

# Curriculum Vitae

## **SHU WANG, MD, PhD, FAHA**

College of Health Solutions  
Arizona State University (ASU)  
Email: [shu.wang.10@asu.edu](mailto:shu.wang.10@asu.edu)

### **EDUCATION**

- 2002-2008 PhD in Nutritional Biochemistry and Metabolism  
Tufts University, Medford, MA  
Dissertation advisor: Dr. Alice Lichtenstein
- 1997-1999 MS in Biochemistry and Molecular Biology  
Capital Medical University, Beijing, China  
Thesis advisor: Dr. Huiqin Wang
- 1988-1993 Bachelor of Medicine  
Norman Bethune University of Medical Sciences, Changchun, China

### **EXPERIENCE**

- 08/2020– present Professor  
College of Health Solutions, Arizona State University, Phoenix, AZ
- 09/2014– 08/2020 Associate Professor, promoted to full professor starting from 09/2020  
Department of Nutritional Sciences, Texas Tech University, Lubbock, TX
- 09/2008–08/2014 Assistant Professor  
Department of Nutritional Sciences, Texas Tech University, Lubbock, TX
- 01/2008–08/2008 Post-Doctoral Research Associate  
Texas Tech University Health Sciences Center, Lubbock, TX
- 09/2002–12/2007 Graduate Research Assistant  
Tufts University, Medford, MA
- 09/2000–08/2002 Graduate Research Assistant  
Kansas State University, Manhattan, KS
- 09/1999–08/2000 Visiting Scholar  
Chinese University of Hong Kong, Hong Kong, China
- 09/1998–08/1999 Lecturer  
Capital Medical University, Beijing, China
- 09/1993–08/1998 Instructor  
Capital Medical University, Beijing, China

### **EDITORIAL BOARD**

- 09/2016–Present Editorial Advisory Board, *Preventive Nutrition and Food Science*
- 09/2013–Present Editorial Advisory Board, *The Journal of Nutritional Biochemistry*

## **PROFESSIONAL SOCIETIES**

2019- present	<b>Fellow</b> of the American Heart Association (FAHA)
2019-2020	Immediate Past President of the North America Chinese Society for Nutrition
2018–2019	President of the North America Chinese Society for Nutrition
2017–2018	Vice President of the North America Chinese Society for Nutrition
2009 –Present	American Society for Nanomedicine
2003 –Present	American Heart Association
2001 –Present	American Society for Nutrition

## **HONORS AND AWARDS**

2021	Sun Award, Arizona State University
2018	Associate Member, Texas Tech University (TTU) System Chapter of National Academy of Inventors.
2017	Mary Swartz Rose Young Investigator Award, American Society for Nutrition.
2017	TTU Celebration of Excellence in Research, Scholarship, and Creative Activity.
2014	Chancellor’s Council Distinguished Research Award, Texas Tech University.
2013	Outstanding Research Award, Texas Tech University College of Human Sciences.
2012	Nominee, The Bernie E. Rushing Jr. Faculty Distinguished Research Award, Texas Tech University.
2012	Finalist, Nutrition, Physical Activity & Metabolism (NPAM) Young Investigator Award, American Heart Association.
2007	Finalist, Procter & Gamble Graduate Student Research Award, American Society for Nutrition.
2006	NIH Training Grant Trainee (T32 HL69772-01A1 – Nutrition and Cardiovascular Disease).
1997	Second place in Academic Research Competition, Capital Medical University, Beijing, China.

## **RESEARCH AREAS**

I have more than 20 years of research experience in the areas of chronic diseases and nutrition. My group is well known for our pioneering work in using biocompatible and biodegradable nanocarriers to enhance bioactivities of nutrients and phytochemicals for the prevention and treatment of chronic diseases, especially cardiovascular disease, obesity, and type 2 diabetes. My current researches have centered on:

- **Delivery of nutrients and bioactive compounds using biodegradable and biocompatible nanoparticles** as carriers, which can increase their solubility, stability,

payload, and cellular bioavailability, lower their toxicity, prolong their circulation time, and target them to specific cells or tissues.

- **Obesity and other metabolic disorders/diseases:** We invented adipose stromal stem cell (ASC)-targeted nanoparticles for inducing beige cell formation in subcutaneous white adipose tissue. Browning of subcutaneous white adipose tissue combat not only obesity, but also type 2 diabetes, atherosclerosis, fatty liver disease, inflammation, breast cancer and aging.
- **Atherosclerotic cardiovascular disease:** We invented CD36-targeted nanoparticles for early detection and targeted treatment of atherosclerosis.
- **Transdermal delivery of nutrients and phytochemicals:** We are developing transdermal approaches to enhance nutrients delivery in the elderly people, patients having gastrointestinal diseases, and patients of bariatric surgeries.
- **Cancer prevention and treatment:** We investigated nanoencapsulation to enhance the solubility, stability, bioavailability and bioactivity of phytochemicals, and their target specificity to breast cancer cells.

## **PATENT APPLICATIONS**

1. **Title:** Brain Targeted Nanoparticles or Conjugates and Methods of Use  
**Inventors:** Shu WANG, Zhaoyang FAN  
Provisional patent application (application number 63/294,922, filed on 12/30/2021).
2. **Title:** Oxidized Bacterial Cellulose Separator for Batteries and Method for Producing the Same  
**Inventors:** Zhaoyang FAN, Weuyue LI, Shu WANG  
Provisional patent application (application number 63/299,164, filed in January 2022).
3. **Title:** Particles for Targeted Delivery of Active Agents into Adipose Stromal Cells  
**Inventors:** Shu WANG, Ling ZHAO, Zhaoyang FAN, Yujiao ZU  
Patent application (PCT/US2019/019036, filed on 02/21/2019).
4. **Title:** ACE2 Targeted Nanoparticles and Related Methods  
**Inventors:** Shu WANG, Ruth SERRA-MORENO  
Provisional patent application (The filing number is 63/008,361, filed on 04/10/2020).
5. **Title:** Transdermal delivery of agents for browning white adipose tissue  
**Inventors:** Shu WANG, Mehrnaz ABBASI, Zhaoyang FAN  
Invention disclosure submitted to ASU on 12/08/2021.

## **RESEARCH SUPPORT**

### **Ongoing Research Support**

1. BaoNano LLC/NSF SBIR FAIN 2030197  
Subcontract Co-PI                      \$76,523      share (30%)                      01/01/2021--06/30/2021

Title "SBIR Phase I: COVID-19: Self-Disinfecting Nanofiber Filters and Reusable Facemasks"

The project goal is to develop auto-disinfecting facemasks for combating COVID-19.

2. NIH 1R15AT010395-01 (Has been subawarded to ASU)  
ASU subaward PI                      \$435,755      share (70%)                      06/20/2019--05/31/2022  
Title "Browning white adipose tissue for diabetes treatment".  
The project goal is to study the effect of white adipose tissue browning on type 2 diabetes.
3. NSF CMMI 1931737 (transferred to ASU)  
Co-PI (Shu Wang & Zhaoyang Fan) \$380,971      share (50%)                      09/01/2019--08/31/2022  
Title "Manufacturing of High-Performance Lithium-Sulfur Batteries Using Microbial Nanomachines"  
The project goal is to develop high-performance lithium-sulfur batteries using microbial nanomachines.
4. American Heart Association 19AIREA34480011 ((Has been subawarded to ASU)  
ASU subaward PI                      \$154,000                      share (80%)                      06/01/2019--05/31/2022  
Title "Browning white adipose tissue inhibits atherosclerosis development"  
The goal this project is to study the effect and underlying mechanisms of browning of subcutaneous white adipose tissue on atherosclerosis development.

### **Pending Research Proposals**

5. NIH R21      Subcontract PI    \$83,838                      07/01/2021—06/30/2023  
Title "Nanoparticle Particle Targeting of xCT in Trophoblast Cells of the Placenta as an Intervention to Mitigate Ethanol-Mediated Death of Neurons in the Developing Brain"
6. NIH R21                      PI    \$444,105                      07/01/2021—06/30/2023  
Title "Transdermal delivery of novel adipose-targeted nanoparticles for combating obesity"
7. NIH R21                      PI    \$444,099                      07/01/2021—06/30/2023  
Title "Novel ACE2-targeted nanoparticles for COVID-19 therapy"

### **Completed Research Support**

8. NIH 1R21AI138589                      (transferred to ASU)  
Co-I    \$397,798                      share (10%)                      11/23/2018-10/31/2021  
NIAID/NIH title "BCA2's modulation of NF- $\kappa$ B and its role in proviral latency"  
The goal of this project is to study the anti-HIV activity and underlying mechanisms of BCA2 protein. My work is to study and develop nanocarriers to deliver BCA2 protein with enhanced targeting and bioactivity.
9. NSF I-Corps  
PI    \$50,000                      share (100%)                      12/01/2018-05/31/2020  
NSF I-Corps title "Burning fat by nanoparticles for obesity treatment (FatBuringNano™)"  
This project is to explore the market potential of an adipose-targeted nanoparticles.
10. NIH R15 AT008733-01  
PI    \$395,239                      share (65%)                      04/01/2015-03/31/2019  
NCCIH/NIH title "Anti-Obesity Effects of Adipose-Targeting Resveratrol Nanocarriers".

The goal this project is to study the effect of nanoencapsulated resveratrol on obesity prevention and treatment.

11. NIH R15 AT007013-01

PI \$313,962 share (100%) 09/30/2011-03/31/2015  
NCCIH/NIH title "Green Tea Nanocarriers: A Promising Approach for the Prevention and Treatment of Atherosclerosis".

The goal of this project is to study the effect of nanoencapsulated (-)-epigallocatechin gallate (EGCG) on the development of atherosclerosis.

12. USDA AFRI

Co-I \$100,000 share (15%) 04/01/2015-03/31/2016  
Title "Establishing *C elegans* as a model for nutritional studies: Mechanisms by which omega 3 fatty acids reduces obesity-associated inflammation"

The goal of this project is to study the effect of omega-3 fatty acids on metabolic disorders using *C Elegans*. This is a multidisciplinary project involving Nutritional Sciences, Chemical Engineering and Mechanical Engineering.

13. TTU Presidents' Collaborative Research Initiative

PI \$44,553 share (67%) 09/01/2017-08/31/2018  
Title "Plaque-targeted nanocarriers for atherosclerosis diagnosis and treatment"

The goal of this project is to study the early detection and plaque-targeted treatment using plaque-targeted nanocarriers.

14. TTU Transdisciplinary Research Academy

PI \$4,000 share (50%) 09/01/2016-08/31/2017  
Title "Nanodevices and Chronic Disease Theranostics"

The goal of this project is to develop plaque-targeted nanocarriers and device for the diagnosis and treatment of chronic diseases.

15. American River Nutrition Inc. (TTUHSC subaward)

PI \$25,000 share (100%) 06/01/2015-08/31/2017  
"Effect of Tocotrienols on Bone Health: A Pilot Study"

The goal this project is to investigate the effects of tocotrienols on oxidation, inflammation and bone health in human subjects. I am responsible to measure concentrations of tocopherols and tocotrienols in human plasma.

16. TTU Obesity Cluster Grant

Co-PI (Shu Wang, Naima Moustaid-Moussa, Zhaoyang Fan)  
\$7,000 share (60%) 12/01/2014-11/30/2015

Title "Browning white adipose tissue using resveratrol nanoparticles carried by hydrogel templates"

The goal of this project is to develop injectable hydrogel mixing with resveratrol nanoparticles for browning of white adipose tissue.

17. TTU Obesity Cluster Grant

Co-PI (Naima Moustaid-Moussa, Shu Wang, Wei Li)  
\$7,000 share (20%) 12/01/2014-11/30/2015

Title "Adipocyte exosomes mediate cell-cell interactions between fat cells and breast cancer cells"

This project is to investigate the role of adipocyte exosomes in obesity and breast cancer.

18. TTU Transdisciplinary Research Academy

Co-PI (Shu Wang, Micah Green, Jaclyn Cañas-Carrell, Mohammed Saed)  
\$4,000 share (25%) 04/01/2014-03/31/2015

Title "Biomedicine Application of Carbon Nanotube"

The goal of this project is to investigate biomedical application and toxicity of carbon nanotubes. This is a multidisciplinary project involving Nutritional Sciences, Electrical Engineering and Environmental Toxicity.

19. TTU Transdisciplinary Research Academy

Co-PI (Naima Moustaid-Moussa, Shu Wang, Siva A. Vanapalli, Jerzy Blawdziewicz, Preethi Gunaratne) \$4,000 share (20%) 04/01/2014-03/31/2015

Title "Omega 3 Polyunsaturated Fatty Acids Ameliorate Obesity and Related Metabolic Disorders"

The goal of this project is to study the role of omega-3 polyunsaturated fatty acids in obesity and its related metabolic disorders. This is a multidisciplinary project involving Nutritional Sciences, Chemical Engineering and Mechanical Engineering.

20. The Burleson's Family

PI \$150,000 share (100%) 02/01/2012-01/31/2015

Supporting a postdoctoral research associate for conducting research in early detection of atherosclerotic lesions using biocompatible nanoparticles and helping in the above NIH funded project for three years.

21. Omega Proteins Company

Co-I \$49,770 share (25%) 08/01/2013-07/30/2014

"How Do Various Omega-3 Fatty acids Alone or In Combination Influence the Risk for Osteoporosis, Obesity, and Neutral Degenerative Diseases".

The objective of this project is to investigate the role omega-3 fatty acids in regulating inflammatory response and the progression of neutral degenerative diseases in adipose tissue, brain and bone in mice.

22. Omega Proteins Company

Co-PI (Shu Wang & Michael Ballou) \$38,860 share (50%) 02/01/2012-01/31/2013

"Understanding the Role Docosapentaenoic Acid n-3 (DPAn3) Plays in Controlling Inflammation, Lipid Metabolism, and the Development of Atherosclerosis".

The objective of this project is to study the effect of docosapentaenoic acid n-3 (DPAn3) on the development of atherosclerosis *in vitro* and *in vivo*.

23. The Burleson's Family

PI \$150,000 share (100%) 04/01/2011-03/31/2013

"Using Green Tea Nanoparticles to Prevent and Cure Cardiovascular Disease".

The objective of this project is to synthesize green tea nanoparticles to prevent or reverse atherosclerosis.

24. Reliable GeolInfo LLC.

PI \$44,000 share (100%) 01/01/2011-08/31/2013

"Chitosan-Coated Nanoliposomes as Carriers of EGCG Inhibit Atherosclerotic Macrophage Functions".

The objective of this project is to synthesize (-)-epigallocatechin gallate (EGCG) encapsulated nanoparticles to increase its stability, bioavailability and target specificity to macrophages, and to measure its anti-atherogenic effects on macrophages.

## **JOURNAL PUBLICATIONS**

(Corresponding author in **bold font**\*. Impact factor (IF))

1. Yang Y, Trevethan M, Wang S, Zhao L. Beneficial Effects of Citrus Flavanones Naringin and Naringenin and Their Food Sources on Lipid Metabolism: An Update on Bioavailability, Pharmacokinetics, and Mechanisms. *J Nutr Biochem*. (In press) (IF: 6.048)
2. Zu Y, Zhao L, Hao L, Mechref Y, Zabet-Moghaddam M, Keyel PA, Abbasi M, Wu D, Dawson JA, Zhang RW, Nie S, Moustaid-Moussa N, Kolonin MG, Daquinag AC, Brandi L, Warraich I, San Francisco SK, Sun X, Fan ZY, and **Wang S\***. Browning white adipose tissue using adipose stromal cell-targeted resveratrol-loaded nanoparticles for combating obesity. *J Control Release*. **2021** May; 333: 339-351. PMID: 33766692 PMCID: PMC8396108 (IF: 9.776)
3. W Li, **S Wang**, Z Fan, S Li, A Bernussi A, Newman N. Functionalized bacterial cellulose as a separator to address polysulfides shuttling in lithium–sulfur batteries. *Materials Today Energy*. **2021** September; 21: 100813. (IF: 7.311)
4. Dhanasekara CS, Zhang J, Nie S, Li G, Fan ZY, and **Wang S\***. Nanoparticles Target Intimal Macrophages in Atherosclerotic Lesions. *Nanomedicine: Nanotechnology, Biology and Medicine*. **2021** February Volume 32, 102346 DOI: 10.1016/j.nano.2020.102346 PMID: 33259961 (IF: 6.458)
5. Goktas Z, Zu Y, Abbasi M, Galyean S, Wu D, Fan Z, **Wang S\***. Recent Advances in Nanoencapsulation of Phytochemicals to Combat Obesity and Its Comorbidities. *J Agric Food Chem*. 2020 Aug 5;68(31):8119-8131. PMID: 32633507 (**Invited article**)
6. Overby H, Yang Y, Xu X, **Wang S**, Zhao L. Indomethacin promotes browning and brown adipogenesis in both murine and human fat cells. *Pharmacology Research & Perspectives*. 2020 Jun;8(3):e00592. doi: 10.1002/prp2.592. PMCID: PMC7237299; PMID: 32430973
7. Overby H, Yang Y, Xu X, Graham K, Hildreth K, Choi S, Wan D, Morisseau C, Zeldin DC, Hammock BD, **Wang S**, Bettaieb A, Zhao L. Soluble Epoxide Hydrolase Inhibition by t-TUCB Promotes Brown Adipogenesis and Reduces Serum Triglycerides in Diet-Induced Obesity. *Int J Mol Sci*. 2020 Sep 24;21(19):E7039. doi: 10.3390/ijms21197039. PMID: 32987880
8. Feizy Z, Peddibhotla S, Hossain KMS, Hegde V, **Wang S**, and Dhurandhar N. Nanoparticle-mediated in-vitro delivery of E4orf1 to preadipocytes is a clinically relevant delivery system to improve glucose uptake. *International Journal of Obesity*. 2020 Jan 21. doi: 10.1038/s41366-020-0526-6
9. Zhang J, Nie S, Zu Y, Abbasi M, Cao J, Li C, Wu D, Labib S, Brackee G, Shen CL, **Wang S\***. Anti-atherogenic effects of CD36-targeted epigallocatechin gallate-loaded nanoparticles. *J Control Release*. 2019 Apr 15;303:263-273.
10. Hao L\*, Scott S, Abbasi M, Zu Y, Khan MSH, Yang Y, Wu DY, Zhao L, **Wang S\***. Beneficial metabolic effects of mirabegron in vitro and in high-fat diet-induced obese mice. *J Pharmacol Exp Ther*. 2019 Jun;369(3):419-427.
11. Islam N, Hoque MNF, Li W, **Wang S**, Warzywoda J, Fan Z. Vertically edge-oriented graphene on plasma pyrolyzed cellulose fibers and demonstration of kilohertz high-frequency filtering electrical double layer capacitors. *Carbon*. 2019 January; 141:523-530.

12. Hao L, Kearns J, Scott S, Wu D, Kodani S, Morisseau C, Hammock SD, Sun X, Zhao L, **Wang S\***. Indomethacin enhanced brown fat activity. *J Pharmacol Exp Ther*. 2018;365(3):467-475. (IF: 3.867)
13. Shen CL, **Wang S**, Yang S, Tomison MD, Abbasi M, Hao L, Scott S, Khan MS, Romero AW, Felton CK, Mo H. A 12-week evaluation of annatto tocotrienol supplementation for postmenopausal women: safety, quality of life, body composition, physical activity, and nutrient intake. *BMC Complement Altern Med*. 2018;18(1):198. doi: 10.1186/s12906-018-2263-0. (IF: 2.479)
14. Islam N, **Wang S**, Warzywoda J, Fan Z. Fast supercapacitors based on vertically oriented MoS<sub>2</sub> nanosheets on plasma pyrolyzed cellulose filter paper. *J of Power Sources*. 2018;400:277-283. (IF: 7.467)
15. Albracht-Schulte K, Kalupahana NS, Ramalingam L, **Wang S**, Rahman SM, Robert-McComb J, Moustaid-Moussa N. Omega-3 fatty acids in obesity and metabolic syndrome: A mechanistic update. *J Nutr Biochem*. 2018;58:1-16. (IF: 4.490)
16. Zu Y, Overby H, Ren G, Fan ZY, Zhao L, **Wang S\***. Resveratrol liposomes and lipid nanocarriers: comparison of characteristics and inducing browning of white adipocytes. *Colloids Surf B Biointerfaces*. 2018;164: 414-423. (IF: 3.973)
17. Chung E, Mo H, **Wang S**, Zu Y, Rios SR, Elfakhani M, Chyu MC, Yang RS, Shen CL. Potential roles of vitamin E in age-associated change in skeletal muscle health. *Nutr Res*. 2018;49:23-36. (IF: 2.627)
18. Chen L, Mo H, Zhao L, Gao W, **Wang S**, Cromie MM, Lu C, Wang JS, Shen CL. Therapeutic properties of green tea against environmental insults. *J Nutr Biochem*. 2017 Feb; 40: 1-13. Doi: 10.1016/j.jnutbio.2016.05.005. PMID: 27723473. (IF: 4.490)
19. Zhang J, Zu Y, Dhanasekara Chathurika, Li J, Wu DY, Fan ZY, **Wang S\***. Detection and Treatment of Atherosclerosis Using Nanoparticles. *Wiley Interdiscip Rev Nanomed Nanobiotechnol*. 2017, doi: 10.1002/wnan.1412. PMID: 27241794. (IF: 6.14)
20. Li S, Warzywoda J, **Wang S**, Ren G, Fan Z. Bacterial cellulose derived carbon nanofiber aerogel with lithium polysulfide catholyte for lithium-sulfur batteries. *Carbon* 2017;124: 212-218. (IF: 7.466)
21. Islam N, Li S, Ren G, Zu Y, Warzywoda J, **Wang S**, Fan Z. High-frequency electrochemical capacitors based on plasma pyrolyzed bacterial cellulose aerogel for current ripple filtering and pulse energy storage. *Nano Energy*. 2017;40:107-114. (IF: 15.548)
22. Hu P, Overby H, Heal E, **Wang S**, Chen J, Shen CL, Zhao L. Methylparaben and butylparaben alter multipotent mesenchymal stem cell fates towards adipocyte lineage. *Toxicol Appl Pharmacol*. 2017;329:48-57. PMID: 28527915. (IF: 3.705)
23. Shen CL, Mo H, Yang S, **Wang S**, Felton CK, Tomison MD, Soelaiman IN. Safety and efficacy of tocotrienol supplementation for bone health in postmenopausal women: protocol for a dose-response double-blinded placebo-controlled randomised trial. *BMJ Open*. 2016;6(12):e012572. doi: 10.1136/bmjopen-2016-012572. (IF: 2.376)



24. Chen L, Mo H, Zhao L, Gao W, **Wang S**, Cromie MM, Lu C, Wang JS, Shen CL. Therapeutic Properties of Green Tea Against Environmental Insults. *J Nutr Biochem*. 2017; 40: 1-13. (IF: 4.490)
25. Rahman SM, Baquero KC, Choudhury M, Janssen RC, de la Houssaye BA, Sun M, Miyazaki-Anzai S, **Wang S**, Moustaid-Moussa N, Miyazaki M, Friedman JE. C/EBP $\beta$  in Bone Marrow is Essential for Diet Induced Inflammation, Cholesterol Balance, and Atherosclerosis. *Atherosclerosis*. 2016; 250: 172-9. (IF: 4.239)
26. Zhang J, Nie S, Martinez-Zaguilan R, Sennoune S, **Wang S\***. Formulation, Characteristics and Anti-atherogenic Bioactivities of CD36-Targeted Epigallocatechin Gallate (EGCG)-Loaded Nanoparticles. *J Nutr Biochem*. 2016;30:14–23. NIHMS 740685. (IF: 4.490)
27. Tami SH, Reed DB, Trejos E, Boylan M, **Wang S**. Pilot Study: Survey Tools for Assessing Parenting Styles and Family Contributors to the Development of Obesity in Arab Children Ages 6 to 12 Years. *Ethn Dis*. 2015; 25(4):463-8. doi: 10.18865/ed.25.4.463. (IF: N/A)
28. Shen CL, Han J, **Wang S**, Chung E, Chyu MC, Cao JJ. Green tea supplementation benefits body composition and improves bone properties in obese female rats fed with high-fat diet and caloric restricted diet. *Nutr Res*. 2015; 35(12):1095-1105. (IF: 2.627)
29. Nie S, Zhang J, Martinez-Zaguilan R, Sennoune S, Hossen MN, Lichtenstein AH, Cao J, Meyerrose GE, Paone R, Soontrapa S, Fan Z, **Wang S\***. Detection of atherosclerotic lesions and intimal macrophages using CD36-targeted nanovesicles. *J Control Release*. 2015;220:61-70. NIHMS732821. (IF: 7.727)
30. Li C, Zhang J, Zu Y, Nie SF, Cao J, Wang Q, Nie SP, Deng ZY, Xie MY, **Wang S\***. Biocompatible and biodegradable nanoparticles for enhancement of anti-cancer activities of phytochemicals. *Chin J Nat Med*. 2015 Sep; 13(9):641-52. doi: 10.1016/S1875-5364(15)30061-3. (IF: N/A)
31. Voruganti S, Qin JJ, Sarkar S, Nag S, Walbi IA, **Wang S**, Zhao Y, Wang W, Zhang R. Oral nano-delivery of anticancer ginsenoside 25-OCH<sub>3</sub>-PPD, a natural inhibitor of the MDM2 oncogene: Nanoparticle preparation, characterization, in vitro and in vivo anti-prostate cancer activity, and mechanisms of action. *Oncotarget*. 2015;6(25): 21379-21394. (IF: 5.168)
32. **Wang S\***, Matthan NR, Wu D, Reed DB, Bapat P, Yin X, Grammas P, Shen CL, Lichtenstein AH. Lipid Content in Hepatic and Gonadal Adipose Tissue Parallel Aortic Cholesterol Accumulation in Mice Fed Diets with Different Omega-6 PUFA to EPA Plus DHA Ratios. *Clin Nutr*. 2014; 33: 260-266. (IF: 6.402)
33. Sun M, Nie S, Pan X, Zhang R, Fan Z, **Wang S\***. Quercetin-nanostructured lipid carriers: Characteristics and anti-breast cancer activities in vitro. *Colloids Surf B Biointerfaces*. 2014; 113:15-24. (IF: 3.973) (>100 citations)
34. **Wang S**, Moustaid-Moussa N, Chen L, Mo H, Shastri A, Su R, Bapat P, Kwun IS, Shen CL. Novel Insights of Dietary Polyphenols and Obesity. *J Nutr Biochem*. 2014; 25(1):1-18. (>500 citations) (IF: 4.490)

35. **Wang S\***, Su R, Nie S, Sun M, Zhang J, Wu D, Moustaid-Moussa N. Application of Nanotechnology in Improving Bioavailability and Bioactivity of Diet-Derived Phytochemicals. *J Nutr Biochem*. 2014; 25(4):363-376. NIHMS 536692. (>210 citations) (IF: 4.490)
36. Shen CL, Chen L, **Wang S**, Chyu MC. Effects of Dietary Fat Levels and Feeding Duration on musculoskeletal health in Female Rats. *Food and Function*. 2014; 5(3):598-604. (IF: 3.241)
37. Goktas Z, Owens S, Boylan M, Syn D, Shen CL, Reed DB, SanFrancisco S, **Wang S\***. Associations between Tissue Visfatin, Retinol Binding Protein-4 and Vaspin Concentrations and Insulin Resistance in Morbidly Obese Subjects. *Mediators of Inflamm*. 2013:861496. doi: 10.1155/2013/861496. (IF: 3.545)
38. **Wang S\***, Miller B, Matthan NR, Goktas Z, Wu D, Reed DB, Yin X, Grammas P, Moustaid-Moussa N, Shen CL, Lichtenstein AH. Aortic cholesterol accumulation correlates with systemic inflammation but not hepatic and gonadal adipose tissue inflammation in low-density lipoprotein receptor null mice. *Nutr Res*. 2013; 33(12), 1072-1082. (IF: 2.627)
39. Shen CL, Kwun IS, **Wang S**, Mo H, Chen L, Jenkins M, Brackee G, Chen CH, Chyu MC. Functions and Mechanisms of Green Tea Catechins in Regulating Bone Remodeling. *Curr Drug Targets*. 2013; 14 (13):1619-1630. (IF: 2.642)
40. Zhang J, Nie S, **Wang S\***. Nanoencapsulation enhances epigallocatechin-3-gallate stability and its antiatherogenic bioactivities in macrophages. *J Agric Food Chem*. 2013; 61(38): 9200-9209. NIHMS523585. (IF: 3.154)
41. Lemieux M, Al-Jawadi A, **Wang S**, Moustaid-Moussa N. Metabolic Profiling in Nutritional and Metabolic Disorders. *Adv Nutr*. 2013; 4(5):548-550. (IF: 7.24)
42. Goktas Z, Moustaid-Moussa N, Shen CL, Boylan M, Mo H, **Wang S\***. Effects of Bariatric Surgery on Adipokine-Induced Inflammation and Insulin Resistance. 2013. *Front Endocrinol*. 2013; 4:69. (IF: 3.519)
43. Shen CL, Zhu W, Gao W, **Wang S**, Chen L, Chyu MC. Energy Restricted Diet Benefits Body Composition but Degrades Bone Integrity in Middle-Aged Obese Female Rats. *Nutr Res*. 2013; 33(8):668-676. (IF: 2.627)
44. de Pace RC, Liu X, Sun M, Nie S, Zhang J, Cai Q, Gao W, Pan X, Fan Z, **Wang S\***. Anticancer Activities of (-)-Epigallocatechin-3-Gallate Encapsulated Nanoliposomes in MCF7 Breast Cancer Cells. *J Liposome Res*. 2013; 23(3):187-96. (IF: 1.822)
45. Pan X, Zhao Y, Liu S, Korzeniewski C, **Wang S**, Fan ZY. Comparing Graphene-TiO<sub>2</sub> Nanowire and Graphene-TiO<sub>2</sub> Nanoparticle Composite Photocatalysts. *ACS Appl Mater Interfaces*. 2012; 4 (8): 3944–3950. (IF: 8.456)
46. **Wang S**, Qaisar U, Yin X, Grammas P. Gene Expression Profiling in Alzheimer's Disease Brain Microvessels. *J Alzheimers Dis*. 2012; 31(1):193-205. (IF: 3.517)
47. Chen YC, Reed DB, Velikova N, **Wang S**. University Student Sample Is Unable to Accurately Assess Their Calorie Needs: Implications for Weight Management and Menu Labeling. *Food and Nutr Sci*. 2012; 3, 505-510. (IF: 1.41)

48. Qhattal HS, **Wang S**, Salihima T, Srivastava SK, Liu X. Nanoemulsions of Cancer Chemopreventive Agent Benzyl Isothiocyanate Display Enhanced Solubility, Dissolution, and Permeability. *J Agric Food Chem.* 2011; 59 (23):12396-12404. (IF: 3.154)
49. **Wang S\***, Reed D, Goli S, Goswami D. Blood Leptin and C-Reactive Protein Provide More Sensitive Assessment Than Blood Lipids and Other Inflammatory Biomarkers in Overweight University Students. *Nutr Res.* 2011; 31(8):586-593. (IF: 2.627)
50. **Wang S**, Wu D, Matthan NR, Lamon-Fava S, Lecker JL, Lichtenstein AH. Enhanced Aortic Macrophage Lipid Accumulation and Inflammatory Response in LDL Receptor Null Mice Fed an Atherogenic Diet. *Lipids* 2010; 45(8):701-711. NIHMSID: NIHMS231280. (IF: 2.144)
51. **Wang S**, Wu D, Lamon-Fava S, Matthan NR, Honda KL, Lichtenstein AH. *In Vitro* Fatty Acid Enrichment of Macrophages Alters Inflammatory Response and Net Cholesterol Accumulation. *Br J Nutr.* 2009; 102(4):497-501. NIHMSID: NIHMS177991. (IF: 3.302)
52. **Wang S**, Wu D, Matthan NR, Lamon-Fava S, Lecker JL, Lichtenstein AH. Reduction in Dietary Omega-6 Polyunsaturated Fatty Acids: Eicosapentaenoic Acid Plus Docosahexaenoic Acid Ratio Minimizes Atherosclerotic Lesion Formation and Inflammatory Response in the LDL Receptor Null Mouse. *Atherosclerosis* 2009; 201(1):147-155. NIHMSID: NIHMS177443. (IF: 4.239)
53. **Wang S**, Noh SK, Koo SI. Epigallocatechin Gallate and Caffeine Differentially Inhibit the Intestinal Absorption of Cholesterol and Fat in Ovariectomized Rats. *J Nutr.* 2006; 136(11): 2791-2796. (IF: 4.416)
54. **Wang S**, Noh SK, Koo SI. Green Tea Catechins Inhibit Pancreatic Phospholipase A (2) and Intestinal Absorption of Lipids in Ovariectomized Rats. *J Nutr Biochem.* 2006; 17(7):492-498. (IF: 4.490)
55. Dorfman S, **Wang S**, Vega-López S, Jauhiainen M, Lichtenstein A. Dietary Fatty Acids and Cholesterol Differentially Modulate HDL Cholesterol Metabolism in Golden-Syrian Hamsters. *J Nutr.* 2005; 135(3):492-498. (IF: 4.416)

### **Manuscripts submitted, under revisions or in preparation**

1. Liu J, Zhang J, Zu Y, Hao L, Keyel P, **Wang S\***. Anti-atherosclerotic effects of T0901317 encapsulated nanoparticles in macrophages. (submitted)
2. Abbasi M, Fan ZY, Dawson J, **Wang S\***. Transdermal delivery of metformin to subcutaneous adipose tissue with polymeric microneedle patches and iontophoresis (In preparation and plan to submit in January 2022)

### **BOOK CHAPTERS**

1. Chapter Title: "Regulation and Metabolic Functions of White Adipose Tissue Stearoyl-CoA Desaturase"  
 Authors: Nishan Sudheera Kalupahana, Thilak Jayalath, **Shu Wang**, and Naima Moustaid-Moussa  
 Pages of the mentioned chapter: 49-60 (both included)  
 Book title: "Stearoyl-CoA Desaturase Genes in Lipid Metabolism"  
 Editor: James M. Ntambi

Publisher: Springer Science+Business Media New York  
ISBN (13): 978-1-4614-7968-0  
Publication date: 2013

2. Chapter Title: "Function and Regulation of Macrophage Stearoyl-CoA Desaturase in Metabolic Disorders"  
Authors: Nishan Sudheera Kalupahana, **Shu Wang**, Shaikh M Rahman, and Naima Moustaid-Moussa  
Pages of the mentioned chapter: 61-71 (both included)  
Book title: "Stearoyl-CoA Desaturase Genes in Lipid Metabolism"  
Editor: James M. Ntambi  
Publisher: Springer Science+Business Media New York  
ISBN (13): 978-1-4614-7968-0  
Publication date: 2013
3. Chapter title: "TiO<sub>2</sub>/graphene nanocomposite for photocatalytic application"  
Authors: Xuan Pan, Yong Zhao, **Shu Wang**, and Zhaoyang Fan  
Pages of the mentioned chapter: 913-920 (both included)  
Book title: "Materials and processes for energy: communicating current research and technological developments"  
Editor: A. Méndez-Vilas  
Publisher: Formatex Research Center  
ISBN (13): 978-84-939843-7-3  
Publication date: August 2013
4. Book title: Handbook of Clinical Nanomedicine: From Bench to Bedside  
Chapter 39 Title: Potential Applications of Nanotechnology in the Nutraceutical Sector  
Chapter 39 Authors: **Shu Wang**, Jia Zhang  
Editor: Raj Bawa, Gerald F. Audette, Israel Rubinstein  
Publisher: Pan Stanford Publishing Pte. Ltd.  
ISBN (13): 978-981-4316-17-0  
Publication date: 2015

#### **PRESENTED ABSTRACTS (IN PUBLISHED PROCEEDINGS / JOURNAL SUPPLEMENTS)**

(\*Corresponding author. Student advisees and trainees in Dr. Wang's group are underlined.)

1. Abbasi M, **Wang S\***. Novel Obesity Treatment Using Metformin Transdermal Patch. Current Developments in Nutrition, Volume 5, Issue Supplement\_2, June 2021, Page 1191, [https://doi.org/10.1093/cdn/nzab055\\_001](https://doi.org/10.1093/cdn/nzab055_001)
2. Abbasi M, **Wang S\***. Direct Delivery of Metformin to Subcutaneous White Adipose Tissue and Brown Adipose Tissue for Combating Obesity, Current Developments in Nutrition, Volume 4, Issue Supplement\_2, June 2020, Page 1603, [https://doi.org/10.1093/cdn/nzaa063\\_001](https://doi.org/10.1093/cdn/nzaa063_001)
3. Abbasi M, **Wang S\***. In Vivo Percutaneous Penetration of Dye into IgWAT and IBAT Using Dissolving Microneedle and Iontophoresis, Current Developments in Nutrition,

4. Abbasi M, **Wang S\***. Transdermal Delivery of Nanoparticles Using Microneedles and Iontophoresis. *Curr Dev Nutr.* 2019 Jun 13;3(Suppl 1). pii: nzz036.P13-001-19. doi: 10.1093/cdn/nzz036.P13-001-19.
5. Hao L, Khan MSH, Zu Y, Liu J, **Wang S\***. Thermoneutrality Inhibits Thermogenic Markers and Exacerbates Nonalcoholic Fatty Liver in Mice. *Curr Dev Nutr.* 2019 Jun 13;3(Suppl 1). pii: nzz041.P21-068-19. doi: 10.1093/cdn/nzz041.P21-068-19.
6. Khan MSH, Hao L, **Wang S\***. The Anti-obesity Effects of Direct Delivery of Resveratrol-encapsulated Liposomes to Inguinal White Adipose Tissue in Male APOE\*3Leiden.CETP Transgenic Mice. *Curr Dev Nutr.* 2019 Jun 13;3(Suppl 1). pii: nzz041.P21-006-19. doi: 10.1093/cdn/nzz041.P21-006-19.
7. Goktas Z, Khan MSH, Zu Y, Hao L, **Wang S\***. Body Composition Changes in Female APOE\*3Leiden.CETP Transgenic Mice After 5-week Injection of Resveratrol-encapsulated Liposomes to Inguinal White Adipose Tissue. *Curr Dev Nutr.* 2019 Jun 13;3(Suppl 1). pii: nzz041.P21-041-19. doi: 10.1093/cdn/nzz041.P21-041-19.
8. Zu Y, Zhao L, Hao L, Wu D, **Wang S\***. The anti-obesity effects of adipose stromal cell-targeted resveratrol-loaded nanoparticles in C57BL/6J mice. *Curr Dev Nutr.* 2018 Volume 2, Issue 11, November 2018, nzy050, <https://doi.org/10.1093/cdn/nzy050>. OR33-01.
9. Liu J, Zhang J, Zu Y, Li C, Cao J, Afruza R, Hao L, **Wang S\***. Anti-atherogenic Effects of T0901317 Nanoparticles in LDL Receptor Knockout Mice. *Curr Dev Nutr.* 2018 Volume 2, Issue 11, November 2018, nzy028, <https://doi.org/10.1093/cdn/nzy028>. P01-060.
10. Hao L, Scott S, Abbasi M, Zu Y, Khan MSH, **Wang S\***. Metabolic beneficial effects of mirabegron in vitro and in high -fat diet- induced obese mice. *Curr Dev Nutr.* 2018 Volume 2, Issue 11, November 2018, nzy050, <https://doi.org/10.1093/cdn/nzy050>. OR33-01. P23-043.
11. Abbasi M, Zhang J, Zu Y, **Wang S\***. Effect of EGCG-loaded nanoparticles on macrophage cholesterol accumulation and inflammation. *Curr Dev Nutr.* 2018 Jun
12. Zu Y, **Wang S\***. Targeted delivery of resveratrol to mouse white adipose tissue using adipose stromal cells (ASC) targeted nanoparticles. *FASEB J* April 2017 31:646.27.
13. Overby H, Zu Y, **Wang S**, Zhao L. Nanoparticles encapsulated with resveratrol induce browning of white adipocytes. *FASEB J* April 2017 31:44.3.
14. Liu J, Li C, **Wang S\***. Anti-atherogenic Effect of T0901317 Nanovesicles in THP-1 Derived Macrophages. *FASEB J* April 2017 31:966.35.

15. Hao L, Kearns J, Zhao L\*, **Wang S\***. Indomethacin, a nonsteroidal anti-inflammatory drug, enhanced brown fat activity in vitro and in vivo. *FASEB J* April 2017 31:794.1
16. Khan MS, Hao L, Shen CL, **Wang S\***. An updated approach for extraction and detection of human plasma tocopherols and tocotrienols. *FASEB J* April 2017 31:800.10.
17. Dhanasekara CS, Zhang J, Nie S, **Wang S\***. Detection of intimal macrophages in atherosclerotic lesions using biocompatible CD36-targeted ligand containing nanoparticle. *FASEB J* April 2016 30:431.4.
18. Goktas Z, Galyean S, Syn D, Koklu S, **Wang S**, Boylan M, Dikmen D, and Uyar B. Serum 25-Hydroxy D3 Levels in Nonalcoholic Fatty Liver Disease. *FASEB J* April 2016 30:420.6.
19. Liu J, **Wang S\***. The characteristics and stability Of T0901317 nanovesicles. *FASEB J* April 2016 30:904.14.
20. Zu Y, **Wang S\***. The physical stability comparison of two types of resveratrol nanocarriers. *FASEB J* April 2016 30:690.10.
21. Zhang J, Nie S, Hossen MN, Sun M, Martinez-Zaguilan R, Sennoune S, and **Wang S\***. Anti-Atherogenic Effects of Lesion-Targeted Epigallocatechin Gallate (EGCG) - Loaded Nanoparticles. *FASEB J* April 2015 29:271.3.
22. Zu Y, Zhang J, Nie S, **Wang S\***. The effect of EGCG and EGCG nanoparticles on body weight and body composition in LDL receptor null mice. *FASEB J* April 2015 29:402.5.
23. Dhanasekara C, Zhang J, Nie S, **Wang S\***. Detection of Intimal Macrophages in Atherosclerotic Lesions Using a CD36-Targeted Ligand Containing Nanoparticle. *FASEB J* April 2015 29:606.12.
24. Cao J, Zhang J, Li C, **Wang S\***. Effects of Epigallocatechin Gallate Nanocarriers on Liver Cholesterol Content in LDL Receptor Null Mice. *FASEB J* April 2015 29:LB369.
25. Li C, Zhang J, Nie S, Cao J, **Wang S\***. Comparing Effects of Native and Nanoencapsualted Epigallocatechin Gallate on Liver Fat Content in LDL Receptor Null Mice. *FASEB J* April 2015 29:LB373.
26. Zahid MK, Doyel A, Janssen RC, **Wang S**, Friedman JE, Rahman SM. C/EBP-beta regulates lipid homeostasis and autophagy activation in liver and macrophages. *FASEB J* April 2015 29:743.16
27. Goktas Z, **Wang S**, Besler T. Associations between tissue retinol binding protein-4, visfatin and vaspin protein concentrations and blood triglyceride and cholesterol levels in morbidly obese subjects. *FASEB J* April 2014 28:133.
28. Zhang J, Nie S, **Wang S\***. The Antiatherogenic Effects of Targeted Epigallocatechin Gallate - Loaded Nanoparticles. *FASEB J* April 2014 28:1045.41.

29. Zhang J, Nie S, **Wang S\***. Targeted (-)-Epigallocatechin Gallate Loaded Lipid Nanoparticles Inhibit Foam Cell Formation. *J Neuroimmune Pharmacol*. 2014 DOI 10.1007/s11481-014-9526-4.
30. Sun M, Wang S, Nie S, **Zhang J**. Enhanced oral bioavailability of quercetin by nanostructured lipid carriers. *FASEB J* April 2014 28:1044.24.
31. Zhang J, Nie S, **Wang S**. Characteristics and Anti-Atherosclerotic Properties of (-)-Epigallocatechin Gallate Loaded Lipid Nanoparticles *in vitro*. *CIRCULATION* 2013 November, Vol. 128, No. 22.
32. Sun M, Nie S, Pan X, Fan Z, **Wang S\***. Quercetin encapsulated nanocarriers: effects on breast cancer cell growth, apoptosis, and uptake *in vitro* and bioavailability *in vivo*. *FASEB J* April 9, 2013 27:224.3.
33. Bapat P, Sun M, **Wang S\***. Promising applications of nano-encapsulated (-) epigallocatechin gallate during adipogenesis in 3T3-L1 cells. *FASEB J* April 9, 2013 27:112.4.
34. Zhang J, Nie S, **Wang S\***. Epigallocatechin gallate (EGCG) - loaded nanoparticles decrease cholesterol content in THP-1 derived macrophages. *FASEB J* April 9, 2013 27:224.5.
35. Goktas Z, **Wang S\***. Visfatin and vaspin protein concentrations in different tissues and insulin resistance. *FASEB J* April 9, 2013 27:865.13
36. **Wang S\***, Miller B, Matthan NR, Wu D, Lichtenstein AH. Effect of atherogenic diets with different ratios of omega-6 polyunsaturated fatty acids to eicosapentaenoic acid plus docosahexaenoic acid on lipid content and inflammatory response in hepatic and visceral adipose tissue in LDL receptor null mice. *Circulation*. 2012;126:A14933.
37. **Wang S\***, Zhang J, Sun M, Fan ZY. Nanoencapsulation increases (-)-epigallocatechin gallate stability and its cellular bioavailability in macrophages. *FASEB J*. 2012; 26:646.5.
38. **Wang S\***, Wu D, Matthan NR, Lichtenstein AH. Lower dietary n-6 polyunsaturated fatty acids: eicosapentaenoic acid plus docosahexaenoic acid ratio decreases the expression of inflammatory factors in livers and visceral adipose tissue in LDL receptor null mice. *FASEB J*. 2012; 26:1026.17.
39. Bapat P, **Wang S**. Effect of nano-encapsulated (-) epigallocatechin gallate on triglyceride accumulation in 3T3-L1 adipocytes. *BMC Proceedings* 2012, 6(Suppl 3):P55.
40. Goktas Z, **Wang S**. Visfatin and RBP4 gene expression levels in different adipose tissues and insulin resistance. *BMC Proceedings* 2012, 6(Suppl 3):P17.
41. **Wang S\***, Reed D, Goli S, Goswami D. Associations between blood lipid and inflammatory biomarkers and obesity in university students. *FASEB J*. 2011; 25:LB289.
42. **Wang S\***, Wu YC, Wu D, Matthan NR, Lamon-Fava S, Srinivasan I, Reed D, Lichtenstein AH. Atherogenic diet promotes liver inflammation, fatty liver formation & atherogenesis in LDL receptor null mice. *FASEB J*. 2010; 24:724.8.

43. **Wang S\***, Wu D, Matthan NR, Lamon-Fava S, Lecker JL, Wu YC, Lichtenstein AH. Atherogenic diet promotes atherosclerotic lesion formation by enhancing inflammatory response in the LDL receptor null mouse. *FASEB J.* 2009; 23:LB510.
44. **Wang S**, Wu D, Matthan NR, Lichtenstein AH. The Impact of different ratios of omega-6 polyunsaturated fatty acids to eicosapentaenoic acid (EPA) plus docosahexaenoic acid (DHA) on atherosclerotic lesion formation and inflammatory factors in the LDL receptor knockout (LDLr<sup>-/-</sup>) mouse. *FASEB J.* 2007;21:231.1.
45. **Wang S**, Wu D, Matthan NR, Lichtenstein AH. Impact of omega-6 polyunsaturated fatty acids: eicosapentaenoic acid plus docosahexaenoic acid ratios in LDL receptor knockout (LDLr<sup>-/-</sup>) mice on atherosclerotic lesion formation and elicited peritoneal macrophage inflammatory response. *Arterioscler Thromb Vasc Biol.* 2007;27:e56.
46. **Wang S**, Noh SK, Koo SI. Green tea epigallocatechin gallate (EGCG) inhibits the luminal hydrolysis and lymphatic output of phosphatidylcholine (PC) and lowers the lymphatic absorption of fat and alpha-tocopherol in ovariectomized rats. *FASEB J.* 2002;16:A644.
47. Koo SI, **Wang S**, Noh SK. (+)-Catechin is a potent inhibitor than resveratrol of the intestinal absorption of cholesterol in ovariectomized rats. *FASEB J.* 2002;16:A645.
48. **Wang S**, Noh SK, Koo SI. Green tea catechins inhibit pancreatic phospholipase A<sub>2</sub> activity in vitro. *FASEB J.* 2001;15:LB305.

**PRESENTATIONS** (\*Corresponding author. Student advisees and trainees in Dr. Wang's group are underlined.)

1. USDA ARS Grand Forks Human Nutrition Research Center      January 13, 2021  
(Invited seminar speaker)  
Shu Wang gave a seminar entitled "Applying Nanotechnology in Nutritional Studies for Combating Obesity and Other Chronic Diseases".
2. ASU CIVV-oholics Zoom seminar      March 24, 2021  
(Invited seminar speaker)  
Shu Wang gave a seminar entitled "Adipose-Targeting Resveratrol Nanocarriers: Browning White Adipose Tissue for Combating Obesity"
3. American Society for Nutrition (ASN)'s annual conference-Nutrition 2021, Virtual conference (Oral presentation).  
Abbasi M, **Wang S\***. Novel Obesity Treatment Using Metformin Transdermal Patch.
4. TTU Health Sciences Center, Department of Internal Medicine      March 10, 2020  
(Invited seminar speaker)  
Shu Wang gave a seminar entitled "Applying Nanotechnology in Nutritional Studies for Combating Obesity and Atherosclerosis".
5. American Society for Nutrition (ASN)'s annual conference-Nutrition 2020, Virtual conference.  
Abbasi M, **Wang S\***. Direct Delivery of Metformin to Subcutaneous White Adipose Tissue and Brown Adipose Tissue for Combating Obesity.



6. American Society for Nutrition (ASN)'s annual conference-Nutrition 2020, Virtual conference. Abbasi M, Wang S\*. In Vivo Percutaneous Penetration of Dye into IgWAT and IBAT Using Dissolving Microneedle and Iontophoresis.
7. American Society for Nutrition (ASN)'s annual conference-Nutrition 2019, Baltimore, MD. June 2019. (Poster).  
Abbasi M, Wang S\*. Transdermal Delivery of Nanoparticles Using Microneedles and Iontophoresis.  
[Based on this work, graduate student Ms. Mehrnaz Abbasi became a 1st place winner of the Methods and Protocols topical area in the 5th Emerging Leaders in Nutrition Science Poster Competition \(ELPC\) during this ASN flagship meeting-Nutrition 2019.](#)
8. American Society for Nutrition (ASN)'s annual conference-Nutrition 2019, Baltimore, MD. June 2019. (Poster).  
Hao L, Khan MSH, Zu Y, Liu J, Wang S\*. Thermoneutrality Inhibits Thermogenic Markers and Exacerbates Nonalcoholic Fatty Liver in Mice.
9. American Society for Nutrition (ASN)'s annual conference-Nutrition 2019, Baltimore, MD. June 2019. (Poster).  
Khan MSH, Hao L, Wang S\*. The Anti-obesity Effects of Direct Delivery of Resveratrol-encapsulated Liposomes to Inguinal White Adipose Tissue in Male APOE\*3Leiden.CETP Transgenic Mice.
10. American Society for Nutrition (ASN)'s annual conference-Nutrition 2019, Baltimore, MD. June 2019. (Poster).  
Goktas Z, Khan MSH, Zu Y, Hao L, Wang S\*. Body Composition Changes in Female APOE\*3Leiden.CETP Transgenic Mice After 5-week Injection of Resveratrol-encapsulated Liposomes to Inguinal White Adipose Tissue.
11. American Society for Nutrition (ASN)'s annual conference-Nutrition 2018, Boston, MA. June 2018. (Oral and Poster).  
Zu Y, Zhao L, Hao L, Wu D, Wang S\*. The anti-obesity effects of adipose stromal cell-targeted resveratrol-loaded nanoparticles in C57BL/6J mice.  
[Based on this work, graduate student Ms. Yujiao Zu won ASN's Nutritional Sciences Council 2018 Graduate Student Research Award.](#)
12. ASN's annual conference-Nutrition 2018, Boston, MA. June 2018. (Poster).  
Liu J, Zhang J, Zu Y, Li C, Cao J, Afruza R, Hao L, Wang S\*. Anti-atherogenic Effects of T0901317 Nanoparticles in LDL Receptor Knockout Mice.
13. ASN's annual conference-Nutrition 2018, Boston, MA. June 2018. (Poster).  
Hao L, Scott S, Abbasi M, Zu Y, Khan MSH, Wang S\*. Metabolic beneficial effects of mirabegron in vitro and in high -fat diet- induced obese mice.
14. ASN's annual conference-Nutrition 2018, Boston, MA. June 2018. (Poster).  
Abbasi M, Zhang J, Zu Y, Wang S\*.  
Effect of EGCG-loaded nanoparticles on macrophage cholesterol accumulation and inflammation.
15. Experimental Biology Meeting, Chicago, IL. April 2017. (Oral presentation).

- Overby H, Zu YJ, **Wang S\***, Zhao L\*. Nanoparticles encapsulated with resveratrol induce browning of white adipocytes.
16. Experimental Biology Meeting, Chicago, IL. April 2017. (Poster).  
Zu YJ, **Wang S\***. Targeted delivery of resveratrol to mouse white adipose tissue using adipose stromal cells (ASC) targeted nanoparticles.
17. Experimental Biology Meeting, Chicago, IL. April 2017. (Poster).  
Hao L, **Wang S\***. Indomethacin, a nonsteroidal anti-inflammatory drug, enhanced brown fat activity in vitro and in vivo.
18. Experimental Biology Meeting, Chicago, IL. April 2017. (Poster).  
Khan MSH, Hao L, Shen CL, **Wang S\***. An updated approach for extraction and detection of human plasma tocopherols and tocotrienols.
19. Experimental Biology Meeting, Chicago, IL. April 2017. (Poster).  
Liu J, Li C, **Wang S\***. Anti-atherogenic Effect of T0901317 Nanovesicles in THP-1 Derived Macrophages.
20. Obesity Week 2016, New Orleans, LA. November 2016. (Poster).  
MD Khurshidul Zahid, **Wang S**, and Shaikh MR. CCAAT/enhancer binding protein beta (C/EBP beta) knock down reduces ER stress and apoptosis but increases autophagy activity in macrophage foam cells.
21. NIH symposium Unraveling Vascular Inflammation: From Immunology to Imaging, Bethesda, MD. October 2016. (Poster).  
**Wang S\***, Dhanasekara CS, Zhang J, Nie S. Detection of Intimal Macrophages in Atherosclerotic Lesions Using CD36-Targeted Nanovesicles.
22. Experimental Biology Meeting, San Diego, CA. April 2016. (Oral presentation).  
Dhanasekara CS, Zhang J, Nie S, **Wang S\***. Detection of intimal macrophages in atherosclerotic lesions using biocompatible CD36-targeted ligand containing nanoparticle.
23. Experimental Biology Meeting, San Diego, CA. April 2016. (Oral presentation).  
Goktas Z, Galyean S, Syn D, Koklu S, **Wang S**, Boylan M, Dikmen D, and Uyar B. Serum 25-Hydroxy D3 Levels in Nonalcoholic Fatty Liver Disease.
24. Experimental Biology Meeting, San Diego, CA. April 2016. (Poster).  
Liu J, **Wang S\***. The characteristics and stability Of T0901317 nanovesicles.
25. Experimental Biology Meeting, San Diego, CA. April 2016. (Poster).  
Zu Y, **Wang S\***. The physical stability comparison of two types of resveratrol nanocarriers.
26. Experimental Biology Meeting, Boston, MA. March 2015. (Oral presentation).  
Zhang J, Nie S, Hossen M, Sun M, Martinez-Zaguilan R, Sennoune S, **Wang S\***. Anti-Atherogenic Effects of Lesion-Targeted Epigallocatechin Gallate (EGCG) - Loaded Nanoparticles.
27. Experimental Biology Meeting, Boston, MA. March 2015. (Oral presentation).

- Zu Y, Zhang J, Nie S, Wang S\*. The Effect of EGCG and EGCG Nanoparticles on Body Weight and Body Composition in LDL Receptor Null Mice.
28. Experimental Biology Meeting, Boston, MA. March 2015. (Poster).  
Cao J, Zhang J, Li C, Wang S\*. Effects of Epigallocatechin Gallate Nanocarriers on Liver Cholesterol Content in LDL Receptor Null Mice.
29. Experimental Biology Meeting, Boston, MA. March 2015. (Poster).  
Li C, Zhang J, Nie S, Cao J, Wang S\*. Comparing Effects of Native and Nanoencapsulated Epigallocatechin Gallate on Liver Fat Content in LDL Receptor Null Mice.
30. Experimental Biology Meeting, Boston, MA. March 2015. (Poster).  
Dhanasekara CS, Zhang J, Nie S, Wang S\*. Detection of Intimal Macrophages in Atherosclerotic Lesions Using CD36-targeted Ligand Containing Nanoparticles.
31. Experimental Biology Meeting, San Diego, CA. April 2014. (Poster).  
Zhang J, Nie S, Wang S\*. The Anti-Atherogenic Effects of Targeted Epigallocatechin Gallate (EGCG) - Loaded Nanoparticles.
32. Experimental Biology Meeting, San Diego, CA. April 2014. (Poster).  
Goktas Z, Wang S, Besler T. Associations between tissue retinol binding protein-4, visfatin and vaspin protein concentrations and blood triglyceride and cholesterol levels in morbidly obese subjects.
33. Fourth Annual Conference of the American Society for Nanomedicine. Universities at Shady Grove, Rockville, MD. March 2014. (Poster)  
Zhang J, Nie S, Wang S\*. Targeted (-)-Epigallocatechin Gallate Loaded Lipid Nanoparticles inhibit Foam Cell Formation.
34. The 31st Annual Scientific Meeting of the Obesity Society, Atlanta, GA. November 2013. (Poster)  
Goktas Z, Wang S\*, Owens S, Boylan M, Syn D, Shen C, Reed D, San Francisco. S. Associations between tissue retinol binding protein-4 levels and insulin resistance in morbidly obese subjects.
35. American Heart Association's Scientific Sessions 2013, Dallas, TX. November 2013. (Poster)  
Zhang J, Nie S, Wang S\*. Characteristics and anti-atherosclerotic properties of (-)-epigallocatechin gallate loaded lipid nanoparticles *in vitro*.
36. Annual Meeting of Chinese Society for Nutrition. Hangzhou, China. May 17, 2013. **(Invited oral presentation)**.  
**Wang S**. Dietary fat and cardiovascular disease. A Special Session for the North America Chinese Society for Nutrition (NACSN).
37. West Lake Frontiers in Nutrition Research Training Program (WFNRTP), Hangzhou, China. May 18, 2013. **(Invited oral presentation)**.  
**Wang S**. Dietary fat, inflammation and cardiovascular disease.
38. Experimental Biology Meeting, Boston, MA. April 2013. (Oral presentation).  
Sun M, Nie S, Pan X, Fan Z, Wang S\*. Quercetin encapsulated nanocarriers: effects on breast cancer cell growth, apoptosis, and uptake *in vitro* and bioavailability *in vivo*.
39. Experimental Biology Meeting, Boston, MA. April 2013. (Oral presentation).

- Bapat P, Sun M, Wang S\*. Promising applications of nano-encapsulated (-) epigallocatechin gallate during adipogenesis in 3T3-L1 cells.
40. Experimental Biology Meeting, Boston, MA. April 2013. (Oral presentation).  
Zhang J, Nie S, Wang S\*. Epigallocatechin gallate (EGCG) - loaded nanoparticles decrease cholesterol content in THP-1 derived macrophages.
41. Experimental Biology Meeting, Boston, MA. April 2013. (Poster).  
Goktas Z, Wang S\*. Visfatin and vaspin protein concentrations in different tissues and insulin resistance.
42. American Heart Association's Scientific Sessions 2012, Los Angeles, CA. November 2012. (Oral presentation)  
**Wang S\***, Miller B, Matthan NR, Wu D, Lichtenstein AH. Effect of atherogenic diets with different ratios of omega-6 polyunsaturated fatty acids to eicosapentaenoic acid plus docosahexaenoic acid on lipid content and inflammatory response in hepatic and visceral adipose tissue in LDL receptor null mice.
43. International Conference and Exhibition on Nutritional Science & Therapy Aug.27 to 29, 2012. Philadelphia, PA. **(Invited oral presentation)**.  
**Wang S**. Inflammation and Chronic Diseases: the Role of Dietary Fat.
44. Metabolism, Diet and Disease Conference, Washington DC, May 29-31, 2012. (Poster).  
Bapat P and Wang S. Effect of nano-encapsulated (-) epigallocatechin gallate on triglyceride accumulation in 3T3-L1 adipocytes.
45. Metabolism, Diet and Disease Conference, Washington DC, May 29-31, 2012. (Poster)  
Goktas Z and Wang S. Visfatin and RBP4 gene expression levels in different adipose tissues and insulin resistance.
46. Experimental Biology Meeting, San Diego, CA. April 2012. (Poster).  
**Wang S\***, Zhang J, Sun M, Fan ZY. Nanoencapsulation increases (-)-epigallocatechin gallate stability and its cellular bioavailability in macrophages.
47. Experimental Biology Meeting, San Diego, CA. April 2012. (Poster).  
**Wang S\***, Wu D, Matthan NR, Lichtenstein AH. Lower dietary n-6 polyunsaturated fatty acids: eicosapentaenoic acid plus docosahexaenoic acid ratio decreases the expression of inflammatory factors in livers and visceral adipose tissue in LDL receptor null mice.
48. Experimental Biology Meeting, Washington, DC. April 2011. (Poster).  
**Wang S\***, Reed D, Goli S, Goswami D. Associations between blood lipid and inflammatory biomarkers and obesity in university students.
49. Texas Tech University Health Sciences Center 2011 Annual Cancer Symposium, Amarillo, TX. April 2011. (Poster).  
Castillo-Cohen de Pace R, Wang S\*. Apoptotic and antiproliferative effect of nanoencapsulated (-)-epigallocatechin-3-gallate in MCF7 cells.
50. American Society for Nanomedicine, Third Annual Conference, Rockville, MD 2011. (Poster).  
Castillo-Cohen de Pace R, Wang S\*. Green tea nanoliposomes: a promising approach for the prevention and treatment of breast cancer.
51. Experimental Biology Meeting, Anaheim, CA. April 2010. (Poster).

- Wang S\***, Wu YC, Wu D, Matthan NR, Lamon-Fava S, Srinivasan I, Reed D, Lichtenstein AH. Atherogenic diet promotes liver inflammation, fatty liver formation & atherogenesis in LDL receptor null mice.
52. TTU graduate student research poster competition. March 2010. (Poster).  
**Wang S\***, Wu YC, Srinivasan I, Wu D, Lichtenstein AH. Western-type diet promotes liver inflammation, fatty liver formation & atherogenesis in LDL receptor null mice.
53. Experimental Biology Meeting, New Orleans, LA. April 2009. (Poster).  
**Wang S**, Wu D, Matthan NR, Lamon-Fava S, Lecker JL, Wu YC, Lichtenstein AH. Atherogenic diet promotes atherosclerotic lesion formation by enhancing inflammatory response in the LDL receptor null mouse.
54. NIH meeting. December 2009. (Oral presentation).  
**Wang S**. Effects of EGCG incorporated nanoemulsions containing oxidized phosphatidylcholine on atherosclerosis.
55. SACNAS (Advancing Hispanic/Chicanos and Native Americans in Science) National Conference. October 2010. (Poster).  
Shedd S, Reed D, **Wang S**, Srinivasan I. Pilot Study to evaluate the correlation of plasma tumor necrosis factor biomarker and BMI in university students.
56. Alpha Chi Omega student group at TTU, Fall 2008. (**Invited oral presentation**).  
**Wang S**. Healthy Eating and Exercise during the Holiday Season.
57. Texas Tech University Health Sciences Center. February 2008. (Oral presentation).  
**Wang S**. Impact of fatty acids in atherosclerotic lesion formation and inflammation.
58. Experimental Biology Meeting, Washington, DC. April 2007. (Oral presentation).  
**Wang S**, Wu D, Matthan NR, Lichtenstein AH. The Impact of different ratios of omega-6 polyunsaturated fatty acids to eicosapentaenoic acid (EPA) plus docosahexaenoic acid (DHA) on atherosclerotic lesion formation and inflammatory factors in the LDL receptor knockout (LDLr<sup>-/-</sup>) mouse.
59. American Heart Association, Arteriosclerosis, Thrombosis, and Vascular Biology Annual Conference, Chicago, IL. April 2007. (Poster).  
**Wang S**, Wu D, Matthan NR, Lichtenstein AH. Impact of omega-6 polyunsaturated fatty acids: eicosapentaenoic acid + docosahexaenoic acid ratios in LDL receptor knockout (LDLr<sup>-/-</sup>) mice in atherosclerotic lesion formation and elicited peritoneal macrophage inflammatory response.
60. Experimental Biology Meeting, New Orleans, LA. April 2002. (Poster).  
**Wang S**, Noh SK, Koo SI. Green tea epigallocatechin gallate (EGCG) inhibits the luminal hydrolysis and lymphatic output of phosphatidylcholine (PC) and lowers the lymphatic absorption of fat and alpha-tocopherol in ovariectomized rats.
61. Experimental Biology Meeting, New Orleans, LA. April 2002. (Poster).  
Koo SI, **Wang S**, Noh SK. (+)-Catechin is a potent inhibitor than resveratrol of the intestinal absorption of cholesterol in ovariectomized rats.
62. Experimental Biology Meeting, Orlando, FL. April 2001. (Poster).  
**Wang S**, Noh SK, Koo SI. Green tea catechins inhibit pancreatic phospholipase A<sub>2</sub> activity *in vitro*.

## **TEACHING**

NS1301 Introduction to Nutrition (2009)  
NS1410 (online class) Science of Nutrition (2018-2020)  
NS4320 Nutritional Biochemistry (2009-2011)  
NS5118 Seminar (2012)  
NS5118/NS6118 Professional Communication Seminar (2016)  
NS5327 Lipids in Nutrition (2009-2014)  
NS5350 Nutritional Pathophysiology (2008-2015)  
NS5380 Carbohydrates and Proteins in Nutrition (2008-2014)  
NS5370 Carbohydrates, Lipids and Proteins in Nutrition (2015-2019)  
NS6340 Nutrition and Chronic Diseases (2011-present)

## **RESEARCH SUPERVISION**

### **Graduate Students (Serve as a committee chair)**

#### PHD students

Zeynep Goktas (Graduated in May 2013)  
Jia Zhang (Graduated in December 2015)  
Jie Liu (Graduated in August 2018)  
Yujiao Zu (Graduated in December 2018)  
Mehrnaz Abbasi (Current PhD student)

#### MS students

Rita Castillo-Cohen (Graduated in May 2011)  
Priyanka Bapat (Graduated in May 2011)  
Dhruti Patel (Graduated in August 2011)  
Ming Sun (Graduated in December 2012)  
Caraline Trotter (Graduated in May 2013)  
Chathurika Samudani Dhanasekara (Graduated in May 2016)

### **Doctoral student achievements (National and international recognitions are in blue)**

#### **Zeynep Goktas** (Graduated in May 2013)

- [Tenured Associate Professor at Hacettepe University, Ankara, Turkey, \(2018-present\)](#)

- The Scientific and Technological Research Council of Turkey (TUBITAK) 2219 Postgraduate Research Fellowship, (2018-2019)
- Tenure-track Associate Professor at Hacettepe University, Ankara, Turkey, (2013-2018)
- Outstanding Abstract Award, Food and Nutrition Conference and Expo™ (FNCE®), Philadelphia, PA, USA. (2018)
- Outstanding Young Researcher Award, 1st International Food and Medicine Congress, Ankara, Turkey. (2018)
- Outstanding Presentation Award, Turkish Society of Bariatric and Metabolic Surgery, Antalya, Turkey. (2015)
- Maeker Human Science Scholarship, Texas Tech University (2012-2013)
- Margaret Carter Human Science Scholarship, Texas Tech University (2011-2013)
- TTU Graduate School Designated Scholarship, Texas Tech University (Summer 2012)
- Harden Human Science Scholarship, 2011-2012, Texas Tech University
- Weddle Scholarship, Texas Tech University (2011-2012)
- McPherson Human Science Scholarship, Texas Tech University (2010-2011)
- Outstanding Faculty Member Award by Student Disability Services, Texas Tech University (Fall 2010)

**Jia Zhang** (Graduated in December 2015)

- Outstanding Leadership and Service Award, North America Chinese Society for Nutrition (NACSN), San Diego, California. (2016)
- Phenolic Research Award by PhenHRIG (Plant Phenolics and Human Health Research Interest Group), Experimental Biology conference, Boston. (2015)
- Paul Whitfield Horn Fellowship Award, Texas Tech University (2015)
- Summer Dissertation Research Award, Texas Tech University (2015)
- Mina Lamb Doctoral Fellowship, Texas Tech University (2011-2015)
- Second Place, in Thirteenth Annual Graduate Student Research Poster Competition, Texas Tech University (2014)

**Jie Liu** (Graduated in August 2018)

- TTU Presidential scholarship (2015-2018)

**Yujiao Zu** (Graduated in December 2018)

- Co-inventor of patent application entitled “Particles for Targeted Delivery Of Active Agents Into Adipose Stromal Cells” (PCT/US2019/019036, filed on 02/21/2019)
- Awarded winner in the American Society of Nutrition’s Graduate Student Research Award Competition, Nutrition 2018 - ASN’s Annual Meeting (2018)

More than 600 graduate students have applied this award. The nine finalists presented their research as an e-poster, and one winner was selected in each of three categories: basic science, clinical research and population research. Zu won the basic category along with a \$500 travel grant and a \$100 award, placing her as the top graduate student in the nation within this ASN competition.

- Entrepreneurial Lead in the funded NSF I-Corps project entitled “Burning fat by nanoparticles for obesity treatment (FatBuringNano™)” (2018-2019)
- Received USANA Travel Award from North American Chinese Society for Nutrition during the American Society of Nutrition (ASN)’s Annual Meeting, Nutrition 2018
- Awarded 2nd place in the American Society of Nutrition’s 4th Emerging Leaders in Nutrition Science Poster Competition, Nutrition 2018- ASN’s Annual Meeting (2018)
- Graduate student of the month in college of human science, Texas Tech University, Lubbock, TX (2017)
- North America Chinese Society for Nutrition (NACSN) travel award program review committee. (2016)
- Finalist to participate American Society of Nutrition’s Emerging Leaders in Nutrition Science Poster Competition, Experimental Biology Meeting, Boston, MA (2015)

### **Fang Zhou (Fall 2021-present)**

#### **Mehrnaz Abbasi (Graduated in August 2020)**

- First place winner in the Methods and Protocols topical area of the 5th Emerging Leaders in Nutrition Science Poster Competition (ELPC) in Nutrition 2018 - ASN’s Annual Meeting (2019)
- Thesis/Dissertation Research Award (Summer 2019 )
- Study Abroad Competitive Scholarship (Fall 2019)
- Graduate Student Research Support Award (Spring 2019)
- Jack and Mildred Buchanan Nutritional Sciences Scholarship (2018-2019 )
- Cash Family Endowed Graduate Fellowship (2018-2019)
- TTU Parent Fam Relations Scholarship (2018-2019 )
- TTU Human Sciences Graduate Students of the Month (June 2018 )

### **Postdoctoral Researchers and Visiting Scholars**

Dr. Shufang Nie (2012 to 2014)

Dr. Md Nazir Hossen (2014 to 2015)

Dr. Chunzi Liang (2015 to 2016)

Dr. Xianrong Xu (2018)

Dr. Zeynep Goktas (2018-2019)

Dr. Yujiao Zu (January 2019 to June 2020)

Dr. Mehrnaz Abbasi (January 2021 to present)

Dr. Qiaobin Hu (August 2021 to present)

### **Research Assistant Professor**



Dr. Lei Hao (2016 to 2019)

### **Visiting Doctoral Students**

Chuan Li (2014 to 2015)

Jun Cao (2014 to 2015)

### **Undergraduate Students**

Iswarya Srinivasan (2009)

Shemika Shedd (2009) -- TTU Plains Bridges to the Baccalaureate (PBB) Program

Shavia Curry (2012 to 2013) -- TTU Plains Bridges to the Baccalaureate (PBB) Program

Joyce Chumo (2014) – TTU National Wind Resource Center summer student program

Taylor Brooks (2014 to 2015)

Leslee Castro (summer 2015)

Sabra Williams (2018) -- TTU undergraduate student in the honor college

Caitlin Tayag (2019-2020) -- TTU undergraduate student in the honor college

Sophia Beckett (2019-2020) -- TTU undergraduate student in the honor college

Ashley Selman (2019-2020) -- TTU undergraduate student in the honor college

Austin Taylor (2021-present) -- ASU undergraduate student

Gracie Swensen (2021-present) -- ASU undergraduate student in the honor college

Jerryck Ordyna (2021-present) -- ASU undergraduate student in the honor college

### **Doctoral Dissertation Committee Member**

Natalie Hensarling (Graduated in 2011)

Nutritional Sciences

Yi Fang Chen (Graduated in 2013)

Nutritional Sciences

Elizabeth Domby (Graduated in 2013)

Animal and Food Sciences

Afnan Saaty (Graduated in 2014)

Nutritional Sciences

Suzy Tami (Graduated in 2015)

Nutritional Sciences

Shannon Owens-Malett (Graduated in 2014)

Nutritional Sciences

Hui Chang (Graduated in 2014)

Nutritional Sciences

Navya Gurajada (Graduated in 2014)

Nutritional Sciences

Hadil Subih (Graduated in 2014)

Nutritional Sciences

Monique Lemieux (Graduated in 2015)

Nutritional Sciences

Mandy Pepper-Yowell (Graduated in 2014)	Animal and Food Sciences
Pahlavani Mandana (Graduated in 2017)	Nutritional Sciences
Arwa Aljawadi (Graduated in 2017)	Nutritional Sciences
Kembra Albert (Graduated in 2018)	Nutritional Sciences
Md. Khurshidul Zahid (Graduated in 2018)	Nutritional Sciences
Ashlee Taylor (Graduated in 2017)	Nutritional Sciences
Md Jasim Uddin (Graduated in 2018)	Chemical Engineering
Jongkyoo Kim (Graduated in 2017)	Animal and Food Sciences
Whitney D. Stuart-McGilvray (Graduated in 2018)	Animal and Food Sciences
Kimberly Wellmann (Graduated in 2019)	Animal and Food Sciences
Kalhara Menikdiwela (Graduated in 2020)	Nutritional Sciences

### **Master Thesis Committee Member**

Yi Fang Chen (Graduated in 2011)	Nutritional Sciences
Jenny Chen (Graduated in 2011)	Nutritional Sciences
Cassie Alvarado (Graduated in 2011)	Nutritional Sciences
Amanda Kozimor (Graduated in 2011)	Nutritional Sciences
Indrika Ranaweera (Graduated in 2012)	Nutritional Sciences
Wenbin Zhu (Graduated in 2013)	Environmental & Human Health
Arwa Aljawadi (Graduated in 2013)	Nutritional Sciences

## **SERVICE**

### **University Committee at ASU**

- Member of the Animal Users Advisory Committee (AUAC) (July 2021-June 2022)
- A panel reviewer of Limited Submissions Review: 2021 NSF NRT Review (January 2021)

### **College Committee at ASU**

- Chair of CHS Lab and Clinic Safety Committee (Fall 2021-present)
- A member of CHS Research Council
- Search committee chair for two basic nutrition faculty positions (Fall 2020-Spring 2022)
- A member of Metabolomics Search Committee (Fall 2021-Spring 2022)
- Lead the discussion in developing the strategic plan of basic nutrition science (Fall 2020-Spring 2021)
- A member of T/TT Personnel Committee (Ad Hoc Annual Review)

- A member of MHTT Student Engagement sub-committee
- A member of CHS TT committee

### **University Committees and Service at Texas Tech University (TTU)**

- A panel member of TTU VPR's Research Leadership Discussion Panel on Mentoring Grad Students and Postdocs (2020)
- TTU Tenure Hearing Committee (2019-present)
- TTU obesity research cluster (ORC) Advisory Board (2015-present)
- A panel reviewer for the TTU Chancellor's Council Distinguished Research Awards (2016 and 2018)
- A member of the Judging and Selection Committee of the TTU Obesity Research Cluster (May 2016 and May 2019)
- A Member of the Animal Care and Use Committee (2013-2015 academic year)
- The Convocations Committee (2013-2015 academic year)
- The Junior Faculty Expert Panel at TTU Young Investigator Forum Hosted by TTU Office of the Vice President for Research (February 24, 2012 and March 8, 2013).
- A Judge for Poster Presentations: TTU Undergraduate Research Conference (April 2012 and April 2013)
- Safety in Creative Activity Research and Scholarship Committee (2011 to 2013).

### **College Committee at TTU**

- Promotion and Tenure Committee (2015-present)
- Post Tenure Review Committee (2019-present)
- College Dean's Search Committee (2020)

### **Department Committees and Service at TTU**

- Technology/Website Committee at Nutritional Sciences Department (2015-present)
- Graduate Curriculum Committee at Nutritional Sciences Department (2013-present)
- Co-Advisor for TTU Graduate Nutrition Organization (2013-2016)
- Department Hygiene Officer (2010-2014)
- New Faculty Search Committees (2009, 2013, and 2017)

### **Professional Service**

#### National and international scientific conference service

- Chair of the International Forum hosted by North America Chinese Society for Nutrition (NACSN), the Chinese Nutrition Society (CNS) and the American Society of Nutrition (ASN) during Experimental Biology Meeting 2017 (2017) in Chicago, IL. (April 2017)
- Co-Chair in the Mini-symposium of Diet and Cancer: Animal and Molecular Studies at Experimental Biology Meeting in San Diego, CA. (April 2016)

- Co-Chair in the Mini-symposium of Effects of Dietary Bioactive Components in Animal Models of Obesity and Cardiometabolic Risk at Experimental Biology Meeting in Boston, MA. (April 2015)
- Co-Chair in the Mini-symposium of Nutrient-Gene Interactions: Lipids at Experimental Biology Meeting in Boston, MA. (April 2013)
- Co-Chair for Track 1: Nutritional Assessment and Basic Requirements; Track 3: Nutritional Disorders and Therapy; and Track 6: Stage-Specific Nutrition Requirements at International Conference and Exhibition on Nutritional Science & Therapy. Philadelphia, USA. (August 2012)

#### Grant reviewer

- Co-Chair of the Fellowships Basic Science 7 committee of American Heart Association (Fall 2020-Spring 2021)
- Co-Chair of the 2019-2020 Lipids Basic Science Fellowship committee of American Heart Association (2019)
- NIH study section member of Atherosclerosis and Inflammation of Cardiovascular System Study Section (2019 Spring)
- A panel reviewer in the Grant Review Panel of American Heart Association Transformational Project Award Basic Science (2019 Spring)
- A panel reviewer in the Grant Review Panel of American Heart Association LIPIDS & THROMBOSIS Basic Science (2017 – 2019)
- A panel reviewer in the grant Review Panel of American Heart Association LIPIDS & LIPOPROTEIN METABOLISM Basic Science from 2013 to 2017.
- An external reviewer for grants called “Mississippi Center for Food Safety and Post-Harvest Technology” at the Mississippi State University from April to May 2016.
- An external reviewer for TTU Obesity Research Cluster in June 2016.
- An external reviewer for Texas Department of Agriculture's Food and Fibers Research Grant Program in 2009.

#### Award reviewer

- A Reviewer for the Mary Swartz Rose Young Investigator Award applicants of the American Society of Nutrition (ASN) in November 2018.

#### Abstract reviewer

- Review 96 Abstracts for Scientific Sessions 2013, the Annual Conference of American Heart Association (2013).

#### Manuscript reviewer for the following journals

- Nanomedicine: Nanotechnology, Biology, and Medicine
- Journal of Controlled Release

- Nutrition Research
- Journal of Medicinal Food
- The Journal of Nutritional Biochemistry
- PLOS ONE
- Advances in Nutrition
- Journal of Diabetes & Metabolism
- Marine Drugs
- Journal of Liposome Research
- International Journal of Obesity
- Journal of Agricultural and Food Chemistry
- International Journal of Nanomedicine
- Nutrition Reviews
- Drug Design, Development and Therapy
- International Journal of Pharmaceutics

#### Book reviewer

TTU President's Book Award Reviewer (2011)

#### **Other services**

- Immediate Past President of the North America Chinese Society for Nutrition (2019-2020)
- President of the North America Chinese Society for Nutrition (NACSN) (2018-2019)
- Judge of oral research presentation of the 5<sup>th</sup> obesity research cluster conference at TTU (2019)
- Judge for the 5th Emerging Leaders in Nutrition Science Poster Competition during Nutrition 2019 conference, American Society for Nutrition (2019)
- Reviewer for the Mary Swartz Rose Young Investigator Award, American Society for Nutrition (2018)
- Judge for the 4th Emerging Leaders in Nutrition Science Poster Competition during Nutrition 2018 conference, American Society for Nutrition (2018)
- Reviewer panel of TTU Chancellor's Council Distinguished Research Award, Texas Tech University (2016 and 2018)
- Vice president of the North America Chinese Society for Nutrition (NACSN) (2017-2018)
- Secretary of the North America Chinese Society for Nutrition (NACSN) (2016-2017)
- Chair of the Award Committee of the North America Chinese Society for Nutrition (NACSN) (2016-2017)
- Co-chair of Award Committee of the North America Chinese Society for Nutrition (NACSN) (2015-2016)
- Award committee member of the North America Chinese Society for Nutrition (NACSN) (2015)

- Community Service: Taste of Science Exhibition at Lubbock Science Spectrum Saturday, November 7th, 2015
- Graduate Dean's Representative for the following PhD Candidates: Lixia Chen, Yi-Hua Yuan, Shery L. Mahon and Jianbin Wu at TTU (2009-present).
- A Graduate and Postdoctoral Mentor at Experimental Biology Meeting on April 23, 2012 in San Diego Convention Center, San Diego, CA. I have mentored one graduate from University of Connecticut and one postdoctoral research associate from North Carolina A&T State University.

## **MEDIA**

- Texas Tech Today on September 5, 2019 entitled "Researcher Develops Method to Prevent, Even Reverse Obesity"  
<https://today.ttu.edu/posts/2019/09/Stories/researcher-develops-method-prevent-reverse-obesity>
- KCBD on September 5, 2019 entitled "Researcher Develops Method to Prevent, Even Reverse Obesity"  
<https://www.kcbd.com/2019/09/05/texas-tech-researcher-develops-method-prevent-even-reverse-obesity/>
- Tufts Nutrition magazine in Winter 2019. Entitled "Top Docs"  
<http://sites.tufts.edu/nutrition/winter-2019/top-docs/>
- Texas Tech Today on April 27, 2017 entitled "Two Nutritional Sciences Faculty Honored at Experimental Biology Conference"  
<http://today.ttu.edu/posts/2017/04/nutritional-sciences>
- Texas Tech University Office of the Vice President for Research Discoveries Magazine in May 2016 entitled "Texas Tech researchers fight multi-front war on global obesity epidemic."  
<https://www.depts.ttu.edu/vpr/discoveries/>
- Texas Tech News Stories on February 11, 2015 entitled "Chancellor's Council Honors Top Faculty at Texas Tech"  
<http://www.texastech.edu/stories/15-02-chancellors-council-honors-top-faculty-at-texas-tech.php>
- Lubbock Avalanche-Journal on April 30, 2015 entitled "Nutritional Sciences Researcher Wins Grant to Study Obesity".  
<http://goo.gl/2QyTQF>  
Or  
<http://lubbockonline.com/filed-online/2015-04-30/nutritional-sciences-researcher-wins-grant-study-obesity#.Vx-C4zGK3sa>
- Texas Tech Today on April 30, 2015 entitled "Nutritional Sciences Researcher Wins \$400K NIH Grant to Study Obesity".  
<http://goo.gl/sSIkhh>  
Or

<http://today.ttu.edu/posts/2015/04/nutritional-sciences-researcher-wins-grant-to-study-obesity>

- Lubbock Avalanche-Journal on June 2, 2015 entitled “Local Researcher Targets Obesity Cells”.

<http://goo.gl/dWWJcz>

Or

<http://m.lubbockonline.com/local-news/2015-06-02/local-researcher-targets-obesity-cells#gsc.tab=0>