



**Center of Excellence for Integrative Health  
(CEIH)  
Annual Report  
2021**

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## Summary

- By December 2021, over 43 faculty members had joined the Center. The Center website was established (<https://www.ttuhschool.edu/centers-institutes/integrated-health-research/default.aspx>) and included member profiles, funded grant awards, etc.
- Among 43 members, 35 members submitted their 2021 annual report. These reports indicated important metrics for the Center: 232 peer-referred publications, 74 published abstracts, 45 poster presentations, 107 oral presentations, and 40 grant awards (totaling \$31,460,257 covering the year of 2021 and related years). Detailed scholarly activities of these 35 members are in the appendix.
- The 2021 Annual Membership Meeting was hosted virtually on December 4, 2021. 12 members presented their research highlights and interest areas at the meeting. The meeting has been recorded. We shared the meeting minutes along with the Zoom recording with members who had time conflicts, and noted their feedback.
- The CEIH worked with the Department of Medical Education to organize summer rotation activities for the Family Medicine Accelerated Track (FMAT), specifically applying integrative health to chronic disease management.

## 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 43 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.ttuhsoc.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
<b>Al-Rahawan, Mohamad</b> 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.	
<b>Blanton, Michael P.</b> PhD/ Pharmacology & Neuroscience/ SOM-Lubbock, TTUHSC	<a href="mailto:michael.blanton@ttuhsc.edu">michael.blanton@ttuhsc.edu</a> Office: (806) 743-3496 Cell: (806) 319-1778	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.ttuhsoc.edu/medicine/pharmacology/faculty/blanton.aspx">http://legacy.ttuhsoc.edu/medicine/pharmacology/faculty/blanton.aspx</a>	
<b>Brismée, Jean-Michel</b>	<a href="mailto:Jm.brismee@ttuhsc.edu">Jm.brismee@ttuhsc.edu</a>	Clinical trials, intervertebral disc hydration/height, musculoskeletal health	

PT, ScD/ Rehabilitation Sciences-SHP- Lubbock, TTUHSC	Office: (806)743-3243 Cell: (806) 789-0387	including, osteoarthritis, osteoporosis, diagnostics, manipulative therapy, mind- body therapies including yoga, meditation, Tai Chi.	
<b>Chyu, Ming- Chien</b> PhD/Mechanic al Engineering/TT U	<a href="mailto:m.chyu@ttu.edu">m.chyu@ttu.edu</a> Office: (806) 834-8982	Non-pharmacological approaches in musculoskeletal issues-healthcare engineering approach- biomechanics.	
<b>Coman, Ioana A</b> PhD/Public Relations/Colle ge of Media and Communication	<a href="mailto:ioana.coman@ttu.edu">ioana.coman@ttu.edu</a> Cell: 865-607-5406 Office: 806.834.0936	Health communication & promotion (vaccines, outbreaks/pandemics, health issues) in risk and crisis contexts, different levels (local, national, international) and different platforms (media, social media, visuals, etc). Stigma, advocacy and health communication/promotion.	Health promotion Social Media Vaccines Outbreaks Mis/disinfor mation Stigma Advocacy
<b>Dennis, Jeff</b> PhD/Public Health	Jeff.Dennis@ttuhsc.ed u	Social epidemiology, including racial and ethnic disparities in health outcomes, immigrant health, and disparities in birth outcomes. Complementary and alternative medicine, mental health diversion in correctional facilities, sleep disturbance, and life satisfaction among medical students	population health and demograph y
<b>Dufour, Jannette</b> PhD/Cell Biology and Biochemistry/S OM-Lubbock, TTUHSC	<a href="mailto:jannette.dufour@ttuhs.c.edu">jannette.dufour@ttuhs.c.edu</a> Office: (806) 743-2616	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.	Sertoli cells, Immune privilege, Transplant ation, Diabetes, Islets, Gene therapy, Cell Therapy
<b>Enakpene, Christopher A</b> MD / Maternal- Fetal Medicine / Obstetrics & Gynecology / SOM, TTUHSC Midland/Permian Basin	<a href="mailto:christopher.a.enakpene@ttuhsc.edu">christopher.a.enakpene@ttuhsc.edu</a> Cell: 347 217 5127	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.	Clinicaltrial .gov. REDSOAP Study: NCT03116 009. Clinicaltrial .gov ARABIN Study NCT03052 270

<b>Figueroa, Arturo</b> MD, PhD/ Kinesiology and Sport Management/ TU	<a href="mailto:arturo.figueroa@ttu.edu">arturo.figueroa@ttu.edu</a> Office: (806) 834-5587	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.	Arterial stiffness, aortic hemodynamics, wave reflection, blood flow, 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> MBBS, MPhil, 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, J Josh</b> PhD/Pharmacology & Neuroscience/	<a href="mailto:John.lawrence@ttuhsc.edu">John.lawrence@ttuhsc.edu</a>	nutritional deficiencies, excitation/inhibition balance in disease states, hippocampal neuromodulation, aging, Alzheimer's disease, epilepsy, autism	Autism Epilepsy Late onset of AZ

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

Family Practice/SON TTUHSC			
<b>Moustaid-Moussa, Naima</b> PhD/Nutritional Sciences /TTU	<a href="mailto:naima.moustaid-moussa@ttu.edu">naima.moustaid-moussa@ttu.edu</a> Office: (806) 834-7946	Basic and integrated nutrition and obesity research. 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> Office : (806)834-1812	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	Investigating the impact of community nutrition programs (food fortification, supplementation, nutrition education, food product development and implementation, school nutrition, vegetable and soy gardening) on food insecurity and the double burden of disease of women, children and 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/SO M-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.	
<b>Narissra M. Punyanunt-Carter, PhD</b>  Communication , College of Media & Communication TTU	<a href="mailto:n.punyanunt@ttu.edu">n.punyanunt@ttu.edu</a> Office: (806)834-3273	Health communication; health advocacy, the crafting of messages about health, and strategies for the promotion of health-care services.	
<b>Rahman, Rakhshanda,</b> MD, FRCS, FACS	<a href="mailto:rakhshanda.rahman@ttuhsc.edu">rakhshanda.rahman@ttuhsc.edu</a>	Comprehensive Breast Cancer Care Risk Assessment and Prevention of Breast Cancer Breast Cancer Survivors Quality of Life Ultrasound guided percutaneous diagnosis and treatment of breast disease Oncoplastic management of Breast Cancer	
<b>Shen, Leslie</b> PhD, CCRP/ Pathology/ SOM-Lubbock, TTUHSC	<a href="mailto:Leslie.Shen@ttuhsc.edu">Leslie.Shen@ttuhsc.edu</a> Office: (806) 743-2815 Cell: (806) 787-6971	Clinical trials and animal studies – dietary supplement/phytochemicals in musculoskeletal health and obesity. Mind-body exercise (clinical only) in musculoskeletal health and obesity.	Clinical trials - obesity-related chronic diseases (diabetes, metabolic syndrome).
<b>Shin, Andrew</b> PhD / Nutritional Sciences / TTU	<a href="mailto:andrew.shin@ttu.edu">andrew.shin@ttu.edu</a> Office: 806-834-1713	Neurobiology of appetite control, body weight regulation, nutrient metabolism. Behavioral neuroscience, Mechanisms underlying bariatric surgery	Branched-chain amino acids, Roux-en-Y gastric bypass, brain, Alzheimer's disease, obesity, diabetes
<b>Singh, Sharda</b> PhD TTUHSC	<a href="mailto:Sharda.singh@ttuhsc.edu">Sharda.singh@ttuhsc.edu</a> Office: (806) 743-1540	Clinical trials and animal studies – dietary supplement/phytochemicals in prevention 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/Reh	<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	

<p>abilitation Sciences/SHP-Lubbock, TTUHSC</p>			
<p><b>Huaxin Song</b> PhD/School of Nursing TTUHSC</p>	<p><a href="mailto:Huaxin.song@ttuhsc.edu">Huaxin.song@ttuhsc.edu</a> Office: 806-743-2661</p>	<p>Chronic Disease Management through interprofessional collaborative practice; Childhood obesity prevention; Big Data and measurement matrix for research and quality improvement programs for healthcare system.</p>	<p>Chronic Disease Management/ Geriatric care/ Childhood obesity</p>
<p><b>St. John, Julie</b> DrPH, MPH, MA, CHWI/Dept. of Public Health, GSBS, TTUHSC</p>	<p><a href="mailto:julie.st-john@ttuhsc.edu">julie.st-john@ttuhsc.edu</a> Office: 325.696.0473 Cell: 325.513.4943</p>	<p>Health status and quality of life improvement among diverse and rural populations through community health development and partnership approaches; scope of practice and training of Community Health Workers; addressing human trafficking through community capacity building; health disparities; community health status assessments; program evaluation; intervention development</p>	<p>Community based participatory research; Public health; Community health workers; Partnerships Health disparities; Program evaluation</p>
<p><b>Sun, Grace</b> DNP, APRN, FNP-BC TTUHSC/School of Nursing/TTU Student Health and Wellness</p>	<p><a href="mailto:Grace.sun@ttuhsc.edu">Grace.sun@ttuhsc.edu</a> Office: (806) 743-9246</p>	<p>University Student Health and Wellness; Gastroenterology/Hepatology; Interprofessional education; Nutrition, Physiology, Metabolism</p>	
<p><b>Tinsley, Grant</b> PhD/Kinesiology &amp; Sport Management/TTU</p>	<p><a href="mailto:Grant.tinsley@ttu.edu">Grant.tinsley@ttu.edu</a> Office: (806) 834-5895</p>	<p>Body composition assessment methodology, lifestyle interventions to improve body composition, intermittent fasting, dietary supplementation, resistance training</p>	<p>Body composition assessment; intermittent fasting; fat mass; muscle mass; resistance training</p>
<p><b>Zhang, Fangyuan</b> PhD/Mathematics and Statistics/TTU</p>	<p><a href="mailto:fangyuan.zhang@ttu.edu">fangyuan.zhang@ttu.edu</a> Office: (806) 834-2587</p>	<p>Developing statistical methods to detect genetic effects, epigenetic effects, and interaction effects between genes and environment associated with human complex diseases. Application of biostatistical methods to real data analysis.</p>	<p>Statistical genetics, biostatistics</p>

<p><b>Zhang, Yan</b> PhD, LAc/Texas Christian Univerity</p>	<p><a href="mailto:Yan.zhang@tcu.edu">Yan.zhang@tcu.edu</a> Office: 806-743-6056</p>	<p>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</p>	<p>Clinical trials-acupunctur e and mind-body interventio n, integrative pain managemen t study Health services research-secondary data analysis, patient-outcome study</p>
<p><b>Zook, Julie</b> Ph. D./Architecture/ TTU</p>	<p><a href="mailto:Julie.zook@ttu.edu">Julie.zook@ttu.edu</a> Office: (806) 834-0699</p>	<p>Environmental determinants of health related to architectural and urban/community design; use of EHR data to better understand functioning of healthcare architecture</p>	<p>Architectur e Healthcare workers Patient experience</p>
<p><b>Zumwalt, Mimi</b> MD/Orthopedic Surgery/ Sports Medicine TTUHSC</p>	<p><a href="mailto:mimi.zumwalt@ttuhsc.edu">mimi.zumwalt@ttuhsc.edu</a> Office: (806) 743-2465</p>	<p>Female athletes/Injury prevention Exercise techniques/training Rx Natural/alternative nutrition Sex/Gender differences</p>	<p>female athletes sex/gender musculosk eletal injury/ strength &amp; conditionin g</p>

**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 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 OBEJCTIVES:**

**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 denotes our achieved goals and objectives:

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

- Due to the Covid-19 pandemic, we hosted our 2021 Center Membership Meeting via Zoom. 14 members presented their research interests, their 2021 scholarly activity highlights, and actively participated in discussion.
  - Leslie Shen, PhD, CCRP, Department of Pathology, SOM.
  - Wilna Oldewage-Theron, PhD. Department of Nutritional Sciences, TTU.
  - Jaehoon (Jason) Lee, PhD. Department of Educational Psychology, TTU.
  - Grant Tinsley, PhD. Department of Kinesiology and Sport Management, TTU.
  - J Josh Lawrance, PhD. Department of Pharmacology & Neuroscience, SOM
  - Conrad Lyford, PhD. Department of Agricultural and Applied Economics, TTU
  - Sue-Ann Lee, PhD, Department of Speech, Language, Hearing Sciences, SHP.
  - Julie St-John, DrPH, MA. SPH, TTUHSC
  - Grace Sun, DNP. SON, TTUHSC.
  - Namia Moustaid-Moussa, PhD. Department of Nutritional Sciences, TTU.
  - Mohamad Al-Rahawan, MD, MPH, Department of Pediatrics, SOM
  - Huaxin Song, PhD. School of Nursing, TTUHSC.

- Michael Blanton, PhD. PhD. Department of Pharmacology and Neuroscience, SOM.
- Volker Neugebauer, PhD. Department of Pharmacology and Neuroscience, SOM.
- At our Membership meeting, we also discussed the following:
  - (I) How to promote CEIH function: (i) to contact communication office for visibility, (ii) may invite Deborah Clegg (Vice President of Research, TTUHSC-El Paso) as a potential member, (iii) sending potential members the CEIH website link when inviting them to join the Center.
  - (II) How to utilize CEIH fund of \$17,000 – potentially use for MSSRP student stipends.
  - (III) The plan to host our own 2022 CEIH Annual Symposium. Created an organization committee: Conrad Lyford (TTU), Julie St-Jone (SPH, TTUHSC), Grace Sun (SON, TTUHSC), Michael Blanton (SOM/Graduate School, TTUHSC), Leslie Shen (SOM, TTUHSC).
  - (IV) How to work with the Clinical Research Institute for members that run clinical trials.
- 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.
- Encouraged members to collaborate for manuscript (review or research study) and grant proposal application through offering member profiles and research grant table.

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

- Based on 35 member reports, there was a total of 152 presentations, including oral and poster presentations at national and international symposiums. Please see more detailed presentation list in appendix.

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

- Based on 35 member reports, there were 232 peer-reviewed article publications and 74 published abstracts by Center members in 2021. Please see more detailed publication and abstracts list in the appendix.

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

- Approximately 15 medical students are involved in research activities related to integrative health.

*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 once in 2021 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 in 2021 at the Annual Membership Meeting and presented/shared research highlights.
- Sponsored 5 medical students to participate in the 2021 Medical Student Summer Research Program.
- 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 (232 peer-referred journal articles, 74 published abstracts) and 149 presentations (oral and poster), and other scholarly activity from our 31 Center members who provided this information to include in this 2021 report.

## **Funding**

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

Please see attached appendix for the list of 40 grant awards with a total amount of \$31 million (covering the year of 2021 and related years) from our 35 Center members who provided this information to include in the 2021 report.

## Future Plans

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

The following areas are our 2022 plans:

- To promote Center visibility locally and nationally.  
*Locally:* To organize the 2022 CEIH symposium planning committee for upcoming annual CEIH meetings.  
*Nationally:* To present our Center progress/update at the upcoming 2022 Integrative Medicine & Health Symposium, Hosted by the Academic Consortium, Pheonix, AZ, May 23-26, 2022.
- To host the 2022 Center Steering Committee Meeting in spring-summer 2022 regarding the future direction of CEIH.
- To host the 2022 Center Membership Meeting in summer-fall 2022.
- 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.*

### **2021 & 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.

**Al-Rahawan, Mohamed**

Publications

*Papers in Preparation:*

Dhir N; Chandrahas S; Hanson K; IgbaseimokumoU; NagyL; BelirgenM; O'SuojiC; Al-RahawanMM. Treatment of Children with BRAF-V600E Positive Brain Tumors Using BRAF and MEK Inhibitors: A Case Series. Journal of Neuro-Oncology. 2021. In review

Eldem I, Al MadniO, LeventF, AlmekdashMH, Al-Rahawan MM. Red blood cell distribution width, analysis in osteomyelitis: Can it be an inflammatory marker?

Barr EK, Al-RahawanMM, Yang J, Wang C; Aldag JC, de Alarcon PA, West N, Hinds PS, Rubnitz JE, Daw NC. Anemia and Health-Related Quality of Life in Pediatric Patients Undergoing Treatment for Acute Myeloid Leukemia or Osteosarcoma.

Urias E, McLaurinL, Higgins J, Suma P, ShankarS, Al-Rahawan MM, RauenKA; Costello Syndrome and Pancreatitis: Possible Expansion of the Phenotype.

Presentations/Posters

October 2021 Pediatric ECMO training: Anticoagulation during ECMO; Covenant Children's Hospital, Lubbock, TX

October 2021 Annual Oncology Nursing Society Meeting: Managing complexities of Pediatric Oncology. ONS Lubbock Chapter, Lubbock, TX

September 2021 Poster: Evaluating urine pH and specific gravity: A single center experience comparing different urine testing methods in children receiving high-dose methotrexate; The Society of Hematologic Oncology's Ninth Annual Meeting; Houston, TX; Presented by the first author, Joanna Chyu, MS-I.

May 2021 Poster: Evaluating urine pH and specific gravity: A single center experience comparing different urine testing methods in children receiving high-dose methotrexate; University of Texas Medical Branch; 62nd Annual National Student Research Forum; Galveston, TX; Presented by the first author, Joanna Chyu, MS-I.

March 2021 Poster: Vitamin D levels in Pediatric Patients Undergoing Chemotherapy; Texas Tech University Health Science Center Student Research Week; Lubbock TX; Presented by the first author, Madison Schoeberl, MS-II.

March 2021 Poster: Evaluating urine pH and specific gravity: A single center experience comparing different urine testing methods in children receiving high-dose methotrexate; Texas Tech University Health Science Center Student Research Week; Lubbock TX; Presented by the first author, Zain Ali, MS-IV.

January 2021 Pediatric Grand Round: Supportive Care in Pediatric Oncology Texas Tech University Health Sciences Center, Lubbock, TX

January 2021 Pediatric Hematology-Oncology Nurse Education day: Biotherapy in Leukemia, The New COG protocols; University Medical Center, Lubbock, TX

Abstracts:

AliZ, ChyuJ, AlmekdashMH, Al-RahawanMM; ALL-058: Evaluating Urine pH and Specific Gravity: A Single-Center Experience Comparing Different Urine Testing Methods in Children Receiving High-Dose Methotrexate; Clinical Lymphoma Myeloma and Leukemia; Volume 21, Supplement 1, 2021; Pages S265-S266,

Posters-see above

Grant Awards

- 2021 Alex Lemonade Stand Foundation \$28,044.00

Grant Applications-none

## **Blanton, Michael**

Publications-none

Presentations-none

Posters-none

Grant Awards-none

Grant Applications-none

## **Brismee, JM**

Publications (peer-reviewed)

1. Shen CL, Watkins BA, Kahathuduwa C, Chyu MC, Zabet M, Elmassry MM, Luk HY, Brismee JM, Knox A, Lee J, Zumwalt M, Wang R, Wager TD, Neugebauer V. Tai Chi Improves Brain Functional Connectivity and Plasma Lysophosphatidylcholines in Postmenopausal Women with Knee Osteoarthritis: An Exploratory Pilot Study. *Frontiers in Medicine, section Rheumatology*. 2022;8:775344.  
<https://www.frontiersin.org/articles/10.3389/fmed.2021.775344/full>

2. Hage R, Detrembleur C, Dierick F, Brismée JM, Roussel N, Pitance L. Sensorimotor Performance in Acute-subacute Non-Specific Neck Pain: A Non-Randomized Prospective Clinical Trial with Intervention. *BMC Musculoskeletal Disorders*. 2021;22(1):1017. <https://bmcmusculoskeletdisord.biomedcentral.com/track/pdf/10.1186/s12891-021-04876-4.pdf>

3. Elkins MR, Pinto RZ, Verhagen A, Grygorowicz M, Söderlund A, Guemann M, Gómez-Conesa A, Blanton S, Brismée JM, Ardern C, Agarwal S, Jette A, Karstens S, Harms M, Verheyden G, Sheikh U. Statistical Inference through Estimation: Recommendations from the International Society of Physiotherapy Journal Editors. *Journal of Physiotherapy*. 2021;21:S1836-9553(21)00128-

4. [https://www.clinicalkey.com/service/content/pdf/watermarked/1-s2.0-S1836955321001284.pdf?locale=en\\_US&searchIndex=](https://www.clinicalkey.com/service/content/pdf/watermarked/1-s2.0-S1836955321001284.pdf?locale=en_US&searchIndex=)

4. St-Pierre MO, Lavoie FA, Brismée JM, Hoffmann M, Begon M, Bertrand-Grenier A, Sobczak S. Intracapsular Pressures in the Flexion-Abduction-External Rotation and Flexion-Adduction-Internal Rotation Tests and Their Comparison With Classic Hip Range Of Motion: A Cadaveric Assessment. *Clinical Biomechanics (Bristol, Avon)*. 2021;91:105526.

5. Lasley RJ, Brismée JM. Delayed Diagnosis and Surgical Management for Gluteus Medius/Minimus Calcific Tendinopathy with Heterotopic Ossification: A Case Report. *International Journal of Clinical Studies & Medical Case Reports*. 2021;8(5):1-5. <https://ijclinmedcasereports.com/pdf/IJCMCR-CR-00199.pdf>

6. Dierick F, Brismée JM, White O, Bouché AF, Perichon C, Filoni N, Barvaux V, Buisseret F. Fine Adaptive Control of Precision Grip Without Maximum Pinch Strength Changes After Upper Limb Neurodynamic Mobilization. *Scientific Reports*. 2021;11(1):14009.

7. Atkins LT, James CR, Yang HS, Sizer PS, Brismée JM, Sawyer SF, Powers CM. Immediate Improvements in Patellofemoral Pain Are Associated with Sagittal Plane Movement

2. Training to Improve Use of Gluteus Maximus Muscle during Single Limb Landing. *Physical Therapy*. 2021;101(4):pzab165.

8. Brismée JM, Learman K, Riley SP, Swanson BT. On "Defining Our Diagnostic Labels Will Help Define Our Movement Expertise and Guide Our Next 100 Years." *Sahrmann S. Physical Therapy*. 2021;101(4):pzaa196.

9. Dice JL, Dendy D, Sizer PS, Cook CE, Feuling S, Brismée JM. Manual Therapy in Preadolescent Children: A Delphi Investigation of Physical Therapists in the United States. *Physical Therapy*. 2021;101(4):pzab027.

10. Pepper TM, Brismée JM, Sizer PS Jr, Kapila J, Seeber GH, Huggins CA, Hooper TL. The Immediate Effects of Foam Rolling and Stretching on Iliotibial Band Stiffness: A Randomized Controlled Trial. *International Journal of Sports Physical Therapy*. 2021;16(3):651-661.

11. Gehring RD, Potter-Brunet J, Sizer PS, Gilbert KK, Brismée JM. A Neural Mobilization Treatment Strategy for Patients with Neurogenic Claudication Related to Degenerative Lumbar Spinal Stenosis: A Prospective Case Series. *International Journal of Sports and Exercise Medicine*. 2021; 7:191.

<https://clinmedjournals.org/articles/ijsem/international-journal-of-sports-and-exercise-medicine-ijsem-7-191.pdf>

12. Lasley RJ, Brismée JM. Delayed Diagnosis and Surgical Management for Gluteus Medius/Minimus Calcific Tendinopathy with Heterotopic Ossification: A Case Report. *International Journal of Clinical Studies & Medical Case Reports*. 2021; 8(5):1-5.

#### Publications (non-peer reviewed)

1. Fick G, Brismée JM. Short-term benefits and high satisfaction of moving cupping therapy to the posterior lower limb for increasing hip and knee range of motion. Murray D, Clarkson C. Effects of moving cupping therapy on hip and knee range of movement and knee flexion power: a preliminary investigation. *Journal of Manual and Manipulative Therapy*. 2019; 27(5):287-294. In IAOM-US Commons, 04/06/2021 <https://iaom-us.com/short-term-benefits-and-high-satisfaction-of-moving-cupping-therapy-to-the-posterior-lower-limb-for-increasing-hip-and-knee-range-of-motion/>

2. Fick G, Brismée JM. Early weight bearing and functional mobilization following Achilles tendon repair produce high 6-month outcome scores on general health and wellness. Aufwerber S, Heijne A, Edman G, Silbernagel KG, Ackermann PW. Does early functional mobilization affect long-term outcomes after an Achilles tendon rupture? *Orthopedic Journal of Sports Medicine*. 2020; 8(3):1-9. In IAOM-US Commons, 03/02/2021 <https://iaom-us.com/early-weight-bearing-and-functional-mobilization-following-achilles-tendon-repair-produce-high-6-month-outcome-scores-on-general-health-and-wellness/>

3. Ennis K, Brismée JM. Differential diagnosis of posterior hip and sciatica-like pain. Park JW, Lee Y-K, Lee YJ, Shin S, Kang Y, Koo K-H. Deep Gluteal syndrome as a cause of posterior hip pain and sciatica-like pain. *Bone Joint J*. 2020;102-B(5):556-567. In IAOM-US Commons, 02/12/2021 <https://iaom-us.com/differential-diagnosis-of-posterior-hip-and-sciatica-like-pain/>

4. Fick G, Brismée JM. Low-load blood flow restriction (BFR) training induces similar Achilles tendon adaptations compared with high-load resistance training. Centner C, Lauber B, Seynnes OR, Jerger S, Sohnius T, et al. Low-load blood flow re-restriction training induces similar morphological and mechanical Achilles tendon adaptations compared with high-load resistance training. *Journal of Applied Physiology*. 2019; 127(6):1660-1667. In IAOM-US Commons, 01/21/2021 <https://iaom-us.com/low-load-blood-flow-restriction-bfr-training-induces-similar-achilles-tendon-adaptations-compared-with-high-load-resistance-training>

#### Presentations (oral)

1. Annual AAOMPT Conference 2021. Matthijs A\*, Matthijs OCG, Windisch GCh, Streitmayer BG, Kerner AM, Sizer PS, Brismée JM. "Cervical Lateral Flexion Pre-positioning Isolates C1-2 Segmental Cervical Axial Rotation: A Cadaveric Study" Cleveland, Ohio, 10/08/2021

2. Annual AAOMPT Conference 2021 James CM, Brismée JM, St-Pierre MO, Descarreaux M, Hooper TL, Nougrou F, Bélanger EM, Sobczak S. "Posterior-Anterior Joint Mobilizations Change Cervical Intradiscal Pressure: Implications For Disc Nutrition" Cleveland, Ohio, 10/08/2021
3. Annual AAOMPT Conference 2021 Hoops JF, Hooper TL, Sobczak S, Kapila J, Dewan BM, Matthijs OC, Brismée JM. "Posterior Glide Mobilizations Improve Shoulder Range of Motion But Do Not Alter Humeral Head Displacement in Subjects With Internal Rotation Deficit" Cleveland, Ohio, 10/08/2021
4. The World Confederation for Physical Therapy (WCPT) Congress 2021
5. Seeber GH, Wilhelm MP, Sizer PS, Guthikonda A, Matthijs A, Matthijs OC, Lazovic D, Brismée JM, Gilbert KK. "The Tensile Behaviors Of The Iliotibial Band –A Cadaveric Investigation". Ref# ABSTRACTS-WCPT2021-00786 Dubai, United Arab Emirates; 04/09/2021.
6. Endowed Lecture Series Meeting at Texas Tech University Health Sciences Center (2021) –3-minute Pitch Competition James CM, Brismée JM, Descarreaux M, Hooper TL, Nougrou F, St-Pierre MO, Bélanger EM, Sobczak S. "Intradiscal Pressure Responses to Cervical Spine Posterior-Anterior Mobilization: A Cadaveric Investigation" Lubbock, Texas, 03/04/2021
7. Endowed Lecture Series Meeting at Texas Tech University Health Sciences Center (2021) –3-minute Pitch Competition Campbell DF, Brismée JM, Allen B, Hooper TL, Domenech TA, Manella KJ. "Are Doctor of Physical Therapy Students Prepared for Clinical Experiences During the Telehealth Era? A Survey" Lubbock, Texas, 03/04/2021

## Posters

1. 2021 Texas Physical Therapy Association Annual Conference Campbell DF, Brismée JM, Allen B, Hooper TL, Domenech TA, Manella KJ. "Does Ethnicity Impact DPT Students' Clinical Readiness and Performance? An exploratory study" Virtual Conference, 10/30/2021
2. American Congress of Rehabilitation Medicine (2021) (virtual) James CM\*, Brismée JM, St-Pierre MO, Descarreaux M, Hooper TL, Nougrou F, Bélanger EM, Sobczak S. "Intradiscal Pressure Responses to Cervical Spine Posterior-Anterior Mobilization: A Cadaveric Investigation" Dallas, Texas, 8/27/2021
3. 2021 Integrative Medicine & Health Symposium (virtual) Shen CL, Kahathuduwa C, Chyu MC, Brismée JM, Knox A, Wang R, Luk HY, Appell C, O'Boyle M, Zumwalt M, Watkins BA, Neugebauer V. "Neurobiological Mechanisms of Pain Modulation from Tai-Chi: a Single-Arm Pre/Post Pilot Study" Lubbock, Texas, 04/12/2021.
4. Endowed Lecture Series Meeting at Texas Tech University Health Sciences Center (2021) James CM, Brismée JM, Descarreaux M, Hooper TL, Nougrou F, St-Pierre MO, Bélanger EM, Sobczak S. "Intradiscal Pressure Responses to Cervical Spine Posterior-Anterior Mobilization: A Cadaveric Investigation" Lubbock, Texas, 03/04/2021
5. Endowed Lecture Series Meeting at Texas Tech University Health Sciences Center (2021) Campbell DF, Brismée JM, Allen B, Hooper TL, Domenech TA, Manella KJ. "Are Doctor of Physical Therapy Students Prepared for Clinical Experiences During the Telehealth Era? A Survey" Lubbock, Texas, 03/04/2021
6. 69 Jahrestagung der Vereinigung Süddeutscher Orthopäden und Unfallchirurgen Seeber GH, Wilhelm MP, Guthikonda A, Lazovic D, Brismée JM, Gilbert KK, Sizer PS Jr. "Das Biomechanische Verhalten des Iliotibialbandes unter Zug -eine Präparatstudie." Baden-Baden, Germany, 04/2021
7. 69 Jahrestagung der Vereinigung Süddeutscher Orthopäden und Unfallchirurgen Seeber GH, Lierly M, Bassett C, Douthit C, Wilhelm MP, Lazovic D, Brismée JM, Gilbert KK, Sizer PS Jr. "Der limitierende Einfluss des lateralen femoralen intermuskulären Septums auf die passive Hüftdduktion -eine Präparatstudie." Baden-Baden, Germany, 04/2021.

8.The World Confederation for Physical Therapy (WCPT) Congress 2021Dierick F, Brismée JM, White O, Bouché AF, Perichon C, Filoni N, Barvaux V, Buisseret F. “Fine Adaptive Control of Precision Grip After Median Nerve Mobilization”Dubai, United Arab Emirates; 04/09/2021.

9.The World Confederation for Physical Therapy (WCPT) Congress 2021Wilhelm MP, Hooper TL, Seeber GH, Browne KL, Sargent E, Gilbert KK, James CR, Brismée JM, Matthijs OC, Matthijs A, Sizer PS. “Relationships Between Foot Mobility Measures And Subtalar Joint Stiffness Using Vibration Energy With Color Doppler Imaging -A Proof-Of-Concept Study”.Ref# ABSTRACTS-WCPT2021-00790 Dubai, United Arab Emirates; 04/09/2021.

10.The World Confederation for Physical Therapy (WCPT) Congress 2021Pepper T, Brismée JM, Sizer PS, Kapila J, Seeber GH, Huggins C, Hooper TL. “The Immediate Effects of Foam Rolling And Stretching On Iliotibial Band Stiffness: A Randomized Control Trial”.Ref# ABSTRACTS-WCPT2021-00783Dubai, United Arab Emirates; 04/09/2021.

Grant Awards-none

Grant Applications-none

**Coman, Ioana**

Publications

*Peer-reviewed journal articles -published:*

1. Coman, I. A.(2021). Watching the watchdogs: Online news commenters’ critiques of journalistic performance during terrorist attacks. Iowa Journal of Communication. 53(2): 49-69.
  - Award-winning state journal, peer-reviewed, international in scope, connected to Iowa Communication Association and Conference
2. Carpio C, Coman I.A., Sarasty O, Garcia M. (2021). COVID-19 vaccine demand and financial incentives. Applied Health Economics and Health Policy. 19(16), 871-883.
  - Impact Factor: 2.561 | 5-year Impact Factor 2.978 | SciMago H-index 40
3. Guidry, J.P.D.,Perrin, P.B., Bol, N., Song, B., Hong, C., Lovari, A., Coman, I.A., O’Donnell, N.H., Alkazemi, M., Niu, J., Pabian, S.J.R., Lin, A., Miller, C.A., & Carlyle, K.E. (2021). Social distancing during COVID-19: threat and efficacy among university students in seven nations. Global Health Promotion. <https://doi.org/10.1177/17579759211051368>
  - Impact Factor: 1.976 | 5-year Impact Factor 2.070 | SciMago H-index: 31
4. Cmeciu C, Coman I.(2021). Governmental and public thematic patterns on vaccination during a measles outbreak: the Romanian perspective. Global Health Promotion. 28(3), 23-31.
  - Impact Factor: 1.976 | 5-year Impact Factor 2.070 | SciMago H-index: 31
5. Perry G, Knapp CR, Grant TD, Pasachnik SA, Coman I.A. (2021). From pets to threats: Invasive iguanas and other species cause significant harm to native iguanas. Reptiles & Amphibians.15; 28(2): 213-217.
  - International open-access journal that publishes peer-reviewed research in all aspects of herpetology with an emphasis on conservation and natural history

*Peer reviewed accepted/forthcoming:*

1. Coman, I.A., Cooper-Norris C., Longing, S. & Perry G.(2022 –forthcoming). Turkeys, boars, racoons, oh my! Urban wildlife conservation in the age of Covid-19. Diversity. 14, [issue TBD]
  - a. •Impact Factor 2.465 | Scopus Citescore: 2.2 | SciMago H-index 38

Books–published:

1. Lilleker, D., Coman I., Gregor, M., Novelli, E. (Eds.), Political Communication and COVID-19: Governance and Rhetoric in Times of Crisis. Routledge.

•Chapters in this book:

1. Coman, I., Elsheikh, D., Gregor, M., Lilleker, D., Novelli, E. Introduction: Political Communication, Governance and Rhetoric in Times of Crisis.
2. Lilleker, D., Coman, I., Gregor, M., Novelli, E. Conclusion: Political Communication and COVID-19: Governance and Rhetoric in Global Comparative Perspective.
3. Lilleker, D., Coman, I., Gregor, M., Novelli, E. Foreword. In D. Lilleker, I. Coman, M. Gregor, E. Novelli (Eds.) Political Communication and COVID-19. Routledge

*Book chapters in other books:*

- Coman, I., Karadjov, C. 2021. Chapter 10. Media of Central and Eastern Europe and Russia. In Dimitrova, D. (Ed.), Global Journalism: Understanding World Media Systems. Rowman & Littlefield.

*Peer Reviewed Manuscripts Revise and Resubmit*

1. Coman, I.A.; Baza, U.; Guidry, J.; Miller, C. (R&R) #EndtheSTigma: An exploratory analysis of the 2019 HPV Awareness Day conversation on Twitter & Instagram. Health Communication.
  - Impact Factor: 3.198 | 5 years IF 3.434 | SciMago H-index 68
2. Coman I.A., Sisson D., Riggs R., Vasquez R., Brook-Herst E. (R&R). It's complicated. It's real. We can do better! Teaching bias, implicit bias, unconscious bias to public relations students. Journal of Public Relations Education.
  - The pedagogical research PR journal associated with AEJMC
3. Xu S., Coman I.A., Yamamoto M., Najera, C. Exposure Effects or Confirmation Bias? (R&R). Examining Reciprocal Dynamics of Misinformation, Misperceptions, and Attitudes toward COVID-19 Vaccines. Health Communication.
  - Impact Factor: 3.198 | 5 years IF 3.434 | SciMago H-index 68

*Manuscripts Under Review for peer reviewed journals*

1. Coman, I., Xu, S., Yamamoto, M. COVID-19 vaccine hesitancy among disadvantaged groups: (In)surmountable barriers and (in)effective cues to action? American Journal of Health Promotion.
2. Coman, I.; Yuan, S.; Tsai, J.Y. Toward an Audience-Centric Framework of Corporate Social Advocacy Strategy: A survey of Generation Z. Sustainability. Special Issue: Corporate Social Responsibility, Corporate Social Advocacy, and Societal Change.
3. Tsai, J.Y., Coman, I., Yuan, S. Audience perceptions of Corporate Social Advocacy and Activism. International Journal of Strategic Communication
4. Gearhart, S., Coman, I., Moe, A. Is Facebook News Biased Against my Opinion? Testing the Influence of Comments on the Hostile Media Effect & a Potential Solution. Electronic NewsJournal.
5. Coman I.A. & Luther, C. (under review) Expressions of Transnational Solidarity in Times of Terror? Examining the News Coverage and Public Discourse of 2013 Boston Marathon Bombings. International Communication Research Journal.

*Work in preparation for journals:*

1. Coman, I. Xu, S., Yamamoto, M. A longitudinal qualitative analysis of American's reasons to vaccinate/not to vaccinate. Journal of Health Communication.

2. Coman, I., Swed, O., Dang, T., Sreepada N., Baaza, U. What's in an account? Identifying patterns in real news versus fake news Twitter accounts. *Big data and society*.
3. Coman, I. Calling the shots: Exploring the #COVIDVaccine Twitter conversation in English and Spanish. *International Crisis and Risk Communication Journal*
4. Coman, I. Fighting COVID-19 Vaccine mis/disinformation with facts: European and American factchecking organizations' impact on social media. *Digital Journalism*.
5. Coman, I., Gearhart, S., Moe, A. Hostile Media Bias in Vaccine News: The Influence of Facebook Comments & Topic on Perceptions. *New Media and Society*.

Note that I also have multiple led/co-led works in progress that are on-going. I decided to not include them here as they are not as close to be sent for publication as the ones in preparation.

## Presentations

### *Upcoming Peer-Reviewed:*

1. Coman, I., Swed, O., Dang, T., Sreepada, N., Baza, U. (March, 2022). What's in an account? Identifying patterns in real news versus fake news Twitter accounts. *AEJMC Midwinter*.
2. Coman, I., Xu, S., Yamamoto, M. (May, 2022). COVID-19 vaccine hesitancy among disadvantaged groups: Explicating barriers and cues to action in the Health Belief Model. *ICA*
3. Tsai, J., Coman, I., Yuan, S. (May 2022). Testing the Impact of Attributions of Solution Responsibility, Issue Identification and Advocacy Fit on Audience Responses to CSA efforts. *ICA*
4. Xu, S., Coman, I., Yamamoto, M. (May 2022). Exposure Effects or Confirmation Bias?: Examining Reciprocal Dynamics of Misinformation, Misperceptions, and Attitudes toward COVID-19 Vaccines. *ICA*

### *Past Peer-Reviewed:*

1. Coman, I. (March, 2021). Calling the shots: Exploring the #COVIDVaccine Twitter conversation in English and Spanish. *International Crisis and Risk Communication Conference (ICRCC) (virtual)*.
2. Coman, I. (March, 2021). Fighting the Infodemic War on the COVID-19 Vaccine: An international comparative analysis of factchecking organizations' impact on social media and their dialogic engagement with their audiences. *AEJMC Midwinter (virtual)*.
3. Gearhart, S., Coman, I., Moe, A. (March, 2021). Is Facebook News Biased Against my Opinion? Testing the Influence of Comments on the Hostile Media Effect & a Potential Solution. *AEJMC Midwinter (virtual)*.
4. Guidry, J., Bol, N., Song, B., Hong, C., Lovari, A., Coman, I., O'Donnell, N., Alkazemi, M., Pabian, S., Prrin, P. & Carlyle, K (May 2021). Social Distancing: Threat and Efficacy among University Students in Seven Nations. *ICA. (virtual)*.

## Posters-see above

## Grant Awards

### AWARDED

- Page/Johnson Legacy Scholar grant for Corporate Social Advocacy (2021). \$5,000. Building an audience-centric framework of situational corporate social advocacy strategy: A mixed-method approach. Co-PIs: Tsai, J., Coman, I., Yuan, S.
- Waterhouse Family Institute for the Study of Communication and Society (WFI) - Villanova University (2020-2021). • Sum: \$9,295. • Project: Is Facebook News Biased Against my Opinion?: Testing the Influence of comments on the Hostile Media Effect & a Solution to the Problem. • Co-PIs: Gearhart, S. & Coman, I., Co-I: Moe Alex

## Grant Applications

### *UNDER REVIEW*

- NSF (Great Challenges) -A Research Model for Predicting the next Pandemic. Bradley, R., Conway, W., Coman, I.(8.5% on Cayuse), Harvinder G., Robberts, E., Khare, R., Ranadip, P. (...). \$950,000.
- Page/Johnson Legacy Scholargrant for Corporate Social Advocacy (2022). \$6,800. From greenwashing to saving the planet: An exploration of how mainstream, Hispanicand Black media and their public spheres portray and judge organizations' environmental sustainability (in)actions. PI: Coman, I.

*REVISE & RESUBMIT (in process):*

- National Institute of Health (NIH), NAID –Submitted 10/2020.To resubmit this year. •Project: Promoting Flu Vaccination via Social Media. Building Machine Learning Models for Social Listening and Virality•Sum: \$398,368•PI:Coman I.(40%)•Co-PIs: Xu, S. & Sheng, V.

*APPLIED -NOT AWARDED*

- National Science Foundation (NSF)–Submitted 1/2021. •Project: SRS RN: One-Health for Sustainability in Secondary Urban and Associated Rural Areas (SURAs)•Sum: \$14,986,616.00. •PI: Reible, D. •Co-Pis: Perry, G., Dryer, K, Zak, J, Smith, P., San Francisco, M., Epstein, D., Farmer, M., Hardberger, A., Hayhoe, K., Crago, J., Uddameri, V., Malmali, M., Cummins, R., Coman, I.(8.33%)Kim, J., Moskal, B.

**Dennis, Jeff**

Publications

Ahmed, H. & Dennis, J. A. (2021). Assessment and diagnosis of mental illness in EDs among individuals without a home: Findings form the National Hospital Ambulatory Care Survey 2009-2017. *Western Journal of Emergency Medicine*. DOI: 10.5811/westjem.2021.7.51882

Dowdle, T., Dennis, J. A., Nugent, K., Byrd, T. L. (2021). Intention to receive COVID-19 vaccine by U.S. health sciences university employees. *Journal of Primary Care and Community Health*, 12, 1-7. <https://doi.org/10.1177/21501327211036611>

Dennis, J. A., Zhang, Y., Zhang, F., Kopel, J., Abohelwa, M., Nugent, K. (2021). Comparison of 30-Day Mortality and Readmission Frequency in Women versus Men with Acute Myocardial Infarction. *Baylor University Medical Center Proceedings*. <https://doi.org/10.1080/08998280.2021.1945364>

Zhang, Y., Lauche, R., Cramer, H., Munk, N., & Dennis, J. A. (2021). Increasing trend of yoga practice among US adults: Findings from NHIS 2002 to 2017. *Journal of Alternative and Complementary Medicine*. <https://doi.org/10.1089/acm.2020.0506>

Dennis, J. A., Zhang, Y., Zhang, F., De La Cruz, N., Hannabas, G., Mi, N. (2021). Sex differences in stroke incidence, 30-day mortality, and readmission in a southwestern U.S. medical center. *Southern Medical Journal*, 114:1-6. DOI: 10.14423/SMJ.0000000000001221

Dennis, J. A., Gittner, L. S., George, A. K., & Queen, C. M. (2021). Opioid use disorder terminologies and the role of public health in addressing stigma. *Alcoholism Treatment Quarterly*, 39:110-118. DOI:10.1080/07347324.2020.1787118

Rivas, A.M., Pena, C., Kopel, J., Dennis, J. A., Nugent, K. (2021). Hypertension and hyperthyroidism: association and pathogenesis. *The American Journal of the Medical Sciences*, 361: 3-7. DOI: 10.1016/j.amjms.2020.08.012

Khan, S., Ike, C, Dennis, J. A., Nugent, K. N. (2021). The prevalence and characteristics of adults with latent tuberculous infection in the United States and the implications for healthcare in Texas. *Southwest Respiratory and Critical Care Chronicles*, 9:1-10.

Thavaraputta, S., Dennis, J. A., Ball, S., Laoveeravat, P., & Nugent, K. (2021). The association between hematologic inflammatory markers and obesity in healthy participants in the National Health and Nutrition Examination Survey 2011-2016. *Baylor University Medical Center Proceedings*, 34: 17-21.  
DOI:10.1080/08998280.2020.1799482

Gittner, L. S., & Dennis, J. A. (2021). Diversion for justice involved individuals with mental health issues: A public health perspective. In *American Society of Criminology Division on Corrections and Sentencing's Handbook on Pretrial Justice*. Eds. Jennifer Copp, Stephen DeMuth, Christine Scott-Hayward.

### Presentations

Guest lecture/panelist: Vaccine hesitancy and COVID-19. TTUHSC Office of Global Health. Sept. 15, 2021.

Panelist – This is Your Shot: Vaccine Facts and Science. Townhall for the TTU System and community. August 18, 2021.

Dennis, Jeff A. “Racial and Ethnic Disparities in Health Outcomes; Study Design Fundamentals.” P3-C week lecture, TTUHSC Lubbock, March 8, 2021.

Panelist – Student Research Week COVID-19 Panel – Graduate School of Biomedical Sciences, March 12, 2021.

Dennis, Jeff A. “Social and Economic Determinants of COVID-19” – Guest lecture for GSPH 5388, Public Health Aspects of the Coronavirus Pandemic. Feb. 24, 2021.

Posters: none

Grant Awards: none.

Grant Applications: none.

### **Dufour, Jannette**

\*Collaboration with CEIH member

### Publications

1.\*Sivaprakasam S, Sikder MOF, Ramalingam L, Kaur G,DufourJM, Moustaid-Moussa N, Wachtel MS, Ganapathy V. 2021 SLC6A14 deficiency is linked to obesity, fatty liver, and metabolic syndrome but only under conditions of a high-fat diet. *BBA -Molecular Basis of Disease* 1867(5):166087. doi: 10.1016/j.bbadis.2021.166087

2.\*Helmer BA, Martinez-Zaguilan R, Kaur G, Smith LA, Dufour JM, Chilton BS.2021 Helicase-liketranscription factor-deletion from the tumor microenvironment in a cell line-derived xenograft model of colorectal cancer

reprogrammed the human transcriptome-S-nitroso-proteome to promote inflammation and redirect metastasis. PLOS ONE doi.org/10.1371/journal.pone.0251132.

3.\*Washburn RL, Mueller K, Kaur G, Moreno T, Ramalingam L, Moustaid-Moussa N, DufourJM. 2021 C-peptide as a therapy for type 1 diabetes. Biomedicines 9(3):270. doi: 10.3390/biomedicines9030270.

4.\*Washburn RL, Hibler T, Thompson LA, Kaur G, DufourJM. 2021 Therapeutic application of Sertoli cells for treatment of various diseases. Seminars in Cell and Developmental Biology doi: 10.1016/j.semcdb.2021.04.007.

5.\*ShenCL,Ramamoorthy S, KaurG,DufourJM, Wang R, Mo H, Watkins BA. 2021 Dietary annatto-extracted tocotrienol reduces inflammation and oxidative stress, and improves macronutrient metabolism in obese mice: a metabolic profiling study. Nutrients 13(4):1267. doi: 10.3390/nu13041267.

6.\*Menikdiwela KR, Guimaraes JPT, Ramalingam L, Kalupahana NS, Dufour JM, Washburn RL, Moustaid-Moussa N. 2021 Mechanisms Linking Endoplasmic Reticulum (ER) Stress and microRNAs to Adipose Tissue Dysfunction in Obesity.Critical Reviews in Biochemistry & Molecular Biology 56(5):455-481. doi: 10.1080/10409238.2021.1925219.

7.\*Kaur G, Wright K, Verma S, Haynes A, Dufour JM. 2021The good, the bad and the ugly of testicular immune regulation: a delicate balance between immune function and immune privilege. In: C. Yan Cheng (Ed.) Molecular Mechanisms in Spermatogenesis, Springer Nature, Basingstoke, United Kingdom.Adv Exp Med Biol. 1288:21-47. doi: 10.1007/978-3-030-77779-1\_2.

8.\*ChungE, ElmassryMM, Cao JJ, KaurG,DufourJM, HamoodAN, ShenCL. 2021 Beneficial effect of dietary geranylgeraniol on glucose homeostasis and bone microstructure in obese mice is associated with suppression of proinflammation and modification of gut microbiome. Nutrition Research 93:27-37. doi: 10.1016/j.nutres.2021.07.001.

## Abstracts

1.\*Washburn RL, Kaur G,Dufour JM. Xenogeneic Sertoli cells express complement inhibitory proteins necessary for their survival of hyperacute rejection. Annual Meeting for the American Association of Immunologists. Virtual Immunology2021 (May 10-15, 2021).

2.\*Taylor H, Kaur G,Dufour JM. Sertoli cell induced Tregs: a critical component of Sertoli cell immune-regulation in transplantation. 104thAnnual Meeting for the American Association of Immunologists. Virtual Immunology2021 (May 10-15, 2021). (Oral Presentation) 2021 AAI Trainee Abstract Award.

3.\*Washburn RL, Kaur G,Dufour JM. Expression of CD46 and CD55 are critical to testicular Sertoli cell survival of hyperacute rejection. Texas Forum for Reproductive Sciences 26thAnnual Virtual Meeting. (June 17-18, 2021).

4.\*Taylor H, Kaur G, Dufour JM. Sertoli cell induced Tregs: Guardians against inflammatory immuneresponse. Texas Forum for Reproductive Sciences 26thAnnual Virtual Meeting. (June 17-18, 2021). (Platform Presentation) (Second Place 2021 Texas Forum for Reproductive Sciences Platform Competition Award).

5.\*Washburn RL, Kaur G,Reilly B,Dufour JM. Complement inhibition by immunoregulatory Sertoli cells: Paving the road to allograft and xenograft survival. 28thInternational Complement Virtual Workshop. (December, 6-10, 2021)

## Presentations

1. Induction of Tregs and Complement Inhibition: Critical Components of Sertoli Cell Immune Regulation. 4th Dr. Yves Clermont Lecture in Reproduction at the 12th Annual Research Day of the McGill Centre for Research in Reproduction and Development. (Montreal, Quebec, Canada) (May 11, 2021)

#### Posters-none

#### Grant Awards

\*Jasper & Jack Wilson Foundation, December 1, 2015 -May 30, 2021, Dufour JM (Principal Investigator), Kaur G (Co-Investigator), Genetically Engineered Sertoli Cells as Vehicle Cell Based Gene therapy \$70,000 (2019-2021) \$490,000 (Total Amount). (Funded)

\*CH Foundation January 1, 2021 -December 31, 2021, Dufour JM (Co-Investigator), Kaur G (Principal Investigator), Investigation of porcine Sertoli cell immune regulation to improve islet xenograft survival as a treatment for diabetes. \$60,000 (Direct Cost), \$60,000 (Total Amount) (Funded)

\*CH Foundation January 1, 2022 -December 31, 2022, Dufour JM (Principal Investigator), Kaur G (Co-Investigator), The role of TGF $\beta$  and retinoic acid in Sertoli cell induction of Tregs. \$72,400 (Direct Cost), \$72,400 (Total Amount) (Funded)

\*CBB Women's Health and Sex and Gender Differences Seed Grant December 1, 2020-November 30, 2021, Dufour JM (Principal Investigator), Kaur G (Co-Investigator), Sertoli cell induction of Tregs in female recipients. \$15,000 (Direct Cost), \$15,000 (Total Amount) (Funded)

#### Grant Applications-none

### **Figueroa, Arturo**

#### Publications

1. Jaime SJ, Nagel J, Maharaj A, Fischer SM, Schwab E, Martinson C, Radtke K, Mikat RP, Figueroa A. L-Citrulline supplementation attenuates aortic pulse pressure and wave reflection responses to cold stress in older adults. *Exp Gerontol* 2022 Jan 3:111685. doi: 10.1016/j.exger.2021.111685.
2. Maharaj A, Fischer SM, Dillon KN, Kang Y, Martinez MA, Figueroa A. Acute citrulline bunts aortic systolic pressure during exercise and sympathoactivation in hypertensive postmenopausal women. *Med Sci Sports Exerc.* 2021 Dec 28. doi: 10.1249/MSS.0000000000002848.
3. Shiraseb F, Asbaghi O, Bagheri R, Wong A, Figueroa A, Mirzaei K. The effect of L-arginine supplementation on blood pressure in adults: A systematic review and dose-response meta-analysis of randomized clinical trials. *Adv Nutr* Dec 30, 2021. doi:10.1093/advances/nmab155.
4. Mason J, Tenenbaum GT, Jaime SJ, Roque N, Maharaj A, Figueroa A. Arterial Stiffness and Cardiorespiratory Fitness are Associated with Cognitive Function in Older Adults. *Behavioral Medicine.* 48(1):54-65, 2022.
5. Feresin R, Johnson S, Elam M, Pourafshar S, Navaei N, Akhavan N, Tenenbaum G, Figueroa A, Arjmandi BH. Effects of Strawberries on Bone Biomarkers in Pre- and Stage 1-hypertensive Postmenopausal Women: A Secondary Analysis. *Food Funct* 12(24):12526-12534, 2021.

6. Font-Farré M, Farche ACS, de Madeiros Takahashi AC, Guerra-Balic M, Figueroa A, Oviedo GR. Cardiac autonomic modulation response before, during and after submaximal exercise in older adults with intellectual disability. *Frontiers in Physiology* 12:702418, 2021.
7. Flores-Ramírez AG, Tovar-Villegas VI, Maharaj A, Garay-Sevilla ME, Figueroa A. Effects of L-Citrulline Supplementation and Aerobic Training on Vascular Function in Individuals with Obesity across the Lifespan. *Nutrients*. 2021; 13(9):2991.
8. Wong A, Figueroa A. Effects of acute stretching exercise and training on heart rate variability: A review. *J Strength Cond Res*. 35(5):1459-1466, 2021.
9. Fischer SM, Wong A, Maharaj A, Jaime SJ, Figueroa A. Impaired pulse pressure amplification, augmentation index, and arterial stiffness are associated with reduced limb lean mass in overweight and obese postmenopausal women. *Exp Gerontol* 145:111194, 2021; doi: 10.1016/j.exger.2020.111194.

#### ABSTRACTS:

1. Figueroa A, Maharaj A, Fischer SM. Impact of L-Citrulline supplementation combined with low-intensity resistance training on body composition and strength in postmenopausal women. *International Conference on Frailty, Sarcopenia and Geroscience Research 2021*.
2. Wong A, Nordvall M, Moghadam BH, Reza Bagheri, Ashtary-Larky D, Gaeini AA, Figueroa A. Impact Of Saffron Supplementation And Resistance Training On Depression-related Markers In Untrained Young Males. *Annual ACSM 2021*.
3. Maharaj A, Fischer SM, Figueroa A. Acute L-citrulline Attenuates Blood Pressure Responses To Exercise And Cold Stress In Hypertensive Postmenopausal Women. *Annual ACSM 2021*.
4. Fischer S, Maharaj A, Figueroa A. Endothelial Function In The Legs Is Reduced In Older Compared To Middle-aged Postmenopausal Women. *Annual ACSM 2021*.
5. Allnutt A, Bagheri R, Moghadam BH, Wong A, Ashtary-Larky D, Rashidlamir A, Figueroa A. Post-exercise Icelandic Yogurt Consumption Augments Resistance Training Gains And Muscle Regulatory Factors In Healthy, Untrained Older Males. *Annual ACSM 2021*.

Presentations: none.

Posters: none

Grant Awards: none

Grant Applications: none

**Jung, Kwanghee**

Publications: none

Presentations: none

Posters: none

Grant Awards

Speech intervention via telepractice for children with repaired cleft palate: Randomized Controlled Trial and Assessment of Speech Production and Perception Skills, Lee(PI),NIH1UG3DE030869-01.09/1/2021–8/31/2027,\$3,199,238

Grant Applications-none

## **Kahathuduwa, Chanaka**

### Publications

- 1.Blume J., Kahathuduwa C. N., Mastergeorge A.Intrinsic Structural Connectivity of the Default Mode Network and Behavioral Correlates of Executive Function and Social Skills in Youth with Autism Spectrum Disorders. *Journal of Autism and Developmental Disorders*. (Accepted Jan 20 –2022; In press)
- 2.ShenC. L., WatkinsB., Kahathuduwa C., ChyuM-C., ZabetM., ElmassryM. M., LukH-Y., BrismeeJ. M., KnoxA., LeeJ., ZumwaltM., Rui Wang, Tor D Wager, Volker Neugebauer. Tai Chi improves brain functional connectivity and plasma lysophosphatidylcholines in postmenopausal women with knee osteoarthritis: an exploratory pilot study. *Frontiers in Medicine*. (Accepted Nov 15, 2021 –Inpress)
- 3.Albracht-Schulte, K., Wilson, S., Johnson, P., Pahlavani, M., Ramalingam, L., Goonapienuwala, B., Kalupahana, N.S., Festuccia, W.T., Scoggin, S., Kahathuduwa, C.N., Moustaid-Moussa, N. Sex-dependent effects of eicosapentaenoic acid on hepatic steatosis in ucp1 knockout mice. *Biomedicines*. 2021Nov 9. doi: 10.3390/biomedicines9111549
- 4.Dhanasekara, C.S., Chin, S.H., Kahathuduwa, C.N.Severity and case fatality rates of COVID-19: A systematic review, meta-analysis and an exploratory meta-regression of risk factors. *The Southwest Respiratory and Critical Care Chronicles*. 2021 Oct 22;9(41):8-19. doi: 10.12746/swrccc.v9i41.921
- 5.Dhanasekara C. S., Marschke B., Morris E., Kahathuduwa C. N.,Dissanaike S. Global patterns of necrotizing soft tissue infections: A systematic review and meta-analysis. *Surgery*. 2021 Aug 3:S0039-6060(21)00650-4. doi: 10.1016/j.surg.2021.06.036.
- 6.Vorland C. J., Brown A. W., Dawson J. A., Dickinson S. L., Golzarri-Arroyo L., Hannon B. A., Heo M., Heymsfield S. B., Jayawardene W. P., Kahathuduwa C. N.,Keith S. W., Oakes J. M., Tekwe C. D., Thabane L., Allison D. B. Errors in the implementation, analysis, and reporting of randomization within obesity and nutrition research: a guide to their avoidance. *Int J Obes (Lond)*. 2021 Jul 29. doi: 10.1038/s41366-021-00909-z.
- 7.Liu D., Kahathuduwa C., Vazsonyi A. T. The Pittsburgh Sleep Quality Index (PSQI): Psychometric and clinical risk score applications among college students. *Psychol Assess*. 2021 May 20. doi: 10.1037/pas0001027.
- 8.Kahathuduwa, C. N., Wakefield S. M., West, B., Blume, J., Mastergeorge, A. L-theanine and caffeine improve sustained attention, impulsivity and cognition in children with attention deficit hyperactivity disorders by decreasing mind wandering. *Scientific Reports* (accepted, in press) (\* correspondingauthor)
- 9.Dassanayake T. L., Kahathuduwa C. N., Weerasinghe V. S. L-theanine improves attention in a dose-dependent manner: a cognitive event-related potential study. *Nutritional Neuroscience* (accepted, in press)

### Book Chapters

1. Babcock R., Khandelwal J., Wilkinson C. E., Kahathuduwa C.,Schlabritz-Loutsevitch N. Supporting medical writers in the twenty-first century. *Teaching Writing in the Health Professions -Perspectives, Problems, and Practices* by Routledge (2022). ISBN 9780367750886

### Presentations and posters (National and International)

1. Kahathuduwa, C.\* & Robohm-Leavitt, C.\* (\*presenting authors). Implementing a research methods curriculum for physician assistant students (TSAHP Research Award Oral Presentation). Texas Society for Advancement of Health (TSAHP) 43rd Annual Conference/Virtual conference, TX, USA. Sep 16-17, 2021
2. Bayazit H., Wakefield S., Dhanasekara C. S., Baronia R., Mastergeorge A., Kahathuduwa C. N. Investigation of the Association between Brain Structural Connectivity and Intelligence Quotient in Children with Autism Spectrum Disorders. Accepted for a poster presentation at the 68th Annual Meeting of the American Academy of Child and Adolescent Psychiatry, October 18-30, 2021.
3. Yavari M., Ramalingam L., Harris B. N., Kahathuduwa C., Chavira A., Biltz C., Mounce P., Alers K. A., Davis M., Zu Y., Moustaid-Moussa N. Protective Effects of Eicosapentaenoic Acid on Metabolic features and Cognitive function in the APP<sup>swe</sup>PS1<sup>dE9</sup> Alzheimer's Mouse Model. Alzheimer's Association International Conference 2021 Jul 26-30 (virtual).
4. Yavari M., Ramalingam L., Harris B., Kahathuduwa C., Scoggin S., Chavira A., Biltz C., Mounce L., Maldonado K. A., Davis M., Zu Y. Protective Effects of Eicosapentaenoic Acid on Adiposity and Amyloidogenic Features in the APP<sup>swe</sup>PS1<sup>dE9</sup> Alzheimer's Mouse Model. Nutrition 2021 (Annual Meeting of the American Society of Nutrition). June 7-10, 2021 (virtual).
5. Albracht-Schulte K., Galindo S., Anjum S., Pahlavani M., Ramalingam L., Kalupahana N., Festuccia W., Scoggin S., Kahathuduwa C., Moustaid-Moussa N. Sex-dependent effects of eicosapentaenoic acid and ucp1 deficiency on hepatic steatosis in diet-induced obese mice. Nutrition 2021 (Annual Meeting of the American Society of Nutrition). June 7-10, 2021 (virtual).
6. Blume J. E., Kahathuduwa C. N., Mastergeorge A. Intrinsic structural connectivity of the default mode network and behavioral correlates of executive function and social skills in youth with ASD. Annual Meeting of the International Society for Autism Research. May 3-7, 2021 (virtual conference).
7. Pan, S., Ali, K., Kahathuduwa, C., Baronia, R., & Ibrahim, Y. Meta-analysis of positive psychology interventions on the treatment of depression. Annual Meeting of the American Psychiatric Association/Virtual conference, UA, USA. May 02, 2021.
8. Kahathuduwa, C. N., Dhanasekara C. S., Wakefield S. M., Mastergeorge A. M. Effects of overweight or obesity on brain structural connectivity of children with autism spectrum disorders. Society for Research in Child Development Biennial Meeting; April 7-9, 2021 (virtual conference) (Individual Flash Talk Paper)
9. Shen C L, Kahathuduwa C, Chyu M C, Brismée J M, Knox A, Wang R, Luk H Y, Appell C, O'Boyle M, Zumwalt M, Lee J, Watkins BA, Neugebauer V. Neurobiological mechanisms of pain modulation from Tai Chi: a single arm pre/post pilot study. Integrative Medicine & Health Symposium, April 11-13, 2021 (virtual conference)
10. Ali, H. A., Jacobparayil, A., Siddiqui, A., Singh, A., Kahathuduwa, C. N., Chavez, M., Baronia, R. B., & Ibrahim, Y. Association between positive psychological factors and the prevalence of anxiety in medical students. Annual Meeting of the American Neuropsychiatric Association. Virtual conference, UA, USA. March 19, 2021.

#### Presentations and posters (Regional Conferences)

1. Daniel Payberah, Joanna Chyu, Chathurika Dhanasekara, Chwan-Li Shen, Chanaka Kahathuduwa. The Effectiveness of Botulinum Toxin in the Prevention and Treatment of Tension-Type Headaches: A Systematic Review and Meta-Analysis. 33rd Annual Student Research Week (March 9-12, 2021), Texas Tech University Health Sciences Center, Lubbock, Texas. (Corresponding author; Best poster presentation in systematic reviews category won by the mentee).
2. Kevin, Chin, Haven Ward, Chathurika Dhanasekara, Dale Dunn, Chwan-Li Shen, Chanaka Kahathuduwa. Post-Intervention Effects of Tai Chi and Qi Gong on Depression Scores: A Systematic Review and Meta-

Analysis. 33rd Annual Student Research Week (March 9-12, 2021), Texas Tech University Health Sciences Center, Lubbock, Texas (Corresponding author; 3rdbest poster presentation in systematic reviews category won by the mentee).

3. Samudani Dhanasekara, Brianna Marschke, Erin Morris, Chanaka Kahathuduwa, Sharmila Dissanaiké. Global Patterns and Outcome of Necrotizing Soft Tissue Infections: A Systematic Review and Meta-Analysis. 33rd Annual Student Research Week (March 9-12, 2021), Texas Tech University Health Sciences Center, Lubbock, Texas.

4. Adam Wynn, Amber Nelson, Megan Spradley, Chathurika Dhanasekara, Christina Robohm-Leavitt, Chwan-Li Shen, Chanaka Kahathuduwa. Effects of Consumption of Coconut Oil or Coconut on Glycemic Control and Insulin Sensitivity: A Systematic Review and Meta-Analysis of Interventional Trials. 33rd Annual Student Research Week (March 9-12, 2021), Texas Tech University Health Sciences Center, Lubbock, Texas (Corresponding author)

5. Haven Ward, Kevin, Chin, Chathurika Dhanasekara, Dale Dunn, Chwan-Li Shen, Chanaka Kahathuduwa. Post-intervention Effects of Tai Chi and Qi Gong on Anxiety Scores: A Systematic Review and Meta-Analysis. 33rd Annual Student Research Week (March 9-12, 2021), Texas Tech University Health Sciences Center, Lubbock, Texas (Corresponding author)

6. Shannon Pan, Kiran Ali, Chanaka Kahathuduwa, Regina Baronia, Yasin Ibrahim. Meta-analysis of Positive Psychology Interventions on the Treatment of Depression. 33rd Annual Student Research Week (March 9-12, 2021), Texas Tech University Health Sciences Center, Lubbock, Texas.

7. Hisham Ali, Adrian Jacobparayil, Arham Siddiqui, Aastha Singh, Chanaka N. Kahathuduwa, Marina Chavez, Regina Baronia, Yasin Ibrahim. Association between positive psychological factors and the prevalence of anxiety in medical students. 33rd Annual Student Research Week (March 9-12, 2021), Texas Tech University Health Sciences Center, Lubbock, Texas.

8. Annu Dixit, Sarah Kennedy, Rivera Elsy, Tina Thai, Chanaka N. Kahathuduwa, Sabeena Rahman, Christopher Maguire, Kathryn Hutton, Christopher Enakpene, Daniela Pino, Michael Galloway, Natalia Schlabritz-Lutsevich. Perception of Quality of Care in Obstetrics and Gynecology Outpatients' Clinic During COVID-19 Pandemics. 30th Annual Permean Basin Research Day, April 29, 2021.

Posters-see above

#### Grant Awards

Co-I USDA NIFA AFRI REEU \$500,000. 09/01/2021 – 08/31/2024 Nutrition Bench-to-Community Engaged Scholars in Texas (Nutrition BEST) REEU Program (PI: Dr. Naima Moustaid-Moussa)

Chanaka Kahathuduwa (Psychiatry Lbk). Title: Texas Child Mental Health Consortium CPAN, TCHATT, CPWE, and CAP Fellowship (Contract grant – University of Texas System). Funded by Texas Higher Education Coordinating. \$500,000 for 1 year.

#### Grant Applications

PI (subaward to TTUHSC) USDA: A1344 \$10,000,000. 01/01/2021-12/31/2024. Innovative Nutrition Education Program for Underserved (iNEP4U) Families: A Mobile Classroom to Prevent Chronic Diseases (PI: Oak-Hee Park; MPI: Naima Moustaid-Moussa, TTU)

PI (subaward to TTUHSC) NSF-20-556: SenSE \$750,000 01/01/2021-12/31/2023. SenSE: Early Diagnostics of ADHD among Children with Multimodal Sensors. PI: Victor Sheng, TTU)

Co-PI National Institute of Health –NCCIH (R01) \$500,000. 4/01/2021-03/31/2025. Clinical investigation of Tai Chi and n-3 PUFA on endocannabinoid modulation and brain fMRI connectivity in knee OA pain (PI: Leslie Shen; MPI: Volker Neugebauer)

PI National Egg Board. \$56,400 Not funded. 09/01/2020-08/31/2021. Mechanistic Study of Heat Therapy and Exercise on Vascular Function and the Translational Impact in Hispanic Americans with Obesity

Consultant NSF: Smart and Connected Health (SCH; NSF 18-541). \$1,200,000. Pending 09/01/2020-08/31/2023 Smart Home Real-Time Multi-Abnormal Detection with A Radio Sensing Network. (PI: Victor Sheng, TTU)

Consultant NSF: AI research institute program. \$1,200,000. Pending 09/01/2020-08/31/2023. AI Institute: Planning: A Research and Practice Hub of Self-Aware Data (PI: Victor Sheng, TTU)

Co-I National Institute of Health, R03. \$100,000 Pending 01/01/2021-12/31/2022. Sex and Obesity as Risk Factors for Occupational Thermal Injuries (PI: Eric Rivas)

Co-I American Heart Association \$199,000. Pending 01/01/2021-12/31/2021. Ethnic vascular health disparities of adult survivors of pre-term birth.

## **Kaur, Gurvinder**

### Publications

1. Shen CL, Ramamoorthy S, Kaur G, Dufour JM, Wang R, Mo H, Watkins BA (2021). Dietary annatto-extracted tocotrienol reduces inflammation and oxidative stress, and improves macronutrient metabolism in obese mice: a metabolic profiling study. *Nutrients* 13, 1267, <https://doi.org/10.3390/nu13041267>.
2. Washburn RL, Hibler T, Thompson LA, \*\*Kaur G, Dufour JM. 2021 Therapeutic application of Sertoli cells for treatment of various diseases. *Seminars in Cell and Development Biology*; 25: S1084-9521(21)00080-X.
3. Helmer RA, Martinez-Zaguilan R, Kaur G, Smith LA, Dufour JM, Chilton BS. Helicase-like transcription factor-deletion from the tumor microenvironment in a cell line-derived xenograft model of colorectal cancer reprogrammed the human transcriptome-S-nitroso-proteome to promote inflammation and redirect metastasis. *PLoS ONE*; 16(5):e0251132.
4. Washburn RL, Mueller K, Kaur G, Moreno T, Moustaid-Moussa N, Ramalingam L, Dufour JM. 2021 C-peptide as a therapy for Type 1 Diabetes Mellitus. *Biomedicines* 9(270): 1-24.
5. Sivaprakasam S, Sikder MOF, Ramalingam L, Kaur G, Dufour JM, Moustaid-Moussa N, Wachtel MS, Ganapathy V. 2021 SSLC6A14 deficiency is linked to obesity, fatty liver, and metabolic syndrome but only under conditions of a high-fat diet. *Biochim Biophys Acta Mol Basis Dis* 1867(5): 1-10.
6. \*\*Kaur G, Wright K, Mital P, Hibler T, Miranda JM, Thompson LA, Halley K, \*\*Dufour JM. Neonatal pig Sertoli cells survive xenotransplantation by creating an immune modulatory environment involving regulatory T cells. *Cell Transplant*. 29: 1-21.
7. Chung E, Elmassry MM, Cao JJ, Kaur G, Dufour JM, Hamood AN, Shen CL (2021). Beneficial effect of dietary geranylgeraniol on glucose homeostasis and bone microstructure in obese mice is associated with. Suppression of proinflammation and modification of gut microbiome. *Nutr Res*. 93:27-37.

### Presentations

1. Washburn RL, Kaur G, Dufour JM. Expression of CD46 and CD55 are critical to testicular Sertoli cell survival of hyperacute rejection. 2021 Texas Forum for Reproductive Sciences, 26th Annual Meeting (Virtual, June 17-18, 2021).

2. Hibler T, Kaur G, Dufour JM. Sertoli cell induction of Tregs: a critical component of Sertoli cell immune-regulation in transplantation. The American Association of Immunologists (Virtual, May 10-15, 2021). Selected for Block Symposium.
3. Washburn RL, Kaur G, Dufour JM. Xenogeneic Sertoli cells express complement inhibitory proteins necessary for their survival of hyperacute rejection. The American Association of Immunologists (Virtual, May 10-15, 2021).
4. Kaur G, Webster D. Incorporation of a clinically oriented case study into a multi-subject medical school block increased student engagement in a remote learning environment. Experimental Biology (Virtual, April 27-30, 2021).
5. Wall J, Rodriguez J, Dang M, Kaur G, Bishop K, Schneider B. Effect of a Three-Dimensional anatomy atlas on medical education under pandemic restrictions. Experimental Biology (Virtual, April 27-30, 2021).
6. Davis V, Plata G, Gunter B, Rodriguez J, Wall J, Dang M, Gilbert K, Kaur G, Bishop K, Schneider B. Lessons learned from teaching in person cadaveric anatomy during the COVID-19 pandemic. Experimental Biology (Virtual, April 27-30, 2021).
7. Ochoa O, Sellers J, Coleman, Kaur G. Poster, Special case patients: Use of standardized patients to diversify clinical experience during preclinical curriculum. P3-1C Week, Honors Project poster presentation, School of Medicine, Texas Tech University Health Sciences Center, School of Medicine, Lubbock, Texas, March 2021.
8. Dang M, Schneider BL, Bishop K, Kaur G. Poster, Use of 3D human anatomy modules to facilitate medical school learning in the era of COVID-19., 33rd Annual Student Research Week, Texas Tech University Health Sciences Center, School of Medicine, Lubbock, Texas, March 2021 (First prize).
9. Gunter B, Kaur G, Schneider BL. Poster, Spaced repetition and imaging comprehension: How Anki can improve study efficacy of imaging material in medical education., 33rd Annual, Texas Tech University Health Sciences Center, School of Medicine, Lubbock, Texas, March 2021.
10. Plata G, Davis V, Schneider BL, Kaur G, Bishop K. Poster, Teaching Unit 1 Clinically Oriented Anatomy during the COVID-19 pandemic., 33rd Annual Student Research Week, Texas Tech University Health Sciences Center, School of Medicine, Lubbock, Texas, March 2021.
11. Davis V, Plata G, Kaur G, Bishop K, Schneider BL. Poster, Teaching Unit 2 Clinically Oriented Anatomy during the COVID-19 pandemic., 33rd Annual Student Research Week, Texas Tech University Health Sciences Center, School of Medicine, Lubbock, Texas, March 2021.
12. Wall J, Kaur G, Bishop K, Schneider BL. Poster, Use of a three-dimensional anatomy atlas to supplement student learning during pandemic restrictions., 33rd Annual Student Research Week, Texas Tech University Health Sciences Center, School of Medicine, Lubbock, Texas, March 2021.
13. Rodriguez J, Kaur G, Schneider BL, Bishop K. Poster, Evaluating student satisfaction and performance on the uses of a three-dimensional anatomy atlas under pandemic restrictions., 33rd Annual Student Research Week, Texas Tech University Health Sciences Center, School of Medicine, Lubbock, Texas, March 2021.
14. Hibler T, Kaur G, Dufour JM. Poster, Tregs, Transplants, and TGF- $\beta$ : How Sertoli cells prevent acute graft rejection., 33rd Annual Student Research Week, Texas Tech University Health Sciences Center, School of Medicine, Lubbock, Texas, March 2021 (Second prize).
15. Washburn RL, Kaur G, Dufour JM. Poster, Complement inhibitory protein production by xenogeneic Sertoli cells is necessary for their survival of hyperacute rejection., 33rd Annual Student Research Week, Texas Tech University Health Sciences Center, School of Medicine, Lubbock, Texas, March 2021 (Third prize).

Posters: none

Grant Awards

The CH Foundation (\$75,000)

Kaur (Co-I)

01/01/2022-12/31/2022

The role of TGF $\beta$  and retinoic acid in Sertoli cell induction of Tregs.

The focus of this project is to examine the mechanism for Sertoli cell immune regulation, specifically the role of TGF $\beta$  and atRA in SC induction of stable regulatory T cells, as a means to improve Sertoli cell immune protection of transplanted islets for the treatment of diabetes.

The CH Foundation (\$60,000)

Kaur (PI)

01/01/2021-12/31/2021

Investigation of porcine Sertoli cell immune regulation to improve islet xenograft survival as a treatment for diabetes.

The focus of this project is to investigate the role of complement inhibitors (specifically MCP and DAF) expressed by neonatal pig Sertoli cells in inhibiting complement mediated cell lysis and modulating the cell mediated immune response.

Grant Applications: none

## **Lawrence, John**

### Publications

#### #CEIH Members

1. S. Awasthi, A. Hindle, N. A. Sawant, M. George, M. Vijayan, S. Kshirsagar, H. Morton, L. E. Bunquin, P. T. Palade, #J. J. Lawrence, H. Khan, C. Bose, P. H. Reddy and #S. P. Singh (2021). RALBP1 in Oxidative Stress and Mitochondrial Dysfunction in Alzheimer's Disease. *Cells* 10(11):3113. Accepted 11/6/21; published 11/10/2021.
2. F. Yi, T. Garrett, K. Deisseroth, H. Haario, E. Stone, and #J. J. Lawrence(2021). Septohippocampal transmission from parvalbumin-positive neurons features rapid recovery from synaptic depression. *Scientific Reports* 11: 2117. Accepted 12/14/20; published 1/22/21.\*As of 1/9/22, this article has had 1437 article accesses and is in the 84th percentile (rank 8th) of the 53 tracked articles of a similar age in *Scientific Reports*.

### Abstracts, National/International

1. J. Almaguer, B. R. Kisby, K. Casteneda, A. J. Pascullo, R. Barnes, M. Manczak, J. D. Bailoo, I. Ponomarev, and J. J. Lawrence. Presentation P196. All-trans retinoic acid deficiency in Alzheimer's disease: evidence from human transcriptomics and a novel mouse model. 2021 Neuroscience Meeting Planner. Chicago, IL: Society for Neuroscience, 2021. Online.
2. #S.P.Singh, H. Morton, S. Kshirsagar, C. Bose, A. Hindle, N. A. Sawant, L. E. Bunquin, M. Vijayan, P. T. Palade, #J. J. Lawrence, P. H. Reddy, and S. Awasthi. Presentation P893.10. Role of RalBP1 in Cognitive Dysfunction and Neuronal Aging in mouse model. 2021 Neuroscience Meeting Planner. Chicago, IL: Society for Neuroscience, 2021. Online.
3. J. Guindon (Chair), H. Hunsberger, N. Ebner, and J. J. Lawrence (Co-Chair). Sex Differences in Aging From Sleep, Pain, Brain Circuitry, and Disease States. Panel session, Winter Conference on Brain Research, Snowmass, CO, January 30th-February 4th, 2022. Panel Discussion title: "All-Trans Retinoic Acid Deficiency in Alzheimer's Disease Hippocampus: Novel Mouse and Human Evidence", February 3rd, 2022. Abstract accepted on 11/22/21.

## Abstracts, Regional

4. M. Pourghaed, A. Sarangi, F. Ramirez Velandia, J. Kopel, J. Culberson, G. Ashworth, H. Khan, A. Boles, #V. Neugebauer, and #J. J. Lawrence. Depression, Vitamin D, and Health Disparities among Hispanics in Older Rural West Texans: A Project FRONTIER Study. Texas Alzheimer's Research And Care Consortium 2022 Scientific Symposium: Advances in Alzheimer's Disease Science, Research, and Care, Austin TX, January 27th, 2022. Abstract accepted 12/21/21. TARCC meeting postponed.
5. J. Almaguer, M. Mahmud-Syed, K. Pruitt, M. Manczak, I. Ponomarev, and #J. Josh Lawrence. Hippocampal All-Trans Retinoic Acid (ATRA) Deficiency in Alzheimer's Disease: An Investigation of ATRA-Dependent Gene Transcription In Post-Mortem Hippocampal Tissue. Texas Alzheimer's Research And Care Consortium 2022 Scientific Symposium: Advances in Alzheimer's Disease Science, Research, and Care, Austin TX, January 27th, 2022. Abstract accepted 12/21/21. TARCC meeting postponed

## Presentations-none

## Posters-none

## Local

1. \*A. Sarangi, M. Pourghaed, F. Ramirez Velandia, G. Ashworth, J. Culberson, H.Khan, A.Boles, V.Neugebauer, and #J. J. Lawrence. Associations between Vitamin D Levels, Depression, and Hispanic/Latino Ethnicity among Older RuralWestTexans:: A Project FRONTIER Study.Center of Excellence for Translational Neuroscience and Therapeutics and Garrison Institute on Aging 5thAnnual Research Symposium, Texas Tech University Health Sciences Center, Lubbock, TX, May 5th, 2021.\*Dr. Sarangi won 2021 Poster Award Winner for the Clinical Post Graduate/Trainee Category.
2. \*I. Castro-Piedras, B. Kisby, I. Ponomarev, #J. J. Lawrence, and K. Pruitt. Role of aberrant Wnt/Ca2+signaling in Alzheimer's disease and cancer. Center of Excellence for Translational Neuroscience and Therapeutics and Garrison Institute on Aging 5thAnnual Research Symposium, Texas Tech University Health Sciences Center, Lubbock, TX, May 5th, 2021.\*Dr. Castro-Piedras won 2021 Poster Award Winner for the Basic Science Post Graduate/Trainee Category.
3. K. Castaneda, B. Kisby, A. J. Pascullo, J. Almaguer, R. Barnes, J. D. Bailoo, I. Ponomarev, and #J. J. Lawrence. All-trans retinoic acid deficiency in Alzheimer's disease: evidence from human transcriptomics and a novel mouse model. Center of Excellence for Translational Neuroscience and Therapeutics and Garrison Institute on Aging 5thAnnual Research Symposium, Texas Tech University Health Sciences Center, Lubbock, TX, May 5th, 2021.
4. M. Pourghaed, F. Ramirez Velandia, A. Sarangi, G. Ashworth, J. Culberson, H. Khan, A. Boles, #V. Neugebauer, and #J. J. Lawrence. Associations between Vitamin D Levels with Hispanic/Latino Ethnicity, General Health Status, and Co-Morbid Conditions among Older Rural West Texans: A Project FRONTIER Study.Center of Excellence for Translational Neuroscience and Therapeutics and Garrison Institute on Aging 5thAnnual Research Symposium, Texas Tech University Health Sciences Center, Lubbock, TX, May 5th, 2021.
5. M. Pourghaed, F. Ramirez Velandia, A. Sarangi, J. Culberson, and #J. J. Lawrence. Association of Vitamin D insufficiency/deficiency with depression, obesity, and diabetes in an ethnically diverse population in West Rural Texas –A follow up analysis of Project FRONTIER. 33rdAnnual Student Research Week 2021: NEURO: New Experiences Unfold Research Opportunities, Texas Tech University Health Sciences Center, Lubbock, TX, March 9th-12th, 2021.

## Grant Awards

Transcriptional Dysfunction in Dentate Gyrus Cell Types: Roles of Retinoic Acid Responsive Genes in Protection Against Alzheimer's Disease PathogenesisNIH R01 AG071859-01A1Lawrence (PI)1/1/2022-

12/31/2026 Total costs: \$1,872,220 There is growing evidence that pathological accumulation of toxic reactive oxygen species (ROS) is an early event in the hippocampal dentate gyrus (DG) of patients with Alzheimer's disease. This proposal tests the hypothesis that depletion of the antioxidant all-trans retinoic acid (ATRA) in the DG promotes ROS toxicity, mitochondrial dysfunction, and transcriptional dysregulation of ATRA-sensitive genes. Combining novel AD mouse model crosses, single cell transcriptomics, and electrophysiology, this proposal investigates roles of RA in preserving DG-specific learning, DG circuit function, and transcription of RA-sensitive genes across DG cell types. Role: PI Resubmitted 3/5/21. Assigned to NIH Chronic Dysfunction and Integrative Neurodegeneration Study Section. Supplementary Materials submitted 5/11/21. Scored at 22.0% on 6/16/21. Advisory Council meeting date 9/14/21. Notice of Award came on 12/23/21. Start date for grant was 1/1/22.

Grant Applications-none

## Lee, Sueann

### Publications

1. Byrd, A., Ramos-Pizarro, A., **Lee, S.A.S.\*\*** (in press). Revealing Anti-Asian Sentiment in the Classroom and Workplace. *The ASHA Leader*
2. **Lee, S.A.S.\*\*** (in press). Services beyond the United State: Fulbright US Scholar Experience in Vietnam. *ASHA Perspectives* 17
3. Tao, S. & **Lee, S.A.S.\*\*** (in press). Treatment intensity of speech intervention via telepractice for children with speech sound disorders: A systematic review. *EBP Briefs*
4. Nguyen, M.D., **Lee, S.A.S.\*\***, Kayakawa, T., Yamamoto, M., Natsume, N. (2021). Normative nasalance values in Vietnamese with Southern dialect: Vowels and tone effects. *Journal of Speech-Language-Hearing Research*, 64, 1515-1525.
5. \*Gibson, T., & **Lee, S.A.S.\*\*** (2021). The effects of ultrasound biofeedback in speech intervention for young children with hearing loss. *Clinical Linguistics & Phonetics*. 35, 438-457.

### Presentations

### Posters

### Grant Awards

2021-2027      \$3,199,247.00

National Institute of Dental and Craniofacial Research (NIDCR), UG3-UH3 Grant

Project title: Speech intervention via telepractice for children with repaired cleft palate: Randomized controlled trial and assessment of speech production and perception skills.

Role: Principle Investigator

Scored (overall impact score = 29)

Grant Applications: none

## Luk, HuiYing

### Publications

1. Luk, HY., Appel, C., Levitt, DE., Jiwan, NC., Vingren, JL. (2021). Differential Autophagy Response in Men and Women After Muscle Damage. *Frontiers in Physiology*; <https://doi.org/10.3389/fphys.2021.752347>
2. \*\* Shen, CL., Watkins, BA., Kahathuduwa, C., Chyu, MC., Zabet-Moghaddam, M., Elmassry, MM., Luk, HY., Brismee, JM., Knox, A., Lee, J., Zumwalt, M., Wang, R., Wager, TD., Neugebauer, V. (2021). Tai Chi Improves Brain Functional Connectivity and Plasma Lysophosphatidylcholines in Postmenopausal Women with Knee Osteoarthritis: An Exploratory Pilot. *Frontiers in Medicine*; doi: 10.3389/fmed.2021.775344
3. Vingren, JL., Boyett, JC., Lee, EC., Levitt, DE., Luk, HY., McDermott, BP., Munoz, CX., Ganio, MS., Armstrong, LE., Hill, DW. Effect of Ibuprofen on Circulating Cytokine and Leukocyte Subset Responses to 164-km Road Cycling Event in a Hot Environment. *Research Quarterly for Exercise and Sport* (Accepted)
4. Luk, HY., Levitt, DE., Appel, C., Vingren, JL. (2021). Sex dimorphism in muscle damage-induced inflammation. *Medicine & Science in Sports & Exercise*. 53 (8), 1595-1605; doi: 10.1249/MSS.0000000000002628
5. Luk, HY., Jones, MT., Vingren, JL. (2021). Effect of rest period configurations on systemic inflammatory response in resistance-trained women, *Journal of Sports Sciences*, <https://doi.org/10.1080/02640414.2021.1882725>

Presentations-none

Posters-none

Grant Awards

\*\*Agency: American River Nitration

Title: Effect of annatto-derived geranylgeraniol (GG) on statin-associated myopathy.

Shen CL (PI, 10%), Ansari M. (Co-I), Dunn D. (Co-I), Luk HY (Co-I), Lee J. (Co-I)

Amount Obtained: \$266,294

Duration: 2022-2023

Percent of effort: 5%

Grant Applications-none

**Lyford, Conrad**

Publications

1. Gong, Zijan and Conrad Lyford. "Using Social Media for More Engaged Users and Enhanced Health Communication in Diabetes Care," *American Journal of Lifestyle Medicine*, January 2022. doi:10.1177/15598276211064832
2. Kwaku, Antwi and Conrad Lyford. "Socioeconomic Determinants of Rural Households' Food Security Status in Northern Ghana," *Journal of Agricultural and Food Sciences*, October 2021 19(2): 85-93. <https://dx.doi.org/10.4314/jafs.v19i2.9>

3. Rana, Ziaul, Debra Reed, Wilna Oldewage-Theron, Conrad Lyford, Malinda Colwell, John Dawson. "Overweight or Obesity Onset and Past Attempts to Lose/Manage Weight: A Qualitative Study," *Obesities*, October 2021, 1: 136-143.

Presentations-none

Posters-none

Grant Awards-none

Grant Applications-none

## **Mello, Inola**

### Publications

#### *Published Journal Articles (Peer Reviewed) –National*

1. Bruce, K. E., Hilliard, T. C., Esquibel, K. A., Mello, I. T., & Moore, A. M. ((May/June 2021). Hypertension across the lifespan: Adults. *Nursing Made Incredibly Easy*. 19(3), 28-35. CME article. doi: 10.1097/01.NME.0000741812.42477.88
2. Esquibel, K. A., Moore, A. M., Bruce, K. E., Hilliard, T. C., & Mello, I. T. (2021). Hypertension across the lifespan: Pediatrics. *Nursing Made Incredibly Easy*.19(2) 28-34. CME article. doi: 10.1097/01.NME.0000731976.81322.47
3. Hilliard, T. C., Mello, I. T., Moore, A. M., Esquibel, K. A., & Bruce, K. E. (July/August 2021). Hypertension across the lifespan: Older Adults. *Nursing Made Incredibly Easy*.19(4), 30-37. CME article.doi: 10.1097/01.NME.0000753040.28121.7b

Presentations-none

Posters-none

Grant Awards

2008 Women with Genital Piercing Study, Examining the Use of Genital Piercings as a Self-Care Intervention for Women, Mello, I. T. (Co-Principal Investigator), Young, C. (Co-Principal Investigator), Armstrong, M. L. (Co-Principal Investigator), & Roberts, A. E.(Co-Principal Investigator)

Grant applications-none

## **Moustaid-Moussa, Naimi**

### Publications

1. Choi, J.M., Camfield, E., Bowman, A., Rajan, K., Labbé, N., Gwinn, K.D., Ownley, B.H., Moustaid-Moussa, N., D'Souza, D.H. Value-added switchgrass extractives for reduction of Escherichia coli O157: H7 and Salmonella Typhimurium populations on Formica coupons. *Food Microbiol*. 95:103674, 2021.
- 2.Sivaprakasam, S., Sikder, M.O.F, Ramalingam, L, Kaur, G, Dufour J.M,Moustaid-Moussa N, Wachtel, M.S, Ganapathy, V. SLC6A14 deficiency is linked to obesity, fatty liver, and metabolic syndrome but only under conditions of a high-fat diet.*Biochim Biophys Acta Mol Basis Dis*. 1867(5):166087, 2021
- 3.Baek, S.J., Hammock, B.D., Hwang, I.K., Li, Q., Moustaid-Moussa, N., Park, Y., Safe, S., Suh, N., Yi, S.S., Zeldin, D.C.,Zhong, Q., Bradbury, J.A., Edin, M.L., Graves, J.P., Jung, H.Y., Jung, Y.H., Kim, M.B., Kim, W., Lee, J., Li, H., Moon, J.S., Yoo, I.D., Yue, Y., Lee, J.Y., Han, H.J.. *Natural Products in the Prevention of*

Metabolic Diseases: Lessons Learned from the 20th KAST Frontier Scientists Workshop. *Nutrients*. 13(6):1881, 2021

4. Zu, Y., Zhao, L., Hao, L., Mechref, Y., Zabet-Moghaddam, M., Keyel, P.A., Abbasi, M., Wu, D., Dawson, J.A., Zhang, R., Nie, S., Moustaid-Moussa, N., Kolonin, M.G., Daquinag, A.C., Brandi, L., Warraich, I., San Francisco, S.K., Sun, X., Fan, Z., Wang, S.. Browning white adipose tissue using adipose stromal cell-targeted resveratrol-loaded nanoparticles for combating obesity. *J Control Release*; 333:339-351, 2021

5. Bruno RS, Neilson AP, Lambert JD, Moustaid-Moussa N. Polyphenols, obesity, and cardiometabolic health (Editorial, Special Issue). *J Nutr Biochem*.89:108565. doi: 10.1016/j.jnutbio.2020.108565. 2021 PMID: 33321186

6. DJ Klionsky, AK Abdel-Aziz, S Abdelfatah, M Abdellatif, A Abdoli, S Abel,..... Moustaid-Moussa, N., ..... Guidelines for the use and interpretation of assays for monitoring autophagy (4th edition). *Autophagy* 17 (1), 1-382, 2021.

7. Washburn, R.L., Mueller, K., Kaur, G., Moreno, T., Moustaid-Moussa, N., Ramalingam, L., Dufour, J.M. C-Peptide as a Therapy for Type 1 Diabetes Mellitus. *Biomedicines*.9(3):270, 2021.

8. Munir, M.T., Kay, M.K., Kang, M.H., Rahman M,M,, Al-Harrasim A,, Choudhury M,, Moustaid-Moussa N,, Hussain F., Rahman S,M. Tumor-Associated Macrophages as Multifaceted Regulators of Breast Tumor Growth. *Int J Mol Sci*.22(12):6526, 2021

9. Zahid, M.K., Sufian, H.B., Choudhury, M., Yamasaki, M., Al-Harrasi, A., Moustaid-Moussa, N., Rahman, S.M. Role of macrophage autophagy in atherosclerosis: modulation by bioactive compounds. *Biochem J*.16;478(7):1359-1375, 2021.

10. Miller, E.K., Pahlavan, M., Ramalingam, L., Scoggin, S., Moustaid-Moussa, N. Uncoupling protein 1-independent effects of eicosapentaenoic acid in brown adipose tissue of diet-induced obese female mice. *J Nutr Biochem*. 98:108819, 2021

11. de Miranda, F.S., Guimarães, J.P.T., Menikdiwela, K.R., Mabry, B., Dhakal, R., Rahman, R.L., Moussa, H., Moustaid-Moussa, N.. Breast cancer and the renin-angiotensin system (RAS): Therapeutic approaches and related metabolic diseases. *Mol Cell Endocrinol*.15; 528:111245, 2021

12. Gordon-Larsen, P., French, J.E., Moustaid-Moussa, N., Voruganti, V.S., Mayer-Davis, E.J., Bizon, C.A., Cheng, Z., Stewart, D.A., Easterbrook, J.W., Shaikh, S.R. Synergizing mouse and human studies to understand the heterogeneity of obesity. *Adv. Nutr.* In Press, 2021

13. Ramalingam, L., Menikdiwela, K.R., Spainhour, S., Eboh, T., Moustaid-Moussa, N. Sex Differences in Early Programming by Maternal High Fat Diet Induced-Obesity and Fish Oil Supplementation in Mice. *Nutrients*.13(11):3703, 2021

14. Dhakal, R., Yosofvand, M., Yavari, M., Abdulrahman, R., Schurr, R., Moustaid-Moussa, N., Moussa, H. Review of Biological Effects of Acute and Chronic Radiation Exposure on *Caenorhabditis elegans*. *Cells*.10(8):1966, 2021

15. Islam, T., Koboziev, I., Albracht-Schulte, K., Mistretta, B., Scoggin, S., Yosofvand, M., Moussa, H., Zabet-Moghaddam, M., Ramalingam, L., Gunaratne, P.H., Moustaid-Moussa, N. Curcumin Reduces Adipose Tissue Inflammation and Alters Gut Microbiota in Diet-Induced Obese Male Mice. *Mol. Nutr. Food Res*.65(22):e2100274, 2021

16. Albracht-Schulte, K., Wilson, S., Johnson, P., Pahlavani, M., Ramalingam, L., Goonapienuwala, B., Kalupahana, N.S., Festuccia, W.T., Scoggin, S., Kahathuduwa, C.N., Moustaid-Moussa, N. Sex-Dependent Effects of Eicosapentaenoic Acid on Hepatic Steatosis in UCP1 Knockout Mice. *Biomedicines*.27;9(11):1549, 2021

17. Parkman, J.K., Sklioutovskaya-Lopez, K., Menikdiwela, K.R., Freeman, L., Moustaid-Moussa, N., Kim, J.H. Effects of high fat diets and supplemental tart cherry and fish oil on obesity and type 2 diabetes in male and female C57BL/6J and TALLYHO/Jng mice. *J. Nutr. Biochem.* 94:108644; 2021
18. Taren, D., Akseer, N., Davis, C.D., Miller, J.W., Moustaid-Moussa, N., Novotny, R., Slupsky, C.M., Saroja Voruganti, V., Cameron, J.M. Eighty years of nutritional sciences, and counting. *Nutr Rev.* 80(1):1-5, 2021
19. Pal, A., Sun, S., Armstrong, M., Manke, J., Reisdorph, N., Adams, V.R., Kennedy, A., Zu, Y., Moustaid-Moussa, N., Carroll, I., Shaikh, S.R. Beneficial effects of eicosapentaenoic acid on the metabolic profile of obese female mice entails upregulation of HEPEs and increased abundance of enteric Akkermansia muciniphila. *Biochim Biophys Acta Mol Cell Biol Lipids.* 867(1):159059; 2022

#### Presentations-none

#### Posters-none

#### Grant Awards

1. PI Moustaid-Moussa Current: NSF-I-Corps. 50,000. 7/2021-12/2022. Assessment of metabolic health using nuclear magnetic resonance relaxometry device
2. PI Moustaid-Moussa Current: USDA REEU. 500,000. 7/2021-6/2026. Nutrition BEST: Bench to Community Scholars of Texas

#### Grant Applications

1. PI (Subcontract) Pending: NIH \$430,000. (TTU, \$112,670) 09/2022-12/2025. Novel Pathways and miRNA Targets for the Renin Angiotensin Aldosterone System
2. PI Pending: NIH FIRST. \$15M. 09/2022-8/2027. RAMP UP: Recruiting and Mentoring Program for Underrepresented Persons
3. PI/MPIMPI: Festuccia, Univ. Sao Paulo, Brazil Not funded NIH R01 (Dual NIH-FAPESP). 2,362,000 (TTU, 1,500,000) 09/2022-06/2027 Mechanisms mediating UCP1-independent effects of fish oil

### **Murimi, Mary**

#### Publications

1. Daba, A. K., Murimi, M., Abegaz, K., Hailu, D. (2021). Determinants and constraints to household-level animal source food consumption in rural communities of Ethiopia. *Journal of Nutritional Sciences*, Volume 10(e58), 1-10. <https://doi.org/10.1017/jns.2021.52>
2. Lee, H.J., Murimi, M.W. & Dawson, J.A. (2021) Factors Associated with Child Malnutrition in the Somali Region of Ethiopia: A Cross-Sectional Survey. *Glob Social Welfare* (2021). Published online. <https://doi.org/10.1007/s40609-021-00212-9>
3. Moyeda-Carabaza, A.F. & Murimi, M (2021). Differences in underlying causes of child undernutrition between a pastoral and an agro-pastoral community in Ethiopia. *Journal of Hunger & Environmental Nutrition*, 2021. Page:1-17. <https://doi.org/10.1080/19320248.2021.1938777>
4. Nguyen, B. & Murimi, M. (2021). Lack of calcium rich foods in the diet, low knowledge on calcium level recommendations and severe food insecurity predicts low calcium intake among Vietnamese women. *Appetite*: <https://doi.org/10.1016/j.appet.2021.105242>.

5.Moyeda-Carabaza, A.F., Githinji, P., Nguyen, B., Murimi, M. (2021). The influence of frequent consumption of meals away-from-home on the total diet quality and weight status among faculty and staff. Journal of American College Health. DOI: 10.1080/07448481.2021.1891081.

## Presentations

### *International*

1.Murimi, M.(2021), Women & Girls Leadership and Empowerment Conference, "Inspiring Impact: Discovering, Recovering, and Amplifying Voices," Woman's Health and Wellness, held online on August 18th, 2021. (Invited).

2.Murimi, M.,Carabaza, A. F. M. &, Archuleta, M, & Nguyen, B. (2021), "Designing Effective Face-to-Face and Online Based Nutrition Education Interventions for All: Adults, Children, Low Literacy and Food Insecure Populations.," Society for Nutrition Education and Behavior Annual Conference held online on August 9th, 2021.

3.Murimi, M., Theuri, S., Nordin, S.&, Piscopo, S. (2021) "The Pandemic Effect on Global Food Security, Food Systems and Nutrition Education Practice," Society for Nutrition Education and Behavior Conference, sponsored by Healthy Aging Division held online on August 9th, 2021. (Invited).

### *National*

1.Archuleta, M. & Murimi, M.(2021). Enhancing organizational resiliency Part 2. California Academy of Nutrition and Dietetics Leadership Summit held online on January 30th, 2021. (invited).

2.Murimi, M.& Archuleta, M. (2021). Enhancing organizational resiliency Part 1. California Academy of Nutrition and Dietetics Leadership Summit held online on January 30th, 2021. (invited).

## Posters-none

## Grant Awards-none

## Grant Applications-none

## **Nair, Nandini**

### Publications

1.Nair N, Yang S, Gongora E A risk prediction model for stroke in the early post-transplant period in adult cardiac allograft recipients --A UNOS database analysis Transplant. Proc (in press)

2.Nair N, Ray N, Pachharianon P, Burden R, Skeen N Impact of Outpatient Diuretic Infusion Therapy on Healthcare Cost and Readmissions Int J Heart Fail.(in press)

3.Nair N, Yang S, Marzbani C, Pillai AJ, Agusala V, Denega T, Tantrachoti P, Gongora E NT-proBNP and D-Dimer in acute decompensated heart failure: Assessment of diagnostic accuracy and correlation with echocardiographic parameters Acta Cardiol.(in press)

4.Chiu KC, Du D, Nair N, Du Y. Deep Neural Network-Based Survival Analysis for Skin Cancer Prediction in Heart Transplant Recipients. Annu Int Conf IEEE Eng Med Biol Soc.;2021:2144-2147.

5.Nair N,Hu Z, Du D, Gongora E. Risk prediction model for cutaneous squamous cell carcinoma in adult cardiac allograft recipients. World J Transplant. 2021 ;11:54-69. PMID: 33816146.

6.Nair N,Hu Z, Du D, Gongora E. Risk prediction model for basal cell carcinoma in cardiac allograft recipients. 2021 Transplant. Proc;53:1981-1988.PMID: 33931248

7.Nair N, Yang S, Gongora E. Impact of mechanical circulatory support on post-transplant stroke risk. *Int J Artif Organs* 2021 Aug 18;39(13):1035-143. doi: 10.1177/03913988211035143

8.Nair N. Invasive hemodynamics in heart failure with preserved ejection fraction (HFpEF) ; Importance of detecting pulmonary vascular remodeling and right heart function *Heart Fail Clin.* 2021;17:415-422.

9.Appiah D, Farias RM, Helo D, Appiah L Olokede OA, Nwabuo CC, Nair N . Association of marital status with takotsubo syndrome (broken heart syndrome) among adults in the United States *World J Cardiology.* 2021 ;13; 340-347.

#### ABSTRACTS published after peer review

1.Nair N, Johnston H, Du D A Machine Learning Model for Post-Transplant Lymphoproliferative Disorder Using the UNOS Database *J Heart Lung Transpl* 2022

2.Nair N, Johnston H, Du D A Logistic Regression Model for Post-Transplant Lymphoproliferative Disorder Using the UNOS Database *J Heart Lung Transpl* 2022

3.Nair N, Du D, Hu Z, Gongora E Risk Prediction Model for Survival of Wait List Patients on Axial CF-LVAD:

### **Neugebauer, Volker**

#### Publications

##### Peer-reviewed

1.Navratilova, E., Nation, K., Remeniuk, B., Neugebauer, V., Bannister, K., Dickenson, A.H., 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*:161:609-618, 2020. PMID: 31725062. PMC7124010 [Featured Article: Editor's Choice].

2.Chen, Y., Moutal, A., Navratilova, E., Kopruszinski, C., Yue, X., Ikegami, M., Chow, M., Kanazawa, I., Bellampalli, S.S., Xie, J., Patwardhan, A., Rice, K., Fields, H., 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.* 12:529 eaay7550, DOI: 10.1126/scitranslmed.aay7550, 2020. PMID: 32024801. PMC7523341 [Evaluated in F1000 Faculty Opinions by I. Vetter and R. Ji, <https://f1000.com/prime/737321616>].

3.Neugebauer, V., Mazzitelli, M., Cragg, B., Ji, G., Navratilova, E., Porreca, F. Amygdala, neuropeptides, and chronic pain-related affective behaviors. *Neuropharmacology* 170: 108052 (13 pp), 2020. PMID: 32188569. PMC7214122.

4.Ji, G. and Neugebauer, V. Kappa opioid receptors in the central amygdala modulate spinal nociceptive processing through an action on amygdala CRF neurons. *Mol. Brain* 13: 128 (10 pp), 2020. PMID: 32948219. PMC7501648

5.Hein, M., Ji, G., Tidwell, D., D'Souza, P., Kiritoshi, T., Yakhnitsa, V., Navratilova, E., Porreca, F., Neugebauer, V. Kappa opioid receptor activation in the amygdala disinhibits CRF neurons to generate pain-like behaviors. *Neuropharmacology* 185: 108456 (13 pp.), 2021. PMID: 33444637. PMC7887082.

6.Mazzitelli, M., Marshall, K., Pham, A., Ji, G., Neugebauer, V. Optogenetic manipulations of amygdala neurons modulate spinal nociceptive processing and behavior under normal conditions and in an arthritis pain model. *Front. Pharmacol.* 12: 668337 (18 pp.), 2021. PMID: 34113253. PMC8185300.

7.Gandhi, P.J., Gawande, D.Y., Shelkar, G.P., Gakare, S.G., Kiritoshi, T., Ji, G., Misra, B., Pavuluri, R., Liu, J., Neugebauer, V., Dravid, S. Dysfunction of glutamate delta-1 receptor-cerebellin 1 trans-synaptic

signaling in the central amygdala in chronic pain. *Cells*10: 2644 (25 pages), 2021. PMID: 34685624. PMC8534524

8.Presto, P., Ji, G., Junell, R., Griffin, Z., Neugebauer, V.Fear extinction based inter-individual and sex differences in pain-related vocalizations and anxiety-like behaviors but not nocifensive reflexes. *Brain Sci.*11: 1339 (19 pp.), 2021. PMID: 34679403. PMC8533751.

9.Shen, C.-L., Wang, R., Ji, G., Elmassry, M.M., Zabet-Moghaddam, M., Vellers, H., Hamood, A.N., Gong, X., Mirzaei, P., Sang, S., Neugebauer, V. Dietary supplementation of gingerols-and shogaols-enriched ginger root extract attenuate pain-associated behaviors while modulating gut microbiota and metabolites in rats with spinal nerve ligation. *J. Nutr. Biochem.* 100: 108904, 2021.

10.Shen, C.-L., Watkins, B., Kahathuduwa, C., Chyu, M.-C., Zabet, M., Elmassry, M.M., Luk, H.-Y., Brismee, J.-M., Knox, A., Lee, J., Zumwalt, M., Wang, R., Wager, T.D., Neugebauer, V.Tai Chi improves brain functional connectivity and plasma lysophosphatidylcholines in postmenopausal women with knee osteoarthritis: an exploratory pilot study. *Front. Med.*(in press).

11.Ashraf-Uz-Zaman, M., Ji, G., Tidwell, D., Yin, L., Thakolwiboon, S., Neugebauer, V., Pan, J., Shahi, S., Sajib, M.S., Trippier, P., Mikelis, C., Avila, M., German, N., Evaluation of Urea-Based Inhibitors of the Dopamine Transporter Using the Experimental Autoimmune Encephalomyelitis Model of Multiple Sclerosis. *ACS Chemical Neuroscience*(accepted).

### Reviews/Editorials

1.Neugebauer, V. Serotonin –Pain Modulation. In: Mueller, C.P., Cunningham, K.A. (Eds.) *Handbook of the Behavioral Neurobiology of Serotonin*, 2ndEdition, *Handbook of Behavioral Neurosciences*, 31: 309-320, 2020. ISBN: 9780444641250.

2.Neugebauer, V.Amygdala Physiology in Pain. In: Rosenkranz, J.A., Urban, J.H. (Eds.) *Handbook of Amygdala Structure and Function*, *Handb. Behav. Neurosci.*, 26: 101-113, 2020.ISBN: 9780128151341. PMC8059430.

3.Mazzitelli, M., Neugebauer V.mGlu3 –New hope for pharmacotherapy of schizophrenia. *Biol. Psychiatry* 90 356–358, 2021. PMID: 34446153

### Meeting abstracts(\* denotes peer review)

1.\* Shen, C.L., Wang, R.,Ji, G., Vellers, H., Sang, S., Neugebauer, V. Dietary supplementation of gingerols-and shogaols-enriched ginger root extracts attenuate pain-associated behaviors in animals with spinal nerve ligation. *Curr. Dev. Nutr.* 4, Suppl. 2: 74. DOI:10.1093/cdn/nzaa040\_074, 2020.

2.\* Elmassry, M.M., Wang, R., Hamood, A.N., Neugebauer, V., Shen, C.L. Two isomers of ginger root extracts modify composition and function of gut microbiota in rats treated with neuropathic pain. *Curr. Dev. Nutr.* 4, Suppl. 2: 394. DOI:10.1093/cdn/nzaa045\_027, 2020.

3.\* Zabet-Moghaddam, M., Gong, X., Mirzaei, P., Wang, R., Neugebauer, V., Shen, C.L. Differential impacts of gingerols-and shogaols-enriched ginger root extracts on fecal metabolites in rats with neuropathic pain. *Curr. Dev. Nutr.* 4,Suppl. 2: 494. DOI:10.1093/cdn/nzaa045\_127, 2020.

4.\* Phelps, C.E., Navratilova, E., Neugebauer, V.,Porreca, F. Kappa Opioid Receptor Activation in the Right Central Nucleus of the Amygdala is Sufficient to Induce Conditioned Place Aversion and Periorbital Allodynia in the Absence of Injury. 18th World Congr. Pain, IASP, 2020.

5.\* Wang, R., Ji, G., Dufour, J.M., Kaur, G., Miranda, J.M., Washburn, R.L., Hibler, T., Luk, H.-Y., Neugebauer, V.,

- Shen, C.-L. Ginger Mitigates Pain Behaviors and Improves Colon Health in Obese Rats with Diabetic Neuropathy. 38th Annual Meeting of The Obesity Society, Obesity 28: 186, Suppl. 2, Abstract 484, 2020.
6. Fang, C.Y., Sherali, S., Zabet, M., Gong, X., Mirzaei, P., Wang, R., Neugebauer, V., Shen, C.-L. The effects of ginger root extract on gut microbiota-derived metabolites in animals with neuropathic pain. 3rd Integrative Medicine Symposium and Annual LWBIWH Symposium, 2020.
7. Shen, C.-L., Wang, R., Ji, G., Vellers, H., Sang, S., Neugebauer, V. Dietary supplementation of gingerols- and shogaols-enriched ginger root extracts attenuate pain-associated behaviors in animals with spinal nerve ligation. 3rd Integrative Medicine Symposium and Annual LWBIWH Symposium, 2020. [Merit Award Winner].
8. Elmassry, M.M., Wang, R., Hamood, A.N., Neugebauer, V., Shen, C.-L. Two isomers of ginger root extracts modify composition and function of gut microbiota in rats treated with neuropathic pain. 3rd Integrative Medicine Symposium and Annual LWBIWH Symposium, 2020.
- 9.\* Ashraf-Uz-Zaman, M., Ji, G., Alvina, K., Sajib, M.S., Mikelis, C., Avila, M., Neugebauer, V., German, N.A. Discovery and structure-activity relationship study of novel series of mono-amine transporter inhibitors for the treatment of neurodegenerative diseases. FASEB Journal 34, S1: R3221, 2020.
10. Schuck, A., Tompkins, C., Neugebauer, V., Shen, C.-L. Potential therapeutic benefits of capsaicin, EGCG and green tea extract, curcumin, and ginger on fibromyalgia: A review of the literature. 33rd Annual Student Research Week, p. 103, 2021.
11. Tompkins, C., Schuck, A., Neugebauer, V., Shen, C.-L. Analgesic Effects of GSPE, Soy and Genistein, Naringin, and Omega-3 PUFA and Their Possible Molecular Mechanisms in Treating Fibromyalgia. 33rd Annual Student Research Week, p. 108, 2021.
12. Castro, L.F., Castro, M., Neugebauer, V., Shen, C.-L. Antiallodynic and Antihyperalgesic Effects of Ginger, Capsaicin, Naringin, Soy, Resveratrol and Molecular Mechanism in the Treatment of Neuropathic Pain: A Review of the Literature. 33rd Annual Student Research Week, p. 119, 2021.
13. Castro, L.F., Castro, M., Neugebauer, V., Shen, C.-L. Potential effects of EGCG, Curcumin, Omega-3, and Lycopene in the Treatment of Neuropathic Pain and Proposed Molecular Mechanisms: A Review of the Literature. 33rd Annual Student Research Week, p. 51, 2021.
14. Mazzitelli, M., Yakhnitsa, V., Neugebauer, V. Optogenetic manipulation of amygdala CRF neurons modulates pain-related behaviors in a rodent model of neuropathic pain. 33rd Annual Student Research Week, p. 38, 2021.
15. Presto, P., Ponomarev, I., Neugebauer, V. Sex differences in brain neuroimmune signaling related to pain: Molecular and behavioral effects. 33rd Annual Student Research Week, p. 29, 2021.
- 16.\* Shen, C.-L., Kahathuduwa, C., Chyu, M.-C., Brismée, J.-M., Knox, A., Wang, R., Luk, H.-Y., Appell, C., O'Boyle, M., Zumwalt, M., Watkins, B., Neugebauer, V. Neurobiological mechanisms of pain modulation from Tai-Chi: a single-arm pre/post pilot study. Integrative Medicine & Health Symposium. ID #27, 2021.
- 17.\* Prater, C.M., Kisby, B., Neugebauer, V., Ponomarev, I. TLR3 activation increases alcohol consumption and excitatory signaling in the infralimbic prefrontal cortex. 44th Annual RSA Scientific Meeting. Alcohol.: Clin. Exp. Res. 45: 209A, Suppl. 1, 571, 2021.
- 18.\* Shen, C.-L., Wang, R., Elmassry, M.M., Neugebauer, V., Hamood, A.N. Dietary ginger root extract supplementation mitigated diabetic peripheral neuropathy in streptozotocin-induced diabetic rats by modulating gut microbiota. Curr. Dev. Nutr. 5, Suppl. 2:1179. DOI:10.1093/cdn/nzab054\_034, 2021.
19. Sarangi, A., Pourghaed, M., Velandia, F.R., Ashworth, G., Culberson, J., Khan, H., Boles, A., Neugebauer, V., Lawrence, J.J. Associations between Vitamin D Levels, Depression, and Hispanic/Latino Ethnicity among Older Rural West Texans: A Project FRONTIER Study. 5th Annual CTNT Symposium, p. 33, 2021.

20. Pourghaed, M., Velandia, F.R., Sarangi, A., Ashworth, G., Culberson, J., Khan, H., Boles, A., Neugebauer, V., Lawrence, J.J. Associations between Vitamin D Levels with Hispanic/Latino Ethnicity, General Health Status, and Co-Morbid Conditions among Older Rural West Texans: A Project FRONTIER Study. 5th Annual CTNT Symposium, p. 32, 2021.
21. Presto, P., Ponomarev, I., Neugebauer, V. Sex differences in brain neuroimmune signaling related to pain: Molecular and behavioral outcomes. 5th Annual CTNT Symposium, p. 21, 2021.
22. Ashraf-Uz-Zaman, MD, Shahi, S., Ji, G., Tidwell, D., Yin, L., Thakolwiboon, S., Pan, J., Trippier, P.C., Avila, M., Neugebauer, V., German, N.A., Urea-based dopamine transporter inhibitors as a therapeutic option for neurodegenerative diseases. 5th Annual CTNT Symposium, p. 21, 2021.
23. Mazzitelli, M., Yakhnitsa, V., Neugebauer, V. Optogenetic stimulation of CRF neurons in the amygdala modulates pain-related behaviors in neuropathic pain model. 5th Annual CTNT Symposium, p. 22, 2021.
24. \*Avila, M., Thakolwiboon, S., Rice, E. M., Sohn, G., Neugebauer, V., DeToledo, J. Gender Differences in Multiple Sclerosis-Related Pain. *Mult. Scler. J.* 27: 121, Suppl. 1, P224, 2021.
25. Presto, P., Ji, G., Junell, R., Griffin, Z., Neugebauer, V. Inter-individual and sex differences in pain-related vocalizations and anxiety-like behaviors. Annual LWBIWH Symposium, 2021.
26. \*Presto, P., Neugebauer, V. Calcitonin gene-related peptide 1 receptor blockade in the amygdala inhibits pain-related behaviors and neuronal activity in a chronic neuropathic pain model. *Soc. Neurosci. Abstr.* 50: P387.01, 2021.
27. \*Junell, R., Presto, P., Ponomarev, I., Neugebauer, V. Subacute silencing of HMGB1 in the amygdala inhibits pain-related behaviors in a rat model of chronic neuropathic pain. *Soc. Neurosci. Abstr.* 50: P387.02, 2021.
28. \*Neugebauer, V., Mazzitelli, M., Yakhnitsa, V. Optogenetic silencing of amygdala CRF neurons inhibits anxiety-like behaviors at the acute stage of a rat neuropathic pain model. *Soc. Neurosci. Abstr.* 50: P387.03, 2021.
29. \*Kiritoshi, T., Neugebauer, V. Differential pain-related changes in PB- and PAG-projecting amygdala CRF neurons in a neuropathic pain model. *Soc. Neurosci. Abstr.* 50: P387.04, 2021.
30. \*Ji, G., Kiritoshi, T., Yakhnitsa, V., Navratilova, E., Porreca, F., Neugebauer, V. Opposing effects of kappa and mu opioid receptors on amygdala CRF neuronal activity in a rat neuropathic pain model. *Soc. Neurosci. Abstr.* 50: P387.06, 2021.
31. \*Griffin, Z., Yakhnitsa, V., Hein, M., Navratilova, E., Porreca, F., Neugebauer, V. Kappa opioid receptor blockade reduces pain-like behaviors and restores inhibition of amygdala CRF neurons in a functional pain model in rats. *Soc. Neurosci. Abstr.* 50: P387.07, 2021.
32. \*Yakhnitsa, V., Thompson, J.M., Neugebauer, V., Pruitt, K. SK2-channel dysfunction in central nucleus of amygdala in chronic neuropathic pain. Evidence for epigenetic modifications. *Soc. Neurosci. Abstr.* 50: P387.08, 2021.

#### News Releases -Educational Activities for the Lay Public

1. "TTUHSC Garrison Institute on Aging Receives Award. Texas Health and Human Services Announces Innovators in Aging Award Recipients". In: TTUHSC Statline Daily Dose, by Suzanna Cisneros, September 3, 2020; <https://dailydose.ttuhs.edu/2020/september/lubbock-garrison-institute-on-aging-recieves-award.aspx>.

2.Vetter I: Faculty Opinions Recommendation of [Chen Y et al., Sci Transl Med 2020 12(529)]. In Faculty Opinions, 26 Feb 2020; 10.3410/f.737321616.793571434. <https://f1000.com/prime/737321616>.

## Presentations

### *Invited Talks*

10-04-2021“Differential roles of mGluR2 and mGluR3 in the amygdala in pain modulation”. 10thmGlu Meeting, Taormina, Italy.

05-12-2021“The Frontiers Project –Garrison Institute on Aging”. Health Disparities, Rural Communities, Outreach & Engaged Scholarship, 6thAnnual Obesity Research Institute (ORI) Meeting & Competition, TTU, Lubbock, TX.

## Posters

### Grant Awards

1. R01 NS120395 –NIH/NINDS Impact score: 10, Percentile: 1.00. 8/01/21 –07/31/26“ A prolactin-mediated neuroendocrine link between stress-induced latent sensitization and female-selective pain” The goal of this study is to identify a previously unknown stress-related neuroendocrine link between hypothalamic kappa opioid receptors and prolactin/prolactin receptor signaling in nociceptors as a basis for female selective pain syndromes. PI (Contact), Frank Porreca (University of Arizona) PI, Volker Neugebauer Total costs: \$2,297,350 (TTUHSC subaward, \$921,815)
2. COHS AD Seed Grant -TTU03/01/21 –12/31/21“Global gene expression profiling of high fat and fish oil effects in a mouse model of Alzheimer’s disease” The goal of this study is to test if fish oil has protective effects in an Alzheimer’s disease mouse model by reducing brain, adipose tissue and systemic inflammation and decreasing amyloid beta accumulation. PI (Contact), Naima Moustaid-Moussa (TTU)PI, Volker Neugebauer Total costs: \$10,000
3. 2021-67017-34026 -USDA/NIFA “Ginger root extract for neuropathic pain” 01/01/21 -12/31/23The goal of this study is to evaluate the effects of ginger root extract on neuropathic pain-associated sensory and affective behaviors, gut health, and neuroinflammation in animals. PI (Contact), Chwan-Li (Leslie) ShenPI, Volker Neugebauer Total costs: \$500,000
4. R01 NS118731 –NIH/NINDS08/01/20 –07/31/25“Trans-Synaptic Signaling Complex in Amygdala Pain Mechanisms” The goal of this project is to determine the role of the trans-synaptic signaling complex centered on cerebellin 1 and glutamate delta 1 receptor in the regulation of amygdala plasticity and pain mechanisms.PI (Contact), Shashank Dravid (Creighton University)PI, Volker Neugebauer Total costs: \$2,674,615 (TTUHSC subaward, \$733,740)

## Grant Applications

Pending (NoA being prepared) R01 NS038261 -NIH/NINDS Impact score: 25, Percentile 812-01-21 - 11/30/26“Amygdala Pain Mechanisms” The overall goal of this project funded since 1999 is to determine role and mechanisms of amygdala plasticity in pain and its interactions with cortical-cognitive control centers, using electrophysiology, pharmacology, behavioral assays, gene transfer and optogenetic strategies. The focus of this project period is on neuroimmune signaling as a mechanism of neuroplasticity and neuropathic pain.PI, Volker Neugebauer, MPI, Igor Ponomarev Total costs: \$3,342,950

12/07/2021Texas Alzheimer's Research & Care Consortium (TARCC), Volker Neugebauer (PI Subcontract) Neuro-Cognitive Outcomes and Vulnerabilities in the time of Infectious Disease pandemics (Neuro-COVID):TARCC Collaborative for patient and caregiver research

12/06/2021 AHA, Volker Neugebauer (Consultant) Characterizing vascular function in long sleepers

10/25/2021 BrightFocus Foundation, Volker Neugebauer (Key person) Neurexin-cerebellin-GluD1/2 complexes early in Alzheimer's Disease: Trans-synaptic signaling vulnerabilities in hippocampal novelty detection circuits

09/07/2021 NINDS R01, Volker Neugebauer (PI Subcontract) Neuroendocrine Consequences of Neonatal Medical Trauma

07/07/2021 NIA R21, Volker Neugebauer (PI Subcontract) Tetrode biosensor probes for real-time detections of biomarker dysregulation in Alzheimer's disease

04/06/2021 NINDS R01, Volker Neugebauer (PI) Amygdala Pain Mechanisms

## **Oldewage, Wilna**

### Publications

#### *Published chapters in books and books:*

CHALWE JM, GROBLER C & OLDEWAGE-THERON W. 2021. Genetic Polymorphisms and their Interactions with the Risk Factors of Cardiovascular Diseases: Review Chapter. In: Chahine E (ed). Cardiovascular Risk Factors. ISBN 978--1-83968-709-9(online). <https://www.intechopen.com/online-first/78930>

OLDEWAGE-THERON W & GROBLER CG. 2021. Double Burden of Poverty and Cardiovascular Disease Risk among Low-Resource Communities in South Africa. In Monyeki KD & Kemper, HCG. Eds. Lifestyle and Epidemiology - Poverty and Cardiovascular Diseases a Double Burden in African Populations. ISBN 978-1-83962-737-8(online) and 978-1-83962-736-1 (printed). <https://www.intechopen.com/chapters/75247>.

#### *Published manuscripts in scientific peer-reviewed journals:*

GROBLER CJ, OLDEWAGE-THERON W & CHALWE J. 2021. The effect of vitamins B12, B6 and folate supplementation on homocysteine metabolism in a low-income, urbanised, black elderly community in South Africa. South African Journal of Clinical Nutrition, 34, pages 1-6. Available: <https://doi.org/10.1080.16070658.2021.2003148>.

MOYO G, MONTENEGRO-MONTENEGRO E, STICKLEY Z, EGAL A & OLDEWAGE-THERON W. 2021. A structural equation modelling approach to examine the relationship between socioeconomic status, diet quality and dyslipidaemia in South African children and adolescents, 6-18 years. International Journal of Environmental Research and Public Health, 18(23): 12826. <https://doi.org/10.3390/ijerph182312825>.

SAHA S, BEHNKE A, OLDEWAGE-THERON W, MUBTASIM N & MILLER M. 2021. Prevalence and factors associated with food insecurity among older adults in sub-Saharan Africa: A systematic review. Journal of Nutrition in Gerontology and Geriatrics, 40(4): 171-196. <https://www.tandfonline.com/eprint/47TH2B2FB8CDYR86SIEY/full?target=10.1080/21551197.2021.1988027>

RANA ZH, REED DB, OLDEWAGE-THERON W, LYFORD C, COLWELL M & DAWSON JA. 2021. Overweight or obesity onset and past attempts to lose/manage weight: A qualitative study. Obesity, 1:136-143. <https://www.mdpi.com/2673-4168/1/3/12>

SAHA S, MUKHERJEE U, MILLER M, PENG LL, NAPIER C, GROBBELAAR H & OLDEWAGE-THERON W. 2021. Food and beverages promoting elderly health: six food-based dietary guidelines to plan good mixed meals elderly South Africans. South African Journal of Clinical Nutrition, 34(sup 1): S51-S63. <https://doi.org/10.1080/16070658.2021.1956232>

- MILLER M, OLDEWAGE-THERON W & NAPIER C. 2021. Eat clean and safe food: a food-based-dietary guideline for the elderly in South Africa. South African Journal of Clinical Nutrition, 34(sup 1): S41-S50. <https://doi.org/10.1080/16070658.2021.1947040>
- JAMSHIDI-NAEINI Y, MOYO G, NAPIER C & OLDEWAGE-THERON W. 2021. Food and beverages undermining elderly health: three food-based-dietary guidelines to avoid or delay chronic diseases of lifestyle among the elderly in South Africa. South African Journal of Clinical Nutrition, 34(sup 1): S27-S40. <https://doi.org/10.1080/16070658.2021.1947039>
- SAHA S, OLDEWAGE-THERON W & NAPIER C. 2021. Be active: a food-based-dietary guideline for the elderly in South Africa. South African Journal of Clinical Nutrition, 34(sup 1): S21-S26. <https://doi.org/10.1080/16070658.2021.1947038>
- THEOPHILUS R, NAPIER C & OLDEWAGE-THERON W. 2021. If you drink alcohol, drink sensibly: a food-based-dietary guideline for the elderly in South Africa. South African Journal of Clinical Nutrition, 34(sup 1): S15-S20. <https://doi.org/10.1080/16070658.2021.1954351>
- MUKHERJEE U, NAPIER C & OLDEWAGE-THERON W. 2021. Drink clean, safe water and/or other fluids through-out the day even if you do not feel thirsty: a food-based-dietary guideline for the elderly in South Africa. South African Journal of Clinical Nutrition, 34(sup 1): S9-S14. <https://doi.org/10.1080/16070658.2021.1947037>
- NAPIER C, GROBBELAAR H & OLDEWAGE-THERON W. 2021. An introduction to the food-based-dietary guidelines for the elderly in South Africa. South African Journal of Clinical Nutrition, 34(sup 1): S1-S8. <https://doi.org/10.1080/16070658.2021.1950376>
- MOYO G, THOMAS-JACKSON S, CHILDRESS A, DAWSON J, THOMPSON L & OLDEWAGE-THERON W. Chrononutrition and breast milk: a review of the circadian variation of hormones present in human milk. Clinical Lactation, 12(3): 114-123.
- CHALWE J, MUKHERJEE U, GROBLER C, MBABARA SH & OLDEWAGE-THERON W. 2021. Association between hypertension, obesity and dietary intake in post-menopausal women from rural Zambian communities. Health SA Gesondheid, 26(0), a1496. <https://doi.org/10.4102/hsaq.v26i0.1496>.
- MORALES S, EGAL AA & OLDEWAGE-THERON W. 2021. Do smallholder farmers need nutrition education? A case study from KwaZulu Natal, South Africa. Journal of International Agricultural and Extension Education, 28(3): 14-27.
- MOYO G, THOMAS-JACKSON S, CHILDRESS A, DAWSON J, THOMPSON L & OLDEWAGE-THERON W. 2021. Chrononutrition and breast milk: A review of circadian variation in breast milk nutrient composition. Clinical Lactation, 12(2): 74-82. <http://dx.doi.org/10.1891/CLINLACT-D-20-00027>
- PENG LL CHILDRESS A, DAWSON J, JAIE TM, PUNYANUNT-CARTER NM & OLDEWAGE-THERON W. 2021. Food safety education for elementary school students worldwide. International Journal of School Education, 8(1). 13 pages. [https://intjsh.sums.ac.ir/article\\_47338\\_58211b25f356d504510c96b61c59506c.pdf](https://intjsh.sums.ac.ir/article_47338_58211b25f356d504510c96b61c59506c.pdf)
- MORALES S, BRASHEARS MT, BOREN-ALPIZAR A, MEYERS C & OLDEWAGE-THERON W. 2021. Gatekeepers of food and nutritional security projects in South Africa. The Journal of Agricultural Education and Extension, 19 pages. <https://www.tandfonline.com/doi/pdf/10.1080/1389224X.2021.1873154?needAccess=true>
- OLDEWAGE-THERON W & EGAL AA. 2021. Is food insecurity a problem among the elderly in Sharpeville, South Africa? Food Security, 13: 71-81. <https://doi.org/10.1007/s12571-020-01125-9>

*Trade publications:*

OLDEWAGE-THERON W, MUKHERJEE U & IBIYEMI T. 2021. The health benefits and uses of soya globally. Oilseeds Focus, 7(4): 42-45.

Abstracts published as part of conference proceedings for presentations presented by co-authors:

MOYO G, IBIYEMI T, LEE H, PENG LL & OLDEWAGE-THERON W. 2021. The association between COVID-19-related employment challenges and students' dietary intake in the United States. International Congress of Dietetics, 1-3 September 2021, Abstract Book, South African Journal of Clinical Nutrition,34(3): A1-A203. <https://doi.org/10.1080/16070658.2021.1968126>

OLDEWAGE-THERON W & GROBLER C. 2021. The double burden of poverty and cardiovascular disease risk among adults in South Africa. Journal of the American Academy of Nutrition and Dietetics,121(9)(Suppl 1):A97.

OLDEWAGE-THERON W & GROBLER C. 2021. Vitamin D status of a low-income elderly community in South Africa. Current Developments in Nutrition,5(Supplement 2):172.[https://academic.oup.com/cdn/article/5/Supplement\\_2/172/6293482](https://academic.oup.com/cdn/article/5/Supplement_2/172/6293482)

Presentations

Particulars of Congress Participation:(Underlined author is the presenter)

9thFree State Provincial Health Research Day 04 November 2021, South AfricaG MOYO, AA EGAL & WH OLDEWAGE-THERON. Prevalence of the double burden of malnutrition in children living in the Eastern Cape, South Africa (poster).

Soy for Human Health symposium (virtual) 16 September 2021, South Africa:W OLDEWAGE-THERON. Uses of soy foods globally (invited speaker).

Academy of Nutrition and Dietetics Food & Nutrition Conference 16-19 October 2021 (virtual):OLDEWAGE-THERON W& GROBLER CG.The double burden of poverty and cardiovascular risk among adults in South Africa (poster).

Nutrition Live online 7-10 June 2021:OLDEWAGE-THERON W& GROBLER CG. Vitamin D status of a low-income elderly community in South Africa(poster).

International Congress of Dietetics (ICD)2021 Virtual Congress 1-3 September 2021:

MOYO G,IBIYEMI T, LEE H, PENG LL & OLDEWAGE-THERON W. The association between coronavirus (COVID-19)-related employment challenges and students' dietary intake in the United States (poster).

Posters-none

Grant Awards-none

Grant Applications-none

**Palmer, Ty**

Publications

Palmer, T. B., Blinch, J., Farrow, A. C.\*; Agu-Udemba, C. C.†, Mitchell, E. A.†(2021). Utility of peak torque and rate of torque development characteristics to identify walking performance ability in older women. *Journal of Musculoskeletal and Neuronal Interactions*, 21(4), 455-463.

Farrow, A. C.\*; Palmer, T. B. (2021). Age-related differences in hip flexion maximal and rapid strength and rectus femoris muscle size and composition. *Journal of Applied Biomechanics*, 37(4), 311-319.

Akehi, K., Conchola, E. C., Palmer, T. B., Thompson, B. J. (2021). Rapid muscle activation changes across a competitive collegiate female soccer season. *Journal of Musculoskeletal and Neuronal Interactions*, 21(2), 206-214.

Note:\* indicates graduate student author; † indicates undergraduate student author.

## Presentations

### Online Poster/Abstract

Palmer, T. B., Blinch, J., Farrow, A. C.\*; Agu-Udemba, C. C.†, Mitchell, E. A.†, ACSM National Conference, ACSM, Washington, DC, "Utility of strength-based torque characteristics to distinguish between older women of different walking performance abilities," National, peer-reviewed/refereed, published in proceedings. (June 2021).

Farrow, A. C.\*; Agu-Udemba, C. C.†, Mitchell, E. A.†, Palmer, T. B., ACSM National Conference, ACSM, Washington, DC, "Relationships between functional performance and quadriceps muscle size and quality in healthy older women," National, peer-reviewed/refereed, published in proceedings. (June 2021).

Note:\* indicates graduate student author; † indicates undergraduate student author.

### Posters-see above

## Grant Awards

2021 Utility of rate of torque development characteristics from a novel strength testing device to differentiate between starters and non-starters in Division II women's soccer Mid-America Athletic Trainers Association \$2,000. Akehi, K. (Lead Principal Investigator), Palmer, T. (Co-Principal Investigator) 95%

### Grant Applications-none

## **Park, Oak Hee**

Publications: none

Presentations: none

Posters: none

### Grant Awards

1. United Sorghum Check off Program (09/2021-08/2023). Sorghum: Opportunities as a Sustainable Crop for Human Consumption in the U.S.: PI:60% \$150,000.

2. U.S. Department of Agriculture (03/2021- 02/2026). Nutrition Bench-to-Community Engaged Scholars in Texas (NutritionBEST) REEU Program: Co-PI:15%. \$500,000.

Grant Applications: none

## **Phy, Jennifer**

### Presentations

Phy JL. What is PCOS? PCOS Awareness Association, PCOS Awareness Association, September 19, 2021.

Phy JL. Low Starch Diet Results in Rapid Conception in Obese Infertile Women with Poly Cystic Ovary Syndrome (PCOS) 6th International Conference on Obesity and Chronic Diseases, June 21, 2021. (Peer Reviewed)

Phy JL. The Horizon of Fertility in the Cancer Patient 4th Annual West Texas Breast Disease Symposium, April 24, 2021. (Peer Reviewed)

### Grant award

Jennifer Phy (Ob/Gyn, Lubbock). Research Grant: Innovative Treatment of Polycystic Ovary Syndrome (PCOS). Funded by NSF. \$50,000 for 6 months.

## **Rahman, Rakhshanda**

### Publications:

- Singh SP, Lee J, Bose C, Li H, Yuan Y-C, Hindle A, Singhal SS, Kopel J, Palade PT, Jones C, Rahman RL, Awasthi S. Haploinsufficiency Interactions between RALBP1 and p53 in ERBB2 and PyVT Models of Mouse Mammary Carcinogenesis. *Cancers*. 2021;13(13):3329. PubMed PMID: doi:10.3390/cancers13133329.
- Ugras SK, Layeequr Rahman R. Hormone replacement therapy after breast cancer: Yes, No or maybe? *Mol Cell Endocrinol*. 2021 Apr 5;525:111180. doi: 10.1016/j.mce.2021.111180. Epub 2021 Jan 26. PMID: 33508379.
- Habrawi Z, Melkus MW, Khan S, Henderson J, Brandi L, Chu V, Layeequr Rahman R. Cryoablation: A promising non-operative therapy for low-risk breast cancer. *Am J Surg*. 2021 Jan;221(1):127-133. doi: 10.1016/j.amjsurg.2020.07.028. Epub 2020 Aug 1. PMID: 32788081.
- Jahan N, Jones C, Layeequr Rahman R. Endocrine Prevention of Breast Cancer. *Mol & Cell Endo*. June 2021, 530. <https://doi.org/10.1016/j.mce.2021.111284>.
- Jahan N, Jones C, Layeequr Rahman R. Androgen receptor expression in breast cancer: implications on prognosis and treatment - a brief review. *Mol Cell Endocrinol*. 2021 Jul 1; 531:111324. doi: 10.1016/j.mce.2021.111324. Epub 2021 May
- Sharma M, Castro Piedras I, Rasha R, Ramachandran S, Sennoune S, Furr K, Almodovar S, Ganapathy V, Grisham M,
- Layeequr Rahman R, Pruitt K,. Dishevelled-1 DIX and PDZ domain lysine residues regulate oncogenic Wnt signaling. *Oncotarget*. (Accepted).

### Presentations

### Posters

## Grant Awards:

- Cancer Prevention and Research Institute of Texas (PP200013). PI. Rahman. \$999,672. 3/1/2020-3/28/2023.
- Cancer Prevention and Research Institute of Texas (PP190021). PI. Rahman. \$2,430,998. 3/1/2019-2/28/2022.
- Cancer Prevention and Research Institute of Texas (PP190658). PI. Rahman. \$657,222. 8/31/2019-8/30/2021.

## Grant Applications

### **Shen, Chwan-Li (Leslie)**

#### Publications

1. Shen CL, Watkins BA, Kahathuduwa C, Chyu MC, Zabet M, Elmassry MM, Luk HY, Brismee JM, Knox A, Lee J, Zumwalt M, Wang R, Wager TD, Neugebauer V. Tai Chi improves brain functional connectivity and plasma lysophosphatidylcholines in postmenopausal women with knee osteoarthritis: an exploratory pilot study. *Frontier in Medicine* 2022 Jan 3;8:775344.
2. Dhanasekara CS, Nelson A, Spradley M, Wynn A, CR, Shen C, Kahathuduwa C. Effects of Consumption of Coconut Oil or Coconut on Glycemic Control and Insulin Sensitivity: A Systematic Review and Meta-Analysis of Interventional Trials. *Nutrition, Metabolism and Cardiovascular Disease* (accepted, in press)
3. Shen CL, Mo H, Dunn DM, Watkins BA. Tocotrienol Supplementation Led to Higher Serum Levels of Lysophospholipids but Lower Acylcarnitines in Postmenopausal Women: A Randomized Double-Blinded Placebo-Controlled Clinical Trial. *Frontier in Nutrition* 2021 Dec 24;8:766711. doi: 10.3389/fnut.2021.766711. PMID: 35004805; PMCID: PMC8740329.
4. Shen CL, Wang R, Ji G, Elmassry MM, Zabet-Moghaddam M, Vellers H, Hamood AN, Gong X, Mirzaei P, Sang S, Neugebauer V. Dietary supplementation of gingerols-and shogaols-enriched ginger root extract attenuate pain-associated behaviors while modulating gut microbiota and metabolites in rats with spinal nerve ligation. *Journal of Nutritional Biochemistry, Special Issues: Precision nutrition –individual nutrient needs for optimal health throughout the lifespan.* 2021. *J Nutr Biochem.* 2021 Nov 6;100:108904. doi: 10.1016/j.jnutbio.2021.108904.
5. Chung E, Elmassry MM, Cao JJ, Kaur G, Dufour JM, Hamood AN, Shen CL. Beneficial effect of dietary geranylgeraniol on glucose homeostasis and bone microstructure in obese mice is associated with suppression of proinflammation and modification of gut microbiome. *Nutrition Research* 2021;93:27-37.
6. Shen CL, Ramamoorthy S, Kaur G, Dufour JM, Wang R, Mo H, Watkins BA. Dietary annatto-extracted tocotrienol reduces inflammation and oxidative stress, and improves macronutrient metabolism in obese mice: a metabolic profiling study. *Nutrients* 2021; 13(4):1267
7. Shen CL. Clinical trials of FDA IND natural bioactive components for bone health. *SOCRA SOURCE, Journal for Clinical Research Excellence.* 2021;2:53-60.

#### Presentations

Meeting abstracts (\* denotes peer review) Oral/poster presentation

1. Schuck A, Tompkins C, Neugebauer V, Shen CL. Potential therapeutic benefits of capsaicin, EGCG and green tea extract, curcumin, and ginger on fibromyalgia: A review of the literature. 33rd Annual Student Research Week, p. 103, 2021.

2. Tompkins C, Schuck A, Neugebauer V, Shen CL. Analgesic Effects of GSPE, Soy and Genistein, Naringin, and Omega-3 PUFA and Their Possible Molecular Mechanisms in Treating Fibromyalgia. 33rd Annual Student Research Week, p. 108, 2021.
3. Castro LF, Castro M, Neugebauer V, Shen CL. Antiallodynic and Antihyperalgesic Effects of Ginger, Capsaicin, Naringin, Soy, Resveratrol and Molecular Mechanism in the Treatment of Neuropathic Pain: A Review of the Literature. 33rd Annual Student Research Week, p. 119, 2021.
4. Castro M, Castro LF, Neugebauer V, Shen CL. Potential effects of EGCG, Curcumin, Omega-3, and Lycopene in the Treatment of Neuropathic Pain and Proposed Molecular Mechanisms: A Review of the Literature. 33rd Annual Student Research Week, p. 51, 2021.
5. \*Shen CL, Kahathuduwa C, Chyu MC, Brismée JM, Knox A, Wang R, Luk HY, Appell C, O'Boyle M, Zumwalt M, Watkins B, Neugebauer V. Neurobiological mechanisms of pain modulation from Tai-Chi: a single-arm pre/post pilot study. Integrative Medicine & Health Symposium. ID #27, 2021.
6. \* Shen CL, Wang R, Elmassry MM, Neugebauer V, Hamood AN. Dietary ginger root extract supplementation mitigated diabetic peripheral neuropathy in streptozotocin-induced diabetic rats by modulating gut microbiota. *Curr. Dev. Nutr.* 5, Suppl. 2:1179. DOI:10.1093/cdn/nzab054\_034, 2021.
7. Ward H, Chin K, Dhanasekara C, Dunn D, Shen CL, Kahathuduwa C. Post-intervention Effects of Tai Chi and Qi Gong on Anxiety Scores: A Systematic Review and Meta-Analysis. 33rd Annual Student Research Week, p. 112, 2021.
8. Chin K, Ward H, Dhanasekara C, Dunn D, Shen CL, Kahathuduwa C. Post-Intervention Effects of Tai Chi and Qi Gong on Depression Scores: A Systematic Review and Meta-Analysis. 33rd Annual Student Research Week. p. 53, 2021.
9. De Vega R, Payberah D, Kahathuduwa C, Shen CL. Potential Health Effects of Bioactive Compounds on Depression: A Review of the Literature. 33rd Annual Student Research Week. p. 60, 2021
10. Payberah D, Chyu J, Dhanasekara C, Shen CL, Kahathuduwa C. The Effectiveness of Botulinum Toxin in the Prevention and Treatment of Tension-Type Headaches: A Systematic Review and Meta-Analysis. 33rd Annual Student Research Week. p. 90, 2021
11. Schoeberl M, Mikkelsen M, Urias E, Scott C, Lee J, Shen CL, Al-Rahawan MM. Vitamin D levels in pediatric patients undergoing chemotherapy. 33rd Annual Student Research Week. p. 102, 2021
12. Wynn A, Nelson A, Spradley M, Dhanasekara C, Robohm-Leavitt C, Shen CL, Kahathuduwa C. Effects of Consumption of Coconut Oil or Coconut on Glycemic Control and Insulin Sensitivity: A Systematic Review and Meta-Analysis of Interventional Trials. 33rd Annual Student Research Week. p. 113, 2021
13. Eboh T, St-John J, Shen CL, Dennis J. Do Demographic or Lifestyle Factors Explain the Differences in BMI and Obesity between US-born and Foreign-born Africans? 33rd Annual Student Research Week. p. 62, 2021
14. Chen J, Shen CL, St-John J, Dennis J. Patient Adherence to Physician Advised Lifestyle Behavior Changes Among Adults with Musculoskeletal Conditions from 2017 NHIS data. 33rd Annual Student Research Week. p. 52, 2021
15. Turner J, St. John J, Dennis J, Shen CL. Applying Diffusion of Innovation to the Texas Mother Friendly Worksite Program: Does early adoption lead to lower rates of infant mortality? 33rd Annual Student Research Week. p. 110, 2021
16. Jiwan NC, Appell C, Wang R, Shen CL, Luk H-Y. Geranylgeraniol increases autophagy and mitophagy gene expression in soleus of rats with diabetes. *International Journal of Exercise Science Conference Proceedings*. 2021, 2(13). Article 28.

17.Appell CR, Nigel C. Jiwan NC, Wang R, Shen CL, Luk H-Y. Ginger Root Extract Increases Mitochondrial Fission and Mitophagy in Diabetes Mellitus Rats.International Journal of Exercise Science Conference Proceedings.2021, 2(13).Article 29.

#### Invited presentation at national and international meetings

- Virtual Podium: Shen, C.-L.Tocotrienol (vitamin E bioactive molecules) supplementation for muscle strength study: an ongoing FDA-IND study, Annual meeting of Society of Clinical Research Associates (SoCRA), 2021.
- Virtual Podium:Shen, C.-L.Bioactive compounds for neuropathic pain: findings from preclinical studies, 5th InternationalSymposium on Phytochemicals in Medicine and Food, August 2021.

#### News Releases -Educational Activities for the Lay Public

"New research to examine effects of vitamin E on obesity". In: TTUHSC Statline Daily Dose, by Suzanna Cisneros, November 11, 2021

#### Posters: same as the number of abstracts

#### Grant Awards

- 1.“Actions of dietary tocotrienols on obesity\_ARN supplemental fund”. American River Nutrition, Inc., Hadley, MA. Shen CL (PI). 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. 11/1/2018-10/31/2021.
- 2.Medication Development for the Treatment of Alcohol Use Disorder”. Bergeson S (PI, contact), Shen CL (MPI). U01 AA028957 NIH/NIAAA. The goal of this study is to complete studies to prepare the chemically modified minocycline analogs for completion of investigational new drug (IND) enabling approval by the FDA and to begin a Phase I clinical trial. 9/20/2020-8/31/2025. \$7,251,682.
- 3.Ginger root extract for neuropathic pain”. Shen CL (PI). USDA. Award number: 2021-67017-34026. The goal of this study is to evaluate the effects of ginger root extract on neuropathic pain-associated sensory and affective behaviors, gut health, and neuroinflammation in animals. 1/1/2021-8/31/2023. \$500,000.
- 4.Effect of annatto-derived geranylgeraniol (GG) on statin-associated myopathy. Shen CL (PI). Mohammad (Mac) Ansari (Co-I), Dale Dunn (Co-I), Scott Shurmur (consultant), Jaehoon Lee (Co-I), Hui-Ying Luk (Co-I). The goal of this study is to evaluate the effects of 3-months annatto-derived geranylgeraniol (GG) supplementation on statin-associated skeletal muscle health. Funded by American River Nutrition, LLC. 1/1/2022-12/31/2023. \$266,294.
- 5.Curcumin and Retinal Amyloid-beta Pilot Study. Shen CL (PI). Kelly Mitchell (Co-I), Dale Dunn (Co-I), Jaehoon Lee (Co-I). The goal of this study is to test how two weeks of curcumin supplementation would cross the blood brain barrier (BBB) and attach to amyloid beta proteins, to assess the feasibility (safety and bioavailability), and to explore the resulting abundance/composition of gut microbiota. Sabinsa Co. 1/1/2022-12/31/2022. \$94,991. (approved)

#### Grant Applications

- 1.U.S. Department of Health and Human Services, Health Resources and Services Administration Bureau of Health Workforce Division of Medicine and Dentistry, August 2021, Shen C (Co-Investigator), Promoting

Resilience and Mental Health Among Health Professional Workforce (PRMHW), 15% effort. (Currently Under Review)

2.NIH R01 “(under review) “Genetic link between SLC6A14 and obesity& Phase I/IIa trial with alpha-methyltryptophan for weight loss. Shen (MPI, 15%), Ganapathy (PI, contact). Requested amount: \$3,523,332.

## **Shin, Andrew**

### Publications

#### *PEER-REVIEWED PUBLICATIONS*

<sup>1</sup>Corresponding author; <sup>2</sup>First author; <sup>3</sup>Students under Dr. Shin’s supervision

<sup>3</sup>Siddik MAB, <sup>3</sup>Mullins CA, <sup>3</sup>Kramer A, <sup>3</sup>Shah H, <sup>3</sup>Gannaban RB, Zabet-Moghaddam M, Huebinger RM, Hegde VK, MohanKumar SMJ, MohanKumar PS, <sup>1</sup>**Shin AC**. Branched-chain amino acids are causally linked with Alzheimer’s disease-related pathology and cognitive deficits. *Ageing Cell (IF: 9.30)*, 2021 (under review)

Zhou C, Ruiz H, Ling L, Maurizi G, Sakamoto K, Butera M, Libernini C, Wang L, Stanley A, **Shin AC**, Egritag H, Sanz S, Lindtner C, Buettner C. Adipose tissue lipolysis is a major driver of alcohol-induced fatty liver. *Nature Communications (IF: 14.92)*, 2021 (under review)

Benko S, Zhang F, **Shin AC**, Gillespie V, Zhang G, Gingold J, Andino B, Aguilo F, Chen CH, Li S, Lemischka I, Zhang WJ, Buettner C, Zhou MM, Walsh MJ. BRD4 regulates the enhancer landscape to modulate selective cell type-specific lipid metabolism. *Cell Reports (IF: 9.42)*, 2021 (under review)

Guardia LD, **Shin AC**. Adipose tissue dysfunction induced by particulate matter worsens cardio-metabolic health: An in-depth analysis. *Journal of Molecular Medicine (IF: 4.59)*, 2021 (under review)

Clark KA, **Shin AC**, Sirivelu MP, MohanKumar RC, Maddineni SR, Ramachandran R, MohanKumar PS, MohanKumar SMJ. Evaluation of the central effects of systemic lentiviral-mediated leptin delivery in streptozotocin-induced diabetic rats. *International Journal of Molecular Sciences (IF: 5.92)*, 2021 Epub ahead of print

Akheruzzaman M, Hegde V, <sup>3</sup>Siddik MAB, Feizy Z, **Shin AC**, Dhurandhar NV. E4orf1-induced reduction in endogenous insulin level is independent of pancreas endocrine function. *International Journal of Obesity – Nature (IF: 5.095)*, 2021 Epub ahead of print

<sup>3</sup>Gannaban RB, NamKoong C, Ruiz HH, Choi HJ, <sup>1</sup>**Shin AC**. Central regulation of branched-chain amino acids is mediated by AgRP neurons. *Diabetes (IF: 9.46)*, 2021 Jan; 70(1): 62-75. Epub 2020 Oct 28.

<sup>1</sup>**Shin AC**, Balasubramanian P, Suryadevara P, Zyskowski J, Herdt TH, MohanKumar SM, MohanKumar PS. Metformin effectively restores the HPA axis function in diet-induced obese rats. *International Journal of Obesity – Nature (IF: 5.095)*, 2021 Feb; 45(2): 383-395

### Presentations

#### Posters

#### Grant Awards

NIH R01 NIA

Serotonin-modulated mitochondrial dysfunction in dementia, depression and diabetes

Co-I: Andrew C. Shin (PI: Arubala Reddy)                      \$2,428,686 (20% effort)

Wylie Briscoe Fund, College of Human Sciences, TTU

Analysis of blood metabolites in women with Alzheimer's disease, Dec 2021 – Dec 2022

PI: Andrew C. Shin

\$20,000

Diabetes Action Foundation

Understanding BCAA regulation – a step toward deciphering diabetes, Jan 2021 – Dec 2021

PI: Andrew C. Shin

\$20,000

Grant Applications: none

## **Singh, Sharda**

### Publications

1. Bose C, Hindle A, Lee J, Kopel J, Tonk S, Palade PT, Singhal SS, Awasthi S, Singh SP. Anticancer Activity of  $\Omega$ -6 Fatty Acids through Increased 4-HNE in Breast Cancer Cells. *Cancers*. 2021;13(24). doi: 10.3390/cancers13246377.
2. Singh SP, Lee J, Bose C, Li H, Yuan Y-C, Hindle A, Singhal SS, Kopel J, Palade PT, Jones C, Rahman RL, Awasthi S. Haploinsufficiency Interactions between RALBP1 and p53 in ERBB2 and PyVT Models of Mouse Mammary Carcinogenesis. *Cancers*. 2021;13(13):3329. PubMed PMID: doi:10.3390/cancers13133329.
3. Petkovic M, Leal EC, Alves I, Bose C, Palade PT, Singh P, Awasthi S, Børsheim E, Dalgaard LT, Singh SP, Carvalho E. Dietary supplementation with sulforaphane ameliorates skin aging through activation of the Keap1-Nrf2 pathway. *The Journal of Nutritional Biochemistry*. 2021:108817. doi: <https://doi.org/10.1016/j.jnutbio.2021.108817>. (Co-corresponding author)

Presentations: none

### Posters

### Grant Awards

### Grant Applications

1 R01 HL159303-01 Sulforaphane as an Adjunct for Doxorubicin Chemotherapy

The use of sulforaphane to prevent cardiac toxicity from doxorubicin

Major goals: To explore the contribution of PGAM5 signaling in doxorubicin cardiotoxicity using genetically modified mice to interrupt the PGAM5 pathway and relying on gene chip technology to identify new therapeutics.

Role: Principal Investigator

1 R01 CA162333-01 Methylomic Control of Gene Expression by Ralbp1 and p53 (Awasthi PI, Singh Co-PI)

Role: Co-Principal Investigator

PPG (Aging Systems and Geriatrics Study Section (ASG)) Mitochondria and Oxidative Stress in Aging (PD: Reddy, P. Hemachandra, PI: Singh)

Role: Principal Investigator on project 4

Mary Kay Foundation, Title of Project: Attenuating doxorubicin cardiotoxicity with sulforaphane in breast cancer patients (Singh PI)

Role: Principal Investigator

## **Sizer, Phil**

### Publications

Submitted Manuscripts (6 Submitted for Review) \*Corresponding Author, ΔSenior Author

Wilhelm M\*, Learman K, Hooper T, Brismée JM, James CR, Gilbert K, Cook C, Sizer PS. Multifidus co-contraction during volitional abdominal contractions in individuals with a recent history of low back pain. *Physiotherapy Theory & Practice*. Submitted.

Wilford K, Mena-Iturriaga MJ, Vugrin M, Wainner M, Sizer P, Seeber GH. An international perspective on healthcare provider gender bias in musculoskeletal pain management: A scoping review protocol. 2021. *BMJ Open*. Submitted.

Pendergrass T\*, Sizer P, Hooper T, Brismée JM, James CR. The Effect of abdominal contractile strategy and squat depth on volitional preemptive abdominal contraction during a single-leg squat in asymptomatic subjects. *J Bodyw Mov Ther*. 2021. Submitted 12-5-21.

Lynch DJ, Drusch AS, Hooper TL, James CR, Brooks TJ, Sizer PS. \*Δ Biomechanical responses to volitional preemptive abdominal contraction and stabilization belt use during a loaded squat. *Sports Biomech* 2021. Submitted 9-28-21.

Seeber GH\*, Thalhamer T, Matthijs OC, Doskar W, Sizer PS, Lazovic D. Clinical Accuracy of the Lateral-Anterior Drawer Test for Diagnosing Posterior Cruciate Ligament Rupture. *Sports Health*. 2021; Submitted 8-17-21.

Smith K\*, Farrow A, Sizer PS, James CR, Palmer TB, McComb JΔ. Effects of the Upright™ posture training program on spinal angles and muscular characteristics. *Gait Posture*. 2021. Submitted.

### *Peer Reviewed Journal Publications*

\*Corresponding Author; ΔSenior Author.

Samson JY,\* Anderson DN, Hooper TL, Sizer PS, Hando BR, Brismée JMΔ. United states air force physical therapists perform musculoskeletal corticosteroid injections with high safety and low healthcare utilization. 2021 *Mil Med*. In-Press.

McKee D\* $\Delta$ , Gilbert K, Lierly M, Sizer P, Wait E, Gosh M. Biomechanical strength of a novel tendon splicing open book technique compared to the Pulvertaft method using unembalmed human cadaveric tissue. *Plastic Surgery* 2021. Oct. <https://doi.org/10.1177/22925503211034844>

Ennis K, Sizer PS, Sargent E, Brismée JM, Drusch A, Kapila J, Hooper TL. Abdominal bracing changes lower quarter muscle activity but not reach distances during active forward reach on an unstable surface. *J Bodyw Mov Ther.* 2021. Oct; 28:391-396.

Dice J, Feuling S, Dendy D, Sizer P, Cook C, Brismée JM\* $\Delta$ . Manual Therapy in Pediatrics: A Delphi Investigation of United States Physical Therapists. *Phys Ther* 2021. 101(4):pzab027. doi: 10.1093/ptj/pzab027..

Atkins LT\*, James CR $\Delta$ , Yang HS, Sizer PS, Brismée JM, Sawyer SF, Powers CM. Immediate improvements in patellofemoral pain are associated with sagittal plane movement training to improve use of gluteus maximus muscle during single limb landing. *Phys Ther* 2021. 101(10):pzab165. doi: 10.1093/ptj/pzab165.

Lohman C\*, Sobczak S, Hixson KM, James CR, Brismée JM, Sizer PS, Gilbert K $\Delta$ . Upper limb neurodynamic testing with radial and ulnar nerve biases: an analysis of cervical spinal nerve mechanics. *Musculoskel Sci Pract*, 2021, 52:102320. doi: 10.1016/j.msksp.2021.102320. Epub 2021 Jan 12.

Pepper T, Brismée JM, Sizer PS, Kapila J, Seeber GH, Hooper TL. The immediate effects of foam rolling and stretching on iliotibial band stiffness: A randomized control trial. *Int J Sports Phys Ther*, 2021 (Aug). 13(4): 651–660.

Gehring RD, Potter-Brunet J, Sizer PS, Gilbert KK, Brismée JM\* $\Delta$ . A neural mobilization treatment strategy for patients with neurogenic claudication related to degenerative lumbar spinal stenosis: A prospective case series. *Int J Sports Exerc Med* 2021. 7:191. doi.org/10.23937/2469-5718/1510191.

### *Books, Book Chapters, Monographs, Book Forwards*

Gramm K, Heppert J, Cook A, Young A, Smith C, Evola M, Romo C, Hequet E, Sizer P. *Commercialization Roadmap 2.0*. Texas Tech University. Lubbock, TX, USA. 2021.

### Presentations

#### Research Platform Presentations

Seeber GH, Wilhelm MP, Sizer PS, Guthikonda A, Matthijs A, Matthijs OC, Lazovic D, Brismée JM, Gilbert KK. The tensile behaviors of the iliotibial band – A cadaveric investigation. *World Physiotherapy Congress 2021* online; April 09-11, 2021.

#### Research Poster Presentations

Seeber GH, Thalhamer C, Matthijs OC, Doskar W, Sizer PS, Lazovic D. Clinical accuracy of the lateral anterior drawer test for diagnosing posterior cruciate ligament rupture. *23rd EFORT Congress, Lisbon, Portugal*; 22.-24. June 2023. Abstract# 2027 (Accepted)

Pepper T, Brismée J-M, Sizer PS, Kapila J, Seeber GH, Huggins C, Hooper TL. The immediate effects of foam rolling and stretching on iliotibial band stiffness: a randomized control trial. *World Physiotherapy Congress 2021* online; April 09-11, 2021.

Seeber GH, Wilhelm MP, Sizer PS, Guthikonda A, Matthijs A, Matthijs OC, Brismée J-M, Gilbert KK. The Tensile Behaviors of the Iliotibial Band – A Cadaveric Investigation. *World Physiotherapy Congress 2021* online; April 09-11, 2021.

Seeber GH, Wilhelm MP, Guthikonda A, Lazovic D, Brismée JM, Gilbert KK, Sizer Jr PS. Das biomechanische Verhalten des Iliotibialbandes unter Zug – eine Präparatstudie. 69. Jahrestagung der Vereinigung Süddeutscher Orthopäden und Unfallchirurgen e.V. – online; April/May 2021.-

Seeber GH, Lierly M, Bassett C, Douthit C, Wilhelm MP, Lazovic D, Brismée JM, Gilbert KK, Sizer Jr PS. Der limitierende Einfluss des lateralen femoralen intermuskulären Septums auf die passive Hüftdduktion – eine Präparatstudie. 69. Jahrestagung der Vereinigung Süddeutscher Orthopäden und Unfallchirurgen e.V. – online; April/May 2021.

### Grant Awards

Co-Principle Investigator: Kim S, Yoo H, Nguyen N, Sizer P. Culturally Informed Pain Diagnosis and Relief. National Science Foundation-National I-CORPS Initiative. Grant ID: 2114224. Accepted January, 2021. Grant period: March, 2021 through February 2022. Funded for \$50,000.

Co-Principle Investigator: Kiani S, Sizer P, Saeed ZI, Garza J, Redfern R. Applying the master adaptive learner framework via an innovative clinical documentation technology to enhance the clinical reasoning of medical students Accelerating change in medical education innovation grant-September, 2021-August, 2022. Funded for \$30,000.

Principal Investigator: The CH Foundation. Title of Project: TTUHSC Innovation Bridge Grant Program. NOI SUBMITTED in collaboration with TTU (Kimberly Gramm, TTU AVPIE). Status: Funded for \$65,000.

### Grant Applications

Subaward Principal Investigator: National Science Foundation (NSF) NRT-FW-HTF-Developing Adaptive Research Workforce for Evolving Needs (DARWEN). Status: NOI Submitted 2-21.

## **Song, Huaxin**

### Publications

Masten, Y., Song, H ., Esperat, C. R., & McMurry, L. J. (2021). A maternity care home model of enhanced prenatal care to reduce preterm birth rate and NICU use. Birth.

Presentations: none

Posters: none

Grant Awards: none

Grant Applications:

2021

2021 HRSA. HRSA Promoting Resilience and Mental Health among Health Professional Workforce (PRMHW). Nursing Workforce Diversity Program (Scored 92) N/R N

## **St-John, Julie**

## Publications

Mostafa, F., Ganji, R., St. John, J., and Khan H. In review. Coronavirus (COVID-19) Spike in Georgia: An Epidemiologic Study of Data, Modelling, and Policy Implications to Understand the Gender-and Race-Specific Variations. *Frontiers in Public Health, Infectious Diseases – Surveillance, Prevention and Treatment*.

Chen, J., Dennis, J. A., St. John, J.A., Shen, C.L. (2022). Self-reported Patient Compliance with Physician Advised Lifestyle Behavior Changes Among Adults with Musculoskeletal Conditions. *Frontiers in Public Health, Public Health Education and Promotion*. Accepted January 31, 2022, in print.

St. John, J. A., Fox, D. J., Rosenthal, E. L., Lee, L. K. (2022). Editorial: Community Health Workers Practice from Recruitment to Integration. *Frontiers in Public Health, Public Health Education and Promotion*. Accepted January 4, 2022, in print.

St. John JA, Hernández-Gordon, W., Martínez, S., Hernández, I. (2022, January/March). Community health workers connecting communities during Covid-19: A case study from Chicago, USA. *Journal of Ambulatory Care*, 45(1): 2-12. DOI: 10.1097/JAC.0000000000000401  
<https://journals.lww.com/ambulatorycaremanagement/pages/default.aspx>

St. John JA, Reininger, B, Balcazar H, Valerio M, Beaudoin CE (2021). What about promotores? Promotores' psychosocial determinants that influenced the delivery of a cervical cancer education intervention to Hispanics. *Frontiers in Public Health*, 9: 1255. <https://doi.org/10.3389/fpubh.2021.689616>

Byrd-Williams C, Ewing M, Rosenthal EL, St John, JA, Menking P, Redondo F, and Sieswerda S (2021). Training needs of community health workers (CHWs) facing the COVID-19 pandemic in Texas: a cross-sectional study. *Frontiers in Public Health, section Public Health Education and Promotion*. Article DOI: 10.3389/fpubh.2021.689946

## BOOKS, BOOK CHAPTERS, OR REVIEWS

Fastring D, Mayfield-Johnson S, St. John JA, Hernández-Gordon W. (2021). Describing Results from the "Promoting the Health of the Community" National Needs Assessment. In J. A. St. John, S. L. Mayfield-Johnson, W. D. Hernández-Gordon (eds.), *Promoting the health of the community: Community health workers describing their roles, competencies, and practice* (pp. 43-54). Cham: Springer, 2021.  
<http://www.springer.com/9783030563745>, [ps://tinyurl.com/StJohnetal2021](https://tinyurl.com/StJohnetal2021)

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Rosenthal EL, Fox DJ, St. John JA, Allen CG, Menking P, Brownstein JN, Hirsch GR, Redondo F, et al. (2021). The Community Health Worker Core Consensus (C3) Project Story: Confirming the Core Roles and Competencies of Community Health Workers. In J. A. St. John, S. L. Mayfield-Johnson, W. D. Hernández-Gordon (eds.), *Promoting the health of the community: Community health workers describing their roles, competencies, and practice* (pp. 11-36). Cham: Springer, 2021. <http://www.springer.com/9783030563745>, <https://tinyurl.com/StJohnetal2021>

Spock N, St. John JA, Kanana L, Acido JT, Agustin J, Canionero K, Talbert M, et al. (2021). CHWs Implementing Individual and Community Assessments: Examples from Hawai'i. In J. A. St. John, S. L. Mayfield-Johnson, W. D. Hernández-Gordon (eds.), *Promoting the health of the community: Community health*

workers describing their roles, competencies, and practice (pp. 291-310). Cham: Springer, 2021.  
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#### OTHER PUBLICATIONS (peer reviewed)

St. John, JA., Byrd-Williams C., Rosenthal E. L., Menking, P., Redondo, F., Ewing, M., Herrington, E., Sieswerda, S., Kwentua, V., Dixon, M., & Simpson, J. (2021). The Final Report of the Community Health Worker COVID-19 Impact Survey: Texas Results & Methodology. The University of Texas at Houston Health School of Public Health; Texas Tech Health Science Center El Paso Paul L. Foster School of Medicine; & Texas Tech Health Science Center School of Biomedical Sciences. <https://www.c3project.org/resources>, <https://sph.uth.edu/research/centers/dell/resources/the%20final%20report%20of%20the%20community%20health%20worker.pdf>

St. John, JA (January 2021). West Texas Homeless Network Strategic Plan: 2021-2025. Texas Tech University Health Sciences Center, Graduate School of Biomedical Sciences, Abilene.

#### Presentations

##### *PEER-REVIEWED PRESENTATIONS*

Nurse practitioners' attitudes and use of complementary and alternative medicine practices for pain management. Julie St John, Leslie Shen, Grace Sun, Narissra Punyanunt-Carter. Annual American Public Health Association Meeting, October 23-27, 2021, Denver, Colorado.

COVID-19's impact on the CHW workforce: A multi-state comparison. Paige Menking, Courtney Byrd-Williams, Julie St John, Jessica Simpson, Kerstin M. Reinschmidt, E. Lee Rosenthal, Floribella Redondo, and Stephanie Sieswerda. Annual American Public Health Association Meeting, October 23-27, 2021, Denver, Colorado.

Comparison of a community assessment survey pre and after the covid-19 pandemic: Translating findings into practice. Julie St John & Michelle Parrish. Annual American Public Health Association Meeting, October 23-27, 2021, Denver, Colorado.

Social Determinants of Health: Place Matters. Denise Martinez, Julie St. John, Annette Lerma. Texas Association of Promotores/Community Health Workers. 2021 Annual Conference, September 27, 2021, virtual.

A Framework for Effective CHW Organizations. Denise Hernandez, Julie St. John. National Community Health Worker Association Unity Conference, July 28, 2021.

We Make the Road by Walking: CHWs' Stories of Utilizing Roles to Promote the Health of Their Communities. Susan Mayfield-Johnson, Julie St. John. National Community Health Worker Association Unity Conference, July 28, 2021. Julie Ann St. John – February 2022 - page 9 -

Equipping Community Health Workers to Address the Opioid Crisis & Related Mental Health Issues in their Communities. Julie St. John, Nakia Duncan. West Texas Regional Mental Health Conference, July 16, 2021, virtual.

Measuring Organizational Performance of Community Health Worker Organizations (poster). Denise A. Hernandez, Julie St. John. Texas Public Health Association Annual Education Conference, "Shine A Light on Public Health," May 17-19, 2021, virtual.

Building a Successful Community Health Worker (CHW) Professional Network (presentation).

Ashley Rodriguez, Debra Flores, Julie St. John, Denise A. Hernandez, Dolontria BryantWilliams. Texas Public Health Association Annual Education Conference, "Shine

A Light on Public Health," May 17-19, 2021, virtual.

Patient Adherence to Physician Advised Lifestyle Behavior Changes Among Adults with Musculoskeletal Conditions from 2017 NHIS data (poster). Jason Chen, Chwan-Li Shen, Julie St-John, and Jeff A. Dennis. TTUHSC Graduate School of Biomedical Sciences Student Research Week, March 9-12, 2021.

Do Demographics and/or Lifestyle Factors Explain the Differences in BMI and Obesity Between US Born and Foreign Born Blacks? (poster). Tochi Eboh; Leslie Shen, Julie St. John, Jeff A. Dennis. Julie St-John, and Jeff A. Dennis. TTUHSC Graduate School of Biomedical Sciences Student Research Week, March 9-12, 2021.

Applying diffusion of innovation to the Texas Mother Friendly Worksite Program: Does early adoption lead to lower rates of infant mortality? (poster). Jessyca Turner, Julie St. John, Jeff Dennis, Chwan Li-Shen. TTUHSC Graduate School of Biomedical Sciences Student Research Week, March 9-12, 2021.

Supporting the CHW Workforce as an Ally. (speaker & panelist). Julie St. John, Erin Turner, Takisha Lovelace, Oklahoma CHWs. Oklahoma Community Health Worker Forum Series, Oklahoma Public Health Training Center, The University Of Oklahoma Health Sciences Center. Webinar, October 14, 2021.

<https://ophtc.ouhsc.edu/webinars>

Human Trafficking Community Forum (panelist). Julie St. John, Conroy Kanter, SJ Murray, Stephanie Andrade-Rocha, Marcus Dudley, & Sam Pollinzi. Beyond Trafficking, Abilene Community Foundation, Abilene, TX, May 16, 2021. Julie Ann St. John – February 2022 - page 22 -

Human Trafficking: A Public Health Crisis? (presenter). Rebecca Sametz, Julie St. John, DJ Gilliland. The National Rehabilitation Association, Disability Virtual Summit, April 21, 2021.

[https://drive.google.com/file/d/1fD0qfczrS9jyjwZ\\_gsy7gZtXaqrIPBg/view](https://drive.google.com/file/d/1fD0qfczrS9jyjwZ_gsy7gZtXaqrIPBg/view)

Community Health Worker Covid-19 Impact Survey (presenter). Julie St. John. Advancing CHW Engagement in COVID-19 Response Strategies: A Webinar for Local Health Departments to Learn About COVID-19 Strategies Across the U.S. Community-Based Workforce Alliance, January 19, 2021.

## Posters

## Grant Awards

Piloting a Composting Latrine Project in Pedregal Grande, Piura, Peru. TTUHSC Office of Global Health, \$10,000 (January 2021-December 2022).

Grant Applications: none

## **Sun, Grace**

### Presentation

Nurse practitioners' attitudes and use of complementary and alternative medicine practices for pain management. Julie St John, Leslie Shen, Grace Sun, Narissra Punyanunt-Carter. Annual American Public Health Association Meeting, October 23-27, 2021, Denver, Colorado.

## Tinsley, Grant

### Publications

1. D. Ashtary-Larky, R. Bagheri, G. M. Tinsley, O. Asbaghi, S. Salehpour, S. Kashkooli, W. Kooti, and A. Wong. "Betaine supplementation fails to improve body composition: a systematic review and meta-analysis". *The British Journal of Nutrition* (2021), pp. 1-14. ISSN: 1475-2662. DOI: <https://doi.org/10.1017/S0007114521004062>. PMID: 34743773.
2. T. Moro, G. Tinsley, F. Q. Pacelli, G. Marcolin, A. Bianco, and A. Paoli. "Twelve Months of Time-restricted Eating and Resistance Training Improves Inflammatory Markers and Cardiometabolic Risk Factors". *Medicine and Science in Sports and Exercise* 53.12 (2021), pp. 2577-2585. ISSN: 1530-0315. DOI: <https://doi.org/10.1249/MSS.0000000000002738>. PMID: 34649266.
3. P. S. Harty†, K. E. Friedl, B. C. Nindl, J. R. Harry, H. L. Vellers, and G. M. Tinsley\*. "Military Body Composition Standards and Physical Performance: Historical Perspectives and Future Directions". *Journal of Strength and Conditioning Research* (2021). ISSN: 1533-4287. DOI: <https://doi.org/10.1519/JSC.00000000000004142>. PMID: 34593729.
4. J. J. Green†, R. W. Smith†, M. T. Stratton†, P. S. Harty†, C. Rodriguez†, M. R. Siedler†, S. J. White†, A. D. Williams†, J. R. Dellinger†, D. S. Keith†, J. R. Boykin†, and G. M. Tinsley\*. "Cross-sectional and longitudinal associations between subcutaneous adipose tissue thickness and dual-energy X-ray absorptiometry fat mass". *Clinical Physiology and Functional Imaging* 41.6 (2021), pp. 514-522. ISSN: 1475-097X. DOI: <https://doi.org/10.1111/cpf.12727>. PMID: 34549507.
5. J. R. Boykin†, G. M. Tinsley, C. M. Harrison, J. Prather, J. Zaragoza, M. Tinnin, S. Smith, C. Wilson, and L. W. Taylor. "Offseason Body Composition Changes Detected by Dual-Energy X-ray Absorptiometry versus Multifrequency Bioelectrical Impedance Analysis in Collegiate American Football Athletes". *Sports* 9.8 (2021). ISSN: 2075-4663. DOI: <https://doi.org/10.3390/sports9080112>. PMID: 34437373.
6. G. M. Tinsley\*, P. S. Harty†, M. T. Stratton†, R. W. Smith†, C. Rodriguez†, and M. R. Siedler†. "Tracking changes in body composition: comparison of methods and influence of pre-assessment standardisation". *The British Journal of Nutrition* (2021), pp. 1-19. ISSN: 1475-2662. DOI: <https://doi.org/10.1017/S0007114521002579>. PMID: 34325758.
7. C. Rodriguez†, P. S. Harty†, M. T. Stratton†, M. R. Siedler†, R. W. Smith†, B. A. Johnson†, J. R. Dellinger†, A. D. Williams†, S. J. White†, M. L. Benavides†, and G. M. Tinsley\*. "Comparison of Indirect Calorimetry and Common Prediction Equations for Evaluating Changes in Resting Metabolic Rate Induced by Resistance Training and a Hypercaloric Diet". *Journal of Strength and Conditioning Research* (2021). ISSN: 1533-4287. DOI: <https://doi.org/10.1519/JSC.00000000000004077>. PMID: 34172636.
8. D. Ashtary-Larky, R. Bagheri, G. M. Tinsley, O. Asbaghi, A. Paoli, and T. Moro. "Effects of intermittent fasting combined with resistance training on body composition: a systematic review and meta-analysis". *Physiology & Behavior* 237 (2021), p. 113453. ISSN: 1873-507X. DOI: <https://doi.org/10.1016/j.physbeh.2021.113453>. PMID: 33984329.
9. J. R. Harry, L. A. Barker, G. M. Tinsley, J. Krzyszkowski, L. D. Chowning, J. J. McMahon, and J. Lake. "Relationships among countermovement vertical jump performance metrics, strategy variables, and inter-limb asymmetry in females". *Sports Biomechanics* (2021), pp. 1-19. ISSN: 1752-6116. DOI: <https://doi.org/10.1080/14763141.2021.1908412>. PMID: 33947320.
10. R. W. Smith, P. S. Harty†, M. T. Stratton†, Z. Rafi, C. Rodriguez†, J. R. Dellinger†, M. L. Benavides†, B. A. Johnson†, S. J. White†, A. D. Williams†, and G. M. Tinsley\*. "Predicting Adaptations to Resistance Training Plus Overfeeding Using Bayesian Regression: A Preliminary Investigation". *Journal of Functional Morphology and Kinesiology* 6.2 (2021). ISSN: 2411-5142. DOI: <https://doi.org/10.3390/jfmk6020036>. PMID: 33919267.
11. D. Ashtary-Larky, R. Bagheri, M. Ghanavati, O. Asbaghi, G. M. Tinsley, D. Mombaini, W. Kooti, S. Kashkooli, and A. Wong. "Effects of betaine supplementation on cardiovascular markers: A systematic review and Meta-analysis". *Critical Reviews in Food Science and Nutrition* (2021), pp. 1-18. ISSN: 1549-7852. DOI: <https://doi.org/10.1080/10408398.2021.1902938>. PMID: 33764214.
12. M. T. Stratton†, R. W. Smith†, P. S. Harty†, C. Rodriguez†, B. A. Johnson†, J. R. Dellinger†, A. D. Williams†, S. J. White†, M. L. Benavides†, and G. M. Tinsley\*. "Longitudinal agreement of four bioimpedance analyzers for detecting changes in raw bioimpedance during purposeful weight gain with resistance training".

European Journal of Clinical Nutrition (2021). ISSN: 1476-5640. DOI: <https://doi.org/10.1038/s41430-020-00811-3>. PMID: 33727706.

13. M. N. M. Blue, G. M. Tinsley, E. D. Ryan, and A. E. Smith-Ryan. "Validity of Body-Composition Methods across Racial and Ethnic Populations". *Advances in Nutrition*(Mar. 2021). ISSN: 2156-5376. DOI: <https://doi.org/10.1093/advances/nmab016>. PMID:33684215.

14. D. Ashtary-Larky, R. Bagheri, O. Asbaghi, G. M. Tinsley, W. Kooti, A. Abbasnezhad, R. Afrisham, and A. Wong. "Effects of resistance training combined with a ketogenic diet on body composition: a systematic review and meta-analysis". *Critical Reviews in Food Science and Nutrition* (2021), pp. 1-16. ISSN: 1549-7852. DOI: <https://doi.org/10.1080/10408398.2021.1890689>. PMID: 33624538.

15. G. M. Tinsley, C. M. Peterson, and B. D. Horne. "Caution Against Overinterpreting Time-Restricted Eating Results". *JAMA Internal Medicine* (2021). ISSN: 2168-6114. DOI:<https://doi.org/10.1001/jamainternmed.2020.8934>. PMID: 33616609.

16. J. R. Dellinger†, B. A. Johnson†, M. L. Benavides†, M. L. Moore†, M. T. Stratton†, P. S. Harty†, M. R. Siedler†, and G. M. Tinsley\*. "Agreement of bioelectrical resistance, reactance, and phase angle values from supine and standing bioimpedance analyzers". *Physiological Measurement* (2021). ISSN: 1361-6579. DOI: <https://doi.org/10.1088/1361-6579/abe6fa>. PMID: 33592586.

### Presentations/ Abstracts

1. "Body Composition Assessment: Lack of Standardization Can Wreak Havoc" Plenary session. Approximate attendance: 200. Duration: 30 minutes. St. Petersburg, FL. International Society of Sports Nutrition 18th Annual Conference

2. "Body Composition Assessment: Underlying Assumptions and Practical Recommendations for Improved Estimation." Invited speaker. Virtual meeting. Texas Chapter of the American College of Sports Medicine Annual Meeting

3. "Intermittent Fasting." Plenary session. Approximate attendance: 100. Duration: 1 hour.

4. Green J†, Smith R†, Harty P†, Stratton M†, Rodriguez R†, White S†, Williams A†, Johnson B†, Dellinger J†, Benavides M†, Siedler M†, Tinsley G. "Cross-sectional and Longitudinal Relationships Between Skinfold Thicknesses Obtained by Ultrasonography and Body Fat Estimates Produced by Dual-energy X-ray Absorptiometry." *International Journal of Exercise Science: Conference Proceedings*. 2021;2(13).

<https://digitalcommons.wku.edu/ijesab/vol2/iss13/27>

5. Keith D†, Scherrer D, Nunley B, Harry J, Tinsley G. "Anthropometric Predictors of Concentric Hip, Knee, and Ankle Work During a 5x5 Conventional Deadlift Routine." *International Journal of Exercise Science: Conference Proceedings*. 2021;2(13). <https://digitalcommons.wku.edu/ijesab/vol2/iss13/26>

6. Boykin J†, Tinsley G, Harrison C, Prather J, Zaragoza J, Tinnin M, Smith S, Wilson C, Taylor L. "Offseason Body Composition Changes Detected by Dual-Energy X-Ray Absorptiometry Versus Multifrequency Bioelectrical Impedance Analysis in Collegiate American Football Athletes." *International Journal of Exercise Science: Conference Proceedings*. 2021;2(13). <https://digitalcommons.wku.edu/ijesab/vol2/iss13/25>

3

7. Siedler M†, Harty P†, Stratton M†, Rodriguez C†, Keith D†, Green J†, Boykin J†, Dellinger J†, White S†, Williams A†, DeHaven G†, Tinsley G. "Day-to-Day Precision Error and Least Significant Change for Two Commonly Used Bioelectrical Impedance Analysis Devices." *International Journal of Exercise Science: Conference Proceedings*. 2021;2(13). <https://digitalcommons.wku.edu/ijesab/vol2/iss13/18>

8. DeHaven G†, Siedler M†, Stratton M†, Harty P†, Rodriguez C†, Keith D†, Green J†, Boykin J†, Dellinger J†, White S†, Williams A†, Tinsley G. "Analyzing the Between-Day Reliability of Three-Dimensional Body Scanners for Body Composition Assessment." *International Journal of Exercise Science: Conference Proceedings*. 2021;2(13). <https://digitalcommons.wku.edu/ijesab/vol2/iss13/23>

9. Harrison C, Boykin J†, Tinsley G, Prather J, Zaragoza J, Tinnin M, Smith S, Wilson C, Taylor L. "Performance and Body Composition Changes Following an Offseason Training Period in DIII Collegiate American Football Athletes." *International Journal of Exercise Science: Conference Proceedings*. 2021;2(13). <https://digitalcommons.wku.edu/ijesab/vol2/iss13/70>

10. Rodriguez C†, Harty P†, Stratton M†, Siedler M†, Smith R†, Johnson B†, Dellinger J†, Williams A†, White S†, Benavides M†, Tinsley G. "Comparison of Indirect Calorimetry and Common Prediction Equations for Evaluating Changes in Resting Metabolic Rate Induced by Resistance Training and a Hypercaloric Diet." *International Journal of Exercise Science: Conference Proceedings*. 2021;2(13).

<https://digitalcommons.wku.edu/ijesab/vol2/iss13/9>

11. Harty P, Stecker R, Tinsley G, Kerksick C. "Metabolic and Body Composition Changes After Skin Reduction Surgery Following Massive Weight Loss." International Journal of Exercise Science: Conference Proceedings. 2021;2(13). <https://digitalcommons.wku.edu/ijesab/vol2/iss13/87>
12. Zaragoza J, Urbina S, Purpura M, Jäger R, Tinsley G, Stone J, Askow A, Oliver J, Taylor L. "Probiotic administration increases amino acid absorption from plant protein – A placebo controlled, randomized, double-blind, multicenter, crossover study." The FASEB Journal. 2020; 34(S1). <https://doi.org/10.1096/fasebj.2020.34.s1.00232>
13. Brennan K, Wong R, Barker J, Berreth T, Fox R, Maldonado M, Van Cleave C, Zaragoza J, Tinnin M, Tinsley G, Taylor L. "The Effects of Acute Resistance Exercise on Bioelectrical Impedance Analysis Measures of Segmental Body Composition Analysis." Journal of Strength & Conditioning Research. 2021; 35(4). [https://journals.lww.com/nsca-jscr/Fulltext/2021/04000/2020\\_NSCA\\_Research\\_Abstracts.41.aspx](https://journals.lww.com/nsca-jscr/Fulltext/2021/04000/2020_NSCA_Research_Abstracts.41.aspx)
14. Harty P†, Surowiec K, Tinsley G, Zabriskie H, Stecker R, Currier B, Moon J, Richmond S, Jagim A, Kerksick C. "Practical Timing Strategies to Optimize Plasma Caffeine Concentration Prior to Exercise". Journal of Strength & Conditioning Research. 2021; 35(4). [https://journals.lww.com/nsca-jscr/Fulltext/2021/04000/2020\\_NSCA\\_Research\\_Abstracts.41.aspx](https://journals.lww.com/nsca-jscr/Fulltext/2021/04000/2020_NSCA_Research_Abstracts.41.aspx)
15. Stratton M†, Harty P†, Smith R†, Rodriguez C†, Williams A†, White S†, Dellinger J†, Johnson B†, Benavides M†, Tinsley G. "A Comparison Between Alterations in Ultrasound-derived Muscle Thickness and Dual-energy X-ray Absorptiometry Segmental Lean Mass". Journal of Strength & Conditioning Research. 2021; 35(4). [https://journals.lww.com/nsca-jscr/Fulltext/2021/04000/2020\\_NSCA\\_Research\\_Abstracts.41.aspx](https://journals.lww.com/nsca-jscr/Fulltext/2021/04000/2020_NSCA_Research_Abstracts.41.aspx)

#### Grant Awards

*See box file, picture attached to CV is confusing*

#### Grant Applications

### Zhang, Fangyuan

#### Publications

1. Neupane, J., Guo, W., Cao, G., **Zhang, F.**, Slaughter, L., Deb, S. (2022). Spatial patterns of soil microbial communities and implications for precision soil management at the field scale. Precision Agriculture.
2. Neupane, J., Guo, W., Lin, Z., West, C., **Zhang, F.** (2021). Effects of Irrigation Rates on Cotton Yield as Affected by Soil Physical Properties and Topography in the Southern High Plains. Plos One, 16(10), e0258496.
3. Dennis, J., Zhang, Y., **Zhang, F.**, Kopel, J., Abohelwa, M., Nugent, K. (2021) Comparison of 30-Day Mortality and Readmission Frequency in Women versus Men with Acute Myocardial Infarction. Baylor University Medical Center Proceedings.

#### Presentations-none

#### Posters-none

#### Grant Awards-none

#### Grant Applications-none

### Zumwalt, Mimi

#### Publications

Gender/ sex, race/ethnicity, similarities/differences among SARS-CoV, MERS-CoV, and COVID-19 patients. Ha FL, John A, Zumwalt M. The Southwest Respiratory and Critical Care Chronicles January 2021; 9(37):1–15

#### Presentations

E-Poster/Podium Presentations:

Decontamination Methods of Personal Protective Equipment (PPE) for Repeated Utilization in Medical/Surgical Settings AK Kharbat, Adin Mizer, Mimi Zumwalt, MDUTHSCSA Virtual Symposium, March 2021

Neurobiological mechanisms of pain modulation from Tai-Chi: a single-arm pre/post pilot study Shen C-L, Kahathuduwa C, Chyu M-C, Brismée J-M, Knox A, Wang R, Luk H-Y, Appell C, O'Boyle M, Zumwalt M, Lee J, Watkins BA, Neugebauer V. Integrative Medicine & Health Virtual Symposium, April 2021

Posters

Research Week Virtual P3 Honors Project Faculty Facilitator/Mentor February, 2021

Grant Awards: none

Grant Applications: none

	Publications/book	Abstracts	Posters	Oral	funding	number of grants
Al-Rahawan	4	1	3	4	28,044.00	1
Blanton	0	0	0	0	-	0
Brismee	17	0	10	7	-	0
Coman	8	0	0	4	14,295.00	2
Dennis	10	0	0	5	-	0
Dufour	8	5	0	1	217,400.00	4
Figueroa	9	5	0	0	-	0
Jung	0	0	0	0	3,199,247.00	1
Kahathuduwa	10	0	0	18	1,000,000.00	2
Kaur	7	0	9	6	135,000.00	2
Lawrence	2	5	0	5	1,872,220.00	1
Lee	5	0	0	0	3,199,247.00	1
Luk	5	0	0	0	266,294.00	1
Lyford	3	0	0	0	-	0
Mello	3	0	0	0	-	0
Moustaid-Moussa	19	0	0	0	550,000.00	2
Murimi	5	0	0	5	-	0
Nair	9	3	0	0	-	0
Neugebauer	14	32	0	2	5,481,965.00	4
Oldewage	21	3	0	6	-	0
Palmer	3	2	0	0	2,000.00	1
Park	0	0	0	0	650,000.00	2
Phy	0	0	0	3	50,000.00	1
Rahman	7	0	0	0	4,087,892.00	3
Shen	7	17	17	3	8,182,967.00	5
Shin	8	0	0	0	2,468,686.00	3
Singh	3	0	0	0	-	0
Sizer	9	0	5	1	145,000.00	3
Song	1	0	0	0	-	0
St-John	15	0	0	20	10,000.00	1
Sun	0	1	0	0	-	0
Tinsley	16	0	0	15	-	0
Zhang	3	0	0	0	-	0
Zumwalt	1	0	1	2	-	0
<b>TOTAL</b>	<b>232</b>	<b>74</b>	<b>45</b>	<b>107</b>	<b>31,560,257.00</b>	<b>40</b>