Program	3/1/2011-2/28/2013	PI
<b>Zumwalt, M</b>	Tai Chi for pain management: a pilot mechanistic study	Center of Excellence for Translational Neurosciences & Therapeutics/TTUSHC	2018-2020	Co-I

	Human Trafficking Initiative-Sticker Campaign	LWBIWH Internal Seed Grant-Sisters First t	2018	PI
	TMA Foundation Board of Trustees 2017 Medical Community Grant	Lubbock Anti-Sex Trafficking Project	2017	PI
	Gender/Ethnic Differences in Seeking Healthcare PLUS Time of Recovery from Procedures for Shoulder/Knee/Ankle conditions	UMC/LWBIWH Research Scholar Grant		PI