

Contact Information

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Education

1987-1990 Pre-Exercise Science, State University of New York at Buffalo (Buffalo, NY)
1990-1992 BS Physical Education (Concentration in Exercise Physiology), East Stroudsburg University of Pennsylvania (East Stroudsburg, PA), Cum Laude
1992-1994 MS Physical Education (Concentration in Exercise Physiology), Ball State University (Muncie, IN)
1994-1997 PhD Education (Concentration in Exercise Science), University of Tennessee at Knoxville (Knoxville, TN)

Professional Positions

1992-1994 Graduate Research Assistant, Human Performance Laboratory, Ball State University
1994-1997 Graduate Teaching Associate, Exercise Science Unit, University of Tennessee
1997-1998 Assistant Professor, Department of Physical Education, Southern Illinois University at Carbondale
1998 Adjunct Lecturer, Department of Exercise and Sport Sciences, University of Florida
1998-2002 Postdoctoral Research Associate, Department of Medicine, Division of Endocrinology and Metabolism, University of Florida
2002-2003 Research Assistant Professor, Department of Medicine, Division of Endocrinology and Metabolism, University of Florida
2003-2008 Assistant Professor, Department of Epidemiology and Interdisciplinary Graduate Program in Nutritional Sciences, University of Washington
2008-2015 Associate Professor, Department of Epidemiology and Interdisciplinary Graduate Program in Nutritional Sciences, University of Washington
2009-2015 Member of the Interdisciplinary Group for the Interdisciplinary PhD Program in Urban Design and Planning, Department of Urban Design and Planning, University of Washington
2012-2015 Graduate Program Coordinator (GPC), Interdisciplinary Graduate Program in Nutritional Sciences, University of Washington
2013-2015 Director, University of Washington Twin Registry, Department of Epidemiology, University of Washington
2015-pres Professor (with tenure), Department of Nutrition and Exercise Physiology and Elson S. Floyd College of Medicine, Washington State University – Health Sciences Spokane
2015-pres Chair, Department of Nutrition and Exercise Physiology, Washington State University – Health Sciences Spokane

- 2015-pres Director, Washington State Twin Registry, Washington State University – Health Sciences Spokane
- 2015-pres Affiliate Professor, Department of Epidemiology and University of Washington and Interdisciplinary Graduate Program in Nutritional Sciences, University of Washington

Scholarships, Fellowships, Honors, and Awards

- 1991 Phi Epsilon Kappa (East Stroudsburg University)
- 1997 Excellence in Exercise Science Award (University of Tennessee-Knoxville)
- 1999 American Heart Association Postdoctoral Fellowship (University of Florida)
- 2002 NIH Research Scientist Development Award (University of Florida)
- 2016 Provost's Leadership Academy (Washington State University)

Professional Activities

Memberships in Professional Organizations and Certifications

- 1991-pres Adult CPR Certification
- 1992-pres American College of Sports Medicine
- 2000-pres American Diabetes Association
- 2001-pres American College of Sports Medicine, Registered Clinical Exercise Physiologist (RCEP, Certification #177)
- 2012-pres Society for Epidemiologic Research
- 2012-pres International Society for Twin Studies (ISTS)

Manuscript Reviewer

- 1994-pres Invited reviewer for numerous journals, including *Med Sci Sports Exer*, *Arch Ped & Adolesc Med*, *JAMA*, *Pediatrics*, *Twin Res Hum Genet*, *SIG CHI 2015 (Seoul, Korea conference proceedings)*

Committees, Councils, Boards, Invited Expert Panels, and Study Sections

- 2005 Fitness Steering Committee – member (Seattle Public Schools)
- 2007 NIH Scientific Review Panel – member (ZRG1 HOP-D 50-S, Diet and Physical Activity Assessment), June 14-15
- 2009 Objective Measurement of Physical Activity: Best Practices and Future Directions, invited expert, NIH Main Campus, Natcher Conference Center, July 20-21
- 2011 NIH Scientific Review Panel – member (ZRG1 PSE-C (04) M, Population Sciences and Epidemiology), June 28-29
- 2014 NIH Scientific Review Panel – ad-hoc member (Neurological, Aging, and Musculoskeletal Epidemiology (NAME) Study Section), October 9-10
- 2014-pres NIH Scientific Review Panel – member, Time Sensitive Obesity Policy Reviews, 10/23/14 (ZDK1-GRB-1-J4; 2 applications), 02/23/15 (ZDK1-GRB-1-M5; 1 application), 10/23/17 (ZDK1-GRB-1-J4; 2 applications)
- 2014-2015 NIH (NHGRI) PhenX Toolkit – invited expert for obesity/adiposity working group
- 2016 Wellcome Trust, Biomedical Resources Grant Reviewer – invited peer reviewer for Biomedical Resources Grant (April cycle)

2016 NIH Scientific Review Panel – member, Molecular Transducers of Physical Activity Clinical Centers (ZRG1-BDCN-B-51), July 11

Institutional Affiliations

2003-2015 Affiliate Investigator, Clinical Nutrition Research Unit, University of Washington
2003-2015 Affiliate Investigator, Diabetes Endocrinology Research Center, University of Washington
2003-2015 Affiliate Scientist, Health Promotion Research Center, University of Washington
2006-2015 Investigator, Center for Clinical & Epidemiological Research, University of Washington
2015-pres Investigator, IREACH (Initiative for Research and Education to Advance Community Health) Washington State University – Health Sciences Spokane

Summary of Scholarly Productivity (to-date)

- 114 published scholarly works including 81 peer-reviewed research articles
- Google Scholar h-index = 32; i10-index = 56
- \$29,163,561 in total costs obtained from grants having a direct writing contribution (PI, co-PI, or co-Investigator); \$6,300,111 in total costs obtained from grants as PI or co-PI

Bibliography

Peer-reviewed Research Articles

* Indicates role as co-mentor for primary author.

† Indicates role as mentor for primary author.

1. Del Corral P, Mahon AD, **Duncan GE**, Howe CA, Craig BW. The effects of exercise on serum and salivary cortisol in male children. *Med Sci Sports Exerc* 1994; 26:1297-1301.
2. **Duncan GE**, Mahon AD, Howe CA, Del Corral P. Plateau in oxygen consumption at maximal exercise in male children. *Ped Exerc Sci* 1996; 8:77-86.
3. **Duncan GE**, Mahon AD, Gay JA, Sherwood JJ. Physiological and perceptual responses to graded treadmill and cycle exercise in male children. *Ped Exerc Sci* 1996; 8:251-258.
4. Bassett DR, Jr, Ainsworth BE, Leggett SR, Mathien CA, Main JA, Hunter DC, **Duncan GE**. Accuracy of five electronic pedometers for measuring distance walked. *Med Sci Sports Exerc* 1996; 28:1071-1077.
5. Mahon AD, Del Corral P, Howe CA, **Duncan GE**, Ray ML. Physiological correlates of 3-kilometer running performance in male children. *Int J Sports Med* 1996; 17:580-584.
6. **Duncan GE**, Howley ET, Johnson BN. Applicability of VO₂max criteria: discontinuous vs. continuous protocols. *Med Sci Sports Exerc* 1997; 29:273-278.
7. Tanaka H, West KA, **Duncan GE**, Bassett DR, Jr. Changes in plasma tryptophan / branched chain amino acid ratio in response to training volume variation. *Int J Sports Med* 1997; 18:270-275.
8. Bassett DR, Jr, Vachon JA, Kirkland AO, Howley ET, **Duncan GE**, Johnson KR. Energy cost of stair climbing and descending on the college alumnus questionnaire. *Med Sci Sports Exerc* 1997; 29:1250-1254.
9. Mahon AD, **Duncan GE**, Howe CA, Del Corral P. Blood lactate and perceived exertion relative to ventilatory threshold: boys vs. men. *Med Sci Sports Exerc* 1997; 29:1332-1337.

10. **Duncan GE**, Howley ET. Metabolic and perceptual responses to short-term cycle training in children. *Ped Exerc Sci* 1998; 10:110-122.
11. **Duncan GE**, Howley ET. Substrate metabolism during exercise in children and the “crossover concept”. *Ped Exerc Sci* 1999; 11:12-21.
12. **Duncan GE**, Sydemann SJ, Perri MG, Limacher MC, Martin AD. Can sedentary adults accurately recall the intensity of their physical activity? *Prev Med* 2001; 33:18-26.
13. **Duncan GE**, Hutson AD, Stacpoole PW. QUICKI does not accurately reflect changes in insulin sensitivity with exercise training. *J Clin Endocrinol Metab* 2001; 86:4115-4119.
14. **Duncan GE**, Hutson AD, Perri MG, Eckel RH, Stacpoole PW. Exercise training, without weight loss, increases insulin sensitivity and postheparin plasma lipase activity in previously sedentary adults. *Diabetes Care* 2003; 26:557-562.
15. **Duncan GE**, Anton SD, Newton RL, Jr., Perri MG. Comparison of perceived health to physiological measures of health in black and white women. *Prev Med* 2003; 36:624-628.
16. *Fuehrlein BS, Rutenberg MS, Silver JN, Warren MW, Theriaque DW, **Duncan GE**, Stacpoole PW, Brantly ML. Differential metabolic effects of saturated versus polyunsaturated fats in ketogenic diets. *J Clin Endocrinol Metab* 2004; 89:1641-1645.
17. **Duncan GE**, Perkins LA, Theriaque DW, Neiberger RE, Stacpoole PW. Dichloroacetate therapy attenuates the blood lactate response to submaximal exercise in patients with defects in mitochondrial energy metabolism. *J Clin Endocrinol Metab* 2004; 89:1733-1738.
18. **Duncan GE**, Li SM, Zhou XH A. Prevalence and trends of a metabolic syndrome phenotype among US adolescents, 1999-2000. *Diabetes Care* 2004; 27:2438-2443.
19. **Duncan GE**, Perri MG, Anton SD, Limacher MC, Martin AD, Lowenthal DL, Arning E, Bottiglieri T, Stacpoole PW. Effects of exercise on emerging and traditional cardiovascular risk factors. *Prev Med* 2004; 39:894-902.
20. **Duncan GE**, Li SM, Zhou XH. Age and kidney function are the primary correlates of fasting plasma total homocysteine levels in non-diabetic and diabetic adults. Results from the 1999-2002 National Health and Nutrition Examination Survey. *Nutr Metab (Lond)* 2005; 2:13. PMID: PMC1180469
21. **Duncan GE**, Li SM, Zhou XH. Cardiovascular fitness among U.S. adults: NHANES 1999-2000 and 2001-2002. *Med Sci Sports Exerc* 2005; 37:1324-1328.
22. **Duncan GE**, Anton SD, Sydemann SJ, Newton RL, Jr, Corsica JA, Durning PE, Ketterson TU, Martin AD, Limacher MC, Perri MG. Prescribing exercise at varied levels of intensity and frequency: a randomized trial. *Arch Int Med* 2005; 165:2362-2369.
23. †Sanders LF, **Duncan GE**. Population based reference standards for cardiovascular fitness among U.S. adults: NHANES 1999-2000 and 2001-2002. *Med Sci Sports Exerc* 2006; 38:701-707.
24. **Duncan GE**. Prevalence of diabetes and impaired fasting glucose among U.S. adolescents: National Health and Nutrition Examination Survey, 1999-2002. *Arch Ped Adolesc Med* 2006; 160:523-528.
25. Beresford SAA, Locke E, Bishop S, West B, McGregor BA, Bruemmer B, **Duncan GE**, Thompson B. Worksite study promoting activity and changes in eating (PACE): design and baseline results. *Obesity* 2007; 15(Suppl 1):4S-15S.
26. **Duncan GE**, Goldberg J, Noonan C, Moudon AV, Hurvitz P, Buchwald D. Unique environmental effects on physical activity participation: A twin study. *PLoS ONE* 2008; 3(4): e2019. PMID: PMC2291197

27. Denning T, Andrew A, Chaudhri R, Hartung C, Lester J, Borriello G, **Duncan GE**. BALANCE: towards a usable pervasive wellness application with accurate activity inference. In: *Proceedings of the 10th Workshop on Mobile Computing Systems and Applications* (Santa Cruz, California, USA, February 23-24, 2009). HotMobile '09. ACM, New York, NY, 1-6. PMCID: PMC2863147
28. **Duncan GE**, Goldberg J, Buchwald D, Wen Y, Henderson JA. Epidemiology of physical activity in American Indians in the Education and Research Towards Health cohort. *Am J Prev Med* 2009; 37:488-494. PMCID: PMC2803048
29. Lester J, Hartung C, Pina L, Libby R, Borriello G, and **Duncan G**. Validated caloric expenditure estimation using a single body-worn sensor. In *Proceedings of the 11th International Conference on Ubiquitous Computing* (Orlando, Florida, USA, September 30 - October 03, 2009). Ubicomp '09. ACM, New York, NY, 225-234.
30. Baker LD, Frank LL, Foster-Schubert K, Green PS, Wilkinson CW, McTiernan A, Plymate SR, Fishel MA, Watson GS, Cholerton BA, **Duncan GE**, Mehta PD, Craft S. Effects of aerobic exercise on mild cognitive impairment. A controlled trial. *Arch Neurol* 2010; 67:71-79. PMCID: PMC3056436
31. Baker LD, Frank LL, Foster-Schubert K, Green PS, Wilkinson CW, McTiernan A, Cholerton BA, Plymate SR, Fishel MA, Watson GS, **Duncan GE**, Mehta PD, Craft S. Aerobic exercise improves cognition for older adults with glucose intolerance, a risk factor for Alzheimer's disease. *J Alzheimers Disease* 2010; 22:569-579. PMCID: PMC3049111
32. Beresford SAA, Bishop SK, Brunner NL, **Duncan GE**, McGregor BA, McLerran DF, West BS, Thompson B. Environmental assessment at worksites after a multilevel intervention to promote activity and changes in eating: The PACE Project. *J Occup Environ Med* 2010; 52(1S):S22-S28. PMCID: PMC3261837
33. †Hughes DC, Andrew A, Denning T, Hurvitz P, Lester J, Beresford S, Borriello G, Bruemmer B, Vernez Moudon A, **Duncan GE**. BALANCE (Bioengineering Approaches to Lifestyle Activity and Nutrition Continuous Engagement): Developing new technology for monitoring energy balance in real-time. *J Diabetes Sci Technol* 2010; 4:429-434. PMCID: PMC2864179
34. **Duncan GE**. The "fit but fat" concept revisited: population-based estimates using NHANES. *Int J Behav Nutr Phys Act* 2010; 7:47. PMCID: PMC2885314
35. †Supplee JD, **Duncan GE**, Bruemmer B, Goldberg J, Wen Y, Henderson JA. Soda intake and osteoporosis risk in post-menopausal American Indian women. *Public Health Nutr* 2011; 14:1900-1906. PMCID: PMC4374544
36. **Duncan GE**, Lester J, Migotsky S, Goh J, Higgins L, Borriello G. Accuracy of a novel multi-sensor board for measuring physical activity and energy expenditure. *Eur J Appl Physiol* 2011; 111:2025-2032. PMCID: PMC3124601
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38. †O'Connell M, Buchwald DS, **Duncan GE**. Food access and cost in American Indian communities in Washington State. *J Am Diet Assoc* 2011; 111:1375-1379. PMCID: PMC3164540
39. Intille SS, Lester J, Sallis JF, **Duncan G**. New horizons in sensor development. *Med Sci Sports Exerc* 2012; 44(No. 1S):S24-S31. PMCID: PMC3245518

40. †Morse GS, **Duncan G**, Noonan C, Garrouette E, Santiago-Rivera A, Carpenter DO, Tarbell A. Environmental toxins and depression in an American Indian Community. *J Indigenous Research* 2012; 1:6.
41. Muus KJ, Baker-Demaray TB, Bogart TA, **Duncan GE**, Jacobsen C, Buchwald DS, Henderson JA. Physical activity and cervical cancer testing among American Indian women. *J Rural Health* 2012; 28:320-326.
42. **Duncan GE**, Dansie EJ, Strachan E, Munsell M, Huang R, Vernez Moudon A, Goldberg J, Buchwald D. Genetic and environmental influences on residential location in the U.S. *Health & Place* 2012; 18:515-519. PMCID: PMC3319489
43. *Fretts AM, Howard BV, McKnight B, **Duncan GE**, Beresford SA, Mete M, Eilat-Adar S, Zhang Y, Siscovick DS. Associations of processed meat and unprocessed red meat intake with incident diabetes: the Strong Heart Family Study. *Am J Clin Nutr* 2012; 95:752-758. PMCID: PMC3278249
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45. Strachan E, Hunt C, Afari N, **Duncan G**, Noonan C, Schur E, Watson N, Goldberg J, Buchwald D. University of Washington Twin Registry: Poised for the next generation of twin research. *Twin Res Hum Genet* 2013; 16:455-462. PMCID: PMC4505360
46. *Robinson-Cohen C, Littman AJ, **Duncan GE**, Roshanravan B, Ikizler TA, Himmelfarb J, Kestenbaum BR. Assessment of physical activity in chronic kidney disease. *J Renal Nutr* 2013; 23:123-131. PMCID: PMC3496802
47. **Duncan GE**, Lester J, Migotsky S, Higgins L, Borriello G. Measuring slope to improve energy expenditure estimates during field-based activities. *Appl Physiol Nutr Metab* 2013; 38:352-356. PMCID: PMC3753037
48. Moudon AV, Drewnowski A, **Duncan GE**, Hurvitz PM, Saelens BE, Scharnhorst E. Characterizing the food environment: Pitfalls and future directions. *Public Health Nutr* 2013; 16:1238-1243. PMCID: PMC3975130
49. *Enriquez E, **Duncan GE**, Schur E. Age at dieting onset, body mass index, and dieting practices: A twin study. *Appetite* 2013; 71:301-306. PMCID: PMC3913472
50. *Cash SW, **Duncan GE**, Beresford SA, McTiernan A, Patrick DL. Increases in physical activity may affect quality of life differently in men and women. *Qual Life Res* 2013; 22:2381-2388. PMCID: PMC3760977
51. Hurvitz PM, Moudon AV, Kang B, Saelens BE, **Duncan GE**. Emerging technologies for assessing physical activity behaviors in space and time. *Front Public Health* 2014; 2:2. PMCID: PMC3904281
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53. **Duncan GE**, McDougall CL, Dansie E, Garrouette E, Buchwald D, Henderson JA. Association of American Indian cultural identity with physical activity. *Ethn Dis* 2014; 24:1-7. PMCID: PMC3970840

54. **Duncan GE**, Mills B, Strachan E, Hurvitz P, Huang R, Moudon AV, Turkheimer E. Stepping towards causation in studies of neighborhood and environmental effects: How twin research can overcome problems of selection and reverse causation. *Health Place* 2014; 27:106-111. PMID: PMC4004691
55. Soares-Miranda L, Sattelmair J, Chaves P, **Duncan GE**, Siscovick D, Stein P, Mozaffarian D. Physical activity and heart rate variability in older adults: the Cardiovascular Health Study. *Circulation* 2014; 129:2100-2110. PMID: PMC4038662
56. *Fretts AM, Howard BV, McKnight B, **Duncan GE**, Beresford SAA, Mete M, Zhang Y, Siscovick DS. Life's Simple 7 and incidence of diabetes in a population at high risk for cardio-metabolic diseases: The Strong Heart Family Study. *Diabetes Care* 2014; 37:2240-2245. PMID: PMC4113167
57. Doescher MP, Lee C, Berke EM, Adachi-Mejia AM, Lee CK, Stewart O, Patterson DG, Hurvitz PM, Carlos HA, **Duncan GE**, Moudon AV. The built environment and utilitarian walking in small U.S. towns. *Prev Med* 2014; 69:80-86. PMID: PMC4312190
58. Barrington WE, Beresford SAA, Koepsell TD, Yanez ND, **Duncan GE**, McGregor BA, Bishop SK, Moudon AV. Worksite neighborhood and individual obesogenic behaviors: Findings among employees in the PACE trial. *Am J Prev Med* 2015; 48:31-41. PMID: PMC4418796
59. **Duncan GE**, Cash SW, Horn EE, Turkheimer E. Quasi-causal associations of physical activity and neighborhood walkability with body mass index: a twin study. *Prev Med* 2015; 70:90-95. PMID: PMC4274205
60. †Cohen-Cline H, Turkheimer E, **Duncan GE**. Access to green space, physical activity and mental health: a twin study. *J Epidemiol Community Health* 2015; 69:523-529. PMID: PMC4430417
61. *Jacob MM, Poole MJ, Gonzales K, Jim H, **Duncan GE**, Manson S. Exploring an American Indian participatory medical model. *J Particip Med* 2015; 7:e8.
62. Horn EE, Turkheimer E, Strachan E, **Duncan GE**. Behavioral and environmental modification of the genetic influence on body mass index: A twin study. *Behav Genet* 2015; 45:409-426. PMID: PMC445989
63. †Cohen-Cline H, †Lau R, Moudon AV, Turkheimer E, **Duncan GE**. Associations between fast-food consumption and body mass index: A cross-sectional study in adult twins. *Twin Res Hum Genet* 2015; 18:375-382. PMID: PMC4560337
64. Silventoinen K, Jelenkovic A, Sund R, et al. The CODATwins project: The cohort description of Collaborative project of Development of Anthropometrical measures in Twins to study macro-environmental variation in genetic and environmental effects on anthropometric traits. *Twin Res Hum Genet* 2015; 18:348-360. PMID: PMC4696543
65. Jelenkovic A, Yokoyama Y, Sund R, et al. Zygosity differences in height and body mass index of twins from infancy to old age: A study of the CODATwins project. *Twin Res Hum Genet* 2015; 18:557-570. PMID: PMC4605819
66. Watson NF, Horn E, **Duncan GE**, Buchwald D, Vitiello MV, Turkheimer E. Sleep duration and area-level deprivation in twins. *Sleep* 2016; 39:67-77. PMID: PMC4678336
67. Dinescu D, Horn EE, **Duncan G**, Turkheimer E. Socioeconomic modifiers of genetic and environmental influences on BMI. *Health Psychol* 2016; 35:157-166. PMID: PMC4913513
68. †Hwang LD, Hurvitz PM, Duncan GE. Cross sectional association between spatially measured walking bouts and neighborhood walkability. *Int J Environ Res Public Health* 2016; 13:412. PMID: PMC4847074

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70. Jelenkovic A, Sund R, Hur Y-M, et al. Genetic and environmental influences on height from infancy to early adulthood: An individual-based pooled analysis of 45 twin cohorts. *Sci Rep* 2016; 6:(article number)28496. PMID: PMC4917845
71. Silventoinen K, Jelenkovic A, Sund R, et al. Genetic and environmental effects on body mass index from infancy to the onset of adulthood: An individual-based pooled analysis of 45 twin cohorts participating in the CODATwins study. *Am J Clin Nutr* 2016; 104:371-379. PMID: PMC4962159
72. *Williams J, Townsend N, **Duncan G**, Drewnowski A. Participant experience using GPS devices in a food environment and nutrition study. *J Hunger Environ Nutr* 2016; 11:414-427.
73. Dinescu D, Turkheimer E, Beam C, Horn EE, **Duncan G**, Emery RE. Is marriage a buzzkill? A twin study of marital status and alcohol consumption. *J Fam Psychol* 2016; 30:698-707. PMID: PMC5014643
74. Jelenkovic A, Hur Y-M, Sund R, et al. Genetic and environmental influences on adult human height across birth cohorts from 1886 to 1994. *eLife* 2016; 5:e20320. PMID: PMC5156525
75. Strachan E, **Duncan G**, Horn E, Turkheimer E. Neighborhood deprivation and depression in adult twins: genetics and gene×environment interaction. *Psychol Med* 2017; 47:627-638. PMID: PMC5303704
76. Bogl LH, Jelenkovic A, Vuoksima E, et al. Does the sex of one's co-twin affect height and BMI in adulthood? A study of dizygotic adult twins from 31 cohorts. *Biol Sex Differ* 2017; 8:14.
77. Zadro JR, Shirley D, Pinheiro MB, Bauman A, **Duncan GE**, Ferreira PH. Neighborhood walkability moderates the association between low back pain and physical activity: a co-twin control study. *Prev Med* 2017; 99:257-263.
78. Silventoinen K, Jelenkovic A, Sund R, et al. Differences in genetic and environmental variation in adult body mass index by sex, age, time period and region: an individual-based pooled analysis of 40 twin cohorts. *Am J Clin Nutr* 2017; 106:457-466.
79. Eney AE, Tsang S, Delaney JA, Turkheimer E, Duncan GE. Cross-sectional association between soda consumption and body mass index in a community-based sample of twins. *Nut J* 2017; 16:48.
80. Rhew IC, Kosterman R, **Duncan GE**, Mair C. Examination of cross-sectional associations of neighborhood deprivation and alcohol outlet density with hazardous drinking using a twin design. *J Stud Alcohol* 2017; *In press*.
81. Silventoinen K, Jelenkovic A, Latvala A, et al. Education in twins and their parents across birth cohorts over 100 years: an individual-level pooled analysis of 42 twin cohorts. *Twin Res Hum Genet*; *In press*.

Other Published Scholarly Works (proceedings, policy reports, technical reports, invited topical reviews, book reviews, book chapters, editorials, letters to the editor)

1. **Duncan GE**, Hutson AD, Stacpoole PW. Response to M.J. Quon, QUICKI is not a useful and accurate index of insulin sensitivity following exercise training. *J Clin Endocrinol Metab* 2002; 87:950-951.
2. **Duncan GE**. Exercise, fitness, and cardiovascular disease risk in type 2 diabetes and the metabolic syndrome. *Current Diabetes Reports* 2006; 6:29-35.

3. Soares-Miranda L, Sattelmair J, Chaves P, **Duncan GE**, Siscovick D, Stein PK, Mozaffarian D. Author's reply to O Monfredi, H Zhang, MR Boyett. Physical activity and heart rate variability in older adults: the Cardiovascular Health Study. *Circulation* 2015; 131:e349-e350.

Funding History

Funded Projects as Principal or Co-Investigator (having a direct writing contribution)

1. Application of the crossover concept in children. **GE Duncan**, Principal Investigator, American College of Sports Medicine Foundation Doctoral Student Research Grant, \$2,474 total costs, role: PI, 05/01/96-04/30/97.
2. Dose response effect of exercise on insulin sensitivity and plasma lipase activity. **GE Duncan**, Principal Investigator, American Heart Association, Florida/Puerto Rico Affiliate Postdoctoral Fellowship (9920174V), \$73,500 total costs, role: PI, 07/01/99-06/30/01.
3. Dose response effect of exercise on insulin sensitivity and plasma lipase activity. **GE Duncan**, Principal Investigator, American College of Sports Medicine Foundation Polar Research Grant, \$10,000 total costs, role: PI, 07/01/99-06/30/01.
4. Kinetics of human homocysteine metabolism. **GE Duncan**, Principal Investigator, K01DK61999, \$347,562 total costs, role: PI, 08/01/02-06/30/07.
5. Reducing obesity at the workplace: a randomized trial. SAA Beresford, Principal Investigator, R01HL079491, \$4,076,873 total costs, role: co-Investigator, 09/30/04-06/30/11.
6. Preventing obesity in low income working adults. SAA Beresford, Principal Investigator, U54CA116847 (sub-project 5), \$561,368 total costs, role: co-Investigator, 09/01/08–08/31/10.
7. Fitness, fatness, and breast cancer biomarkers in overweight adolescent girls. **GE Duncan**, Principal Investigator, U54CA116847 (Developmental Core), \$48,092 total costs, role: PI, 09/01/06–08/31/07.
8. Ubiquitous computing for the measurement of physical activity. **GE Duncan**, Principal Investigator, R21AG028719, \$314,892 total costs, role: PI, 04/01/07–03/31/11.
9. Evaluation of the Lewis County healthy children project. **GE Duncan**, Principal Investigator, FA21713/A23548 (UW Subcontract with Centralia College, C Raff, PI), \$90,000 total costs, role: PI, 06/01/07–05/31/10.
10. BALANCE: bioengineering approaches for lifestyle activity and nutrition continuous engagement. **GE Duncan**, Principal Investigator, R21AG032232, \$647,522 total costs, role: PI, 09/30/07–07/31/11.
11. Building a unique national community based twin repository. D Buchwald, Principal Investigator, RC2HL103416, \$7,654,551 total costs, role: co-Investigator, 09/30/09-07/31/12.
12. Rural town walkability: measuring the effect of the built environment. M Doescher, Principal Investigator, R01HL103478, \$1,954,325 total costs, role: co-Investigator, 08/01/10 – 04/30/14.
13. Collaborative research infrastructure to transform school health. D Johnson, Principal Investigator, RC4HD066837, \$999,425 total costs, role: co-Investigator, 09/07/10 – 09/30/13.
14. TWINStudy of environment, lifestyle behaviors, and health. **GE Duncan**, Principal Investigator, R01AG042176, \$2,153,562 total costs, role: PI, 09/30/11 – 05/31/16.

15. Validation and application of portable particulate device in the UW Twin Registry. E Seto and **GE Duncan**, Co-Principal Investigators, R21ES024715, \$387,389 total costs, role: Co-PI, 03/01/15 – 08/31/17.
16. Community Health Analytics Initiative. B Shirazi, Principal Investigator, WSU Grand Challenges research initiative (Offices of Provost and Research), \$998,158 total costs, role: co-Investigator, 07/01/16 – 06/30/17.
17. Research Collaborative for Addressing Health Disparities. P Whitney, Principal Investigator, WSU Grand Challenges research initiative (Offices of Provost and Research), \$4,127,320 total costs, role: co-Investigator, 07/01/16 – 06/30/21.
18. Nutritional Genomics and Smart Foods. J Roll, Principal Investigator, WSU Grand Challenges research initiative (Offices of Provost and Research), \$2,491,430 total costs, role: co-Investigator, 07/01/16 – 06/30/21.
19. Developing Data on Environmental Drivers of Behavioral Risk and Inequalities in Health. P Monsivais and **GE Duncan**, Co-Principal Investigators, HERC (Health Equity Research Collaborative) Seed Grant, \$2,345 total costs (plus 1 semester HERC Graduate Student Fellow Award), role: co-PI, 07/01/17 – 06/30/18.
20. Validation and application of portable particulate device in the UW Twin Registry. E Seto and **GE Duncan**, Co-Principal Investigators, R33ES024715, \$1,533,109 total costs, role: Co-PI, 09/01/17 – 08/31/20.
21. TWINStudy of environment, lifestyle behaviors, and health. **GE Duncan**, Principal Investigator, R56AG042176, \$689,664 total costs, role: PI, 09/30/17 – 08/31/18.

Consultancies (paid and unpaid)

1. Cognitive effects of aerobic exercise for older adults with impaired glucose tolerance: a controlled trial. Laura Baker, Principal Investigator. American Diabetes Association, Clinical Research Award, 07/01/04-12/31/08, role: unpaid consultant.
2. Physical activity in the Cambodian community: an exploratory study. Victoria Taylor, Principal Investigator. R21HL094337, 09/30/09-07/31/11, role: paid consultant.
3. Alaska workplace solutions research project. Dedra Buchwald, Principal Investigator. R01CA126620, 09/01/11 – 08/30/12, role: unpaid member of data safety monitoring board.

Conferences, Lectures & Symposiums

Oral or Poster Presentations (published where indicated)

* Indicates role as co-mentor for primary author.

† Indicates role as mentor for primary author.

1. Del Corral P, Mahon AD, **Duncan GE**, Howe CA, Craig BW. Serum and salivary cortisol responses in male children performing aerobic exercise. Ped Exerc Sci 1993; 5(4):406. Joint meeting of the North American Society for Pediatric Exercise Medicine and European Group for Pediatric Work Physiology, Aliston, Ontario, Canada, September 18-22, 1993. Paper presented by AD Mahon.
2. **Duncan GE**, Mahon AD, Howe CA, Del Corral P. Plateau in oxygen consumption at maximal exercise in male children. Midwest Chapter of ACSM Winter Conference, Boyne Mountain, Boyne Falls, Michigan, February 2-4, 1994. Paper presented by GE Duncan.

3. **Duncan GE**, Mahon AD, Howe CA, Del Corral P. Plateau in oxygen consumption at maximal exercise in male children. *Med Sci Sports Exerc* 1994; 26:S209. American College of Sports Medicine Annual Meeting, Indianapolis, Indiana, June 1-4, 1994. Poster presented by GE Duncan.
4. Mahon AD, **Duncan GE**, Howe CA, Del Corral P. Metabolic responses in male children and adults during exercise relative to ventilatory threshold. *Ped Exerc Sci* 1995; 7(1):106. North American Society for Pediatric Exercise Medicine, Pittsburgh, Pennsylvania, August 12-14, 1994. Paper presented by AD Mahon.
5. **Duncan GE**, Mahon AD, Gay JA, Sherwood JJ. Physiological and perceptual responses to graded treadmill and cycle exercise in male children. *Ped Exerc Sci* 1995; 7(2):217-218. North American Society for Pediatric Exercise Medicine, Pittsburgh, Pennsylvania, August 12-14, 1994. Paper presented by GE Duncan.
6. Howley ET, **Duncan GE**. Energy Balance vs. Fat Balance: The Role of Exercise Southeast Chapter of ACSM Winter Conference, Chattanooga, Tennessee, February 1-3, 1996. Tutorial presented by ET Howley and GE Duncan.
7. Bassett DR, Jr, Leggett SR, Mathien CA, Main JA, Hunter DC, **Duncan GE**, Ainsworth BE. Accuracy of five electronic pedometers for measuring distance walked. *Med Sci Sports Exerc* 1996; 28:S52. American College of Sports Medicine Annual Meeting, Cincinnati, Ohio, May 29-June 1, 1996. Paper presented by DR Bassett.
8. **Duncan GE**, Howley ET, Johnson BN. Applicability of VO₂max criteria: discontinuous vs. continuous protocols. *Med Sci Sports Exerc* 1996; 28:S120. American College of Sports Medicine Annual Meeting, Cincinnati, Ohio, May 29-June 1, 1996. Paper presented by GE Duncan.
9. Bassett DR, Jr, Vachon JA, Kirkland AO, Howley ET, **Duncan GE**, Johnson KR. Energy cost of stair climbing and descending on the college alumnus questionnaire. *Med Sci Sports Exerc* 1997; 29:S187. American College of Sports Medicine Annual Meeting, Denver, Colorado, May 27-31, 1997. Paper presented by DR Bassett.
10. Howley ET, **Duncan GE**, Del Corral P. Optimum intensity of exercise for fat oxidation. *Med Sci Sports Exerc* 1997; 29:S199. American College of Sports Medicine Annual Meeting, Denver, Colorado, May 27-31, 1997. Poster presented by ET Howley.
11. **Duncan GE**, Howley ET. Metabolic and perceptual responses to short-term cycle training in children. *Med Sci Sports Exerc* 1997; 29:S168. American College of Sports Medicine Annual Meeting, Denver, Colorado, May 27-31, 1997. Poster presented by GE Duncan.
12. **Duncan GE**, Sydeman SJ, Perri MG, Ernst M, Limacher MC, Martin AD. The seven-day physical activity recall overestimates exercise intensity and energy expenditure. *Circulation* 1999; 100(S1):I-823. American Heart Association, 72nd Scientific Sessions, Atlanta, Georgia, November 7-10, 1999. Poster presented by GE Duncan.
13. Beacham AO, de Hoyos D, **Duncan GE**, Sydeman SJ, Limacher M, Martin D, Lowenthal D, Perri MG. Obesity and perceived exertion during exercise. *Ann Behav Med* 2000; 22(Supplement):S157. Society of Behavioral Medicine's 21st Annual Meeting, Nashville, Tennessee, April 5-8, 2000. Poster presented by AO Beacham.
14. **Duncan GE**, Anton SD, Newton RL, Perri MG. Perceived health impact of weight and fitness in black and white women. *Ann Behav Med* 2001; 23(2001 Supplement):S017. Proceedings of the Society of Behavioral Medicine's 22nd Annual Meeting, Seattle, Washington, April 4-7, 2001. Poster presented by SD Anton.

15. *Hurt CB, Messina SA, Moorjani AV, Salerno JA, Wu EU, **Duncan GE**, Theriaque D, Hutson AD, Stacpoole PW. Functional relationship between insulin sensitivity and lactate threshold during graded exercise. Clinical Research 2001, Washington, D.C., March 8-11, 2001. Poster presented by SA Messina.
16. **Duncan GE**, Hutson AD, Stacpoole PW. QUICKI does not accurately reflect changes in insulin sensitivity with exercise training. Diabetes 2001; 50(Supplement 2):A222. American Diabetes Association, 61st Annual Sessions, Philadelphia, Pennsylvania, June 22-26, 2001. Poster presented by GE Duncan.
17. Corsica JA, Perri MG, Wolff GE, Park C, **Duncan GE**, Martin AD, Limacher MC, Kipersztok S. Greater body fat percentage, but not BMI, predicts poorer adherence to a 6-month exercise program. Ann Behav Med 2002; 24(Supplement):S118. Society of Behavioral Medicine's 23rd Annual Meeting, Washington, D.C., April 3-6, 2002. Poster presented by JA Corsica.
18. **Duncan GE**, Hutson AD, Perri MG, Eckel RH, Stacpoole PW. Sex differences among measures of glucose and lipid metabolism in sedentary adults. Clinical Research 2002, Baltimore, Maryland, April 10-13, 2002. Poster presented by GE Duncan.
19. Martin D, Perri M, Limacher M, **Duncan G**, Ketterson T, Sydeman S, Anton S, Yang M. Dose response of exercise intensity and frequency on fitness and CAD risk factors. Med Sci Sports Exerc 2002; 33(Supplement):S69. American College of Sports Medicine, 49th Annual Meeting, St. Louis, Missouri, May 29-June 1, 2002. Poster presented by D Martin.
20. **Duncan GE**, Hutson AD, Perri MG, Eckel RH, Stacpoole PW. Exercise training, without weight loss, increases insulin sensitivity and post-heparin plasma lipase activity in previously sedentary adults. Diabetes 2002; 51(Supplement 2):A61. American Diabetes Association, 62nd Annual Sessions, San Francisco, California, June 13-18, 2002. Paper presented by GE Duncan.
21. *Fuehrlein B, Rutenberg M, Silver J, Warren M, **Duncan G**, Brantly M. Differential metabolic effects of saturated versus polyunsaturated fats in ketogenic diets. J Invest Med 2003; 51:S374. Clinical Research 2003, Baltimore, Maryland, March 13-16, 2003. Poster presented by B Fuehrlein.
22. Perri MG, Martin AD, **Duncan GE**, Limacher MC, Anton SD, Sydeman SJ, Corsica JA, Newton RL, Ketterson TU. How much exercise is needed to improve cardiorespiratory fitness? Society of Behavioral Medicine's 24th Annual Meeting, Salt Lake City, Utah, March 19-22, 2003. Poster presented by MG Perri.
23. **Duncan GE**, Perkins LA, Theriaque DW, Neiberger RE, Stacpoole PW. Dichloroacetate improves parameters of aerobic function in patients with defects in mitochondrial energy metabolism. Med Sci Sports Exerc 2003; 35(Supplement): S97. American College of Sports Medicine, 50th Annual Meeting, San Francisco, California, May 28-31, 2003. Poster presented by GE Duncan.
24. **Duncan GE**, Goldberg J, Noonan C, Moudon AV, Hurvitz P, Buchwald D. Influence of unique environmental factors on physical activity participation: role of the built environment. Twin Res Human Genet 2007; 10(Supplement): S29. 12th International Congress on Twin Studies, Ghent, Belgium, June 7-10, 2007. Paper presented by GE Duncan.

25. Denning T, Andrew A, Chaudhri R, Hartung C, Lester J, Borriello G, **Duncan GE**.
BALANCE: towards a usable pervasive wellness application with accurate activity inference. International Conference on Mobile Systems, Applications and Services, 10th Workshop on Mobile Computing Systems and Applications, Santa Cruz, California, February 23-24, 2009. Paper presented by J Lester.
26. Baker L, Craft S, Frank L, Fishel M, Plymate S, McTiernan A, **Duncan G**, Cholerton B. Cognitive effects of aerobic exercise for older adults with impaired glucose tolerance: a controlled trial. *J Diabetes* 2009; 1(Supplement): A72. Paper presented by L Baker.
27. **Duncan GE**, Bogart A. "The "fit but fat" concept revisited: population-based estimates using NHANES. *Med Sci Sports Exerc* 2009; 41(Supplement): S229. American College of Sports Medicine's 56th Annual Meeting, Seattle, Washington, May 27-30, 2009. Poster presented by GE Duncan.
28. †Hughes DC, Andrew A, Chaudhri R, Denning T, Hartung C, Hurvitz P, Lester J, Beresford S, Borriello G, Bruemmer B, Moudon AV, **Duncan GE**. BALANCE: bioengineering approaches for lifestyle activity and nutrition continuous engagement. *Med Sci Sports Exerc* 2009; 41(Supplement): S275. American College of Sports Medicine's 56th Annual Meeting, Seattle, Washington, May 27-30, 2009. Poster presented by DC Hughes.
29. Hartung C, Chaudhri R, Goh J, Lester J, Migotsky S, Borriello G, **Duncan GE**. Validity and reliability of a multi-sensor board for measuring common physical activities. *Med Sci Sports Exerc* 2009; 41(Supplement): S609. American College of Sports Medicine's 56th Annual Meeting, Seattle, Washington, May 27-30, 2009. Poster presented by GE Duncan.
30. †Sanders LF, **Duncan GE**, Grenier E, Deuster PA. Attenuation of exertional muscle damage with a nutritional supplement. *Med Sci Sports Exerc* 2009; 41(Supplement): S578. American College of Sports Medicine's 56th Annual Meeting, Seattle, Washington, May 27-30, 2009. Poster presented by LF Sanders.
31. Beresford SAA, **Duncan GE**, McTiernan A, Henderson JA, Xiao L, Tamers S, McGregor B. Snacking and soda consumption are associated with weight for height in adults: The Move and Moderate in Balance (MOVE 'M) worksite randomized trial. International Society for Behavioral Nutrition and Physical Activity Annual Meeting, Lisbon, Portugal, June 2009. Paper presented by SAA Beresford.
32. Lester J, Hartung G, **Duncan G**, Borriello G. Validated caloric expenditure estimation using a single body-worn sensor. *UbiComp* 2009, 11th International Conference on Ubiquitous Computing, Orlando, Florida, June 6 - 7, 2009. Paper presented by J Lester.
33. Tamers SL, Beresford S, Bishop S, McGregor B, Bruemmer B, **Duncan G**, Thompson B. Is there an association between worksite social support, diet and body mass index? *Ann Behav Med* 2010; 39(Supplement):S88. Society of Behavioral Medicine's 31st Annual Meeting, Seattle, Washington, April 7-10, 2010. Paper presented by SL Tamers.
34. Baker LD, Frank LL, Foster-Schubert K, Green PS, Wilkinson CW, McTiernan A, Plymate SR, Fishel MA, Watson GS, Cholerton BA, **Duncan GE**, Mehta PD, Craft S. Aerobic exercise enhances executive function and alters plasma biomarkers in older adults at increased risk of progression to Alzheimer's disease. Alzheimer's Association International Conference on Alzheimer's Disease 2010, Honolulu, Hawaii, July 10-15, 2010. Paper presented by LD Baker.

35. *Fretts AM, Beresford SA, **Duncan GE**, McKnight B, Eilat-Adar S, Mete M, Howard BV, Siscovick DS. Heart Healthy Diet and incident impaired fasting glucose and type 2 diabetes in American Indians: The Strong Heart Family Study. American Heart Association's Nutrition, Physical Activity and Metabolism/Cardiovascular Disease Epidemiology and Prevention 2011 Scientific Sessions, Atlanta, Georgia, March 22-25, 2011. Poster presented by AM Fretts.
36. *Fretts AM, **Duncan GE**, McKnight B, Beresford SA, Eilat-Adar S, Calhoun D, Howard BV, Siscovick DS. Pedometer-determined steps/day and incident impaired fasting glucose and type 2 diabetes in American Indians: The Strong Heart Family Study. American Heart Association's Nutrition, Physical Activity and Metabolism/Cardiovascular Disease Epidemiology and Prevention 2011 Scientific Sessions, Atlanta, Georgia, March 22-25, 2011. Paper presented by AM Fretts.
37. *Fretts AM, Beresford SA, **Duncan GE**, McKnight B, Eilat-Adar S, Mete M, Howard BV, Siscovick DS. Saturated fat and processed meat consumption and incident impaired fasting glucose and type 2 diabetes in American Indians: The Strong Heart Family Study. American Heart Association's Nutrition, Physical Activity and Metabolism/Cardiovascular Disease Epidemiology and Prevention 2011 Scientific Sessions, Atlanta, Georgia, March 22-25, 2011. Poster presented by AM Fretts.
38. *Espinoza N, Littman A, **Duncan G**, Thompson B. The validity of a physical activity questionnaire in rural Hispanic diabetics. Society for Advancement of Hispanics/Chicanos and Native Americans in Science National Conference 2012, Seattle, Washington, October 10-14, 2012. Paper presented by N Espinoza.
39. Baker LD, Craft S, Cholerton B, Wilkinson CW, Foster-Schubert K, McTiernan A, Williamson JD, Sink KM, **Duncan GE**. Aerobic exercise effects on cognition in at-risk adult: role of insulin sensitivity and APOE-E4. *Alzheimers Dement* 2013; 9(Supplement):P690. Alzheimer's Association International Conference (AAIC) 2013, Boston, Massachusetts, July 13-18, 2013. Paper presented by LD Baker.
40. Hurvitz PM, Moudon AV, Saelens BE, Kang B, **Duncan GE**. Emerging technologies for assessing physical activity behaviors in space and time. Association of American Geographers (AAG) Annual Meeting 2014, Tampa, Florida, April 8-12, 2014. Poster presented by PM Hurvitz.
41. **Duncan GE**, Hurvitz PM, Moudon AV. TWINStudy of environment, lifestyle behaviors, and health. Invited symposium speaker for session titled "Charting new opportunities: Social environment & health research, organized by B. Deeds (NIH/NIDA) and W. Ellwood (NIH/OD). Association of American Geographers (AAG) Annual Meeting 2014, Tampa, Florida, April 8-12, 2014. Paper presented by GE Duncan.
42. Watson NF, Horn E, Buchwald D, Turkheimer E, Vitiello MV, Pack AI, **Duncan GE**. Sleep duration and social deprivation in twins. *Sleep* 2014; 37(Supplement):A77. SLEEP 2014, the 28th Annual Meeting of the Associated Professional Sleep Societies, LLC (APSS), Minneapolis, Minnesota, May 31-June 4, 2014. Paper presented by NF Watson.
43. **Duncan G**, Horn E, Turkheimer E. Behavioral and environmental modification of the genetic influence on body mass index: A twin study. *Behav Genet* 2014; 44:656. BGA 2014, the 44th Annual Meeting of the Behavior Genetics Association, Charlottesville, Virginia, June 18-21, 2014. Paper presented by GE Duncan.

44. **Duncan GE**, Cohen-Cline H, Lau R, Vernez-Moudon A, Horn EE, Turkheimer E. Fast food consumption and body mass index: A twin study. *Twin Res Hum Genet* 2014; 17(Special Issue 5):430-431. TWINS 2014: The Joint 3rd World Congress on Twin Pregnancy (A Global Perspective) & 15th Congress of the International Society of Twin Studies (ISTS), Budapest, Hungary, November 16-19, 2014. Paper presented by GE Duncan.
45. Watson NF, Horn E, Buchwald D, Turkheimer E, Vitiello MV, Pack AI, **Duncan GE**. Social deprivation and sleep symptoms in twins. *Sleep* 2015; 38 (Supplement):A243-244. SLEEP 2015, the 29th Annual Meeting of the Associated Professional Sleep Societies, LLC (APSS), Seattle, Washington, June 6-10, 2015. Paper presented by NF Watson.
46. Cohen-Cline H, **Duncan GE**. Stress as a mediator in the neighborhood deprivation-depression association: a twin study. *SER* 2015, the 48th Annual Meeting of the Society for Epidemiologic Research, Denver, Colorado, June 16-19, 2015. Paper presented by HC-Cline.
47. **Duncan GE**, Hurvitz P, Moudon AV. Use of twin research to untangle relationships among the built environment, health behaviors, and obesity. Conference on Geospatial Approaches to Cancer Control and Population Sciences, Bethesda MD, September 12-14, 2016. Paper presented by G Duncan.

Additional Invited Oral Presentations, Seminars, and Televised Interviews

1. Lifestyle Interventions and Type 2 Diabetes. Lion's Club of Alachua County Monthly Meeting, Gainesville, FL, February 2002.
2. Lifestyle Aspects in Type 2 Diabetes. Joint Adult/Pediatric Endocrinology Research Dinner, University of Florida, Gainesville, FL, July 2002.
3. Fitness, Fatness, and the Metabolic Syndrome. Nutrition and Physical Activity Affinity Group (NPAAG), University of Washington, Seattle, WA, April 2004.
4. Fitness, Fatness, and type 2 Diabetes in Youth. Seattle Diabetes Expo 2004, Seahawks Exhibition Center, Seattle, WA, May 2004.
5. Health Fair & Community Forum on Combating Childhood Obesity, Rainier Community Center, Seattle, WA, September 2004.
6. Learning Curve: Fit to Learn, KCTS Connects, KCTS Seattle Public Television, aired February 24, 2005.
7. Fitness, Fatness, and the Metabolic Syndrome in Youth. Georgia Prevention Institute, Medical College of Georgia, Augusta, GA, March 2005.
8. Fitness, Fatness, and the Metabolic Syndrome. CNRU/DERC Annual Retreat, University of Washington, Seattle, WA, March 2005.
9. Exercise Training Studies in Sedentary Adults. Exercise Physiology Study Group (Department of Medicine, Division of Pulmonary Medicine), University of Washington, Seattle, WA, December 2005.
10. Physical Activity and Physical Fitness. Seminar for "Get on Your Feet Week", Northwest Indian College, Bellingham, WA, May 2007.
11. Causes and Consequences of a Sedentary Lifestyle. General Clinical Research Center Annual Symposium, University of Washington, Seattle, WA, September 2007.
12. Pro Walk/Pro Bike 08: Transforming Communities. Panel presentation and discussion titled "Active Travel and the Environment". Participants included Anne Vernez Moudon (chair), Brian Saelens, Glen Duncan, and Phil Hurvitz. Seattle, WA, September 2008.

13. Merging Disciplines to Improve the Quality and Scientific Power of Data Collected in the Behavioral and Social Sciences. Urban Design and Planning Emerging Research Agendas Seminar Series, March 2009.
14. Twin Studies to Investigate the Influence of the Built Environment on Health. Institute for Public Health Genetics Spring 2011 Interactive Seminar (PHG 580), University of Washington, Seattle, WA, May 2011.
15. Twin Studies to Investigate the Influence of the Built Environment on Health. The Food Day Symposium, University of Washington, Seattle, WA, October 2011.
16. UW SPH Close Up. Close Up March 2013: Glen Duncan. School of Public Health, University of Washington, Seattle, WA, March 2013.
http://sph.washington.edu/news/closeup/profile.asp?content_ID=1932
17. GIS Lightning Talk (twin research). The 3rd Annual University of Washington GIS Day, University of Washington, Seattle, WA, November 2013.
18. The University of Washington Twin Registry: Using twins in Studies of Environment, Behaviors, and Health. Center for Studies in Demography and Ecology (CSDE) Autumn 2014 Seminar Series, University of Washington, Seattle, WA, October 2014.
19. NIH Grant Funding: The Good, the Bad and the Ugly. College of Applied Sciences and Technology NIH Workshop, Ball State University, Muncie, IN, February 2015.
20. Using Twins in Studies of Environmental Exposures, Behaviors, and Health. Human Performance Laboratory Visiting Scholar, Ball State University, Muncie, IN, February 2015.
21. Twin research: Innovations and opportunities for psychoneuroimmunology research. PNIRS: PsychoNeuroImmunology Research Society 2015, the 22nd Annual PNIRS Scientific Meeting, Seattle, Washington, June 3-6, 2015. Frontiers in PNI Lecture (Keynote oral presentation by D Buchwald and GE Duncan).
22. Socio-ecological Model of Health. Washington State University – Health Sciences Spokane Annual Health Fair, Spokane, WA, October 12, 2016.

Teaching History

Summary of Formal Course Instruction, 1994-2004

University of Tennessee, Laboratory Instructor for ES 480 (*Physiology of Exercise*), ES 414 (*Fitness Testing and Exercise Prescription*), and ES 567 (*Exercise Testing and Prescription*), 15-20 students per section, 100% responsibility, 1994-97

Southern Illinois University at Carbondale, Course Instructor for PE 101 (*Current Concepts of Physical Fitness*), PE 303 (*Kinesiology*), PE 304 (*Mechanical Basis of Human Movement*), PE 320 (*Physiological Basis of Human Movement*), and PE 380 (*Aerobics - Theory and Application of Aerobic Activity*), 15-20 students per course, 100% responsibility, 1997-98

University of Florida, Course Instructor for PET 3351 (*Physiology of Exercise and Training*), 60 students, 100% responsibility, Fall Semester 1998

Formal Course Instruction at the University of Washington (2004 – 2015)

Course	Credits	Title	Quarter	Students	Responsibility
NUTR 303	3	Neighborhood Nutrition	Win 2011	37	33%

NUTR 405	3	Physical Activity in Health & Disease	Spr 2006	16	100%
			Spr 2007	45	100%
			Spr 2009	67	100%
			Spr 2010	116	100%
			Spr 2011	114	100%
			Spr 2012	180	100%
			Spr 2013	177	100%
			Spr 2014	178	100%
			Spr 2015	176	100%
NUTR 500	1	Graduate Seminar	Spr 2004	25	100%
			Spr 2005	23	100%
			Aut 2005	17	100%
			Win 2006	18	100%
			Spr 2006	21	100%
			Win 2007	29	100%
			Aut 2012	17	100%
			Spr 2013	17	100%
NUTR 525	3	Evaluation of Nutrition Status	Aut 2004	11	100%
NUTR 529	3	Nutrition Research Design	Win 2005	4	50%
			Win 2006	7	100%
			Aut 2007	11	100%
			Aut 2008	2	100%
			Aut 2009	8	100%
			Aut 2010	7	100%
			Aut 2011	31	100%
			Aut 2012	38	100%
			Aut 2013	31	100%
NUTR 539	1	Journal Club	Aut 2004	5	100%
			Aut 2005	4	100%
			Aut 2006	5	100%

Formal Course Instruction at Washington State University (2016 – pres)

Course	Credits	Title	Semester	Students	Responsibility
NEP 479	3	Nutrition & Exercise Practicum I	Fall 2016	28	50%
NEP 482	3	Nutrition & Exercise Practicum II	Spring 2017	24	50%

NEP 520	3	Research Methods in Nutrition & Exercise Physiology	Spring 2017	19	100%
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Guest Lectures and Clinical Teaching

Carbohydrate and fat usage after aerobic training in children. Clinical & Health Psychology Teaching Conference, University of Florida, Department of Clinical & Health Psychology, Dec. 1998

Exercise science in pediatric medicine. Pediatric Teaching Conference, University of Florida, Department of Medicine, Oct. 2001

Kinetics of homocysteine metabolism in Type 2 Diabetes. Endocrinology Fellowship Journal Club, University of Florida, Department of Medicine, Sept. 2002

Kinetics of homocysteine metabolism in Type 2 Diabetes. NUTR 500 (*Graduate Seminar*), University of Washington, Nutritional Sciences Program, Oct. 2002

Application of exercise testing and prescription in endocrinology. Endocrinology Fellowship Journal Club, University of Florida, Department of Medicine, Apr. 2003

Clinical research at the University of Washington and Duncan research program. NUTR 500 (*Graduate Seminar*), University of Washington, Nutritional Sciences Program, Autumn Qrts., 2003-2013

Exercise metabolism. NUTR 520 (*Energy, Carbohydrate, and Protein Metabolism*), University of Washington, Nutritional Sciences Program, Autumn Qrt. 2004, Winter Qrt. 2006

Nutrition and exercise. NUTR 300 (*Nutrition for Today*), University of Washington, Nutritional Sciences Program, Autumn Qrt. 2005

Exercise and chronic disease. NUTR 562 (*Nutrition and Chronic Disease*), University of Washington, Nutritional Sciences Program, Spring Qrts., 2005-2009

Ubiquitous computing to measure activity and diets. NUTR 500 (*Graduate Seminar*), University of Washington, Nutritional Sciences Program, Winter Qrt., 2010

Assessing physical activity; Walkability; and Case Study (3 separate lectures). NUTR 303 (*Neighborhood Nutrition*), University of Washington, Nutritional Sciences Program, Winter Qrt., 2011

Physical activity and exercise. HSERV 100 (*Personal and Public Health*), University of Washington, Department of Health Services, Spring Qrt., 2012

Using twins in studies of environment, behaviors, and health. BIO A 483 (*Human Genetics, Disease, and Culture*), Department of Anthropology, Spring Qrt., 2015

An ecological framework for studying influences on lifestyle behaviors and health. Psych 486 / CptS 486 / CptS 580 (*Gerontechnology II*), Washington State University, School of Electrical Engineering and Computer Science, Spring semester, 2016

Using Twins in Studies of Environmental Exposures, Behaviors, and Health. CE 580 Seminar, Washington State University, Pullman, WA, October 14, 2016.

Formal Mentoring

PhD Committees

Student	Role	Title	Status
Leslee Sanders (Nutrition)	Chair	Attenuation of muscle damage with a nutritional supplement	Graduated, Spring 2007

Amanda Fretts (Epidemiology)	Member	Lifestyle and incident diabetes in American Indians: the Strong Heart Family Study	Graduated, Spring 2011
Cassy Robinson-Cohen (Epidemiology)	Member	Physical activity and kidney function in chronic kidney disease	Graduated, Summer 2012
Jorming Goh (Nutrition)	Member	Mitochondrial-targeted catalase (mCAT), physical activity and the tumor microenvironment in a mouse model of spontaneous metastatic breast cancer	Graduated, Autumn 2012
Hannah Cohen-Cline (Epidemiology)	Chair	Social environment and depression: A twin study	Graduated, Autumn 2015

MS/MPH Committees

Student	Role	Title	Status
Christine Chen Jensen (Epidemiology)	Chair	Development of a predictive model for insulin sensitivity using readily available clinical information	Graduated, Spring 2005
Acacia Larson (Nutrition)	Member	ClicKit! to reduce television in early childhood	Graduated, Winter 2006
Kirsten Leng (Nutrition)	Member	Assessing potential adolescent use of dance simulation games for physical activity	Graduated, Winter 2006
Bethany Folsom (Nutrition)	Chair	Effects of body weight change on C-reactive protein after exercise intervention	Graduated, Spring 2006
Carol Moores (Epidemiology)	Chair	Military rank as a risk factor for type 2 diabetes in military spouses	Graduated, Spring 2006
Janice Kao (Nutrition)	Member	Analysis of Washington State school nutrition and physical activity policies	Graduated, Summer 2006
Heather Hildebrant (Health Services)	Chair	Neighborhood characteristics and exercise regimen compliance	Graduated, Winter 2006

Joy Supplee (Nutrition)	Chair	Effects of soda consumption on bone mineral density in Native American women: Results from the EARTH cohort	Graduated, Winter 2008
Stephanie Whisnant (Epidemiology)	Chair	Dietary and physical activity behaviors in obesity discordant twins	Graduated, Spring 2009
Meghan O'Connell (Epidemiology)	Chair	Food availability and cost in American Indian reservation communities in Washington State	Graduated, Spring 2009
Jaime Waliczek (Nutrition)	Chair	Effects of energy-dense diets on metabolic and cardiovascular health in Native American adults	Graduated, Autumn 2009
Deonna Hughes (Nutrition)	Chair	Use of the bioengineering iterative cycle to improve usability of a cell phone device for measuring energy intake	Graduated, Autumn 2010
Jared Ulmer (Epidemiology)	Member	Associations among objectively-measured neighborhood traffic exposure, perceptions of neighborhood traffic conditions, and self-rated health	Graduated, Winter 2011
Heather Snively (Nutrition)	Chair	Validation of a mobile phone device for measuring energy balance	Graduated, Summer 2011
Julie White (Health Services)	Member	The influence of obesity on the expansion rate of small abdominal aortic aneurysm	Graduated, Summer 2011
Julianne Williams (Nutrition)	Member	Developing methods for using GPS devices in nutrition and health-related research	Graduated, Autumn 2011
Richard Lau (Nutrition)	Chair	Fast food consumption and the fast food environment	Graduated, Spring 2012
Noah Espinoza (Epidemiology)	Member	Validity of the International Physical Activity Questionnaire in a rural Hispanic population	Graduated, Spring 2012
Erin Enriquez (Nutrition)	Chair	Association between age of dieting onset and body mass index in twins	Graduated, Summer 2012

Jamie Kowatch (Nutrition)	Chair	Association between physical fitness and standardized test scores among elementary and middle school students	Graduated, Autumn 2012
Elisabet Eppes (Nutrition)	Member	Associations among grade, sex, and free and reduced price lunch with use of nutrition labels in middle and high school students	Graduated, Autumn 2012
Isabel Kanholm (Nutrition)	Chair	Access to green space and its association with physical activity	Graduated, Summer 2013
Liang-Dar Hwang (Nutrition)	Chair	Association between objectively measured walking bouts and neighborhood walkability	Graduated, Winter 2014
Anna Eney (Nutrition)	Member	Soda consumption and body mass index in twins	Graduated, Autumn 2015
Jessica Y. Jew (Nutrition)	Member	Food shopping trip characteristics before and after the light rail	Graduated, Winter 2016
Jamie Clayton (Nutrition)	Member	Comparison of Objectively and Subjectively Measured Sedentary Behavior in Men with Prostate Cancer and a History of Androgen-Deprivation Therapy Use	Graduated, Summer 2016

Postdoctoral Fellows

Fellow	Description	Status
Stacey Jolly, MD, MS	• Fellow in Native Elders Research Center (NERC); primary mentor Jan 2009 – Dec 2009	Completed program
Gayle Morse, PhD	• Fellow in Native Elders Research Center (NERC); primary mentor Jan 2010 – Dec 2010	Completed program
Michelle Jacob, PhD	• Fellow in Native Elders Research Center (NERC); primary mentor Jan 2011 – Dec 2011	Completed program
Hassan Ghasemzadeh, PhD	• Grant writing Uncovered: Maximizing Strategy, Help, Opportunities, Experiences (GUMSHOE); primary coach for Hassan in April 2016 Cohort	Completed program
Janessa Graves, PhD, MPH	• Grant writing Uncovered: Maximizing Strategy, Help, Opportunities, Experiences (GUMSHOE); primary coach for Janessa in April 2016 Cohort	Completed program

Demetrius Abshire, PhD	<ul style="list-style-type: none"> Grant writing Uncovered: Maximizing Strategy, Help, Opportunities, Experiences (GUMSHOE); primary coach for Demetrius in October 2016 Cohort 	Completed program
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Independent Studies

Student	Project Description	Status
Leslee Sanders (Spr-Sum Qrts. 2005, 5 cr.)	<ul style="list-style-type: none"> Draft and revision of a manuscript for peer-review (Population based reference standards for cardiovascular fitness among U.S. adults: NHANES 1999-2000 and 2001-2002) Preparation of human subjects applications for University of Washington and Madigan Army Medical Center (dissertation related work) 	Published Approved
Caitlin Murphy (Win-Spr Qrts. 2005, 3 cr.)	<ul style="list-style-type: none"> Draft and revision of a manuscript for peer-review (Cardiovascular fitness among U.S. adolescents: NHANES 1999-2002) 	Submitted for review (rejected)
Shoko Kumagai (Spr 2005, 2 cr.)	<ul style="list-style-type: none"> Draft of a manuscript for peer-review (Determinants of cardiovascular fitness among U.S. adults: NHANES 1999-2002) 	Not submitted for review
Leslee Sanders (Win 06, 2 cr.)	<ul style="list-style-type: none"> Collected background information concerning social determinants (income, routine dietary intake, compliance) that could affect dissertation study outcomes Modified human subjects applications for University of Washington and Madigan Army Medical Center 	Completed Approved
Leslee Sanders (Spr 06, 3 cr.)	<ul style="list-style-type: none"> Draft of a review article on nutritional supplements and exercise related muscle damage for submission to peer-reviewed journal 	Submitted for review (rejected)
Charles Mayer (Spr 06, 3 cr.)	<ul style="list-style-type: none"> Physical activity and health research (audit NUTR 505 <i>Physical Activity in Health & Disease</i> [Spring 06], help create a seminar course on physical activity for NUTR 500 <i>Graduate Seminar</i> [Winter Quarter 2007]) 	Completed
Alina Kostina (Aut 06-Win 07, 7 cr.)	<ul style="list-style-type: none"> Literature review and field work for thesis (Fitness, fatness, and breast cancer biomarkers in overweight adolescent girls) 	Completed

Jorming Goh (Spr 07, 7 cr.)	<ul style="list-style-type: none"> Independent study to gain hands-on experience with recruitment, scheduling, and screening of potential research subjects in an ongoing clinical study at the UW General Clinical Research Study Laboratory rotation to quantify thiol amino acid levels in human plasma using a mass spectrometry technique 	Completed Completed
Jack Hsiao (Aut 07-Win 08, 3 cr.)	<ul style="list-style-type: none"> Geocoding the University of Washington Twin Registry using walkscore.com 	Completed
Hannah Cohen-Cline (Aut 12-Sp 13, 12 cr.)	<ul style="list-style-type: none"> Literature review and development of a grant application for PhD dissertation and secondary data analysis for publication 	Completed

Undergraduate/Graduate Research or Practicum Students

1. Julio Ventura – Undergraduate Practicum Student, Department of Exercise and Sport Sciences, University of Florida, Summer 1999
2. Radha Ivanger – General Clinical Research Center Summer Intern, Department of Medicine, University of Florida, Summer 1999
3. Christopher Jamiolkowski – Undergraduate Practicum Student, Department of Exercise and Sport Sciences, University of Florida, Spring 2000
4. Kim Edwards - Undergraduate Practicum Student, Department of Exercise and Sport Sciences, University of Florida, Spring 2000
5. Timothy Jones - Graduate Practicum Student, Department of Exercise and Sport Sciences, University of Florida, Spring 2000
6. Carissa Dill – Undergraduate Practicum Student, Department of Exercise and Sport Sciences, University of Florida, Summer 2000
7. Eugene Stuckey – Undergraduate Practicum Student, Department of Exercise and Sport Sciences, University of Florida, Fall 2000
8. Hillary Talbott - Undergraduate Practicum Student, Department of Exercise and Sport Sciences, University of Florida, Fall 2000
9. Diego Munoz - Undergraduate Practicum Student, Department of Exercise and Sport Sciences, University of Florida, Fall 2001
10. Mark Elliot - Undergraduate Practicum Student, Department of Exercise and Sport Sciences, University of Florida, Spring 2002
11. Jacqueline Wong - NUTR/BIO 499 Student, Undergraduate Research, Spring and Summer Quarters, 2004
12. John Manuel - NUTR/BIO 499 Student, Undergraduate Research, Autumn-Spring Quarters, 2004-2005
13. Anna Russell – EPI 499 Student, Undergraduate Research, Winter-Spring-Autumn Quarters, 2014
14. Marlena Norwood – EPI 499 Student, Undergraduate Research, Spring Quarter, 2014

Other Mentoring & Student Activities

1. MD/PhD Class of 2003 – General Clinical Research Center Student Research Project, Department of Medicine, University of Florida, Summer 2000; manuscript based on project submitted for review (rejected)
2. MD/PhD Class of 2005 – General Clinical Research Center Student Research Project, Department of Medicine, University of Florida, Summer 2002; manuscript based on project published (see #16 in bibliography)
3. Sean Migotsky – University of Washington Undergraduate Research Program, Summer 2007 - Spring 2008; poster presentation at 11th Annual Undergraduate Research Symposium titled *Estimating energy expenditure using a multi-sensor board*
4. Marisa L. Sylvester – Graduate student representative on PhD supervisory committee, University of Washington, Summer 2009 – Summer 2012
5. Junqing Shang – Graduate student representative on PhD supervisory committee, University of Washington, Winter 2012 – Spring 2014

Service History

University and Professional Service

Faculty Advisor, Beta Theta Pi Fraternity (Southern Illinois University Carbondale), 1997-98

Homecoming Queen Court Judge (Southern Illinois University Carbondale), 1997

Faculty Advisor, Organization of Sport and Exercise Science (Southern Illinois University Carbondale, Department of Physical Education), 1997-98

Curriculum Committee - member (University of Washington, Interdisciplinary Graduate Program in Nutritional Sciences), 2003-pres

Admissions Committee - member (University of Washington, Interdisciplinary Graduate Program in Nutritional Sciences), 2003-05; 2012-pres

Admissions Committee - ad-hoc reviewer (University of Washington, Department of Epidemiology), 2003-pres

Advisory Board - member, *Certificate Program in Sports Medicine and Human Performance* (University of Washington Extension), 2003-07

Healthy Health Sciences Committee - member (University of Washington Health Science Center), 2004-05

Dinner with a Dawg Student-Athlete Mentoring Program (University of Washington), 2005

Education Committee - member (University of Washington Medical Center, Institute for Translational Health Sciences), 2005-pres

Curriculum Task Force - member (University of Washington, Department of Epidemiology), 2005-06

Curriculum Committee – course peer reviewer (University of Washington, Department of Epidemiology), Winter Quarter 2006, Autumn 2009

Nutrition Task Force – member (University of Washington, Department of Epidemiology), 2006

Department Chair Review – member (School of Public Health & Community Medicine, Department of Epidemiology, University of Washington), 2007

Grant Reviewer – Diabetes Endocrinology Research Center (DERC), Samuel and Althea Stroum Endowed Graduate Fellowship in Diabetes Research (University of Washington), 2010; Institute of Translational Health Sciences (ITHS), Small Pilot Committee (University of Washington), 2012

Obesity, Food, Physical Activity, and Health Working Group – member (University of Washington, School of Public Health, *SPH Strategic Plan 2012-2020*), April-June 2012

Obesity, Food, Physical Activity, and Health Faculty Search Committee – Co-chair (University of Washington, School of Public Health, *SPH Strategic Plan 2012-2020*), July 2012 – 2013

Health Sciences News and Communications, High School Students Visiting Health Sciences – Faculty presenter for Graham Kapowsin High School group (University of Washington, School of Public Health), October 18, 2012

Omenn Award Selection Committee – member (University of Washington, School of Public Health), April 2014

Liaison Council for Undergraduate Program Assessment – member (Washington State University – Health Sciences Spokane, Nutrition & Exercise Physiology Program), August 2015 – 2017

Curriculum Committee – chair (Washington State University – Health Sciences Spokane, Nutrition & Exercise Physiology Program), October 2015-present

Instruction & Laboratory Support Technician 2 Search Committee – chair (Washington State University – Health Sciences Spokane, Nutrition & Exercise Physiology Program), December 2015 – July 2016

Academic Coordinator Search Committee – member (Washington State University – Health Sciences Spokane, Nutrition & Exercise Physiology Program), June – August 2016.

Director of Development Search Committee – member (Washington State University – Health Sciences Spokane), July – Sept 2016

Faculty Senate – Faculty Senator for Elson S. Floyd College of Medicine (Washington State University – Health Sciences Spokane), February 2017 – 2020 (elected to 3-year term)

Research Involving Student Access (RISA) Committee – member (Elson S Floyd College of Medicine, Washington State University – Health Sciences Spokane), September 2017 – present

Drive to 25 R&D Expenditures Department Chairs and Directors Working Group – Washington State University, September 2017

Tenure and Promotion Reviews

1. Nancy Potter, Department of Speech and Hearing Sciences, Elson S. Floyd College of Medicine, Washington State University, May 2016
2. Sterling McPherson, Department of Applied Sciences, Elson S. Floyd College of Medicine, Washington State University, October 2016
3. Kenneth Roberts, Biomedical Sciences, Elson S. Floyd College of Medicine, Washington State University, October 2016

Community Service

TEAM Diabetes, American Diabetes Association, Gainesville area coach, 2002-03

Research and Development Committee - member (*Family Works*, Wallingford-Fremont Public Association, Seattle, WA), 2004-05