

Xuewen Wang, PhD

Address:
921 Assembly St., Room 304/305
Columbia, SC 29208

Office: 803-777-7272
Email: xwang@mailbox.sc.edu

EDUCATION

- Postdoctoral 2008-2010, Metabolism
Center for Human Nutrition
Washington University School of Medicine, St. Louis, MO
- 2005-2008, Exercise Physiology/Gerontology
Section on Gerontology and Geriatric Medicine
Wake Forest University School of Medicine, Winston-Salem, NC
- Graduate PhD (2006), Educational Research/Exercise Physiology,
Outside Supporting Field: Epidemiology
University of Miami, Coral Gables, FL
- MSEd (2002), Exercise Physiology
University of Miami, Coral Gables, FL
- Undergraduate Bachelor of Medicine (1996)
Beijing Medical University, China
(Presently Peking University Health Science Center)

PROFESSIONAL EMPLOYMENT AND EXPERIENCE

- 2019 -- *Associate Professor*, Department of Exercise Science, School of Public Health, University of South Carolina, Columbia, SC
- 2012 – 2018 *Assistant Professor*, Department of Exercise Science, School of Public Health, University of South Carolina, Columbia, SC
- 2010 – 2011 *Research Assistant Professor*, Division of Geriatrics and Nutritional Science, Washington University School of Medicine, St. Louis, MO
- 2008 – 2010 *Research Associate*, Center for Human Nutrition, Washington University School of Medicine, St. Louis, MO
- 2005 – 2008 *Research Fellow*, Section on Gerontology and Geriatric Medicine, Wake Forest University School of Medicine, Winston-Salem, NC
- Summer 2003 *Physical Activity Epidemiology Intern*, National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention (CDC), Atlanta, GA
- 2002 – 2003 *Cardiovascular Rehabilitation Intern*, Miami Cardiac & Vascular Institute, Baptist Hospital, Miami, FL
- 1999 – 2005 *Graduate Assistant*, Clinical and Applied Physiology Laboratory, Department of Exercise and Sport Sciences, University of Miami, Coral Gables, FL
- 1996 – 1999 *Clinician*, Internal Medicine, Beijing Jiu Xian Qiao Hospital, China

University of South Carolina Wang (PI) 05/23/16-07/27/16
This Summer 2016 SMART (Support for Minority Advancement in Research Training) Program provided support for faculty to train under-represented minority undergraduate students and their recruitment into graduate programs at USC. Student: Sumpter

NIH/NIA R00AG031297 Wang (PI) 06/15/12-05/31/16
Energy expenditure responses to acute and chronic exercise in older women

The goal of the R00 phase of this K99/R00 Pathway to Independence (PI) award was to determine whether older women experience greater energy expenditure compensation in response to higher-dose vs. lower-dose chronic exercise.

SMART via eBioScience Porter (PI) 07/01/15-12/31/15
Time course of chronic inflammation markers in older women following aerobic exercise

This Student Mentor Academic Research Training award provides reagents for a project.
Role: Mentor

USC Magellan Scholar Award Greer (PI) 01/01/14-12/31/14
The effect of sleep deprivation on glucose metabolism

This pilot project will examine the effect of sleep duration on glucose metabolism by observing concentrations of glucose, insulin and other factors involved in glucose metabolism after shortened sleep during the week and after recovery with sufficient sleep during the weekend using oral glucose tolerance tests in young adults.

Role: Mentor

USC Magellan Mini-Grant Greer (PI) 12/02/13-12/15/14
The effect of sleep deprivation on glucose metabolism

The Megellan Mini-Grant provides funds for an undergraduate student to work on a research project.
Role: Mentor

USC Magellan Apprentice Greer (PI) 12/02/13-12/15/14
The effect of sleep deprivation on glucose metabolism

The Megellan Apprentice provides additional funds for an undergraduate student to work on a research project.

Role: Mentor

NIH K99 AG031297 Wang (PI) 09/15/09-8/31/12
Energy expenditure responses to acute and chronic exercise in older women

The goal of the K99 phase was to determine whether energy expenditure responses to acute energy balance challenges--induced by two separate bouts of aerobic exercise at two different intensities--are different in older women. A secondary goal was to determine whether an acute bout of aerobic exercise improved multi-organ insulin sensitivity assessed by hyperinsulinemic-euglycemic clamp procedure in conjunction with stable isotope tracers.

Washington University ICTS JIT1135 Wang (PI) 07/21/10-07/20/11
Energy expenditure responses to acute exercise in older women

The Institute of Clinical and Translational Sciences (ICTS) provided funding for laboratory-based biochemical assays needed to complete the NIH K99 project.

NIH P50 HD057796 Mittendorfer (Project PI) 06/01/08-12/31/11
Sex hormones, sleep and metabolic dysfunction in women

The main purpose of this program project was to evaluate the effects of polycystic ovary syndrome and obstructive sleep apnea on triglyceride metabolism and the control of lipid metabolism by sex hormones and glucocorticoids. Very-low-density lipoprotein kinetics was quantified using stable isotope tracers and compartmental modeling.

Role: Research Associate, lead and conduct the study and prepare publications

American Heart Association 0885048N Wang (PI) 07/01/08-6/30/10

Effects of exercise training on prevalence of metabolic syndrome in the elderly

The Lifestyle Interventions and Independence for Elders Pilot (LIFE-P) study was a multi-site, single-blinded, randomized, controlled clinical trial that compared a 12-month physical activity intervention with a non-exercise successful aging health education intervention in elderly (70-89 years), nondisabled, community-dwelling men and women at risk for physical disability. This project was an ancillary to the LIFE-P study that determined whether a physical activity intervention decreased the prevalence and severity of the metabolic syndrome more than the non-exercise health education intervention.

Wake Forest University GCRC 0450 Wang (Co-PI) 03/2007-06/2008

Ageing-related differences in energy expenditure in response to acute exercise

This pilot study refined the existing energy expenditure assessment protocols and gathered preliminary data that were used for a research grant submission.

NIH R01 AG/DK20583 Nicklas (PI) 09/01/05-05/31/08

Exercise and regional fat metabolism after menopause

This study determined the cellular mechanisms by which exercise intensity affected the loss of abdominal, compared to gluteal, adipose tissue under conditions of equal energy deficit in postmenopausal women with abdominal obesity.

Role: Research Fellow, oversee exercise intervention, conduct physical activity and resting energy expenditure measurements, perform laboratory experiments involving human subcutaneous adipose tissue, manage database

PUBLICATIONS

1. Charity Breneman*, Christopher Kline, Delia West, Xuemei Sui, **Xuewen Wang**. The Effect of Structured Exercise on Sleep During the Corresponding Night Among Older Women in an Exercise Program. *J Aging Phys Act*. 2018 Dec 3:1-23. doi: 10.1123/japa.2018-0194.
2. Kimberly Bowyer*, James A. Carson, J. Mark Davis, **Xuewen Wang**. The influence of exercise training dose on fasting acylated ghrelin concentration in older women. *J Behav Med*. 2018 Nov 17. doi: 10.1007/s10865-018-9990-z.
3. Justin P. Hardee, Dennis K. Fix, **Xuewen Wang**, Edie C. Goldsmith, Ho-Jin Koh, James A. Carson. Systemic IL-6 regulation of eccentric contraction-induced muscle protein synthesis. *Am J Physiol Cell Physiol*. 2018 Jul 1;315(1):C91-C103. doi: 10.1152/ajpcell.00063.2018. Epub 2018 Apr 11.
4. **Xuewen Wang**, Joshua Sparks, Kimberly Bowyer, Shawn Youngstedt. Sleep Restriction During 8-Week Caloric Restriction on Outcomes Associated with Weight Loss. *Sleep*. 2018 May 1;41(5) <https://doi.org/10.1093/sleep/zsy027>.
5. Charity Breneman*, Christopher Kline, Delia West, Xuemei Sui, Ryan Porter, Kimberly Bowyer, Sabra Custer, **Xuewen Wang**. The effect of moderate-intensity exercise on nightly variability in objectively measured sleep parameters among older women. *Behav Sleep Med*. 2017 Oct 20. Doi: 10.1080/15402002.2017.1395337
6. **Xuewen Wang**, Kimberly Bowyer, Ryan Porter, Charity Breneman, Sabra Custer. Energy expenditure responses to exercise training in older women. *Physiol Rep*. 2017 Aug;5(15).

7. **Xuewen Wang**, Julian Greer, Ryan Porter, Kamaljeet Kaur, Shawn Youngstedt. Short-term moderate sleep restriction decreases insulin sensitivity in young healthy adults. *Sleep Health*. 2016;2:63-8. DOI: 10.1016/j.sleh.2015.11.004
8. Robin P. Shook, Gregory A. Hand, Amanda E. Paluch, **Xuewen Wang**, Robert Moran, James R. Hebert, John M. Jakicic, Steven N. Blair. High respiratory quotient is associated with increases in body weight and fat mass in young adults. *Eur J Clin Nutr*. Epub 2015 Nov 25. Doi: 10.1038/ejcn.2015.198.
9. **Xuewen Wang**, Tongjian You, Karin Murphy, Mary F. Lyles, Barbara J. Nicklas. Addition of Aerobic Exercise to Caloric Restriction Increases Adiponectin in Circulation and Release from Adipose Tissue in Postmenopausal Women. *Med Sci Sports Exerc*. 2015;47(11):2450-5.
10. Charity B. Breneman*, Khosrow Heidari, Sarah Butler, Ryan Porter, **Xuewen Wang**. Evaluation of the effectiveness of the H.A.N.D.S.SM program – a school nurse diabetes management training program. *J School Nur*. 2015;31(6):402-410
11. Anda Botosaneanu, Walter T. Ambrosius, Daniel P. Beavers, Nathalie de Rekeneire, Stephen Anton, Timothy Church, Sara C. Folta, Bret H. Goodpaster, Abby C. King, Barbara J. Nicklas, Bonnie Spring, **Xuewen Wang**, Thomas M. Gill – for the LIFE Study Group. Prevalence of Metabolic Syndrome and Its Association with Physical Capacity, Disability, and Self-Rated Health among Lifestyle Interventions and Independence for Elders (LIFE) Study Participants. *J Am Geriatr Soc*. 2015; 63(2):222-32.
12. Tongjian You, **Xuewen Wang**, Karin Murphy, Mary Lyles, Jamehl Demons, Rongze Yang, Da-Wei Gong, Barbara Nicklas. Regional differences in subcutaneous adipose tissue hormone/cytokine production before and after weight loss. *Obesity*. 2014;22(7):1679-84.
13. Robin Shook, Gregory Hand, **Xuewen Wang**, Amanda Paluch, Robert Moran, James Hébert, Damon Swift, Carl Lavie, Steven Blair. Low fitness partially explains differences in resting metabolic rate between African American and white young adult women. *Am J Med*. 2014;127:436-42.
14. Robin Shook, Gregory Hand, Amanda Paluch, **Xuewen Wang**, Robert Moran, James Hébert, Carl Lavie, Steven Blair. Moderate cardiorespiratory fitness is positively associated with resting metabolic rate among young adults. *Mayo Clin Proc*. 2014;89(6):763-71.
15. **Xuewen Wang**, Shawn Youngstedt. Sleep quality improved following a single session of moderate-intensity aerobic exercise in older women. *J Sport Health Sci*. 2014;3:338-342.
16. Edward Archer, Gregory Hand, James Hébert, Erica Lau, **Xuewen Wang**, Robin Shook, Raja Fayad, Carl Lavie, Steven Blair. Validation of a novel protocol for calculating estimated energy requirements and average daily physical activity ratio for the US population: 2005-2006. *Mayo Clin Proc*. 2013;88(12):1398-1407.
17. **Xuewen Wang**, Bruce Patterson, Janine Kampelman, Dominic Reeds, Shelby Sullivan, Bettina Mittendorfer. A ~60-min brisk walk increases insulin-stimulated glucose disposal but has no effect on hepatic and adipose tissue insulin sensitivity in older women. *J Appl Physiol*. 2013 Jun;114(11):1563-8.
18. Arlette Perry, **Xuewen Wang**, Ronald Goldberg, Robert Ross, and Loreto Jackson. Androgenic sex steroids contribute to metabolic risk beyond intra-abdominal fat in overweight/obese black and white women. *Obesity*. 2013;21(8):1618-24.
19. Tongjian You, **Xuewen Wang**, Rongze Yang, Mary Lyles, Dawei Gong, Barbara Nicklas. Effect of exercise training intensity on adipose tissue hormone sensitive lipase gene expression in obese women undergoing weight loss. *J Sport Health Sci*. 2012;1(3):184-90.
20. **Xuewen Wang**, Faidon Magkos, Bruce Patterson, Dominic Reeds, Janine Kampelman, Bettina Mittendorfer. Low-dose dexamethasone administration for 3 weeks favorably affects plasma HDL

concentration and composition but does not affect very low density lipoprotein kinetics. *Eur J Endocrinol.* 2012; 167(2):217-23.

21. **Xuewen Wang**, Sharina Belani, Daniel Coyne, Elisa Fabbri, Dominic Reeds, Bruce Patterson, Bettina Mittendorfer, Samuel Klein. Very low density lipoprotein metabolism in patients with chronic kidney disease. *Cardiorenal Med.* 2012 Feb;2(1):57-65.
22. **Xuewen Wang**, Gordon Smith, Bruce Patterson, Dominic Reeds, Janine Kampelman, Faidon Magkos, Bettina Mittendorfer. Testosterone administration increases muscle protein synthesis rate but does not affect very-low-density lipoprotein metabolism in obese premenopausal women. *Am J Physiol Endocrinol Metab.* 2012; 302(6):E740-6
23. **Xuewen Wang**, Fang-Chi Hsu, Scott Isom, Michael Walkup, Stephen Kritchevsky, Bret Goodpaster, Timothy Church, Marco Pahor, Randall Stafford, Barbara Nicklas. Effects of a 12-month physical activity intervention on prevalence of metabolic syndrome in elderly men and women. *J Gerontol Med Sci.* 2012;67A(4):409-16.
24. Tongjian You, Beth Disanzo, **Xuewen Wang**, Rongze Yang, Da-Wei Gong. Adipose tissue endocannabinoid system gene expression: depot differences and effects of diet and exercise. (In press) *Lipids Health Dis.* 2011;10:194 Doi: 10.1186/1476-511X-10-194
25. **Xuewen Wang**, Faidon Magkos, Bettina Mittendorfer. Sex differences in lipid and lipoprotein metabolism: it's not just about sex hormones. *J Clin Endocrinol Metab.* 2011; 96:885-893.
26. Kristen Beavers, Mary Lyles, Cralen Davis, **Xuewen Wang**, Daniel Beavers, Barbara Nicklas. Is lost lean mass from intentional weight loss recovered during weight regain in postmenopausal women? *Am J Clin Nutr.* 2011; 94: 767-74. Doi: 10.3945/ajcn.110.004895
27. Tina Brinkley, **Xuewen Wang**, Noriaki Kume, Hirokazu Mitsuoka, Barbara Nicklas. Caloric restriction, aerobic exercise training, and soluble lectin-like oxidized LDL receptor-1 levels in overweight and obese postmenopausal women. *Int J Obes.* 2011; 35(6):793-9. doi:10.1038/ijo.2010.199.
28. **Xuewen Wang**, Barbara Nicklas. Acute impact of moderate-intensity and vigorous-intensity exercise bouts on daily physical activity energy expenditure in postmenopausal women. *J Obes.* Vol 2011; Article ID 342431. Doi: 10.1155/2011/342431.
29. Arlette Perry, **Xuewen Wang**, Ronald Goldberg, Robert Ross, Loreto Jackson. Racial disparities between the sex steroid milieu and the metabolic risk profile. *J Obes.* Vol. 2010; Article ID 174652, 2010. doi:10.1155/2010/174652.
30. **Xuewen Wang**, Tongjian You, Rongze Yang, Mary Lyles, Jamehl Demons, Da-Wei Gong, Barbara Nicklas. Muscle strength is associated with adipose tissue gene expression of inflammatory adipokines in postmenopausal women. *Age Ageing.* 2010; 39:656-659.
31. Faidon Magkos, **Xuewen Wang**, Bettina Mittendorfer. Metabolic actions of insulin in men and women. *Nutrition.* 2010; 26:686-93. doi:10.1016/j.nut.2009.10.013
32. **Xuewen Wang**, Tongjian You, Leon Lenchik, Barbara Nicklas. Resting energy expenditure changes with weight loss: Racial differences. *Obesity.* 2010;18(1):86-91. Epub 2009 May 28. doi:10.1038/oby.2009.163.
33. Janet Fulton, **Xuewen Wang**, Michelle Yore, Susan Carlson, Deborah Galuska, Carl Caspersen. Television viewing, computer use, and BMI among U.S. children and adolescents. *J Phys Act Health.* 2009;6(Suppl 1), S28-S35.

34. **Xuewen Wang**, Arlette Perry, Batya Elbaum, Kent Burnett, Hariharan Swaminathan. Psychometric properties of a scale to measure menopause-related symptoms in two ethnicities. *Climacteric*. 2009; 12(4):341-351.
35. Barbara Nicklas, **Xuewen Wang**, Tongjian You, Mary Lyles, Jamehl Demons, Linda Easter, Michael Berry, Leon Lenchik, Jeffery Carr. Effect of exercise intensity on abdominal fat loss during caloric restriction in overweight and obese postmenopausal women: a randomized, controlled trial. *Am J Clin Nutr*. 2009; 89(4):1043-52.
36. **Xuewen Wang**, Mary Lyles, Tongjian You, Michael Berry, Jack Rejeski, Barbara Nicklas. Weight regain is related to decreases in physical activity during weight loss. *Med Sci Sports Exerc*. 2008; 40(10):1781-8.
37. Arlette Perry, **Xuewen Wang**, Yi-Tzu Kuo. Measuring body fat and linking measurements to metabolic syndrome. *Ethn Dis*. 2008; 18(2):235.
38. Arlette Perry, **Xuewen Wang**, Yi-Tzu Kuo. Anthropometric correlates of metabolic syndrome components in a diverse sample of overweight/obese women. *Ethn Dis*. 2008; 18(2):163-8.
39. Arlette Perry, **Xuewen Wang**, Ronald Goldberg, Robert Ross, Loreto Jackson. The relationship between cardiometabolic and hemostatic variables: influence of race. *Metabolism*. 2008;57(2):200-6.
40. **Xuewen Wang**, Gary Miller, Stephen Messier, Barbara Nicklas. Knee strength maintained despite loss of lean body mass during weight loss in older obese adults with knee osteoarthritis. *J Gerontol A Biol Sci Med Sci*. 2007; 62(8): 866-71.
41. **Xuewen Wang**, Arlette Perry. Metabolic and physiological responses to video game play in 7- to 10-year old boys. *Arch Pediatr Adolesc Med*. 2006; 160 (4): 411-5.
42. Arlette Perry, Evelyn Rosenblatt, **Xuewen Wang**. Physical, behavioral, and body image characteristics in a tri-racial group of adolescent girls. *Obes Res*. 2004; 12(10): 1670-9.
43. Arlette Perry, **Xuewen Wang**, Brandon Feldman, Tiffany Ruth, Joseph Signorile. Can laboratory-based tennis profiles predict field tests of tennis performance? *J Strength Cond Res*. 2004; 18(1): 136-43.
44. Maria Solano, Arlette Perry, **Xuewen Wang**, Robert Ross, Ronald Goldberg. Insulin resistance but not visceral adipose tissue is associated with plasminogen activator inhibitor type 1 levels in overweight and obese premenopausal African-American women. *Int J Obes*. 2003; 27 (1): 82-7.
45. Arlette Perry, Tomoki Okuyama, Kijoji Tanaka, Joseph Signorile, Ted Kaplan, **Xuewen Wang**. A comparison of health and fitness-related variables in a small sample of children of Japanese descent on 2 continents. *Arch Pediatr Adolesc Med*. 2002; 156(4):362-8.

Other Publications

46. **Xuewen Wang**. The development of the scale Women's Health Appraisal to address middle-aged women's menopausal symptoms. *Dissertations from ProQuest*. 2006; Paper 2494. <http://scholarlyrepository.miami.edu/dissertations/2494>.

Underlined names* are student first authors that I have directly mentored. Underlined names are student first authors whose research I have helped with.

TEACHING AND MENTORING

COURSES CURRENTLY TEACHING

EXSC 585 Women's Health and Physical Activity

MENTEE HONORS AND AWARDS

- Joshua Sparks, *Doctoral Student Research Award Finalist*, Southeast American College of Sports Medicine annual meeting, 2019
- Joshua Sparks, *I AM PUBLIC HEALTH*, Arnold School of Public Health, August 2018
- Joshua Sparks, *Second Prize Student Research Award*, American College of Sports Medicine Aging Interest Group/Strategic Health Initiative on Aging, 2018
- Ryan Porter, *Second Place Poster Award*, BRIC Council of Exercise and Sports Science Conference, 2017
- Joshua Sparks, *recipient of SPARC Graduate Research Grant by Univ. South Carolina*, 2017
- Charity Breneman, *Finalists for Best Poster Award*, Southeast American College of Sports Medicine annual meeting, 2016.
- Charity Breneman, *Second Place in Student/Fellow/Resident Research and Projects category*, Annual Diabetes Fall Symposium for Primary Health Care Professionals, 2015
- Ryan Porter, *Third Place for Future Leaders Poster Award*, Asia Pacific Conference on Exercise & Sports Science, 2015
- Joshua Sparks, *Arnold School Graduate Fellowship*, 2015-2016
- Ryan Porter, *recipient of SMART (Student Mentor Academic Research Training) Award sponsored by eBioscience*, 2015
- Charity Breneman, *inductee for 2015 Delta Omega Honorary Society in Public Health, Mu Chapter (honorary society for graduate students in public health)*.
- Ryan Porter, *Arnold School Graduate Fellowship*, 2014-2015
- Julian Greer, *First Place*, Exercise Science & Physical Education Category, University of South Carolina Discovery Day, 2014
- Julian Greer, *recipient of Magellan Scholar, Magellan Mini-Grant and Magellan Apprentice Awards by Univ. South Carolina*, 2014
- Charity Breneman, *Doctoral Student Research Award Finalist*, Southeast American College of Sports Medicine annual meeting, 2013