### Christopher E. Kline, Ph.D. Curriculum Vitae

## **CONTACT INFORMATION**

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#### **EDUCATION and TRAINING**

NHLBI Postdoctoral Research Fellowship, Sleep and Chronobiology Translational Research Training in Sleep Medicine T32 Department of Psychiatry, University of Pittsburgh, Pittsburgh, PA	2010-2013
<b>Ph.D., Exercise Science</b> (Applied Physiology concentration) Department of Exercise Science, University of South Carolina, Columbia, SC Dissertation: <i>The Effect of Exercise Training on the Severity and Health</i> <i>Consequences of Obstructive Sleep Apnea</i>	2006-2011
M.S., Exercise Science Department of Exercise Science, University of South Carolina, Columbia, SC Thesis: <i>Investigation of Circadian Variation in 200-m Freestyle Swim Performan</i>	2003-2005 nce
B.A., Sports Science	1998-2002

#### Department of Health & Human Performance, Malone College, Canton, OH

## **APPOINTMENTS and POSITIONS**

Associate Professor Department of Health and Human Development, School of Education, University of Pittsburgh	2021-present
Assistant Professor Department of Health and Physical Activity (renamed Health and Human Devel School of Education, University of Pittsburgh Department of Psychiatry, School of Medicine, University of Pittsburgh	opment in 2020), 2015-2021 2014-2015
Postdoctoral Associate Department of Psychiatry, School of Medicine, University of Pittsburgh	2013
Postdoctoral Scholar NHLBI T32 Translational Research Training in Sleep Medicine Department of Psychiatry, School of Medicine, University of Pittsburgh	2010-2013
Research Associate Research and Development, WJB Dorn VA Medical Center, Columbia, SC	2009-2010

Graduate Research Assistant 2003-2010 Chronobiology Laboratory, Department of Exercise Science, University of South Carolina

Graduate Teaching Assistant Department of Exercise Science, University of South Carolina

Clinical Research Assistant

2003-2004

2007-2008

Clinical Exercise Research Center, Department of Exercise Science, Univ of South Carolina

## **RESEARCH INTERESTS**

- Exercise as a behavioral treatment for sleep disorders (insomnia, obstructive sleep apnea)
- Bidirectional relationships between physical activity and sleep
- Cardiometabolic risks of subclinical sleep disturbance and sleep disorders
- Sleep as a pathway through which physical activity improves cardiometabolic health
- Influence of poor sleep as a determinant of behavioral weight loss interventions
- Sleep assessment technology and actigraphy editing standardization
- Impact of sleep and circadian rhythms on athletic performance and recovery

## CERTIFICATIONS

Strength & Conditioning Specialist	National Strength & Conditioning Association	2006-present
Certified Exercise Physiologist	American College of Sports Medicine	2004-present
Level I Certified Coach	USA Track & Field	2004-present

#### HONORS

Fellow, American College of Sports Medicine	2020
American Heart Association Early Investigator Travel Award	2016
National Institutes of Health Summer Institute on Randomized Behavioral Clinical	
Trials fellow	2014
Society of Behavioral Sleep Medicine Merit Award	2014
American Academy of Sleep Medicine Young Investigator Award (Honorable Mention)	2013
Sleep Research Society Abstract Honorable Mention Award	2013
American Psychosomatic Society Citation Poster Award	2013
American Psychosomatic Society Young Investigator Colloquium attendee	2013
National Institutes of Health Clinical Research Loan Repayment Program	2012-2014
National Sleep Foundation 'Sleep in America Poll' Task Force Member	2012-2013
Centers for Disease Control and Prevention Physical Activity and Public Health	
Research Course fellow	2012
Sleep Research Society Abstract Meritorious Award	2012
American Academy of Sleep Medicine Young Investigator Research Forum	2012
University of South Carolina (UofSC) Graduate School Outstanding Dissertation	
Award (Biological/Life Sciences)	2011
UofSC Arnold School of Public Health Doctoral Achievement Award	2011
UofSC Department of Exercise Science Outstanding Doctoral Student Award	2011
Sleep Research Society Abstract Excellence Award	2011
Sleep Research Society Trainee Award Based on Scientific Merit	2010
UofSC Arnold School of Public Health Travel Grant	2009

UofSC Charles Coker Trustee Fellowship	2009
Sleep Research Society First-time Trainee Travel Award	2009
UofSC Graduate School Travel Grant	2008-2010
UofSC Arnold School of Public Health Doctoral Fellowship	2007-2008
UofSC Graduate Student Day Research Award Runner-up (Health/Life Sciences)	2007
Delta Omega Public Health Honorary Society ( <i>Mu</i> Chapter)	2005
Delta Omega Public Health Honorary Society ( <i>Mu</i> Chapter) UofSC Department of Exercise Science Outstanding Master's Student Award	

#### SCHOLARLY PUBLICATIONS

Peer-reviewed Manuscripts (\* denotes student author):

- Cajita MI, Rathbun SL, Shiffman S, Kline CE, Imes CC, Zheng Y, Ewing LJ, Burke LE. Examining reactivity to intensive longitudinal ecological momentary assessment: 12-month prospective study. *Eat Weight Disord* 2023;28(1):26. PMID: 36849665; PMCID: PMC9971140.
- Cheruka CA\*, Sherman SA, Davis KK, Kline CE. Oxygen consumption and heart rate responses between different sequences of a Vinyasa yoga practice. Int J Yoga Ther (in press). <u>PMID:</u> <u>37169721</u>.
- Dooley EE, Winkles JF, Colvin AB, Kline CE, Badon SE, Diaz KM, Karvonen-Gutierrez CA, Kravitz HM, Sternfeld B, Thomas SJ, Hall MH, Pettee Gabriel K. Method for Activity Sleep Harmonization (MASH): harmonizing data from two wearable devices to estimate 24-hour movement cycles. *J Act Sleep Sed Behav* 2023;2:8. <u>https://doi.org/10.1186/s44167-023-00017-5</u>
- Alansare AB\*, Barone Gibbs B, Holzman C, Jennings JR, Kline CE, Nagle E, Catov JM. Isotemporal associations of device-measured sedentary time and physical activity with cardiacautonomic regulation in previously pregnant women. *Int J Behav Med (in press)*. <u>PMID: 35819720</u>; PMCID: PMC9832172 (available 01/11/2024).
- 78. Kariuki JK, Cheng J\*, Erickson KI, Gibbs BB, Sereika SM, Kline CE, Burke LE, Mendez DD, Pulantara WI, Bizhanova Z, Bu Saad MA, Rockette-Wagner B. Neighborhood walkability is associated with physical activity and prediabetes in a behavioral weight loss study: a secondary analysis. *Int J Behav Med (in press)*. <u>PMID: 35794410.</u>
- 77. Duncan MJ, Oftedal S, **Kline CE**, Plotnikoff RC, Holliday EG. Associations between aerobic and muscle-strengthening physical activity, sleep duration, and risk of all-cause mortality: a prospective cohort study of 282,473 US adults. *J Sport Health Sci* 2023;12(1):65-72. <u>PMID: 35872092.</u>
- 76. Oftedal S\*, Holliday EG, Reynolds AC, Bennie JA, Kline CE, Duncan MJ. Prevalence, trends, and correlates of joint patterns of aerobic and muscle-strengthening activity and sleep duration: a pooled analysis of 359,019 adults in the National Health Interview Study 2004-2018. *J Phys Act Health* 2022;19(4):246-255. <u>PMID: 35272266</u>.
- Quinn TD, Kline CE, Nagle E, Radonovich L, Barone Gibbs B. Physical activity in the workplace does just working meet activity recommendations? Workplace Health Saf 2022;70(2): 81-89. <u>PMID:</u> <u>34927499</u>.
- Barham WT\*, Buysse DJ, Kline CE, Kubala AG\*, Brindle RC. Sleep health mediates the relationship between physical activity and depression symptoms. *Sleep Breath* 2022;26(3):1341-1349. PMID: 34561758; <u>PMCID: PMC8475358</u>.

- Alansare AB\*, Barone Gibbs B, Catov JM, Jennings JR, Kline CE, Nagle E, Holzman C. Association of physical activity and sedentary time with cardio-autonomic regulation in women. J Womens Health 2022;31(4):600-608. <u>PMID: 34648723</u>.
- Burke LE, Kline CE, Mendez DD, Shiffman S, Chasens ER, Zheng Y, Imes CC, Cajita MI, Ewing L, Goode R, Mattos M, Kariuki JK, Kriska A, Rathbun SL. Nightly variation in sleep influences self-efficacy for adhering to a healthy lifestyle: a prospective study. *Int J Behav Med* 2022;29(3):377-386. PMID: 34478106; PMCID: PMC10061542.
- 71. Rockette-Wagner B, Cheng J\*, Bizhanova Z\*, Kriska AM, Sereika SM, **Kline CE**, Imes CC, Kariuki JK, Mendez DD, Burke LE. Change in objectively measured activity levels resulting from the EMPOWER study lifestyle intervention. *Trans J Am Coll Sports Med* 2022;7(1):e000184. PMID: 35391998; PMCID: PMC8982931.
- 70. Veronda A\*, **Kline CE**, Irish LE. The impact of circadian timing on energy balance: an extension of the energy homeostasis model. *Health Psychol Rev* 2022;16(2):161-203. <u>PMID: 34387140.</u>
- Alansare AB\*, Bates LC\*, Stoner L, Kline CE, Nagle E, Jennings JR, Hanson ED, Faghy MA, Barone Gibbs B. Associations of sedentary time with heart rate and heart rate variability in adults: a systematic review and meta-analysis of observational studies. *Int J Environ Res Public Health* 2021;18(16):8508. PMID: 34444256; PMCID: PMC8391190.
- Quinn TD, Kline CE, Nagle E, Radonovich L, Alansare A\*, Barone Gibbs B. Cardiovascular responses to physical activity during work and leisure. *Occup Environ Med* 2022;79(2):81-89. <u>PMID: 34321351.</u>
- 67. Kowalsky RJ, Farney TM, **Kline CE**, Hinojosa J\*, Creasy SA. The impact of the COVID-19 pandemic on lifestyle behaviors in U.S. college students. *J Am Coll Health (in press)*. <u>PMID:</u> <u>34161199.</u>
- Kline CE, Hillman CH, Bloodgood Sheppard B, Tennant B, Conroy DE, Macko RF, Marquez DX, Petruzzello SJ, Powell KE, Erickson KI. Physical activity and sleep: an updated umbrella review of the 2018 Physical Activity Guidelines. *Sleep Med Rev* 2021;58:101489. PMID: 33934046; <u>PMCID:</u> <u>PMC8338757</u>.
- Imes CC, Bizhanova Z\*, Kline CE, Rockette-Wagner B, Chasens ER, Sereika SM, Burke LE. Bidirectional relationship between sleep and sedentary behavior in adults with overweight or obesity: a secondary analysis. *Sleep Advances* 2021;2(1):zpab004. PMID: 33870194; <u>PMCID:</u> <u>PMC8038645</u>.
- 64. Kline CE, Colvin AB, Gabriel KP, Karvonen-Gutierrez CA, Cauley JA, Hall MH, Matthews KA, Ruppert KM, Neal-Perry GS, Strotmeyer ES, Sternfeld B. Associations between longitudinal trajectories of insomnia symptoms and sleep duration with objective physical function in postmenopausal women: the Study of Women's Health Across the Nation. *Sleep* 2021; 44(8):zsab059. PMID: 33705558; PMCID: PMC8361301.
- 63. Hergenroeder A, Quinn TD, Perdomo SJ, **Kline CE**, Barone Gibbs B. Effect of a 6-month sedentary behavior reduction intervention on well-being and workplace health in desk workers with low back pain. *Work* 2022;71(4):1145-1155. <u>PMID: 35253686</u>.

- Whitaker KM, Zhang D, Kline CE, Catov J, Barone Gibbs B. Associations of sleep with sedentary behavior and physical activity patterns across pregnancy trimesters. *Womens Health Issues* 2021;31(4):366-375. PMID: 33715925; PMCID: PMC8428394.
- Youngstedt SD, Kline CE, Reynolds AM, Crowley SK, Burch JB, Khan N, Han SY. Bright light treatment of combat-related PTSD: a randomized controlled trial. *Mil Med* 2022;187(3-4):e435e444. <u>PMID: 33511988</u>.
- 60. Barone Gibbs B, **Kline CE**, Huber KA, Paley JL, Perera S. COVID-19 shelter-at-home and work, lifestyle and well-being in desk workers. *Occup Med* 2021;71(2):86-94. PMID: 33598681; <u>PMCID:</u> <u>PMC7928687.</u>
- 59. Taylor C\*, **Kline CE**, Rice TB, Duan C, Newman AB, Barinas-Mitchell E. Snoring severity is associated with carotid vascular remodeling in young adults with overweight and obesity. *Sleep Health* 2021;7(2):161-167. PMID: 33402252; <u>PMCID: PMC8084936</u>.
- 58. Kariuki JK, Gibbs BB, Rockette-Wagner B, Cheng J\*, Burke LE, Erickson KI, **Kline CE**, Mendez DD, Sereika SM. Vicarious experience in Multi-Ethnic Study of Atherosclerosis (MESA) is associated with greater odds of attaining the recommended leisure-time physical activity levels. *Int J Behav Med* 2021;28(5):575-582. <u>PMID: 33438163</u>.
- Bowman MA\*, Kline CE, Buysse DJ, Kravitz HM, Joffe H, Matthews KA, Bromberger JT, Roecklein KA, Krafty RT, Hall MH. Longitudinal association between depressive symptoms and multidimensional sleep health: the SWAN Sleep Study. *Ann Behav Med* 2021;55(7):641-652. PMID: 33410460; PMCID: PMC8240133.
- 56. **Kline CE**, Chasens ER, Bizhanova Z\*, Sereika SM, Buysse DJ, Imes CC, Kariuki JK, Mendez DD, Cajita MI, Rathbun SL, Burke LE. The association between sleep health and weight change during a 12-month behavioral weight loss intervention. *Int J Obes* 2021;45(3):639-649. PMID: 33414489; PMCID: PMC7914147.
- 55. Bates LC\*, Zieff G\*, Stanford K\*, Moore JB, Kerr ZY, Hanson ED, Barone Gibbs B, **Kline CE**, Stoner L. COVID-19 impact on behaviors across the 24-hour day in children and adolescents: physical activity, sedentary behavior, and sleep. *Children* 2020;7(9):E138. PMID: 32947805; <u>PMCID: PMC7552759.</u>
- Sieverdes JC, Treiber FA, Kline CE, Mueller M, Brunner-Jackson B, Sox L, Cain M, Swem M, Diaz V, Chandler J. Ethnicity differences in sleep changes among prehypertensive adults using a smartphone meditation app: dose-response trial. *JMIR Form Res* 2020;4(10):e20501. PMID: 33021484; PMCID: PMC7576537.
- 53. Bowman MA\*, Brindle RC, Joffe H, **Kline CE**, Buysse DJ, Appelhans BM, Kravitz HM, Matthews KA, Neal-Perry GS, Krafty RT, Hall MH. Multidimensional sleep health is not cross-sectionally or longitudinally associated with adiposity in the Study of Women's Health Across the Nation (SWAN). *Sleep Health* 2020;6(6):790-796. <u>PMID: 32680819</u>.
- Rosso AC\*, Wilson OWA\*, Papalia Z\*, Duffey M\*, Kline CE, Bopp M. Frequent restful sleep is associated with the absence of depressive symptoms and higher grade point average among college students. Sleep Health 2020;6(5):618-622. <u>PMID: 32247737</u>.

- Torres-Castro R\*, Otto-Yáñez M, Resqueti VR, Roqué i Figuls M, Kline CE, Fregonezi GAF, Vilaró J. Weight loss intervention through lifestyle modification or pharmacotherapy for obstructive sleep apnoea in adults (protocol). *Cochrane Database Syst Rev* 2020;2020(3):CD013548. <u>PMCID:</u> <u>PMC7059885.</u>
- 50. Cajita MI, **Kline CE**, Burke LE, Bigini EG\*, Imes CC. Feasible but not yet efficacious: a scoping review of wearable activity monitors in interventions targeting physical activity, sedentary behavior, and sleep. *Curr Epidemiol Rep* 2020;7(1):25-38. PMID: 33365227; <u>PMCID: PMC7751894</u>.
- 49. Wilckens KA, **Kline CE**, Bowman MA\*, Brindle RC, Cribbet MR, Thayer JF, Hall MH. Does objectively-assessed sleep moderate the association between history of major depressive disorder and task-switching? *J Affect Disord* 2020;265:216-223. <u>PMID: 32090744.</u>
- Kubala AG\*, Buysse DJ, Brindle RC, Krafty RT, Thayer JF, Hall MH, Kline CE. The association between physical activity and a composite measure of sleep health. *Sleep Breath* 2020;24(3): 1207-1214. PMID: 31900885; PMCID: PMC7332370.
- Kubala AG\*, Barone Gibbs B, Buysse DJ, Patel SR, Hall MH, Kline CE. Field-based measurement of sleep: agreement between six commercial activity monitors and a validated accelerometer. *Behav Sleep Med* 2020;18(5):637-652. PMID: 31455144; PMCID: PMC7044030.
- 46. Perdomo SJ\*, Balzer JR, Jakicic JM, **Kline CE**, Barone Gibbs B. Acute effects of aerobic exercise duration on blood pressure, pulse wave velocity and cerebral blood flow velocity in middle-aged adults. *Sport Sci Health* 2019;15(3):647-658. <u>https://doi.org/10.1007/s11332-019-00566-w</u>
- 45. Kroshus E, Wagner J, Wyrick D, Athey A, Bell L, Benjamin HJ, Grandner MA, **Kline CE**, Mohler JM, Prichard JR, Watson NF, Hainline B. Wake up call for collegiate athlete sleep: narrative review and consensus recommendations from the NCAA Interassociation Task Force on Sleep and Wellness. *Br J Sports Med* 2019;53(12):731-736. <u>PMID: 31097460</u>.
- 44. Berger M\*, **Kline CE**, Cepeda FX, Rizzi CF, Chapelle C, Laporte S, Hupin D, Raffin J, Costes F, Hargens TA, Barthelemy JC, Roche F. Does obstructive sleep apnea affect exercise capacity and the hemodynamic response to exercise? An aggregate and individual patient data meta-analysis. *Sleep Med Rev* 2019;45:42-53. <u>PMID: 30933881</u>.
- 43. Bowman MA\*, Duggan KA, Brindle RC, **Kline CE**, Krafty RT, Thayer JF, Hall MH. Prospective associations among objectively and subjectively assessed sleep and the metabolic syndrome. *Sleep Med* 2019;58:1-6. PMID: 31028926; <u>PMCID: PMC6816744</u>.
- 42. Breneman CB\*, **Kline CE**, West D, Sui X, Wang X. The effect of structured exercise on sleep during the corresponding night among older women in an exercise program. *J Aging Phys Act* 2019;27(4):482-488. PMID: 30507280; PMCID: PMC6775633.
- 41. Breneman CB\*, **Kline CE**, West DS, Sui X, Porter RR\*, Bowyer KP, Custer S, Wang X. The effect of moderate-intensity exercise on nightly variability in objectively measured sleep parameters among older women. *Behav Sleep Med* 2019;17(4):459-469. PMID: 29053410; PMCID: PMC6157002.
- Barone Gibbs B, Kline CE. When does sedentary behavior become sleep? A proposed framework for classifying behavior during sleep-wake transitions. *Int J Behav Nutr Phys Act* 2018;15(1):81. PMID: 30134918; <u>PMCID: PMC6106752</u>.

- Kowalsky RJ\*, Perdomo SJ\*, Taormina JM\*, Kline CE, Hergenroeder AL, Balzer JR, Jakicic JM, Barone Gibbs B. Effect of using a sit-stand desk on ratings of discomfort, fatigue, and sleepiness across a simulated work day in overweight and obese adults. *J Phys Act Health* 2018;15(10):788-794. PMID: 30139293. <u>PMCID: PMC6982465.</u>
- Kline CE, Burke LE, Sereika SM, Imes CC, Rockette-Wagner BJ, Mendez DD, Strollo PJ, Zheng Y, Rathbun SL, Chasens ER. Bidirectional relationships between weight change and sleep apnea in a behavioral weight loss intervention. *Mayo Clin Proc* 2018;93(9):1290-1298. PMID: 30082081; PMCID: PMC6129208.
- Herring MP, Monroe DC, Kline CE, O'Connor PJ, MacDonncha C. Sleep quality moderates the association between physical activity frequency and feelings of energy and fatigue in adolescents. *Eur Child Adolesc Psychiatry* 2018;27(11):1425-1432. PMID: 29508054; <u>PMCID: PMC6410735</u>.
- 36. Kline CE, Hall MH, Buysse DJ, Earnest CP, Church TS. Poor sleep quality is associated with insulin resistance in postmenopausal women with and without the metabolic syndrome. *Metab Syndr Relat Disord* 2018;16(4):183-189. PMID: 29649378; PMCID: PMC5931175.
- Brindle RC, Duggan KA, Cribbet MR, Kline CE, Krafty RT, Thayer JF, Mulukutla SR, Hall MH. Cardiovascular stress reactivity and carotid intima-media thickness: the buffering role of slow-wave sleep. *Psychosom Med* 2018;80(3):301-306. PMID: 29381658; <u>PMCID: PMC5878122</u>.
- Baker JH\*, Rothenberger SD\*, Kline CE, Okun ML. Exercise during early pregnancy is associated with greater sleep continuity. *Behav Sleep Med* 2018;16(5):482-493. PMID: 27739877; <u>PMCID:</u> <u>PMC6124311</u>.
- 33. Kline CE, Krafty RT, Mulukutla S, Hall MH. Associations of sedentary time and moderate-vigorous physical activity with sleep-disordered breathing and polysomnographic sleep in community-dwelling adults. *Sleep Breath* 2017;21(2):427-434. PMID: 27837376; PMCID: PMC5400700.
- Hall MH, Mulukutla S, Kline CE, Samuelsson LB\*, Taylor BJ\*, Thayer JF, Krafty RT, Frank E, Shoushtari H, Kupfer DJ. Objective sleep duration is prospectively associated with endothelial function. *Sleep* 2017;40(1):zsw003. PMID: 28364470; PMCID: PMC6084747.
- Gunn HE, Buysse DJ, Matthews KA, Kline CE, Cribbet MR, Troxel WM. Sleep-wake concordance in couples is inversely associated with cardiovascular disease risk markers. *Sleep* 2017;40(1):zsw028. PMID: 28364457; <u>PMCID: PMC5968335</u>.
- Youngstedt SD, Kline CE, Elliott JA, Zielinski MR, Devlin TM, Moore TA. Circadian phase-shifting effects of bright light, exercise, and bright light plus exercise. J Circ Rhythms 2016;14(1):2. PMID: 27103935; PMCID: PMC4834751.
- Duncan MJ, Kline CE, Rebar AL, Vandelanotte C, Short CE. Greater bed- and wake-time variability are associated with less healthy lifestyle behaviors: a cross-sectional study. *Z Gesundh Wiss (J Public Health)* 2016;24(1):31-40. PMID: 27110481; <u>PMCID: PMC4836438</u>.
- Taylor BJ\*, Matthews KA, Hasler BP, Roecklein KA, Kline CE, Buysse DJ, Kravitz HM, Tiani AG\*, Harlow SD, Hall MH. Bedtime variability and metabolic health in midlife women: the SWAN Sleep Study. Sleep 2016;39(2):457-465. PMID: 27091639; PMCID: PMC4712396.

- 27. **Kline CE**, Reboussin DM, Foster GD, Rice TB, Strotmeyer ES, Jakicic JM, Millman RP, Pi-Sunyer FX, Newman AB, Wadden TA, Zammit G, Kuna ST. The effect of changes in cardiorespiratory fitness and weight on obstructive sleep apnea severity in overweight adults with type 2 diabetes. *Sleep* 2016;39(2):317-325. PMID: 26446118; <u>PMCID: PMC4712401</u>.
- 26. Herring MP, **Kline CE**, O'Connor PJ. Effects of exercise on sleep among young women with generalized anxiety disorder. *Ment Health Phys Act* 2015;9:59-66. PMID: 26566400; <u>PMCID:</u> <u>PMC4637973</u>.
- Hall MH, Kline CE, Nowakowski S. Insomnia and sleep apnea in midlife women: prevalence and consequences to health and functioning. *F1000Prime Rep* 2015;7:63. DOI: 10.12703/P7-63. PMID: 26097736; <u>PMCID: PMC4447062</u>.
- 24. Buman MP, **Kline CE**, Youngstedt SD, Phillips B, de Mello MT, Hirshkowitz M. Sitting and television viewing: novel risk factors for sleep disturbance and apnea risk? Results from the 2013 National Sleep Foundation Sleep in America poll. *Chest* 2015;147(3):728-734. PMID: 25633255; <u>PMCID: PMC4364317</u>.
- Irish LA, Kline CE, Gunn HE, Buysse DJ, Hall MH. The role of sleep hygiene in promoting public health: a review of empirical evidence. *Sleep Med Rev* 2015;22:23-36. PMID: 25454674; <u>PMCID:</u> <u>PMC4400203</u>.
- Dishman RK, Sui X, Church TS, Kline CE, Youngstedt SD, Blair SN. Decline in cardiorespiratory fitness and odds of incident sleep complaints. *Med Sci Sports Exerc* 2015;47(5):960-966. PMID: 25207930; PMCID: PMC4362810.
- Kline CE, Irish LA, Buysse DJ, Kravitz HM, Okun ML, Owens JF, Hall MH. Sleep hygiene behaviors of midlife women with insomnia or sleep-disordered breathing: the SWAN Sleep Study. J Womens Health 2014;23(11):894-903. PMID: 25353709; PMCID: PMC4236092.
- 20. Kline CE. The bidirectional relationship between exercise and sleep: implications for exercise adherence and sleep improvement. *Am J Lifestyle Med* 2014;8(6):375-379. PMID: 25729341; PMCID: PMC4341978.
- Duncan MJ, Kline CE, Vandelanotte C, Sargent C, Rogers NL, Di Milia L. Cross-sectional associations between multiple lifestyle behaviors and health-related quality of life in the 10,000 Steps Cohort. *PLoS One* 2014;9(4):e94184. PMID: 24714564; <u>PMCID: PMC3979761</u>.
- Buman MP, Phillips B, Youngstedt SD, Kline CE, Hirshkowitz M. Does nighttime exercise really disturb sleep? Results from the 2013 National Sleep Foundation Sleep in America poll. *Sleep Med* 2014;15(7):755-761. <u>PMID: 24933083</u>.
- 17. Iftikhar I, **Kline CE**, Youngstedt SD. The effects of exercise training on the severity of sleep apnea: a meta-analysis. *Lung* 2014;192(1):175-184. PMID: 24077936; PMCID: PMC4216726.
- Irish LA, Kline CE, Rothenberger SD\*, Krafty RT, Buysse DJ, Bromberger JT, Kravitz HM, Zheng H, Hall MH. A 24-hour approach to the study of health behaviors: temporal relationships between waking health behaviors and sleep. *Ann Behav Med* 2014;47(2):189-197. PMID: 24043549; <u>PMCID: PMC3956705</u>.

- Okun ML, Kline CE, Roberts JM, Wettlaufer B, Glover K, Hall M. Prevalence of sleep deficiency in early gestation and its associations with stress and depressive symptoms. *J Womens Health* 2013; 22(12):1028-1037. PMID: 24117003; PMCID: PMC3852611.
- Hall M, Middleton K, Thayer JF, Lewis TT, Kline CE, Matthews KA, Kravitz HM, Krafty RT, Buysse DJ. Racial differences in heart rate variability during sleep in midlife women: the SWAN Sleep Study. *Psychosom Med* 2013;75(8):783-790. PMID: 24077772; <u>PMCID: PMC3902648</u>.
- Kline CE, Irish LA, Krafty RT, Sternfeld B, Kravitz HM, Buysse DJ, Bromberger JT, Dugan SA, Hall MH. Consistently high sports/exercise activity is associated with better sleep quality, continuity and depth in midlife women: the SWAN Sleep Study. *Sleep* 2013;36(9):1279-1288. PMID: 23997360; <u>PMCID: PMC3738036</u>.
- Plourde G, Kline CE. Improving obstructive sleep apnea in a morbidly obese woman: role of dietary modification and physical activity. *Clin Nursing Studies* 2013;1(3):43-48. <u>DOI:</u> <u>10.5430/cns.v1n3p1</u>.
- 11. **Kline CE**, Crowley EP, Ewing GB, Burch JB, Blair SN, Durstine JL, Davis JM, Youngstedt SD. Blunted heart rate recovery is improved following exercise training in overweight adults with obstructive sleep apnea. *Int J Cardiol* 2013;167(4):1610-1615. PMID: 22572632; <u>PMCID:</u> <u>PMC3417075</u>.
- Kline CE, Sui X, Hall MH, Youngstedt SD, Blair SN, Earnest CP, Church TS. Dose-response effects of exercise training on the subjective sleep quality of postmenopausal women: exploratory analyses of a randomised controlled trial. *BMJ Open* 2012;2(4):e001044. PMID: 22798253; <u>PMCID: PMC3400065</u>.
- Kline CE, Ewing GB, Burch JB, Blair SN, Durstine JL, Davis JM, Youngstedt SD. Exercise training improves selected aspects of daytime functioning in adults with obstructive sleep apnea. *J Clin Sleep Med* 2012;8(4):357-365. PMID: 22893765; PMCID: PMC3407253.
- 8. **Kline CE,** Crowley EP, Ewing GB, Blair SN, Durstine JL, Davis JM, Burch JB, Youngstedt SD. The effect of exercise training on obstructive sleep apnea and sleep quality: a randomized controlled trial. *Sleep* 2011;34(12):1631-1640. PMID: 22131599; <u>PMCID: PMC3208839</u>.
- 7. Youngstedt SD, **Kline CE**, Ginsberg JP, Zielinski MR, Hardin JW. Bright light treatment for highanxious young adults: a randomized controlled pilot study. *Depress Anxiety* 2011;28(4):324-332. <u>PMID: 21254315</u>.
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1. Kline CE. Exercise: shifting fluid and sleep apnoea away. *Eur Respir J* 2016;48(1):23-25. PMID: 27365507; PMCID: PMC5046835.

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- 8. Kline CE. Actigraphy. In: Gellman MR, Turner JR, eds. *Encyclopedia of Behavioral Medicine*. New York, NY: Springer; 2013, p. 17-21. <u>ISBN: 9781441910059</u>.
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<u>Published Abstracts and their Corresponding Presentations (\* denotes student author):</u> Abbreviations: ACSM = American College of Sports Medicine; ADA = American Diabetes Association; AHA = American Heart Association; AHA Epi | Lifestyle = American Heart Association Epidemiology & Prevention/ Lifestyle & Cardiometabolic Health; APS = American Psychosomatic Society; APSS = Associated Professional Sleep Societies; ATS = American Thoracic Society.

- 103.Vogan OM\*, Cheruka CA\*, Egeler ME\*, Kubala AG, Sanders RM\*, Paley JL, Patel SR, Hall MH, Perera S, Barone Gibbs B, **Kline CE**. Associations between mood and sleep architecture in sedentary office workers. Submitted for presentation at the 2023 APSS/SLEEP Annual Meeting (Indianapolis, IN; June 3-7, 2023).
- 102.Cheruka CA\*, Egeler ME\*, Kubala AG, Paley JL, Vogan OM\*, Sanders RM\*, Patel SR, Hall MH, Perera S, Barone Gibbs B, **Kline CE**. The relationship between daytime sedentary behavior and sleep health in desk-based workers. Submitted for presentation at the 2023 ACSM Annual Meeting (Denver, CO; May 30-June 2, 2023).
- 101.Holmes AJ\*, **Kline CE**, Stoner L, Davis K, Paley JL, Barone Gibbs B. Examination of 24-hour movement behaviors in home vs. office work locations. Submitted for presentation at the 2023 ACSM Annual Meeting (Denver, CO; May 30-June 2, 2023).
- 100.Sanders RM\*, Smagula SF, Barone Gibbs B, Perera S, Hall MH, Patel SR, Cheruka CA\*, Vogan OM\*, **Kline CE**. Examining the associations between rest-activity rhythms and cardiovascular disease risk factors in adult desk workers. Submitted for presentation at the 2023 ACSM Annual Meeting (Denver, CO; May 30-June 2, 2023).
- 99. Kline CE, Imes CC, Sereika SM, Buysse DJ, Rockette-Wagner B, Bizhanova Z, Burke LE. Better sleep health is associated with greater adherence to lifestyle intervention during a 12-month behavioral weight loss intervention. *Circulation* 2023;147:A51. Oral presentation at the 2023 AHA Epi/Lifestyle Scientific Sessions (Boston, MA; February 28-March 3, 2023).
- 98. Imes CC, Kline CE, Patel SR, Sereika SM, Harvey AG, Buysse DJ, Burke LE. A behavioral intervention to improve sleep health among adults with excess weight and suboptimal sleep health: preliminary results of a feasibility study. *Circulation* 2023;147:AP460. Poster presentation at the 2023 AHA Epi/Lifestyle Scientific Sessions (Boston, MA; February 28-March 3, 2023).
- 97. Jenkins ND, Kline CE, Barone Gibbs B, Catov JM, Feghali M, Santillan MK, Thomas EB, Jones MA, Whitaker KM. Adverse childhood experiences are associated with elevated blood pressure and disturbed sleep in the first trimester of pregnancy in apparently healthy, young adult women. *Circulation* 2022;146:A11891. Poster presentation at the 2022 AHA Scientific Sessions (Chicago, IL; November 5-7, 2022).
- 96. Cheruka CA\*, Egeler ME\*, Kubala AG, Vogan OM\*, Sanders RM\*, Patel SR, Hall MH, Perera S, Jakicic JM, Barone Gibbs B, Kline CE. Sleep health characteristics in sedentary desk-based workers. *Sleep* 2022;45(Suppl.):A139-A140. Poster presentation at the 2022 APSS/SLEEP Annual Meeting (Charlotte, NC; June 4-8, 2022).
- 95. Sanders RM\*, Vogan OM\*, Barone Gibbs B, Egeler ME\*, Kubala AG, Cheruka CA\*, Paley JL, Patel SR, Hall MH, Perera S, Jakicic JM, Kline CE. The association between sleep health and work- and health-related quality of life in desk workers and differences in associations pre- and post-COVID-19 emergence. *Sleep* 2022;45(Suppl.):A22. Poster presentation at the 2022 APSS/SLEEP Annual Meeting (Charlotte, NC; June 4-8, 2022).
- 94. Vogan OM\*, Cheruka CA\*, Egeler ME\*, Kubala AG, Sanders RM\*, Paley JL, Patel SR, Hall MH, Perera S, Jakicic JM, Barone Gibbs B, Kline CE. The association between sleep health and mood in sedentary desk workers. *Sleep* 2022;45(Suppl.):A113. Poster presentation at the 2022 APSS/SLEEP Annual Meeting (Charlotte, NC; June 4-8, 2022).

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- 87. Kariuki JK, Bizhanova Z\*, Rockette-Wagner B, Gibbs BB, Sereika SM, **Kline C**, Erickson K, Mendez D, Pulantara IW, Cheng J\*, Burke LE. Neighborhood walkability is associated with prediabetes in a behavioral weight loss study. *Diabetes* 2021;70(Suppl. 1):231-OR. Oral presentation at the ADA Scientific Sessions (virtual; June 25-29, 2021).
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- 85. Egeler M\*, Kubala A\*, Perera S, Patel S, Hall M, Jakicic J, Barone Gibbs B, **Kline C**. The relationship between sleep and objectively measured sedentary behavior in adults with desk jobs. *Sleep* 2021;44(Suppl.):A118-119. Poster at the APSS/SLEEP Annual Meeting (virtual; June 10-13, 2021).
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- 83. Pomeroy A\*, Pagan Lassalle P\*, **Kline C**, Heffernan K, Stoner L. Sleep duration and arterial stiffness: a meta-analysis. *Med Sci Sports Exerc* 2021;53(8S):78. Poster at the ACSM Annual Meeting (virtual; June 1-5, 2021).
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- 80. **Kline CE**, Egeler ME\*, Kubala AG\*, Patel SR, Lehrer HM, Duggan KA, Hall MH. Impact of various editing approaches on sleep/wake outputs in adults with insomnia and healthy sleepers. *Sleep* 2020;43(Suppl.):A154. Poster at the APSS/SLEEP Annual Meeting (virtual), August 27-30, 2020.
- 79. Egeler ME\*, Bowman MA\*, Brindle RC, Thayer JF, Hall MH, **Kline CE**. Heart rate variability during sleep in adults with and without a history of depression and the influence of antidepressant use. *Sleep* 2020;43(Suppl.):A414. Poster at the APSS/SLEEP Annual Meeting (virtual), August 27-30, 2020.
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- 77. Kline CE, Rogers RJ, Yuan N, Jakicic JM. Sleep parameters during a 12-month behavioral weight loss intervention with varying doses of physical activity: the Heart Health Study. *Med Sci Sports Exerc* 2020;52(7S):S753. Poster at the ACSM Annual Meeting (virtual), May 26-30, 2020.
- 76. Alansare AB\*, Jakicic JM, **Kline CE**, Muldoon M, Conroy MB, Barone Gibbs B. Associations between sedentary behavior and steps with heart rate variability in desk workers. *Med Sci Sports Exerc* 2020;52(7S):S443. Poster at the ACSM Annual Meeting (virtual), May 26-30, 2020.
- 75. Kline CE, Bizhanova Z\*, Sereika SM, Buysse DJ, Imes CC, Kariuki JK, Mendez DD, Chasens ER, Burke LE. Better sleep health is associated with greater weight loss during a 12-month behavioral weight loss intervention. *Circulation* 2020;141(Suppl 1):MP21. Moderated poster at the AHA Epi | Lifestyle Scientific Sessions (Phoenix, AZ), March 3-6, 2020.
- 74. Imes CC, Bizhanova Z\*, **Kline CE**, Sereika SM, Chasens ER. Apnea-hypopnea index is a better predictor of cardiovascular health than the RSATED sleep health composite score among adults with sleep apnea and diabetes. *Circulation* 2020;141(Suppl 1):AP544. Poster at the AHA Epi | Lifestyle Scientific Sessions (Phoenix, AZ), March 3-6, 2020.
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- 72. Kubala AG\*, Quinn TD\*, **Kline CE**. The combined association between physical activity and insomnia symptoms with physical function in older adults. *Sleep* 2019;42(Suppl.):A109-110. Poster at the APSS/SLEEP Annual Meeting (San Antonio, TX), June 8-12, 2019.
- 71. Kline CE, Kowalsky RJ, Perdomo SJ, Strollo PJ, Barone Gibbs B. Impact of a simulated workday of sit-stand desk use on sleep among adults screened as high risk for sleep apnea. *Med Sci Sports Exerc* 2019;51(5S):S89. Poster at the ACSM Annual Meeting (Orlando, FL), May 28-31, 2019.
- 70. Bowman MA\*, Kline CE, Matthews KA, Roecklein KA, Krafty RT, Kravitz HM, Bromberger JT, Hall MH. Why are depressive symptoms related to poor sleep health? Examining pathways in the Study of Women's Health Across the Nation (SWAN) Sleep Study. *Psychosom Med* 2019;81(3):A-76. Poster at the APS Annual Meeting (Vancouver, Canada), March 6-9, 2019.
- Taylor C\*, Kline C, Duan C, Barinas-Mitchell E. Objectively measured snoring is not associated with maladaptive arterial remodeling in overweight and obese adults. *Circulation* 2019;139(Suppl 1): AP416. Poster at the AHA Epi | Lifestyle Scientific Sessions (Houston, TX), March 5-8, 2019.
- Kline CE, Taylor C\*, Kriska AM, Barinas-Mitchell E. Short sleep duration is associated with greater arterial stiffness independent of sleep quality. *Circulation* 2019;139(Suppl 1):AP277. Poster at the AHA Epi | Lifestyle Scientific Sessions (Houston, TX), March 5-8, 2019.
- Imes CC, Kline CE, Mendez DD, Yu Y, Sun R, Chasens ER, Rathbun SL, Burke LE. Subjective versus objective measures of sleep: results from an ecological momentary assessment study. *Circulation* 2019;139(Suppl 1):AP276. Poster at the AHA Epi | Lifestyle Scientific Sessions (Houston, TX), March 5-8, 2019.
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- Kubala AG\*, Santos EC\*, Barone Gibbs B, Buysse DJ, Patel SR, Hall MH, Kline CE. Field-based sleep measurement: concordance between 6 commercial activity monitors and a research-grade actigraph. *Sleep* 2018;41(Suppl.):A123-124. Poster at the APSS/SLEEP Annual Meeting (Baltimore, MD), June 2-6, 2018.
- 64. Bowman MA\*, Brindle RC, **Kline CE**, Matthews KA, Neal-Perry GS, Kravitz HM, Joffe H, Buysse DJ, Hall MH. Sleep health is related to physical health in midlife women: the Study of Women's Health Across the Nation (SWAN) Sleep Study. *Sleep* 2018;41(Suppl.):A257-258. Poster at the APSS/SLEEP Annual Meeting (Baltimore, MD), June 2-6, 2018.
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- Herring MP, Monroe DC, Kline CE, O'Connor PJ, MacDonncha C\*. Sleep quality moderates the association between physical activity frequency and feelings of energy and fatigue in adolescents. *Med Sci Sports Exerc* 2018;50(5S):S104-105. Poster at the ACSM Annual Meeting (Minneapolis, MN), May 29-June 2, 2018.

- 61. Barone Gibbs B, Jones MA\*, Quinn TD\*, Perera S, **Kline CE**. Sedentary time and steps across methods for determining end of daytime during 24-hour ActivPal monitoring. *Med Sci Sports Exerc* 2018;50(5S):S715. Poster at the ACSM Annual Meeting (Minneapolis, MN), May 29-June 2, 2018.
- 60. Taylor C\*, Duan C\*, **Kline C**, Barinas-Mitchell E. Objectively measured snoring is associated with carotid vascular remodeling in overweight and obese adults. *Circulation* 2018;137(Suppl 1):AP365. Poster at the AHA Epi | Lifestyle Scientific Sessions (New Orleans, LA), March 20-23, 2018.
- 59. Imes CC, **Kline CE**, Mendez DD, Yu Y, Sun R, Chasens ER, Burke LE, Rathbun SL. Impaired nighttime sleep negatively affects next-day physical activity: results from an ecological momentary assessment study. *Circulation* 2018;137(Suppl 1):AP278. Poster at the AHA Epi | Lifestyle Scientific Sessions (New Orleans, LA), March 20-23, 2018.
- 58. Kline CE, Burke LE, Zheng Y, Sereika SM, Imes CC, Mendez DD, Rockette-Wagner BJ, Strollo PJ, Rathbun SL, Chasens ER. Adults with obstructive sleep apnea have lower adherence to weight loss behaviors in a behavioral weight loss intervention. *Circulation* 2018;137(Suppl 1):AP338. Poster at the AHA Epi | Lifestyle Scientific Sessions (New Orleans, LA), March 20-23, 2018.
- 57. Kubala AG\*, Buysse DJ, Brindle RC, Mulukutla SR, Krafty RT, Erwin JA\*, Thayer JF, Hall MH, **Kline CE**. Physical activity and sleep health: an association between intensity not volume. *Sleep* 2017; 40(Suppl.):A317. Poster at the APSS/SLEEP Annual Meeting (Boston, MA), June 3-7, 2017.
- 56. **Kline CE**, Perdomo SJ\*, Hergenroeder AL, Barone Gibbs B. The effect of reducing sedentary behavior on sleep quality among adults with chronic low back pain: a randomized controlled pilot study. *Sleep* 2017;40(Suppl.):A387-388. Poster at the APSS/SLEEP Annual Meeting (Boston, MA), June 3-7, 2017.
- 55. Erwin JA\*, Buysse DJ, Hall MH, Germain A, **Kline CE**. The insomnia short-sleep phenotype: does one night of laboratory sleep accurately capture their habitual sleep? *Sleep* 2017;40(Suppl.):A115-116. Oral presentation at the APSS/SLEEP Annual Meeting (Boston, MA), June 3-7, 2017.
- 54. Kowalsky RJ\*, Perdomo SJ\*, Balzer JR, **Kline CE**, Barone Gibbs B. The influence of a sit-stand desk on sleepiness, physical discomfort, physical fatigue and mental fatigue. *Med Sci Sports Exerc* 2017;49(5S):S632-633. Oral presentation at the ACSM Annual Meeting (Denver, CO), May 30-June 3, 2017.
- 53. Kline CE, Kowalsky RJ\*, Perdomo SJ\*, Barone Gibbs B. Use of a sit-stand desk reduces wake time during the subsequent night's sleep. *Med Sci Sports Exerc* 2017;49(5S):S640. Thematic poster at the ACSM Annual Meeting (Denver, CO), May 30-June 3, 2017.
- 52. Bowman MA\*, Smagula SF, Brindle RC, **Kline CE**, Mulukutla SR, Krafty RT, Frank E, Kupfer DJ, Thayer JF, Hall MH. We got the beat: lower sleep-wake rhythmicity is associated with larger brachial artery diameter. *Psychosom Med* 2017;78(3):A24-25. Poster at the APS Annual Meeting (Sevilla, Spain), March 15-18, 2017.
- 51. Kline CE, Burke LE, Sereika SM, Imes CC, Baniak LM, Mendez DD, Strollo PJ, Ye L, Chasens ER. Sleep apnea is reduced following a behavioral weight loss intervention but impedes weight loss outcomes. *Circulation* 2017;135(Suppl 1):AMP089. Moderated poster at the AHA Epi | Lifestyle Scientific Sessions (Portland, OR), March 7-10, 2017.

- 50. Imes CC, **Kline CE**, Rockette-Wagner B, Baniak L, Mendez DD, Chasens ER, Sereika SM, Burke LE. Bidirectional relationship between sleep and sedentary behavior in adults who are overweight and obese. *Circulation* 2017;135(Suppl 1):AMP028. Moderated poster at the AHA Epi | Lifestyle Scientific Sessions (Portland, OR), March 7-10, 2017.
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- Hall MH, Kline CE, Gao C\*, Samuelsson LB\*, Cribbet MR, Taylor BJ\*, Frank E, Krafty RT, Thayer JF, Kupfer DJ. Sleep explains the association between depression and Framingham 'heart age' in women. *Sleep* 2016;39(Suppl.):A351. Poster at the APSS/SLEEP Annual Meeting (Denver, CO), June 11-15, 2016.
- 47. Kline CE, Swift DL, Hall MH, Earnest CP, Blair SN, Church TS. Predictors of improved sleep quality following six months of exercise training in postmenopausal women. *Sleep* 2016;39(Suppl.): A349. Poster at the APSS/SLEEP Annual Meeting (Denver, CO), June 11-15, 2016.
- 46. Chasens ER, Baniak LM, **Kline CE**. Correlates of sleep quality in women: results of the National Sleep Foundation 2013 poll. *Am J Respir Crit Care Med* 2016;193(Suppl.):A5544. Poster at the ATS International Conference (San Francisco, CA), May 13-18, 2016.
- 45. Baniak LM, **Kline CE**, Morris JL\*, Chasens ER. Sleep and activity as predictors of subjective health status in middle-aged women. *Am J Respir Crit Care Med* 2016;193(Suppl.):A5546. Poster at the ATS International Conference (San Francisco, CA), May 13-18, 2016.
- 44. Kline CE, Strollo PJ, Chasens ER, Rockette-Wagner B, Kriska AM, Imes CC, Sereika SM, Burke LE. Associations between sleep and changes in activity and barriers to healthy eating following a 12-month behavioral weight loss intervention. *Med Sci Sports Exerc* 2016;48(5S):S8. Thematic poster at the ACSM Annual Meeting (Boston, MA), May 31-June 4, 2016.
- 43. Taylor BJ\*, Samuelsson LB\*, **Kline CE**, Krafty RT, Thayer JF, Frank E, Kupfer DJ, Hall MH. Evening chronotype is associated with insulin resistance in adults without recurrent depression. *Psychosom Med* 2016;78(3):A-32. Poster at the APS Annual Meeting (Denver, CO), March 9-12, 2016.
- 42. Rockette-Wagner B, Kriska AM, Ma Q, Sereika SM, **Kline CE**, Imes C, Burke LE. Objectively measured physical activity and sedentary behavior change during a lifestyle intervention in overweight adults: does season matter? *Circulation* 2016;133(Suppl 1):AP248. Poster at the AHA Epi | Lifestyle Scientific Sessions (Phoenix, AZ), March 1-4, 2016.
- Kline CE, Rice TB, Strollo PJ, Barinas-Mitchell E. Three-year progression of sleep-disordered breathing is associated with cardiovascular disease risk factors in young adults. *Circulation* 2016; 133(Suppl 1):AP315. Poster at the AHA Epi | Lifestyle Scientific Sessions (Phoenix, AZ), March 1-4, 2016.
- 40. **Kline CE**, Strollo PJ, Chasens ER, Rockette-Wagner B, Kriska AM, Imes CC, Sereika SM, Burke LE. Changes in objective and subjective sleep parameters following a 12-month behavioral weight loss intervention and their relationship to weight change. *Circulation* 2016;133(Suppl 1):AMP92. Moderated poster at the AHA Epi | Lifestyle Scientific Sessions (Phoenix, AZ), March 1-4, 2016.

- Casement M, Kline C, Matthews K, Kravitz H, Bromberger J, Harlow S, Zheng T, He F, Hall M. Variability in sleep duration mediates the relationship between chronic stress and symptoms of depression and anxiety in midlife women. *Neuropsychopharmacology* 2015;40(S1):S510-511. Poster at the Annual Meeting of the American College of Neuropsychopharmacology (Hollywood, FL), December 6-10, 2015.
- 38. Chasens ER, Imes CC, **Kline CE**, Strollo PJ, Burke LE. Is obstructive sleep apnea associated with poorer outcomes in a behavioral weight loss intervention study? *Sleep* 2015;38(Suppl.):A294. Oral presentation at the APSS/SLEEP Annual Meeting (Seattle, WA), June 6-10, 2015.
- 37. Casement MD, Kline CE, Matthews KA, Kravitz HM, Bromberger J, Harlow SD, Zheng H, He F, Hall MH. Variability in sleep duration mediates the relationship between chronic stress and symptoms of depression and anxiety in midlife women: the SWAN Sleep Study. *Sleep* 2015;38(Suppl.):A317. Oral presentation at the APSS/SLEEP Annual Meeting (Seattle, WA), June 6-10, 2015.
- 36. Kline CE, Strollo PJ, Chasens ER, Rockette-Wagner B, Kriska A, Imes CC, Burke LE. Association of baseline sleep with changes in physical activity and perceived barriers to healthy eating among participants in a behavioral weight loss intervention. *Med Sci Sports Exerc* 2015;47(5S):S343. Oral presentation at the ACSM Annual Meeting (San Diego, CA), May 26-30, 2015.
- 35. Herring MP, **Kline CE**, O'Connor PJ. Effects of exercise training on self-reported sleep among young women with generalized anxiety disorder (GAD). *Eur Psychiatry* 2015;30(Suppl 1):465. Thematic poster at the European Congress of Psychiatry (Vienna, Austria), March 28-31, 2015.
- Hall MH, Kline CE, Thayer JF, Krafty RT, Frank E, Kupfer DJ. Objectively-assessed sleep predicts Framingham Risk score nearly two decades later. *Psychosom Med* 2015;77(3):A-120. Oral presentation at the APS Annual Meeting (Savannah, GA), March 18-21, 2015.
- Kline CE, Krafty RT, Thayer JF, Frank E, Kupfer DJ, Hall MH. Night follows day: does physical activity influence sleep reactivity? *Psychosom Med* 2015;77(3):A-131. Poster at the APS Annual Meeting (Savannah, GA), March 18-21, 2015.
- 32. Kline CE, Strollo PJ, Chasens ER, Rockette-Wagner B, Kriska A, Imes CC, Burke LE. Insufficient and poor sleep are associated with barriers to healthy eating and lower physical activity: baseline characteristics of the EMPOWER Study. *Circulation* 2015;131(Suppl 1):AP073. Poster at the AHA Epi | Lifestyle Scientific Sessions (Baltimore, MD), March 3-6, 2015.
- Okun M, Baker J\*, Rothenberger S\*, Kline C. The effect of exercise on sleep during pregnancy. Sleep 2014;37(Suppl.):A349. Poster at the APSS/SLEEP Annual Meeting (Minneapolis, MN), May 31-June 4, 2014.
- 30. Milligan BJ\*, Samuelsson LB\*, **Kline CE**, Frank E, Hall M. Sex differences in sensitivity to the timing and regularity of sleep-wake behaviors. *Sleep* 2014;37(Suppl.):A56. Poster at the APSS/SLEEP Annual Meeting (Minneapolis, MN), May 31-June 4, 2014.
- 29. Kline CE, Hall MH. Associations of sedentary time and moderate-vigorous physical activity with sleep-disordered breathing. *Sleep* 2014;37(Suppl.):A155-A156. Poster at the APSS/SLEEP Annual Meeting (Minneapolis, MN), May 31-June 4, 2014.

- 28. Kline CE, Buman MP, Youngstedt SD, Phillips B, de Mello MT, Hirshkowitz M. Self-reported physical activity intensity and sleep apnea risk: the 2013 'Sleep in America' poll. *Med Sci Sports Exerc* 2014;46(5S):S374. Poster at the ACSM Annual Meeting (Orlando, FL), May 27-31, 2014.
- 27. Kline CE, Lubinski LC\*, Seres RJ, Miewald JM, Hall MH, Buysse DJ. Improved sleep quality does not result in increased physical activity in older adults with insomnia. *Med Sci Sports Exerc* 2014; 46(5S):S562-563. Thematic poster at the ACSM Annual Meeting (Orlando, FL), May 27-31, 2014.
- Kline CE, Hall MH, Buysse DJ, Earnest CP, Blair SN, Church TS. Sleep initiation complaints are associated with lower cardiorespiratory fitness among postmenopausal women. *Psychosom Med* 2014;76(3):A-55; *Sleep* 2014;37(Suppl.):A189. Oral presentation at the APS Annual Meeting (San Francisco, CA), March 12-15, 2014, and poster at the APSS/SLEEP Annual Meeting (Minneapolis, MN), May 31-June 4, 2014.
- 25. Milligan BJ\*, Samuelsson LB\*, **Kline CE**, Kupfer DJ, Thayer JF, Hall MH. Delayed bed time is associated with risk factors for atherosclerosis and ischemic stroke. *Psychosom Med* 2014;76(3):A-132-133. Poster at the APS Annual Meeting (San Francisco, CA), March 12-15, 2014.
- Kline CE, Irish LA, Sternfeld B, Buysse DJ, Zheng H, Kravitz HM, Matthews KA, Bromberger JT, Dugan SA, Hall MH. Exercise frequency is associated with parasympathetic activity during sleep in midlife women: the SWAN Sleep Study. *Sleep* 2013;36(Suppl.):A398. Poster at the APSS/SLEEP Annual Meeting (Baltimore, MD), June 1-5, 2013.
- Iftikhar IH, Kline CE, Hill L\*, Youngstedt SD. Effects of exercise training and non-surgical weight loss on obstructive sleep apnea: a meta-analysis. *Sleep* 2013;36(Suppl.):A146. Poster at the APSS/SLEEP Annual Meeting (Baltimore, MD), June 1-5, 2013.
- 22. Hall M, Mulukutla S, Thayer JF, Krafty RT, **Kline CE**, Samuelsson LB\*, Frank E, Kupfer DJ. Sleep duration is prospectively associated with endothelial structure and function. *Sleep* 2012;35(Suppl.): A321. Oral presentation at the APSS/SLEEP Annual Meeting (Baltimore, MD), June 1-5, 2013.
- Kline CE, Hall MH, Earnest CP, Blair SN, Church TS. Poor subjective sleep quality is associated with lower insulin sensitivity in overweight postmenopausal women. *Psychosom Med* 2013;75(3):A-54. *Sleep* 2013;36(Suppl.):A286. Posters at the APS Annual Meeting (Miami, FL), March 13-16, 2013, and the APSS/SLEEP Annual Meeting (Baltimore, MD), June 1-5, 2013.
- Lubinski LA\*, Kline CE, Hall M, Buysse DJ. The relationship between self-reported physical activity and sleep in older adult insomniacs and healthy sleepers. *Sleep* 2012;35(Suppl.):A404-A405. Poster at the APSS/SLEEP Annual Meeting (Boston, MA), June 9-13, 2012.
- 19. Kline CE, Krafty RT, Kravitz HM, Sternfeld B, Dugan SA, Buysse DJ, Bromberger JT, Hall M. A consistent history of physical activity is associated with improved sleep continuity and quality in midlife women: the SWAN Sleep Study. *Sleep* 2012;35(Suppl.):A422. Poster at the APSS/SLEEP Annual Meeting (Boston, MA), June 9-13, 2012.
- Kline CE, Crowley EP, Ewing GB, Burch JB, Blair SN, Durstine JL, Davis JM, Youngstedt SD. Influence of autonomic function and exercise training on C-reactive protein levels in obstructive sleep apnea. *Med Sci Sports Exerc* 2012;44(5S):S358-S359; *Sleep* 2012;35(Suppl.):A186-A187. Posters at the ACSM Annual Meeting (San Francisco, CA), May 29-June 2, 2012, and the APSS/SLEEP Annual Meeting (Boston, MA), June 9-13, 2012.

- Youngstedt SD, Kline CE, Zielinski MR, Kripke DF. Tolerance of chronic sleep restriction in long sleepers does not differ for those with existing morbidities. *Sleep* 2011;34(Suppl.):A49. Poster at the APSS/SLEEP Annual Meeting (Minneapolis, MN), June 15, 2011.
- 16. Kline CE, Porter MM\*, Rose ED\*, Cornelius SK\*, Ewing GB, Blair SN, Durstine JL, Davis JM, Burch JB, Youngstedt SD. Changes in daytime functioning following exercise training in adults with untreated obstructive sleep apnea: a randomized controlled trial. *Sleep* 2011;34(Suppl.):A144. Poster at the APSS/SLEEP Annual Meeting (Minneapolis, MN), June 14, 2011.
- 15. **Kline CE,** Milton DN\*, Kane CJ\*, Crowley EP, Ewing GB, Blair SN, Durstine JL, Davis JM, Burch JB, Youngstedt SD. Exercise training significantly reduces obstructive sleep apnea severity and improves sleep quality in untreated adults: a randomized controlled trial. *Sleep* 2011;34(Suppl.): A144-A145. Poster at the APSS/SLEEP Annual Meeting (Minneapolis, MN), June 14, 2011.
- Crowley SK\*, Kline CE, Ginsberg JP, Youngstedt SD. The effect of bright light therapy on posttraumatic stress disorder-related sleep disturbances. *Sleep* 2011;34(Suppl.):A253. Poster at the APSS/SLEEP Annual Meeting (Minneapolis, MN), June 13, 2011.
- 13. Kline CE, Crowley EP, Ewing GB, Rowell EA\*, Giles KL\*, Blair SN, Durstine JL, Davis JM, Burch JB, Youngstedt SD. Exercise training improves heart rate recovery in adults with obstructive sleep apnea. *Med Sci Sports Exerc* 2011;43(5S): S190-S191. Poster at the ACSM Annual Meeting (Denver, CO), June 1, 2011.
- Kline CE, Sui X, Church TS, Youngstedt SD, Blair SN. Dose-response effects of a 6-month exercise training program on the subjective sleep quality of postmenopausal women. *Sleep* 2010; 33(Suppl.):A350-A351. Poster at the APSS/SLEEP Annual Meeting (San Antonio, TX), June 9, 2010.
- 11. Cornelius SK, **Kline CE**, Anderson J, Ginsberg JP, Youngstedt SD. The effect of bright light therapy on PTSD-related sleep disturbances. *Sleep* 2010;33(Suppl.):A237. Poster at the APSS/SLEEP Annual Meeting (San Antonio, TX), June 7, 2010.
- 10. Kline CE, Youngstedt SD. The anxiolytic effect of acute exercise does not vary by time of day or circadian phase. *Med Sci Sports Exerc* 2010;42(5S):S59. Oral presentation at the ACSM Annual Meeting (Baltimore, MD), June 3, 2010.
- Kline CE, Devlin TM, Zielinski MR, Moore TA, Durstine JL, Davis JM, Youngstedt SD. The circadian variation in swim performance is not altered by the time of habitual training. *Sleep* 2009; 32(Suppl.):A59. Poster at the APSS/SLEEP Annual Meeting (Seattle, WA), June 10, 2009.
- 8. Chen SC, Davis JM, Mahoney S, Barrilleaux T, Hubbles K, **Kline C**, Carmichael M, Murphy EA. Carbohydrate-protein beverage improves recovery from muscle damage induced by downhill running. *Med Sci Sports Exerc* 2009;41(5S):S578. Poster at the ACSM Annual Meeting (Seattle, WA), May 30, 2009.
- Kline CE, Devlin TM, Zielinski MR, Moore TA, Durstine JL, Davis JM, Youngstedt SD. Time of habitual training does not alter circadian rhythm of swim performance. *Med Sci Sports Exerc* 2009;41(5S):S531. Poster at the ACSM Annual Meeting (Seattle, WA), May 29, 2009.

- 6. **Kline CE**, Devlin TM, Zielinski MR, Moore TA, Davis JM, Durstine JL, Youngstedt SD. Circadian variation in reaction time performance. *Med Sci Sports Exerc* 2008;40(5S):S428. Poster at the ACSM Annual Meeting (Indianapolis, IN), May 29, 2008.
- 5. Chen SC, Davis JM, Carlsted C, **Kline C**, Murphy EA, Carmichael MD. Effects of quercetin feedings on maximal oxygen consumption and fatigue during exercise. *Med Sci Sports Exerc* 2008;40(5S):S165. Poster at the ACSM Annual Meeting (Indianapolis, IN), May 29, 2008.
- Youngstedt SD, Kline CE, Zielinski MR, Kripke DF. Tolerance of moderate sleep restriction in older self-reported long sleepers. *Sleep* 2006;29(Suppl.):A106. Oral presentation at the APSS/SLEEP Annual meeting (Salt Lake City, UT), June 10, 2006.
- Kline CE, Youngstedt SD, Devlin TM, Lee AY, Zielinski MR, Moore TA, Davis JM, Durstine JL. Circadian variation in swim performance. *Med Sci Sports Exerc* 2006;38(5S):S226-227. Poster at the ACSM Annual Meeting (Denver, CO), May 29, 2006.
- Youngstedt SD, Kline CE, Zielinski M, Moore T, Elliott JA. Circadian phase-shifting effects of bright light vs. exercise and bright light and exercise combined. *Med Sci Sports Exerc* 2006;38(5S):S99. Oral presentation at the ACSM Annual Meeting (Denver, CO), May 29, 2006.
- Youngstedt SD, Kline CE, Zielinski M, Lee A, Devlin TM, Kripke DF. Influence of moderate sleep restriction in older self-reported long sleepers. *Sleep Biol Rhythms* 2005;3(S1):A68. Oral presentation at the 2<sup>nd</sup> Interim Congress of the World Federation of Sleep Research and Sleep Medicine Societies (New Delhi, India), September 23, 2005.

#### Unpublished Conference Proceedings (\* denotes student author):

Abbreviations: ACSM = American College of Sports Medicine; CSCS = Center for Sleep and Circadian Science; SLTBR = Society for Light Treatment and Biological Rhythms; UofSC = University of South Carolina.

- Cheruka CA\*, Egeler ME\*, Kubala AG, Paley JL, Vogan OM\*, Sanders RM\*, Patel SR, Hall MH, Perera S, Barone Gibbs B, Kline CE. The relationship between daytime sedentary behavior and sleep health in desk-based workers. Poster presentation at the ACSM Mid-Atlantic Regional Chapter Annual Meeting (Harrisburg, PA; November 4-5, 2022).
- Holmes AJ\*, Kline CE, Stoner L, Davis K, Paley JL, Barone Gibbs B. Examination of 24-hour movement behaviors in home vs. office work locations. Poster presentation at the ACSM Mid-Atlantic Regional Chapter Annual Meeting (Harrisburg, PA; November 4-5, 2022).
- Pomeroy A\*, Pagan Lassalle P\*, Kline CE, Heffernan KS, Stoner L. Sleep duration and arterial stiffness: a meta-analysis. Poster at the Southeastern ACSM Meeting (held virtually due to COVID-19; February 17-19, 2021).
- 16. Srinivasan S\*, Jasper A\*, Mehra R\*, Kohli N\*, Goli R\*, Bowman MA\*, **Kline CE**, Cribbet MR, Krafty RT, Thayer JF, Hall MH. Sleep disturbances are associated with excess heart age in women. Poster at the University of Pittsburgh CSCS Research Day (Pittsburgh, PA; November 21, 2019).
- 15. Kubala AG\*, Sullivan KJ, **Kline CE**, Cauley JA. Relationship between a composite measure of sleep health and bone mineral density in a sample of older women from the Study of Osteoporotic Fractures. Poster at the University of Pittsburgh CSCS Research Day (Pittsburgh, PA; November 21, 2019).

- 14. Egeler ME\*, Kubala AG\*, **Kline CE**. Impact of various actigraphic editing approaches on sleep/wake outputs in adults with insomnia and healthy sleepers. Poster at the University of Pittsburgh CSCS Research Day (Pittsburgh, PA; November 21, 2019).
- Bowman MA\*, Kline CE, Matthews KA, Roecklein KA, Krafty RT, Kravitz HM, Bromberger JT, Hall MH. Integrating sleep, circadian rhythms, and daytime alertness: depressive symptoms are prospectively associated with multidimensional sleep health in the Study of Women's Health Across the Nation (SWAN) Sleep Study. Poster at the Advances in Sleep and Circadian Science Meeting (Clearwater, FL; February 1-4, 2019).
- Bowman MA\*, Kline CE, Matthews KA, Roecklein KA, Krafty RT, Kravitz HM, Bromberger JT, Hall MH. Depressive symptoms are prospectively associated with multidimensional sleep health in the Study of Women's Health Across the Nation (SWAN) Sleep Study. Poster at the University of Pittsburgh CSCS Research Day (Pittsburgh, PA; November 3, 2018).
- 11. Buman MP, **Kline CE**, Youngstedt SD, Phillips B, de Mello MT, Hirshkowitz M. Sitting time associations with sleep and apnea risk: results from the 2013 National Sleep Foundation Sleep in America Poll. Poster at the 5<sup>th</sup> International Congress on Physical Activity and Public Health (Rio de Janeiro, Brazil; April 8-11, 2014).
- Duncan MJ, Kline C, Vandelanotte C, Sargent C, Di Milia L. Relationships between physical activity, sitting time, dietary habits, sleep, and self-rated health in the 10,000 Steps Cohort. Poster at the International Society of Behavioural Nutrition and Physical Activity Annual Meeting (Ghent, Belgium; May 22-25, 2013).
- 9. Kline CE, Crowley EP, Ewing GB, Burch JB, Blair SN, Durstine JL, Davis JM, Youngstedt SD. Influence of exercise training on C-reactive protein levels in adults with obstructive sleep apnea. Thematic poster at the ACSM Mid-Atlantic Regional Chapter Annual Meeting (Harrisburg, PA; November 4, 2011).
- 8. Youngstedt SD, Ginsberg JP, Powell DA, **Kline CE**, Zielinski MR. Bright light: a novel treatment for posttraumatic stress disorder. Oral presentation at SLTBR Annual Meeting (Vancouver, Canada; June 27, 2008).
- 7. Youngstedt SD, Ginsberg JP, **Kline CE**, Zielinski MR. Bright light treatment for high-anxious young adults. Poster at the SLTBR Annual Meeting (Vancouver, Canada; June 26, 2008).
- 6. **Kline CE**, Zielinski MR, Bogan RK, Kripke DF, Youngstedt SD. Influence of chronic moderate sleep restriction on older self-reported long sleepers. Oral presentation at the UofSC Graduate Student Day (Columbia, SC; April 4, 2007).
- Chen S, Davis JM, Matthews E, Crowley P, Greene N, Quig M, Wilson A, Payn T, Lyerly W, Newall S, Kline C, Murphy A, Carmichael M. Effects of caffeine and carbohydrate ingestion on physical/ mental functions during team sports exercise. Oral presentation at the ACSM Southeastern Regional Chapter Annual Meeting (Charlotte, NC; February 12, 2007).
- 4. **Kline CE**, Youngstedt SD, Devlin TM, Lee AY, Zielinski MR, Moore TA, Davis JM, Durstine JL. Circadian variation in swim performance. Oral presentation at the UofSC Graduate Student Day (Columbia, SC; April 5, 2006).

- 3. Kline CE, Youngstedt SD, Devlin TM, Lee AY, Zielinski MR, Davis JM, Durstine JL. Circadian variation in swim performance. Oral presentation at the ACSM Southeastern Regional Chapter Annual Meeting (Charlotte, NC; February 10, 2006).
- 2. **Kline CE**, Youngstedt SD, Blankenship JB, Lee AY, Zielinski MR, Devlin TM, Wilcox S, Bogan RK, Kripke DF. Influence of chronic moderate sleep restriction in older long sleepers: preliminary findings. Poster presentation at Aging Research Day (Columbia, SC; April 8, 2005).
- 1. Devlin TM, Youngstedt SD, **Kline CE**, Blankenship JB, Lee AY, Zielinski MR, Wilcox S, Kripke DF. Sleep and mood of older self-reported long sleepers: preliminary findings. Oral presentation at the Southern Sleep Society Annual Meeting (New Orleans, LA; April 1, 2005).

# FUNDED RESEARCH GRANTS

### Current Research Support:

## **Co-Investigator**

NIH Research Program Cooperative Agreement (U19AG063720) Title: *The Study of Women's Health Across the Nation (SWAN): The Impact of Midlife and the Menopause Transition on Health and Functioning in Early Old Age* PI: MM Brooks, RC Thurston (University of Pittsburgh), et al. Period: 09/01/2021-08/31/2024 Effort: 0.6 calendar months Purpose: To examine the extent to which midlife health, and specifically the menopausal transition, affects successful aging in women. Amount: \$9,956,711 direct costs (\$11,145,077 total amount)

## **Co-Investigator**

NIH Research Project Grant (R01 AG062531)

Title: Contributions of sleep to preclinical and clinical Alzheimer's disease

PI: JJ Himali (University of Texas Health Science Center), MP Pase (Monash University)

Period: 03/01/21-02/29/24 Effort: 1.2 calendar months Purpose: This study will examine gold-standard assessments of sleep (e.g., PSG) in relation to incident dementia, brain volume, and cognitive function across multiple population cohorts. It is expected that lower REM and slow wave sleep percentage, and greater severity of sleep disordered breathing will be associated with a higher risk of incident AD dementia and accelerated brain aging. **Amount:** \$1,996,136 direct costs (\$2,262,614 total amount) through Year 3

## **Co-Investigator**

NIH Research Project Grant (R01 HL153095) Title: Sedentary behavior, physical activity, sleep, and cardiovascular risk in pregnancy: the Pregnancy 24/7 cohort study PI: KM Whitaker (University of Iowa) Period: 09/15/20-08/31/2025 Effort: 1.2 calendar months Purpose: To examine the associations of sedentary behavior and sleep with hypertensive disorders of pregnancy and other adverse pregnancy outcomes that increase future CVD risk. Amount: \$2,787,946 direct costs (\$3,432,188 total amount)

## **Principal Investigator**

NHLBI Clinical Ancillary Study (R01 HL147610)Title: Reducing sedentary behavior to improve sleep: an ancillary study to the RESET BP clinical trialPeriod: 04/01/19-02/28/24 (NCE)Effort: 3.0 calendar months

Purpose: Using a multi-method sleep assessment approach, to examine the bidirectional relationship between sleep and sedentary behavior in the context of a randomized trial investigating the impact of sedentary behavior reduction on blood pressure.

Amount: \$1,000,000 direct costs (\$1,528,148 total amount)

## **Principal Investigator**

 NHLBI Small Grant for NHLBI K Recipients (R03 HL148357)

 Title: Disentangling subclinical cardiovascular risk associated with insomnia, short sleep duration, and their combination

 Period: 08/01/19-07/31/23 (NCE)
 Effort: 1.2 calendar months

 Purpose: To examine the subclinical cardiovascular risk profile of adults with isolated short sleep duration (i.e., without insomnia) and isolated insomnia (i.e., with ≥ 6 h sleep duration).

Amount: \$100,000 direct costs (\$155,723 total amount)

## **Principal Investigator**

University of Pittsburgh Central Research Development Fund Small Grant Title: *Exercise and obstructive sleep apnea: examination of the nocturnal rostral fluid shift as a mechanism of effect* Period: 07/01/17-06/30/23 (NCE)

Purpose: To address whether acute exercise impacts obstructive sleep apnea (OSA) severity and examine whether evening exercise reduces OSA severity to a greater extent than morning exercise in comparison with a sedentary control condition.

Amount: \$15,998 direct costs (\$15,998 total amount)

### Completed Research Support:

#### **Principal Investigator**

NIH (NHLBI) Mentored Patient-Oriented Career Development Award (K23 HL118318) Title: A novel risk factor for cardiovascular disease: the insomnia-short sleep phenotype Period: 01/01/14-12/31/19 Effort: 9.0 calendar months Purpose: To provide focused training in the measurement of subclinical cardiovascular disease (CVD), diagnosis/treatment of insomnia, and design/conduct of randomized trials; the linked research project will examine whether insomnia with short sleep is associated with subclinical CVD and develop/refine a novel behavioral treatment (CBT-I with exercise) for this phenotype. Amount: \$718,402 direct costs (\$775,723 total amount)

### **Co-Investigator**

NIH Research Project Grant (R01 HL107370)

Title: Real time data collection with adaptive sampling and innovative technologies

PI: LE Burke (School of Nursing, University of Pittsburgh)

Period: 04/01/16-03/31/17 (CEK support) Effort: 0.6 CM [cost-shared] during no-cost extension year Purpose: To improve ecological momentary assessment (EMA) methodology by further developing and testing an adaptive assessment system designed by an interdisciplinary team using state-of-the-science hardware and software that limits subject burden while facilitating real-time data collection in the context of a behavioral weight loss intervention.

Amount: \$1,962,537 direct costs (\$2,808,011 total amount)

### **Principal Investigator**

NIH Loan Repayment Program Award (L30 HL115832)

Title: Exercise, the cardiovascular risk of insomnia, and sleep-related hyperarousal (initial funding); A novel cardiovascular disease risk factor: the insomnia-short sleep phenotype (renewal)

#### Period: 09/01/11-08/31/14

Purpose: To examine the relationships between physical activity, sleep-related hyperarousal, insomnia, and cardiovascular risk in archival datasets and a proposed CDA application. Amount: \$23,200 direct costs (\$23,200 total amount)

#### **Principal Investigator**

Centers for Disease Control & Prevention Public Health Dissertation Research Grant (R36 CD000695) Title: *Exercise: a novel treatment for obstructive sleep apnea* Period: 08/01/08-07/31/10 Purpose: To evaluate the efficacy of exercise training for the reduction of obstructive sleep apnea severity and its associated health consequences. Amount: \$34,992 direct costs (\$37,991 total amount)

#### **Principal Investigator**

American College of Sports Medicine Research Foundation Doctoral Student Research Grant Title: *Circadian phase-shifting effects of three exercise durations* Period: 06/01/07-05/31/09 Purpose: To compare the circadian phase-delaying properties of moderate-intensity exercise durations of 30, 60 and 90 minutes in a sample of young, healthy adults.

Amount: \$5,000 direct costs (\$5,000 total amount)

#### **Principal Investigator**

Gatorade Sports Science Institute Student Research Grant Title: *Shifting human circadian rhythms with different exercise durations* Period: 09/01/07-08/31/08 Purpose: To compare the circadian phase-delaying properties of moderate-intensity exercise durations of 30, 60 and 90 minutes in a sample of young, healthy adults.

Amount: \$1,500 direct costs (\$1,500 total amount)

#### **Principal Investigator**

Gatorade Sports Science Institute Student Research Grant Title: *Investigation of circadian variation in 200-m freestyle swim performance* Period: 09/01/05-08/31/06 Purpose: To determine the existence of a circadian rhythm in swim performance using a chronobiological technique that standardizes various exogenous factors. Amount: \$2,700 direct costs (\$2,700 total amount)

## **TEACHING EXPERIENCE**

#### Workshops:

Abbreviations: ACSM = American College of Sports Medicine; APS = American Psychosomatic Society; CSCS = Center for Sleep and Circadian Science; UofSC = University of South Carolina

- 2023 Faculty Member, Spring SWIM (Sleep and Circadian Workshop on Indispensable Methods) Workshop, University of Pittsburgh CSCS *Details:* Invited speaker for presentation during the 3-day workshop: 'Actigraphy: The Basics' (co-presented with AM Soehner). Approximately 40 attendees.
- 2020 Faculty Member, Summer SWIM (Sleep and Circadian Workshop on Indispensable Methods) Workshop, University of Pittsburgh CSCS

*Details:* Invited speaker for two presentations during the week-long online workshop: 'Impact of sleep and circadian disturbances on cardiometabolic health' (co-presented with MH Hall) and 'Research-grade versus commercially available actigraphy devices: the good, the bad, and the possible' (as part of the 'Meet the Experts' sessions). Approximately 30 attendees.

2015 Panel Lecturer, Sleepless in Savannah: 2015 APS Sleep Measurement Workshop; APS Annual Meeting, Savannah, GA *Details:* Invited lecturer for two presentations during the 4-hour workshop: 'Actigraphy Lab Session' and 'Obesity, Obstructive Sleep Apnea, and Psychosomatic Medicine'. Approximately 25 attendees.

2006-2010 Workshop Director, ACSM Health/Fitness Specialist Workshop; Dept of Exercise Science, UofSC *Details:* 2-day workshop that prepared individuals in the health/fitness field for the Health/Fitness Specialist certification; regularly attended by 15-30 adults interested in certification or obtaining continuing education credits.

- 2006-2009 Lecturer, ACSM Health/Fitness Specialist Workshop; Dept of Exercise Science, UofSC *Details:* Taught Metabolic Calculations lecture, which entailed instruction on how to understand and estimate energy expenditure using ACSM formulas and definitions
- 2004-2005 Assistant to Workshop & Certification Coordinator, ACSM Health/Fitness Instructor Workshop & Certification; Dept of Exercise Science, UofSC *Details:* 3-day workshop (and certification) session that prepared individuals in the health/fitness field for the Health/Fitness Specialist certification; regularly attended by 20-35 adults interested in certification or obtaining continuing education credits.
- 2003 Assistant Workshop Coordinator, Cooper Institute Physical Fitness Specialist Fast Track Clinic; Dept of Exercise Science, UofSC) *Details:* Workshop designed to prepare individuals for Physical Fitness Specialist certification exam; attended by 2 adults in the health/fitness field.

Academic Courses—Guest Lectures:

Fall 2020	PSYC 2575 (Sleep and Circadian Rhythms in Health and Disease) Department of Psychology, University of Pittsburgh <i>Details:</i> led a presentation on 'Sleep and cardiometabolic health'
Spring 2018, 2019	SHRS 2868 (Seminar in Sports Medicine) Department of Sports Medicine & Nutrition, University of Pittsburgh <i>Details:</i> led a presentation on 'Interrelationships between physical activity, sleep, and cardiometabolic risk', emphasizing their bidirectional associations
Spring 2015, 2019	HPA 3377 (Chronic Disease Case Studies) Department of Health & Physical Activity, University of Pittsburgh <i>Details:</i> led a presentation on 'Exercise and Sleep', emphasizing the bidirectional relationship between these two behaviors
Fall 2018, 2019	PT 2028 (Health and Wellness) Department of Physical Therapy, University of Pittsburgh

	<i>Details:</i> led a presentation on 'Importance of sleep to physical therapists' to second-year DPT students	
Fall 2017, 2018	HPA 3116 (Resource & Funding Acquisition for Health Programming) Department of Health and Physical Activity, University of Pittsburgh <i>Details:</i> led a presentation on identifying federal grant funding opportunities	
Spring 2017	Topics in Health and Physical Activity (course 69-120) Department of Athletics and Physical Education, Carnegie Mellon University <i>Details:</i> led a presentation on the importance of sleep health to students	
Summer 2014	Summer Medical Student Didactic Series Department of Psychiatry, University of Pittsburgh <i>Details:</i> led a presentation on 'The Basics of SDB' to medical students and summer research interns	
Spring 2012	PSYC 1057 (Seminar in Sleep and Health) Department of Psychology, University of Pittsburgh <i>Details</i> : supervised and directed presentations on 'Sleep and Metabolism'	
Spring 2006	EXSC 351 (Acquisition of Motor Skills) Department of Exercise Science, University of South Carolina <i>Details:</i> single lecture that provided an overview of motor learning concepts and research methods	
Spring 2006	EXSC 710 (Behavioral Aspects of Physical Activity) Department of Exercise Science, University of South Carolina <i>Details</i> : single lecture that reviewed the effects of exercise on sleep	
Fall 2005	EXSC 731 (Mechanics of Motor Skill Performance) Department of Exercise Science, University of South Carolina <i>Details:</i> instructed lab that focused on studying performance on distinct motor ability tasks and discussing results relative to motor ability hypotheses	
Summer 2005	EXSC 530 (Physiology of Muscular Activity) Department of Exercise Science, University of South Carolina <i>Details</i> : single lecture that reviewed ATP-PC system and anaerobic glycolysis	
Summer, Fall 2004	EXSC 341A (Health/Fitness Practicum) Department of Exercise Science, University of South Carolina <i>Details:</i> delivered lecture on common musculoskeletal fitness testing procedures, cues, norms	
Academic Courses—Course Instructor:		
Fall 2022	HHD 1031 (Research in Sports Science) Department of Health and Human Development, University of Pittsburgh <i>Details:</i> instructed undergraduates on research methods relevant to the field of exercise science	
Spring 2021-2023	HHD 1042 (Physiology of Exercise)	

	Department of Health and Human Development, University of Pittsburgh <i>Details:</i> instructed undergraduates on the core principles of exercise physiology, including both lecture-based and lab-based content
Fall 2017-2021	HHD 2268 (Physical Activity and Health) (online course) Department of Health and Physical Activity, University of Pittsburgh <i>Details:</i> delivered instruction on the relationship between physical activity and health via online lectures, discussion boards, and written assignments
Spring 2019, 2020	HPA 1233 (Principles of Strength & Conditioning) Department of Health and Physical Activity, University of Pittsburgh Details: instruct undergraduate students on introductory concepts and science behind the training for optimal athletic performance
Spring 2016-2018	HPA 3377 (Chronic Disease Case Studies) Department of Health & Physical Activity, University of Pittsburgh <i>Details:</i> facilitated presentations by Pitt researchers studying chronic diseases/ conditions and how lifestyle management may impact these conditions; led lectures, administered quizzes, designed and reviewed final paper assignments
Spring 2008, Summer 2008	EXSC 531L (Clinical Exercise Physiology Laboratory) Department of Exercise Science, University of South Carolina <i>Details:</i> coordinated 12 sections and taught 2 sections of laboratory class; labs focused on skills related to clinical exercise physiology (e.g., electrocardiography preparation and interpretation, graded exercise testing protocols)
Fall 2007, Summer 2008	EXSC 530L (Physiology of Muscular Activity Laboratory) Department of Exercise Science, University of South Carolina <i>Details:</i> coordinated 12 sections and taught 2 sections of laboratory class; labs focused on basic skills and principles related to exercise physiology (e.g., fitness testing, maximal oxygen consumption, blood pressure measurement)
Summer 2005, Spring 2007	EXSC 351L (Acquisition of Motor Skills Laboratory) Department of Exercise Science, University of South Carolina <i>Details:</i> taught 3 laboratory sections of class; led labs regarding the effect of factors (e.g., attention, practice) on motor performance
University-related Jo	urnal Clubs/Student Seminars:

2014-2022 Sleep T32 Journal Club (Department of Psychiatry, University of Pittsburgh) Led presentations on the following: *SWAN Sleep I actigraphy inspection procedures* (2014), *Apnea 102: can it be assessed by self-report?* (2017), *The basics on effort reporting* (2018), *Commercial devices for measuring sleep* (2019), *Actigraphy editing standardization* (2019), *Assessing physical activity: options and considerations* (2021), *Measures of sedentary behavior and physical activity* (2022).

### Seminars and Invited Presentations:

35. Too tired to exercise? Impact of sleep on physical activity behavior. *Invited presentation as part of the symposium "Sleep more, weigh less? Clinical studies of the impact of sleep on dietary intake, physical activity behavior, and response to weight loss interventions" (MP St-Onge, JP Chaput, co-*

presenters; SM Creasy, chair) at the Obesity Society Annual Meeting (San Diego, CA), November 3, 2022.

- 34. The importance of sleep for optimizing athletic performance and recovery: background and recommendations. *Invited presentation (co-presented with BP Hasler) to the Duquesne University Student Athlete Seminar (virtual), January 31, 2022.*
- 33. The importance of sleep for optimizing athletic performance and recovery: background and recommendations. *Invited presentation (co-presented with BP Hasler) to the Duquesne University Student Athlete Seminar (virtual), February 8, 2021.*
- 32. The importance of sleep for optimizing athletic performance and recovery. *Invited presentation at the Yale Sleep Medicine Seminar (virtual), December 16, 2020.*
- 31. Using consumer technology in sleep research. *Invited presentation (co-presented with JD Cook and D Forger) as part of the Trainee Network and Development Suite Sessions at the APSS/SLEEP Annual Meeting (San Antonio, TX), June 10, 2019.*
- 30. Necessity of quality sleep to prevent and combat obesity. *Invited presentation at the Grove City College Exercise Science Symposium (Take Control of Your Health: Wellness, Exercise, and Nutrition), April 6, 2019.*
- 29. Do wearable fitness sleep trackers actually work? Assessing measurement error and validity issues. *Invited presentation in the 'Using Apps and Consumer Wearables in Clinic for Lifestyle and Cardiometabolic Health' seminar at the AHA Scientific Sessions (Chicago, IL), November 10, 2018.*
- 28. Exercise as a behavioral treatment option for obstructive sleep apnea. *Invited presentation as part* of the symposium "Moving' Sleep to the Forefront of Exercise Science" (DA Dobrosielski, AM Spaeth, co-presenters) at the ACSM Mid-Atlantic Regional Chapter Annual Meeting (Harrisburg, PA), November 2, 2018.
- 27. The importance of sleep for optimal athletic performance and recovery. *Invited presentation at the Grove City College Exercise Science Symposium (Strategies for Recovery and Regeneration), March 24, 2018.*
- 26. The importance of sleep to health and fitness. *Invited presentation at the ACSM Health and Fitness Summit (San Diego, CA), April 8, 2017.*
- 25. Bidirectional relationships between weight change and sleep apnea in a behavioral weight loss intervention. *Invited short presentation at the Annual University of Pittsburgh Cardiovascular Epidemiology Conference (Pittsburgh, PA), April 3, 2017.*
- 24. Sleep management. Invited presentation at the Triathlon and Endurance Sports Clinic organized by the UPMC Lemieux Sports Medicine Center (Pittsburgh, PA), March 31, 2017.
- 23. Exercise and obstructive sleep apnea: OSA risk across the physical activity continuum. *Invited presentation at the University of Pittsburgh Sleep Medicine Institute Research Day (Pittsburgh, PA), November 10, 2016.*
- 22. The importance of sleep to weight loss and weight maintenance. *Invited webinar for Sanford Profile health coach team, October 20, 2016.*

- 21. Sleep and rest to maximize your CC performance. *Invited presentation at the Cuyahoga Falls High School Black Tiger Cross Country Camp (Cuyahoga Falls, OH), August 8, 2016.*
- 20. Physical activity as a treatment and prevention of sleep problems. *Invited tutorial (co-presented with SD Youngstedt) at the ACSM Annual Meeting (Boston, MA), June 3, 2016.*
- 19. Sleep and circadian rhythms: their importance to weight loss and behavior change in lifestyle interventions. *Invited presentation as part of the symposium "Sleep, circadian physiology, and body weight regulation" (KP Wright, FAJL Scheer, co-presenters; CE Kline, chair) at the World Congress on The Basic Science of Energy Balance/ACSM Annual Meeting (Boston, MA), June 1, 2016.*
- 18. Sleep and rest to maximize your run. *Invited presentation at the 'Final Tune UP! Maximize Your Race' seminar organized by the UPMC Lemieux Sports Complex (Pittsburgh, PA), April 2, 2016.*
- 17. Sleep: the forgotten pillar of health. *Invited presentation (co-presented with DJ Buysse) at the Pittsburgh Urban League Lunch and Learn Series (Pittsburgh, PA), August 6, 2015.*
- 16. Sleep: a novel pathway through which physical activity reduces cardiometabolic risk. *Invited presentation at the University of Pittsburgh Department of Health & Physical Activity (Pittsburgh, PA), March 16, 2015.*
- 15. Sleep and athletic performance. *Invited presentation at the University of Pittsburgh Sports Psychiatry Special Interest Group seminar (Pittsburgh, PA), January 13, 2015.*
- 14. Exercise and obstructive sleep apnea: OSA risk across the physical activity continuum. *Invited* presentation at the University of Pittsburgh Multidisciplinary Sleep Grand Rounds Seminar Series (Pittsburgh, PA), January 8, 2015.
- 13. Cardiometabolic risk in the insomnia/short sleep phenotype: could exercise be a key treatment component? *Invited presentation as a University of Pittsburgh Department of Psychiatry 'Researchers on the Rise' lecture (Pittsburgh, PA), October 24, 2014.*
- 12. Exercise as a treatment for obstructive sleep apnea. *Invited presentation as part of the Bench to Bedside symposium "Exercise as a behavioral sleep medicine intervention" (KG Baron, AS Walters, PC Zee, co-presenters) at the APSS/SLEEP Annual Meeting (Minneapolis, MN), May 31-June 4, 2014.*
- 11. Insomnia with short sleep duration: its cardiovascular risk and treatment with a novel behavioral intervention. *Invited presentation at the University of Pittsburgh Multidisciplinary Sleep Grand Rounds Seminar Series (Pittsburgh, PA), December 5, 2013.*
- 10. More than improved sleep quality: The effects of physical activity on nocturnal physiology and multiple dimensions of sleep. *Invited presentation at the Academy of Behavioral Medicine Research Annual Meeting ("Behavior, Health, and Aging"; Monterey, CA), June 29, 2013.*
- 9. Exercise and sleep: comparing 'Sleep in America' poll results with empirical data. *Invited* presentation at the University of Pittsburgh Multidisciplinary Sleep Grand Rounds Seminar Series (Pittsburgh, PA), March 7, 2013.

- 8. Improving sleep with exercise: a novel pathway for reducing cardiometabolic risk? *Invited presentation at the Auburn University Department of Kinesiology (Auburn, AL), January 9, 2013.*
- 7. The potential utility of exercise training in the management of obstructive sleep apnea. *Invited presentation at the University of Pittsburgh Multidisciplinary Sleep Grand Rounds Seminar Series* (*Pittsburgh, PA*), *October 6, 2011*.
- 6. Circadian rhythms and athletic performance. *Invited presentation as part of the symposium "Sleep, recovery, regeneration and performance in sport: an examination of current sleep research and health initiatives focused on the relationship of sleep to exercise" (C Samuels, S Youngstedt, C Mah, co-presenters) at the World Association of Sleep Medicine/Canadian Sleep Society Congress (Quebec City, Canada), September 10-15, 2011.*
- 5. Exercise training for OSA: a randomized controlled trial. *Invited presentation at the Sleep Research Society Trainee Day DataBlitz (Minneapolis, MN), June 11, 2011.*
- 4. The effects of exercise training on the severity and health consequences of obstructive sleep apnea. *Invited presentation at the UofSC Department of Exercise Science Seminar Series (Columbia, SC), April 16, 2010.*
- 3. The effect of sleep time, circadian rhythms, and training time of day on performance. *Invited presentation at the National Strength and Conditioning Association Annual South Carolina State Clinic (Columbia, SC), April 26, 2008.*
- 2. Exercise, athletic performance, and circadian rhythms. *Invited presentation at the UofSC Department of Exercise Science Seminar Series (Columbia, SC), March 21, 2008.*
- 1. Is there circadian variation in athletic performance? *Invited presentation at the UofSC Department of Exercise Science Seminar Series (Columbia, SC), November 11, 2005.*

### Thesis, Masters and Doctoral Dissertation Committees

Undergraduate Honors Thesis:

- 2010 Kate Hubble, Department of Exercise Science, University of South Carolina
   *The truth about half marathons* 2009 David Elliott, Department of Biological Sciences, University of South Carolina
  - The effects of eszopiclone on adenomatous polyposis development in APC<sup>Min +/-</sup> mice

Master's Thesis/Project:

- 2022 J. Tyler Butler, Dept of Health and Human Development, University of Pittsburgh (Chair) The acute therapeutic effect of Bhramari Pranayama on autonomic function and selfreported anxiety
- 2019 Jocelyn Mineo, Department of Biostatistics, University of Pittsburgh Concordance of actigraphic and ecological momentary assessed sleep
- 2018 Alyssa Monaghan, Department of Epidemiology, University of Pittsburgh (MPH Essay) Relationship of sleep quality and duration and obesity in Afro-Caribbean men

### Doctoral Dissertation:

2023 Carli Liguori, Dept of Health and Human Development, University of Pittsburgh The usefulness of targeted messaging techniques to promote healthy food choice in the food retail environment

- 2022-2023 Caitlin Cheruka, Dept of Health and Human Development, Univ of Pittsburgh (Chair) The effects of a 4-week vinyasa yoga program on sleep and cardiovascular health in adults with sleep disturbances
- 2022-2023 Supawit Ittinirundorn, Dept of Exercise Physiology, Chulalongkorn University (Thailand) Effects of high intensity interval training combined with respiratory muscle training on apnea-hypopnea index and oxidative stress in patients with obstructive sleep apnea
- 2021-2022 Marissa A. Evans, Dept of Psychology, University of Pittsburgh Dynamic changes in sleep characteristics and pre-sleep arousal during cognitive behavioral therapy for insomnia as predictors of treatment response
- 2021 Ronald E. Jackson, Dept of Health and Human Development, University of Pittsburgh Light-intensity physical activity and the association between BMI and cardiometabolic risk factors in adults with obesity
- 2021 Abdullah B. Alansare, Dept of Health and Human Development, University of Pittsburgh Associations of sedentary time with heart rate variability
- 2020-2021 Andrew G. Kubala, Dept of Health and Physical Activity, University of Pittsburgh (Chair) The effect of short-term exercise on sleep and daytime impairment in adults with insomnia
- Tracy Bowman, Dept of Health and Physical Activity, University of Pittsburgh (EdD)
   *A needs assessment of first-generation college student-athletes at Seton Hill University* Bruno T. Barbosa, Federal University of Paraiba (Brazil)
- Effects of a 24-week aquatic training program on obstructive sleep apnea syndrome severity in elderly women: a randomized controlled clinical trial
- 2019 Andrew S. Palko, Dept of Health and Physical Activity, University of Pittsburgh (EdD) Post-secondary faculty knowledge and perceptions of student-athlete concussion management in the classroom
- 2019 Tyler D. Quinn, Dept of Health and Physical Activity, University of Pittsburgh Cardiovascular mechanisms of the occupational physical activity health paradox
- 2017 Sophy J. Perdomo, Department of Health and Physical Activity, University of Pittsburgh Acute dose response effects of aerobic exercise on cerebrovascular hemodynamics and arterial stiffness
- 2016 Charity Breneman, Department of Exercise Science, University of South Carolina Associations between sleep parameters and physical activity in middle-aged and older adults

External Examiner:

2019 Penelope Larsen, School of Exercise Science, Sport & Health, Charles Sturt University The interrelationship of sleep, appetite, and exercise: a wakeup call for the middle-aged man

## Direct Student Supervision:

2020-2022 Directed Research Experience, RESET SLEEP Study Kayla Key, 2022, Undergraduate Research Assistant Sophie Lebegern, 2022, Undergraduate Research Assistant Isaiah Marsalis, 2022, Undergraduate Research Assistant Adrianna Sherwood, 2022, Undergraduate Research Assistant Spencer Gerhard, 2021, Undergraduate Research Assistant Chris Maloney, 2021, Undergraduate Research Assistant Daniel Hochman, 2020, Pitt First Experiences in Research student Sadie Jin, 2020, Undergraduate Research Assistant Courtney Lewis, 2020, Undergraduate Research Assistant

	Ingrid Shu, 2020, Pitt First Experiences in Research student
2021	Directed Research Experience, sleep and athletic performance
	Emily McConnell, Undergraduate Research Assistant
2018-2019	Directed Research Experience, Insomnia and Cardiovascular Health Study
	Emily K. Pietrangelo, 2018, MS Student
	Cameron Woods, 2018, Undergraduate Research Assistant
	Nolan Vannata, 2019, Undergraduate Research Assistant
	Andrew Tanabe, 2019, Undergraduate Research Assistant
2016-2018	Directed Research Experience, Commercial Activity Tracker Study
	Victoria DiRenzo, 2016, Undergraduate Research Assistant
	Patrick Donahue, 2016, MS Student
	Elizabeth Dierkes, 2016, Undergraduate Research Assistant
	Erin C. Santos, 2017, Undergraduate Research Assistant
2009-2010	Independent Study, Apnea and Activity Research Study
	Colin Kane, 2009-2010, Honors College Undergraduate Research Fellow
	DeAnna Milton, 2009-2010, Honors College Undergraduate Research Fellow
	Kelli Giles, 2010, Undergraduate Research Assistant
	Graham Jones, 2010, Undergraduate Research Assistant
	Morgan Porter, 2010, Undergraduate Research Assistant
	Ashley Reluzco, 2010, Undergraduate Research Assistant
	Elizabeth Rose, 2010, Undergraduate Research Assistant
	Elizabeth Rowell, 2010, Undergraduate Research Assistant
	Hannah Sagedy, 2010, Undergraduate Research Assistant

# Graduate Student Research Supervision:

2021-present	Caitlin A. Cheruka, PhD student
2021-present	Rachel M. Sanders, PhD student
2016-2020	Andrew G. Kubala, MS/PhD student
2016-2018	Julie A. Erwin, MS student

Teaching Practicum Mentorship

2021 Andrea Kozai, Physiology of Exercise (HHD 1042)

Guided Mentorship on Research Projects:

Christy Taylor, Medical Student
The effects of snoring on subclinical cardiovascular disease
Samantha Leathers, Medical Student
The relationship between medication use and sleep in midlife women
Leanna Lubinski, Research Associate
The association between sleep and physical activity in older adults

### **PROFESSIONAL MEMBERSHIP and SERVICE**

Professional Memberships:

International Network of Time-Use Epidemiologists (INTUE)	2022-present
Sedentary Behaviour Research Network	2015-present
American Heart Association (Council on Lifestyle and Cardiometabolic Health)	2012-present
Mid-Atlantic Regional Chapter, American College of Sports Medicine	2011-present

Sleep Research Society	2008-present
American College of Sports Medicine	2005-present
National Strength and Conditioning Association	2005-present
American Psychosomatic Society	2012-2015
American Academy of Sleep Medicine	2011-2013
Society for Light Treatment and Biological Rhythms	2009-2010
Southeastern Regional Chapter, American College of Sports Medicine	2005-2007

# Expert Consultant to the Media:

American Heart Association (subsequently covered by 241 media outlets with a media 363,505,709; sleep and adherence to lifestyle behavior modification)	reach of 2023
<i>KDKA Talk Pittsburgh</i> (sleep and adherence to lifestyle behavior modification)	2023
<i>PittWire</i> (sleep in collegiate student-athletes)	2023
Boston University Free Press (sleep in collegiate student-athletes)	2023
Medscape (impact of sleep on weight loss maintenance)	2022
WebMD (impact of sleep on weight loss)	2021
Under Armour MyFitnessPal blog (impact of exercise on sleep apnea)	2020
Pittsburgh Tribune-Review (sleep in collegiate student-athletes)	2019
Fatherly (exercise vs. sleep for health among new parents)	2019
<i>Refinery</i> 29 (exercise vs. sleep for optimal health)	2018
<i>Refinery</i> 29 (exercise to improve sleep)	2018
Wall Street Journal (late-night exercise and sleep)	2018
UPMC Healthbeat (sleep and athletic performance)	2017
CNN (exercise and sleep)	2017
Reuters (exercise and insomnia)	2016
The (Toronto) Globe and Mail (exercise and sleep)	2015
Huffington Post Healthy Living (exercise and sleep)	2015
Pittsburgh Post-Gazette (Sleep in America poll: Exercise and sleep)	2013
Health (effects of exercise on women's sleep)	2012
WebMD (exercise training for management of obstructive sleep apnea)	2011
Runner's World (circadian variation in athletic performance)	2010
VIV Magazine (chronobiology of mood and exercise)	2010
WIS Saturday Morning News (Columbia TV news, Columbia, SC) (sleep apnea)	2010
Health Wealth & Happiness (WGCV 620 am radio, Columbia, SC) (sleep apnea)	2009, 2010
Carolina Minutes (News highlighting UofSC research, SC ETV) (sleep apnea)	2009
WTOP News (Wash., D.C.) (circadian variation in athletic performance)	2007
American Physiological Society (circadian variation in athletic performance)	2007
ForbesLife Executive Woman (exercise and circadian rhythms)	2007
USA Today (circadian variation in athletic performance)	2007
The Los Angeles Times (circadian variation in athletic performance)	2007
Women's Health (circadian variation in athletic performance)	2007
Discovery Channel News (circadian variation in athletic performance)	2007
Shape Magazine (time-of-day considerations of exercise)	2006
The State (Columbia, SC) newspaper (rhythms in athletic performance)	2005

## Journal Club Interview:

American Thoracic Society Journal Club: Fitness, Weight, and Sleep Apnea2016Am. Academy of Sleep Technologists Journal Club #19: Exercise and Sleep Apnea2013

Ad hoc Manuscript Reviewer:

Angle Orthodontist Behavioral Medicine	2012 2020
Behavioral Sleep Medicine	2014-16, 2020
BMJ Open	2016
British Journal of Nutrition	2015
British Journal of Sports Medicine Chest	2020, 2021 2019, 2020
Clinical Psychology Review	2017, 2018
Complementary Therapies in Medicine	2017
European Journal of Applied Physiology	2014
European Respiratory Journal	2015-6,'19,'21
Gerontology	2012
Health Psychology	2023
International Journal of Cardiology	2013
International Journal of Injury Control and Safety Promotion	2014
International Journal of Obesity	2021, 2022
International Journal of Sports Medicine	2021
Journal of Affective Disorders	2023
Journal of Applied Physiology	2011, 2019
Journal of Clinical Sleep Medicine	2014, 2015
Journal of Nervous & Mental Disease	2012
Journal of Occupational & Environmental Medicine Journal of Sleep Disorders & Therapy	2014, 2015 2013
Maturitas	2013
Medicine & Science in Sports & Exercise	2014-2019
Neuropsychiatric Disease & Treatment	2013
Perceptual and Motor Skills	2009
Physiology & Behavior	2018
PLoS One	2015, 2017
Psychological Medicine	2012
Psychophysiology	2011, 2014
Psychosomatic Medicine	2023
Respiratory Medicine	2015
Scandinavian Journal of Medicine & Science in Sports	2015, 2020-1
Scientific Reports	2017
Sleep	2015, 2017-18
Sleep & Biological Rhythms	2022 2013
Sleep & Breathing Sleep Health	2015-2018
Sleep Medicine	·11, 14-17, 22
Sleep Medicine Reviews	2012-4, 16-17
Sports Medicine Open	2012 1, 10 17
Thorax	2019
Editorial Board:	
Journal of Activity, Sedentary and Sleep Behaviors	2022-present
Mental Health & Physical Activity	2020-present
Sleep	2019-present
Sleep Health	2019-present

# Ad-hoc Book Chapter Reviewer:

Reger-Nash B. Sleep balance. In: Reger-Nash B, Smith M, Juckett G. Foundations	2012
of Wellness. Champaign, IL: Human Kinetics, 2015.	

# Extramural Abstract Reviewer:

Associated Professional Sleep Societies (APSS/SLEEP) Annual Meeting	2016-2022
American College of Sports Medicine Annual Meeting	2018-2021
American Heart Association Epidemiology/Lifestyle Annual Meeting	2018-2022
American Psychosomatic Society Annual Meeting	2013, 2014
Extramural Grant Reviewer:	
University of Utah Center on Aging Pilot Grant Program	2019, 2020
VA Office of Research & Development Small Projects (SPiREs) grant review	2016
Towson University School of Emerging Technologies Seed Grant Program	2015
Mitacs Accelerate Internship Program	2014
Tenure & Promotion Reviewer:	
Zayed University	2023
University-related Service:	
Internal Grant Reviewer, University of Pittsburgh	2022
Office of the Senior Vice Chancellor for Research: Momentum Funds	2011, 2013,
Department of Psychiatry	2014, 2020
University Center for Social and Urban Research Institute for Clinical Research Education Clinical and Translational Science Institute School of Nursing Department of Occupational Therapy	2014, 2020 2020 2020 2019 2019, 2022 2018
Committee Member, School of Education, University of Pittsburgh	
Faculty Development Committee	2016-2018
Research Committee	2018-2020
Faculty Search Committee, Department of Health and Human Development, University	of Pittsburgh
Chair, Open-Rank Professor Search, Health, Exercise, and/or Nutrition	2022-2023
Co-Chair, Assistant Professor Search, Clinical Exercise Physiology	2021-2022
Associate/Full Professor Search	2019-2020
Non-tenure Stream Assistant Professor Search	2018-2019
Member, Organizing and Planning Committee	2015-2017,
University of Pittsburgh Center for Sleep and Circadian Science Research Day	2022
<i>Assistant</i> , University of Pittsburgh CTSI Mobile Science Lab	2011
<i>Responsibilities</i> : assisted with 'Exercise is Good for your Health' program at camps and	I schools

Judge, Univ of South Carolina Region II Science and Engineering Fair (Social/Behav Sci) 2009

Faculty Search Committee, Dept of Exercise Science, University of South Carolina <i>Clinical Assistant Faculty Search (Student Representative)</i>	2007
Organizing Committee, NSCA Annual South Carolina State Clinic Responsibilities: assisting with site preparation for hosting clinic and on-site registration	2007
<i>Elected Member</i> , Arnold School of Public Health Student Association <i>Responsibilities:</i> Association vice-president (2006-2007), co-chair of Publicity/Orientatic committee, organizing Association activities/programs for School of Public Health	2005-2007 on
Professional Service:	
Committee Member Lifestyle/EPI Behavior Change Committee, American Heart Association	2017-2019
Committee Member Research Committee, American College of Sports Medicine Mid-Atlantic Regional Chaj	2019-2021 oter
Representative for the Sleep Research Society National Collegiate Athletic Association Interassociation Task Force on Sleep and Well	2017-2019 ness
Scientific Advisory Panel adidas ALL DAY fitness application	2017

**PROFESSIONAL DEVELOPMENT: WORKSHOPS AND TRAINING** 

\* Indicates competitive selection process

<i>Hybrid and Online Teaching and Learning Pathway</i> Center for Teaching and Learning University of Pittsburgh	2018
<i>Health Sciences Leadership Academy</i> * University of Pittsburgh Office of Academic and Career Development Biomedical Science Tower, University of Pittsburgh	2016
<i>NIH 'K to R01' Workshop</i> National Heart, Lung, and Blood Institute NIH Campus, Bethesda, MD	2016
8 <sup>th</sup> Annual Bedside to Bench Conference: Sleep, Circadian Rhythms, and Aging— New Avenues for Improving Brain Health, Physical Health and Functioning * National Institute on Aging, American Geriatrics Society Marriott Hotel & Conference Center, Bethesda, MD	2015
<i>Principles and Practice of CBT-I Seminar</i> Dr. Michael Perlis, Penn Behavioral Sleep Medicine Houston Hall, University of Pennsylvania	2015
14 <sup>th</sup> Annual Summer Institute on Randomized Behavioral Clinical Trials * NIH Office of Behavioral and Social Sciences Research, National Heart, Lung, and	2014

Blood Institute Airlie Conference Center, Warrenton, VA

<i>American Psychosomatic Society Young Investigator Colloquium</i> * American Psychosomatic Society InterContinental Miami Hotel, Miami, FL	2013
<i>Course in Scientific Management and Leadership</i> * University of Pittsburgh Schools of the Health Sciences Herberman Conference Center, Pittsburgh, PA	2013
American Academy of Sleep Medicine Young Investigator Research Forum * American Academy of Sleep Medicine NIH Natcher Conference Center, Bethesda, MD	2012
Physical Activity and Public Health: A Postgraduate Course on Research Directions and Strategies * Centers for Disease Control and Prevention, University of South Carolina The Lodge at Mountain Village, Park City, UT	2012