

TecHealth

Technology Center to Promote Healthy Lifestyles

FY 2016-2017 Annual Progress Report

Director: Delia Smith West, PhD

I. Center Progress Bullets

July 2016

August 2016

- Courtney Monroe, PhD starts appointment as a tenure-track Assistant Professor in TecHealth/ Health Promotion, Education and Behavior in the Arnold School. [NOTE: NEW HIRE]
- Melissa Stansbury, MS, joins TecHealth as a doctoral student in Health Aspects of Physical Activity Program within the Department of Exercise Science. Dr. West will be Stansbury's mentor during her doctoral program. [NOTE: NEW HIRE]

September 2016

- NIH, PO1 submission of *Inflammation, Biobehavioral Risk Factors and Racial Disparities in Colon Cancer/Project 4 Optimizing Behavioral Approaches to Reduce Inflammation among African Americans*. (Hebert-PI, West-Project Director, Pellegrini- Co-I, Turner-McGrievy Co-I)
- First Tech Tuesday Talk of the 2016-2017 academic year. Sponsored by TecHealth, this monthly seminar presents topics concerning health and technology to a wide audience of USC faculty, students and staff while also attracting members of the business community and general public. The opportunity for this diverse audience to meet and exchange ideas promotes the formation of new academic and business initiatives. Just two of the topics this year, *Harnessing the Cognitive Power of IBM Watson to Enhance Academic Research* and *From Conception to Delivery: the Development of a Mobile Health Intervention for Targeting Weight, Stress, and Social Support among Pregnant Women*, demonstrate the range of subjects covered in this year's Tech Tuesday Talks. Pellegrini, Monroe, West, Stritzinger and Alicia Dahl (2016 TecHealth Summer Sponsorship awardee) were Tech Tuesday Talk presenters in the spring and fall semester.
- Search committee reconvenes to begin search for remaining open TecHealth Assistant Professor position. Several candidates interviewed by phone and during campus visits. No one selected for the position, search will continue in Fall 2017.

November 2016

- James Stritzinger joins TecHealth as the TecHealth Entrepreneur in Residence and graduate student in Health Information Technology at USC. Stritzinger's background in computer programming and history as a business entrepreneur will foster the development of SBIRs related to TecHealth projects and faculty. He will provide a link to TecHealth with the business and academic community, as well as represent TecHealth at national conventions. His graduate student project develops a database for retrieving lifestyle data from "wearable" devices like Fitbits to be used by TecHealth research teams, increasing scope of research activities and cutting costs required to conduct technology-assisted lifestyle intervention research. [NOTE: NEW HIRE]

- Monroe- Poster Presentation. Obesity Week Annual Scientific Meeting, New Orleans, LA. Title: *Who makes the best support partner for an adult entering a weight loss program?* (Co-authors Larsen & West)

December 2016

- Monroe-Oral Presentation. Cancer Prevention & Control Program Colloquium Series, University of South Carolina, Columbia, SC. Title: *Wearables and Apps for Behavior Change and Weight Control in Adults: The What, Why, How and Way Forward.*
- West submits grant to NIH in collaboration with Xiaoming Li (Smart State Chair for Clinical Translational Research). mHealth Intervention to Improve HIV treatment Cascade Outcomes for Youth in the Deep South. (Li & Harrison Co-PIs; West Co-Investigator)

January 2016

- Christine Pellegrini, PhD starts appointment as a tenure-track Assistant Professor in TecHealth and the Department of Exercise Science in the Arnold School of Public Health. [NOTE:NEW HIRE]
- Start date for the spring semester, Exercise Science graduate and undergraduate course, *There's an App for That: The science and practice of technology-based lifestyle interventions.* Course developed and taught by West.
- Stritzinger-oral presentation, *The Role of an Entrepreneur in Residence in an Academic Setting.* USC Entrepreneurship Harmonizing Meeting.

February 2017

- Monroe-Final data collection for NETWORKS-concluding the implementation/assessment phase of her ASPIRE-1 grant, *Using Technology to Enhance Social Support for Weight Loss in Adults: The NETWORKS (Nutrition, Exercise, and Technology works) Pilot Randomized Controlled Trial.*

March 2017

- Pellegrini-PI, initiates recruitment for the pilot study *Influence of Wearable Activity Monitors and Social Support on Physical Activity after Knee Replacement.*
- TecHealth faculty Pellegrini and Monroe represented TecHealth with presentations at The Society of Behavioral Medicine 38th annual scientific meeting in San Diego, CA.
 - Pellegrini-Symposium Chair & Presenter: *One size doesn't fit all: Tailoring interventions to address individual variability in treatment response.*
 - Monroe - Poster presentation: *Use of a novel technology-based approach to harness social networks for weight loss in adults: Pilot randomized controlled trial.* (co-authors Larsen and West)

April 2017

- Monroe-PI, receives Aspire-1 grant, *Evaluating Columbia Moves: A Social Network approach Using a Team Competition and Technology to Increase Physical Activity.*
- Monroe, receives Aspire-II grant, *Positioning USC for Global Prominence in Research on Prevention and Management of Chronic Disease/Study- Mobile Health for Innovative Strategies Protecting Adults from Risk Factors for Chronic Diseases.* (PI, Frongillo, Monroe Co-I and Study Leader)
- Monroe- Postdoctoral Presentation Award, 2nd place, awarded by the Office of the Vice President for Research. University of South Carolina Discover USC Day, Columbia, SC. Title: *Use of a novel technology-based approach to harness social networks for weight loss: Pilot*

randomized controlled trial.

- Stritzinger-Panel Discussion: *Experience as an Entrepreneur in SC*. Project Verge @ SC Governor's School for Science and Math.
- West submits grant in collaboration with Xiaoming Li, PhD (Smart State Chair for Clinical Translational Research) to NIH. *Adolescent Medicine Trials Network for HIV/AIDS Interventions (ATN) RFP: Research Aimed at the Reduction of New HIV infections in Youth & Research Aimed at the improvement in the Proportions of Youth Achieving Successive Milestones across the HIV Care Continuum*. (Li & Harrison Co-PIs; West Co-Investigator)

May 2017

- TecHealth had a robust presence at The American College of Sports Medicine annual meeting in Denver, Colorado with oral and poster presentations by TecHealth faculty Monroe and doctoral student Chelsea Larsen.
 - Monroe
 - Poster presentation: *Types of social support and weight change among overweight adults*. (Co-authors Larsen & West)
 - Oral presentation: *Your First Year as a Professor*.
 - Larsen - Poster presentation: *Use it and lose it: Fitbit use, daily steps, and weight change among overweight adults*. (Co-authors Monroe & West)
- Sara Rothberger, PhD, hired as a post doctoral fellow under the mentorship of Pellegrini. Rothberger has a PhD in Kinesiology with an emphasis in sport and exercise psychology from The University of North Carolina at Greensboro. Her appointment begins in August 2017. [NOTE: NEW HIRE]
- Monroe selected to attend the 2017 NIH mHealth Summer Training Institute and the 2017 NIH Summer Institute on Randomized Behavioral Clinical Trials, both of which are competitive, selective programs.
- Stritzinger in-house presentation of prototype research platform designed to collect data from Fitbit activity trackers, aid in analysis of the data and export results in varying formats. After further refinement in collaboration with TecHealth researchers, submission of an SBIR in FY2018 to develop the platform will be the first step towards a commercially available product.

June 2017

- NIH, R21 submission of *Digital Behavioral Weight Loss for Individuals with Mobility Limitations: The Nutrition, Exercise, Weight loss, Disability And You (NEW Day) Program*. (PI-Dr. West, Co-I Dr. Pellegrini, Co-I Dr. Turner-McGrievy, Co-I Dr. Fritz)
- NIDDK, RO1 submission of *Reducing User Burden or Fostering Social Engagement for Dietary Self-monitoring in mHealth Weight Loss Interventions*. (PI-Dr. Turner-McGrievy, Co-I - Pellegrini, Co-I-Monroe)
- PCORI Pipeline to Proposal submission of *Building Partnerships to Improve Weight Management & Patient-Reported Outcomes in Knee Replacement Patients in the South*. (PI, Pellegrini)
- Stritzinger-judge, team advisor. USC SAVVY Arts Venture Challenge-a six-day workshop designed to develop entrepreneurship among performing and visual artists.
- Matt McGrievy presents poster titled "*The challenges of using commercial wearable physical activity trackers for intervention and assessment in public health research: Tales from four studies*" (West co-author) at International Society of Behavioral Nutrition and Physical Activity Annual Meeting. Victoria, Canada.

- Brie Turner-McGrievy, PhD, gives presentation entitled “*Impact of a 3-month intervention on body weight, blood pressure, lipids, and physical activity: The IMAGINE trial*” (West co-author) at International Society of Behavioral Nutrition and Physical Activity Annual Meeting. Victoria, Canada.
- Jean Harvey, PhD, presents poster titled “Does household composition influence weight loss program success?” (West Co-author) at the International Society of Behavioral Nutrition and Physical Activity Annual Meeting. Victoria, Canada.

Additional Activities

In addition to grant proposals that were submitted or funded this year, West and Pellegrini have several extramurally funded research projects in progress. Throughout the year, West continued her work as Primary Investigator on the NIH RO1 grant, *Internet Assisted Obesity Treatment Enhanced by Financial Incentives* (iReach 3) with 3 part-time NEW HIRES on that project this year. In addition, West completed work as Co-Investigator on the subcontract with USC start-up Connecting Health Innovations on *Phase 2: Developing the Dietary Inflammatory Index for Clinical Application* (Turner-McGrievy Co-PI). Pellegrini continued her work as a consultant on the NIH/NIAMS U34 grant, *Study of Physical Activity Rewards and Telephonic Active Coaching* (SPARTAC).

II. Summary of Center’s Objectives

Research from the Center forms the basis for collaborations between scholars from multiple disciplines, innovative businesses, and community partners to design and evaluate technology-assisted lifestyle behavioral interventions to improve the health, quality of life, and economic capacity of South Carolinians. Through classroom teaching, mentoring and training, TecHealth continues to engage in the development of the next generation of public health scientists.

III. Summary of Non-State Partnerships

iReach3 Internet Assisted Obesity Treatment Enhanced by Financial Incentives

Partnership:

In collaboration with the University of Vermont, Dr. West is the Principal Investigator of this NIDDK funded *Internet Assisted Obesity Treatment Enhanced by Financial Incentives (iReach3)*.

Financial Benefit:

- The grant will bring in \$1,818,001 to USC over a five-year period.
- Employment-In addition to West, the project employs a project director, recruitment-retention coordinator and 4 behavioral interventionists, as well as a paid graduate student.
- Over 200 South Carolinians will participate in the obesity treatment study, improving their health and thereby reducing the economic burden of obesity related medical expenses and lost productivity that would otherwise be incurred by these individuals.

Phase 2: Developing the Dietary Inflammatory Index for Clinical Application

Partnership:

In partnership with Connecting Health Innovations, LLC (CHI)-Columbia, SC. West is co-investigator of this NIH Small Business Innovation Research Grant (SBIR). CHI will develop the DII-Based Inflammatory Reduction Counseling System for use by medical professionals to screen patients for high-inflammatory diets. BlueCross BlueShield of South Carolina will be the primary commercialization partner for CHI.

Financial Benefit:

- The overall grant will bring \$1.8 million in funding with employment for USC researchers, specialists and support personnel along with the development of CHI, a new South Carolina company. The subcontract with CHI in Phase 2 results in fund of \$294,339.
- Research links chronic inflammation to almost all of the chronic diseases that affect 50 percent of the US population and result into more than \$470 billion annually in health care costs. South Carolina residents participating in the testing and deployment of the screening system will enjoy better health and consequently lower health costs for the state.

IV. Alumni Data Survey

Not applicable at this time

V. Center Personnel Changes

Name	Title	Date joined Center	Date left Center
Courtney Monroe	Assistant Professor- previously TecHealth Post Doc	8/16/2017	
Christine Pellegrini	Assistant Professor	1/1/2017	
James Stritzinger	Entrepreneur in Residence	11/15/2017	

VI. Summary of Graduate and Other Education and Training

Graduate Students, Post Docs, Junior Faculty Trainees Mentored by TecHealth Faculty

- Courtney Monroe-post-doctoral fellow mentored by West, transitioned to TecHealth/HPEB assistant professor in August 2017
- Christine Pellegrini-assistant professor TecHealth/Ex Sci, mentored by West
- Chelsea Larsen-ASPH doctoral student mentored & sponsored by West, Pellegrini serving on Larsen's doctoral dissertation committee
- Melissa Stansbury-ASPH doctoral student mentored & sponsored by West, Pellegrini serving on Stansbury's doctoral qualifying exam committee
- James Stritzinger-masters student in Health Information Technology, mentored & sponsored by West
- Carmen Capo-Lugo-post doctoral fellow Northwestern University mentored by Pellegrini
- Nicole Gribben-ASPH doctoral student, Pellegrini serving on Gribben's doctoral qualifying exam committee
- Charity Breneman-ASPH doctoral student; West serving on Breneman's doctoral committee.
- Cynthia Yoon – University of Minnesota doctoral student; West serves on her doctoral committee.
- Nicole McNeal-online ASPH masters student; Monroe serving as McNeal's faculty practicum advisor

Academic Courses/Teaching

- EXSC555-005-SPRING-2017: Topic: There's an App for That: The science and practice of technology-based lifestyle interventions, undergraduate/graduate course developed and taught by West.

- Guest lectures by Monroe
Class: There's an App for That: The Science and Practice Behind Technology-based Lifestyle Interventions, EXSC 555
Title: Promoting Physical Activity with Technology
Spring 2017
Class: Social Work and Scientific Inquiry, SOWK 352
Title: Building Scientific Lines of Inquiry in Technology-based Health Promotion
Spring 2017
Class: Advanced Evaluation of Health Promotion Programs, HPEB 818
Title: Process Evaluation in Two Health Promotion Programs: Knoxville Moves and NETWORKS for Weight Loss
Spring 2017
- Guest lecture by Dr. Pellegrini
Class: There's an App for That: The Science and Practice Behind Technology-based Lifestyle Interventions, EXSC 555
Title: In-person vs. Online Weight Control
Spring 2017

Education and Training Impacted Via This Center

- Dr. Monroe-trained 4 undergraduate and 1 graduate student in conducting research

VII. Summary of Economic Development Outcomes

Information Dissemination of TecHealth Research Efforts

TecHealth's research efforts will be shared through the Center's Tech Tuesday Talks, scientific publications, presentations, conferences and seminars. Additionally, the Center website provides information on TecHealth accomplishments and links to enrollment in ongoing studies should South Carolina residents wish to participate in this research. Over the course of the year, 1497 unique users visited the TecHealth website. Information also may be shared through other venues such as news articles in the popular press, tv interviews and social media.

TecHealth Research Efforts and Economic Impact

Extramurally Funded Research

Title: *Internet Assisted Obesity Treatment Enhanced by Financial Incentives (iReach3)*

PI: *West (Monroe Co-I)*

Economic Impact

- Extramural Funding-NIH, RO1-\$1,818,001-USC
- Employment-PI Salary support, multiple weight loss facilitators (N=4), recruitment coordinator, project coordinator.

Indirect Economic Impact-Over 200 South Carolinians will improve their health, reducing obesity-related medical expenses and lost productivity. The medical care costs of obesity in 2008 dollars were estimated to be \$147 billion in the US while the annual nationwide costs of obesity-related work absenteeism ranges from \$79 to \$132 per obese individual. The improved health of the South Carolinians in this study and the knowledge gained to design more effective weight-loss programs in the future will result in greater employee productivity and lowered health costs for the state.

Title: *Phase 2: Developing the Dietary Inflammatory Index for Clinical Application*

PI: Turner-McGrievy (West Co-I)

Economic Impact:

- Extramural Funding-subcontract with Connecting Health Innovations-\$294,339
- Employment & Salary Support-USC researchers, specialists and support personnel along with the development of Connecting Health Innovations, a new South Carolina company.
- Indirect Economic Impact-Research links chronic inflammation to almost all of the chronic diseases that affect 50 percent of the US population and result into more than \$470 billion annually in health care costs. South Carolina residents participating in the testing and deployment of the screening system will enjoy better health and consequently lower health costs for the state.

Title: *Study of Physical Activity Rewards and Telephonic Activity*

Economic Impact:

- Extramural Funding-NIH/NIAMS U34
- Employment-Consultant Dr. Pellegrini, amount TBD
- Indirect Economic Impact-possibility of future funded research with a Fall 2017 NIAMS R21 planned submission (PI-Pellegrini)

Title: *Influence of Wearable Activity Monitors and Social Support on Physical Activity after Knee Replacement*

PI: Pellegrini

Economic Impact:

- **Indirect Economic Impact-** The current pilot study aims to gain preliminary data on the influence of wearables and social support on physical activity in total knee arthroplasty (TKA) patients following surgery. Recruitment of South Carolina residents is currently ongoing with a target of 20 patients that have had a knee replacement within the last 12 months, of which 10 of these TKA patients will be recruited with a “buddy.”
A five year study at Virginia Commonwealth University found that patients who have undergone knee replacement surgery “may be at a higher risk of gaining more weight than their peers who have not had the surgery.” Each extra pound of body weight causes an added 3 to 6 pounds of pressure to the knee. This excess weight can cause the artificial knee to deteriorate more quickly and increase the risk of needing a replacement in the other knee. Knee replacement surgeries have almost tripled in people between the ages of 45-64 resulting in increased health care costs and lost worker productivity.
While initially providing an opportunity for better outcomes for a small group of South Carolina residents, future funding derived from this pilot will lead to studies that will benefit a much larger group of our citizens and require the employment of additional study personnel.

Intramurally Funded Research

Title: *NETworks- Using Technology to Enhance Social Support for Weight Loss*

PI: Monroe (West, Co-I/Mentor)

Economic Impact:

- Intramural funding-ASPIRE I, Track II-B grant-\$5,000
- Indirect Economic Impact:
 - 36 residents of the Columbia area were enrolled in this research study and received weight management and health promotion intervention leading to healthier lifestyles and reduced health care costs.

- Completion of the pilot, data analysis and publication lead to the increased probability of future funded research reaching larger numbers of South Carolinians.

Current Information Dissemination:

- Poster presentations-American College of Sports Medicine Annual Meeting, Denver, CO, May 2017; Society of Behavioral Medicine Annual Meeting, San Diego, CA, April 2017 ; ObesityWeek Annual Meeting, New Orleans, LA, November 2016; University of South Carolina Discover USC Day, Columbia, SC, April 2017
- Guest lectures-Tech Tuesday Talk Series, University of South Carolina, Columbia, SC, October 2016; Cancer Prevention & Control Program Colloquium Series, University of South Carolina, Columbia, SC, December 2016

Title: *Evaluating Columbia Moves: A Social Network approach Using a Team Competition and Technology to Increase Physical Activity*

PI: Monroe

Economic Impact:

- Intramural Funding-Aspire I, Track 1-\$15,000
- Indirect Economic Impact:
 - 112 SC residents will be enrolled in the study. As a result they will experience improved health and lower health costs due to an increase in physical activity and exposure to healthy lifestyle information. Stroke, metabolic syndrome, type 2 diabetes, some cancers, depression, falls and arthritis are all health conditions that regular exercise can help prevent or mitigate. A 2002 study in the scientific journal, *The Lancet*, determined that inactivity costs the United States almost \$28 billion annually in medical expenses and lost productivity.
 - While initially providing an opportunity for better health and lower health costs for a small group of South Carolina residents, future funding derived from this pilot will lead to studies that will benefit a much larger group of our citizens and employ additional study personnel.

Title: *Positioning USC for Global Prominence in Research on Prevention and Management of Chronic Disease--Monroe study within overall project "Mobile Health for Innovative Strategies protecting Adults from Risk Factors for Chronic Disease"*

Co-I and Project Director: Monroe

Economic Impact:

- Total award-\$99,998, Monroe study-\$14,133
- Indirect Economic Impact:
 - This project will generate knowledge related to screening and follow up of common chronic diseases and to modifiable risk factors for informing interventions that will benefit South Carolina residents in future studies.
 - The project will strengthen interdisciplinary collaborations within USC and among USC and other leading scientific and implementing institutions in the United States, Latin American, and the Caribbean leading to increased recognition of USC as a leader in public health research and generating future research funding.

Submitted for Funding

Title: *Inflammation, Biobehavioral Risk Factors and Racial Disparities in Colon Cancer*

Project Director: West (Co-Is Pellegrini and Turner-McGrievy)

Economic Impact:

- Extramural Funding-NIH, PO1 \$16,523,091. Project 4-*Optimizing Behavioral Approaches to Reduce Inflammation among African Americans*. Project 4 Funding-\$2,479,276 over 5 years
- Indirect Economic Impact
 - 333 South Carolinians will be enrolled in the study. Their health will be positively impacted by interventions targeting dietary habits, physical activity and stress management.
 - Colorectal cancer is the second most common cancer in men and women in South Carolina. Every year in South Carolina, approximately 2,200 people will be diagnosed with the disease and more than 800 will die from it with a higher risk for African American and rural populations. In the year after diagnosis, the initial annualized mean net cost of care for colorectal cancer is \$51,327 per patient. Information from the study will lead to better diagnosis, prevention and treatment, potentially reducing the health care costs and lost productivity caused by colon cancer.

Title: *Digital Behavioral Weight Loss for Individuals with Mobility Limitations: The Nutrition, Exercise, Weight loss, Disability And You (NEW Day) Program*

PI: *West (Co-Is Pellegrini, Turner-McGrievy, Fritz)*

Economic Impact:

- Extramural Funding- NIH, R21 \$402,875 over 2 years
- Indirect Economic Impact
 - 50 South Carolina residents with mobility limitations will receive the health benefit of technology-delivered weight management intervention.
 - Individuals with mobility limitations are at significantly higher risk for obesity than the general population and are less likely to engage in weight loss efforts, in part because they face difficulties accessing weight loss programs and encounter barriers to participating in physical activity. Few evidence-based obesity treatments address the specific needs and challenges of individuals with mobility limitations, and the programs available for this population lack the key evidence-based strategies proven effective for weight loss in other populations, This study is will adapt a group-based, online behavioral weight control program to the unique needs of individuals with mobility limitations and seek to improve function (including workplace function) in a group which is over-represented in South Carolina relative to other states.

Title: *Reducing User Burden or Fostering Social Engagement for Dietary Self-monitoring in mHealth Weight Loss Interventions*

PI: *Turner-McGrievy (Co-I Monroe)*

Economic Impact:

- NIDDK, RO1 \$3,031,624 over 5 years
- Indirect Economic Impact
 - 240 adults in the Columbia area will engage in a behavioral weight loss program leading to improved health and decreased health related costs.
 - The development of a low cost, remotely delivered weight-loss intervention that is highly scalable and refined through project results.

Title: *Building Partnerships to Improve Weight Management & Patient-Reported Outcomes in Knee Replacement Patients in the South*

PI: Pellegrini

Economic Impact:

- PCORI Pipeline to Proposal \$27,500
- Indirect Economic Impact-Collaborative relationships with total knee replacement patients and healthcare professionals located in urban and rural areas of South Carolina will improve the long-term outcomes for patients and establish best practice standards for weight loss in patients who have had knee replacement surgery. The cost for knee replacement in South Carolina currently ranges up to over \$70,000 per surgery with the cost covered by the patient, private insurance, Medicare and Medicaid. Maintaining a healthy weight typically allows the knee replacement to last longer and can help prevent the need for a future replacement in the other knee.

VIII. Summary of Testimonial and Anecdotal Data (SMARTSTATE “Nuggets”)

N/A

IX. Summary of Research Publications

West DS, Coulon SM, **Monroe CM**, Wilson DK. Evidence-based lifestyle interventions for obesity and type 2 diabetes.: The Look AHEAD intensive lifestyle intervention as exemplar. *American Psychologist*. 2016;71(7):614-627.

Coulon S, **Monroe CM**, **West DS**. A systematic, multi-domain review of mobile smartphone apps for evidence-based stress management. *American Journal of Preventive Medicine*. 2016;51(1):95-105.

Pellegrini, C.A., Song, J., Chang, R.W., Semanik, P., Lee, J., Ehrlich-Jones, L., Pinto, D., Dunlop, D. Patients less likely to lose weight following a knee replacement: Results from the Osteoarthritis Initiative. *Journal of Clinical Rheumatology*. (In Press).

Pellegrini, C.A., Conroy, D., Pfammatter, A.F., Phillips, S.M., McFadden, H.G., & Spring, B. Daily and Seasonal Influences on Dietary Self-Monitoring Using a Smartphone Application. *Journal of Nutrition Education and Behavior*. (In Press).

Spring, B., **Pellegrini, C.A.**, Pagoto, S., Duncan, J., A.T., McFadden, H.G., Pictor, A., & Siddique, J. Effects of an Abbreviated, Smartphone-Supported Weight Loss Program for Obesity: The ENGAGED Randomized Clinical Trial. *Obesity*. 2017. Available online. 5/11/2017. DOI: 10.1002/oby.21842

Pellegrini, C.A., Ledford, G., Chang, R.W., Cameron, K.A. Understanding patient barriers and facilitators to healthy eating and physical activity before and after knee arthroplasty. *Disability & Rehabilitation*. 2017. Available online 5/7/2017. <http://dx.doi.org/10.1080/09638288.2017.1323026>

Phillips, S.M., Conroy, D.E., Kozey Keadle, S., **Pellegrini, C.A.**, Lloyd, G.R., Penedo, F.J., & Spring, B. Breast cancer survivors’ preferences for technology-supported exercise interventions. *Supportive Care in Cancer*. Available online 5/8/2017. doi:10.1007/s00520-017-3735-3

Song, J., Gilbert, A., Chang, R., **Pellegrini, C.A.**, Ehrlich-Jones, L, Lee, J., Pinto, D., Semanik, P., Sharma, L., Kwoh, K.C., Jackson, R.D., Dunlop, D. Do Inactive Older Adults who Increase Physical Activity Experience Less Disability: Evidence from the Osteoarthritis Initiative. *Journal of Clinical Rheumatology*. 2017, 23(1): 26-32. DOI: 10.1097/RHU.0000000000000473 PMID: PMC5180208

Dunlop, D.D., Song, J., Lee, Jungwha, Gilbert, A.L., Semanik, P.A., Ehrlich-Jones, L., **Pellegrini, C.A.**, Pinto, D., Ainsworth, B., Chang, R.W. Physical activity minimum threshold predicting improved function in adults with lower limb symptoms. *Arthritis Care & Research*. 2017. 69(4): 475-483. DOI: 10.1002/acr.23181 PMC – In Process

Conroy, D., **Pellegrini, C.A.**, Pfammatter, A.F., Phillips, S.M., McFadden, H.G., & Spring, B. Lifestyle intervention effects on the frequency and duration of daily moderate-vigorous physical activity and leisure screen time. *Health Psychology*. 2017. 36(4): 299-308. DOI: 10.1037/hea0000418. PMCID: PMC5357594.

Conroy, D., Dubansky, A., Remillard, J., Murray, R., **Pellegrini, C.A.**, Phillips, S.M., Streeper, N.M. Using behavior change techniques to guide selections of mobile applications to promote fluid consumption. *Urology*. 2017, 99:33-37. <http://doi.org/10.1016/j.urology.2016.09.015> PMCID: PMC5357594

Krukowski R.A., DiLillo V., Ingle K., Harvey J., **West D.** Design and methods of a synchronous online motivational interviewing intervention for weight management. *Journal Medical Internet Research*. 2016. 5(2), e69.

West D.S., Monroe C.M., Turner-McGrievy G., Sundstrom B., **Larsen C., Magradery K.**, Wilcox S., Brandt H.M. (2016). HealthE U: A controlled pilot study of the feasibility and efficacy of a technology-mediated behavioral weight gain prevention intervention for college students. *Journal of Medical Internet Research*. 2016. 18(6), e133.

Krukowski R.A., **West D.S.**, DiCarlo M., Shankar K., Cleves, M.A., Tedford E., Andres A. A behavioral intervention to reduce excessive gestational weight gain. *Maternal and Child Health*. 2016. doi:10.1007/s10995-016-2127-5.

West D.S., Harvey J., Krukowski R.A., Prewitt T.E., Priest J., Ashikaga T. Do individual online motivational interviewing chat sessions enhance weight loss in a group online weight control program? *Obesity*. 2016. doi:10.1002/oby.21645.

Krukowski R.A., **West D.S.**, DiCarlo M., Shankar K., Cleves M., Saylor M., Andres A. Are early first trimester weights valid proxies for preconception weight? *BMC Pregnancy and Childbirth*. (In press).

Krukowski R.A., **West D.S.**, DiCarlo M., Cleves M., Saylor M., Andres A. Association of Gestational Weight Gain Expectations and Advice on Actual Weight Gain. *Obstetrics & Gynecology*. (In Press).

Jake-Schoffman D.E., Wilcox S., Kaczynski A.T., Turner-McGrievy G., Friedman D.B., **West D.S.** E-media use and preferences for physical activity and public health information: results of a web-based survey. *Journal of Public Health Management and Practice*. (In Press).

Invited Commentaries

Monroe CM. Valuable steps ahead: Promoting Physical Activity with Wearables and Incentives. *The Lancet Diabetes & Endocrinology*. 2016;4(12):960-961.

Monroe CM, Turner-McGrievy G. Paving the way for SMART weight loss in college students. *The Lancet*

Diabetes & Endocrinology. 2016;4(9):719-721.