# DOROTHY D. SEARS, PhD

### **CONTACT**

Arizona State University, College of Health Solutions

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Phoenix, AZ 85004 Google Scholar profile: <a href="http://tinyurl.com/Sears-GoogleScholar">http://tinyurl.com/Sears-GoogleScholar</a> TEL – (602) 496-3351 Faculty website: <a href="https://search.asu.edu/profile/5054954">https://search.asu.edu/profile/5054954</a>

ORCID: 0000-0002-9260-3540

Adjunct, Non-Salaried Position:

UC San Diego, School of Medicine

Mailing address:

9500 Gilman Dr, MC0983

La Jolla, California, 92093

Physical location:

ACTRI Building, 9452 Medical Center Drive

La Jolla, CA 92037

AKA - Dorothy Sears Worrall, PhD (1997-2004)

### RESEARCH & PROFESSIONAL INTERESTS

My health promotion-related research focus is on obesity and risk for obesity-related diseases including insulin resistance, type 2 diabetes, cardiovascular disease, and cancer in diverse populations. My transdisciplinary approach incorporates dietary and behavioral intervention, systems biology, metabolomics, gut microbiome, epigenetics, gene expression profiling, and single gene analyses in humans and rodent models. My goals are to identify genes, biochemical pathways, dietary factors, and behaviors associated with obesity-related cancer and cardiometabolic disease risk, which can be used as novel targets for disease risk reduction and/or therapy. The breadth of my formal training and independent and team science research experience gives me a unique "genesto-public health" scope for innovative hypothesis generation, study design and data interpretation. My most active areas of interest are currently centered on the health impact of sedentary behavior and sitting time in older adults, intermittent fasting, gene-gut microbiome-environment interaction, energy balance, and diet composition. I have strong leadership skills and experience but also enjoy and seek out research projects where I am part of a transdisciplinary team. My collaborations span multiple departments, schools, and institutions across the globe. I have an internationally strong research reputation. I am passionate about mentoring trainees of all levels and supporting diversity in STEMM (Science, Technology, Engineering, Math, and Medicine). My teaching activities span the community level to the graduate and postgraduate levels in classroom and laboratory. I am actively engaged in community service, advocacy, and outreach related to my research and professional interests.

### **EDUCATION & UNIVERSITY APPOINTMENTS**

**Arizona State University** 

**Executive Director, Clinical & Community Translational Science** 

College of Health Solutions, Arizona State University

Interim Executive, Director Clinical & Community Translational Science

College of Health Solutions, Arizona State University

**Professor of Nutrition** 

College of Health Solutions, Arizona State University

11/2018-present

03-06/2022

07/2022-present

UCSD Email: dsears@health.ucsd.edu

University of California, San Diego	
Adjunct Professor of Medicine (Non-salaried)	2019-present
Division of Endocrinology and Metabolism, UCSD School of Medicine	-
Adjunct Professor of Family Medicine & Public Health (Non-salaried)	2019-present
Division of Preventive Medicine, UCSD School of Medicine	
Adjunct Professor of Medicine	2018-2019
Division of Endocrinology and Metabolism, UCSD School of Medicine	2010 2010
Adjunct Professor of Family Medicine & Public Health Division of Preventive Medicine, UCSD School of Medicine	2018-2019
Associate Professor of Family Medicine & Public Health	2015-2018
Division of Preventive Medicine, UCSD School of Medicine	2013-2016
Associate Professor of Medicine	2011-2018
Division of Endocrinology and Metabolism, UCSD School of Medicine	2011 2010
Assistant Professor of Medicine	2003-2011
Division of Endocrinology and Metabolism, UCSD School of Medicine	
Assistant Project Scientist	2001-2003
Division of Endocrinology and Metabolism, UCSD School of Medicine	
Trainee positions	
Postgraduate research endocrinologist & postdoctoral fellow	11/95 - 06/01
UCSD School of Medicine	
Mentor: Jerrold Olefsky, M.D., Division of Endocrinology and Metabolism	
Postdoctoral fellow	06/94-07/95
The Johns Hopkins University School of Medicine	
Mentor: Philip Hieter, Ph.D., Department of Molecular Biology & Genetics	
Ph.D., The Johns Hopkins University School of Medicine	08/89-05/94
Biochemistry, Cellular and Molecular Biology Program	
Thesis advisor: Philip Hieter, Ph.D., Department of Molecular Biology & Genetics	
B.S., University of Southern California	00/04 05/00
Major: Molecular Biology, Minor: Chemistry Research advisor: Norman Arnheim, Ph.D., Department of Biological Sciences & Biochemistry	08/84-05/88
Research advisor. Norman Armenn, i n.b., Department of Biological Sciences & Biochemistry	
AWARDS AND HONORS	
ASU Sun Award (Serving University Needs)	2022
ASU Sun Award (Serving University Needs)	2021
President's Award - Association for Women in Science (AWIS), San Diego Chapter	2016
Greater San Diego Area American Diabetes Association ACT Advocacy Award	2015
State of California Certificate of Recognition for Outstanding Community Service	2014
UCSD Clinical and Translational Research Institute Catalyst Award	2013
P. Robert Majumder Charitable Foundation Awards (2 research awards)	2011
UCSD Clinical and Translational Research Institute Category 2 Seed Award	2011 2011 & 2012
Athena San Diego Pinnacle Award nominee for "Individual in Education" category P. Robert Majumder Charitable Foundation Awards (2 research awards)	2011 & 2012
University of California Health Sciences Academic Senate Grant	2010
Diabetes & Endocrinology Research Center Pilot & Feasibility Award	2007
University of California Health Sciences Academic Senate Grant	2004
K01 Career Development Award Recipient, NIH/NIDDK (3 years)	2002-05
Charles H. & Anna S. Stern Foundation Fellowship Award	2002
F32 Individual National Research Award Recipient, NIH/NIDDK (3 years)	1997-2000
The Johns Hopkins University School of Medicine Young Investigators Day Certificate of Merit	1994
USC Presidential Scholarship	1984-88

#### UNIVERSITY AND PUBLIC ASSOCIATIONS AND SERVICE (current at top) **University Committees, Initiatives & Leadership Arizona State University** ASU CHS Maternal Child Health Equity Search Committee 2023-present ASU Clinical and Community Translational Research Committee (Chair) 2023-present ASU CHS Design and Innovation Studio for Health (DISH) Collaboratory 2022-present ASU CHS Laboratory Safety Committee (Co-Chair 2023-2025) 2021-present ASU CHS Research Council 2021-present ASU Faculty Mentorship Program, Participant (Summer), Facilitator (Fall) 2020-present ASU CHS Exercise and Nutritional Sciences PhD Program, Executive Committee 2020-present ASU Bioscience Institutional Review Board (IRB) 2019-present ASU CHS Cancer Prevention & Control Translational Team (Co-Director 2021-present) 2021-present ASU CHS Metabolic Health Translational Team (MHTT) (Co-Director 2020-2022) 2018-present Pre-Clinical Research Project ("Work Well") Team (2018-present) ASU CHS Ad Hoc Annual Review Committee (Co-Chair 2021-2023) 2020-2023 ASU CHS Personnel Committee; Ad hoc Promotion & Tenure (2020); Elected (2020); 2020-2022 **Chair** (2020/21), Summer expedited reviews (2 in 2020, 3 in 2021) ASU CHS Clinical and Translational Research Planning Committee 2019-2022 Arizona Wellbeing Commons – Co-Chair, Nutrition, Obesity, Exercise & Lifestyle Division 2019-2022 Website: <a href="https://azwellbeingcommons.org/">https://azwellbeingcommons.org/</a> ASU CHS ENS PhD Program Core Competencies & Progressive Exam Task Force 2021-2022 ASU CHS ENS PhD Program Basic Nutrition Sciences Task Force 2021-2022 ASU CHS/Biodesign Microbiome Search Committee 2021-2022 ASU CHS Clinical & Community Translational Science Search Committees **Executive Director** 2021-2022 Research Project Coordinator 2021-2022 Advanced Practice Provider Summer 2021 ASU CHS COVID-19 Grant Review Committee 2020 ASU CHS Geographic Information Sciences & Technologies Affinity Network 2020 ASU CHS Faculty Annual Review Task Force 2020 ASU CHS Nutrition Faculty Search Committee (Chair 2019-2020) 2019-2022 ASU CHS Vice Dean Search Committee 2019-2020 ASU Masters in Nutritional Science Admissions Committee 2019-2020 ASU CHS Translational Team and Affinity Network Review Committee, ad hoc 2019 ASU CHS Cancer Prevention & Control Working Group (Co-Director 2019-2021) 2019-2021 ASU CHS Dissemination & Implementation Affinity Network Training Program Mentor 2019-2022 American Diabetes Association MHTT Tour de Cure team, Co-Captain 2020 ASU CHS Grant Review Committee 2018-2022 University of California, San Diego UCSD Altman Clinical & Translational Research Institute (CTRI) - Associate Member 2010-present 2007-present UCSD/UCLA Diabetes Research Center (DRC) UCSD Center for Circadian Biology 2015-present **Executive Committee** (2016-present) Acting Associate Director (July 2017-June 2018) UCSD Moores Cancer Center, Cancer Prevention & Control Program - Participating Member 2010-present Senior Leaders Council (2018-2019) UCSD Center for Microbiome Innovation - Member 2016-2022

**Advisory Board** 

2018-2019

UCSD Women in Health Sciences Committee <a href="https://wihs.ucsd.edu">https://wihs.ucsd.edu</a>	2014-2022
Co-Founder (2014) Spring Event Committee (Co-Chair, 2016-2018) Chair-Elect (2017-2018)	2016-2020
UCSD Women's Cardiovascular Health Research Center	2016-2021
Executive Committee & Principal Investigator, Basic Science Project	2010-2021
https://healthsciences.ucsd.edu/som/fmph/divisions/prevmed/research/wrc/Pages/default	acny
Scientista, UCSD Chapter – Faculty Advisor	2016-2018
UCSD Department of Medicine Committee on Academic Personnel (DOM CAP)	2015-2017
UCSD Extension Postbaccalaureate Premedical Program - Admissions Committee & Mentor	2014-2018
UCSD School of Medicine Recruitment & Admissions Committee (RAC)	2007–2018
Chair, Executive Committee (2012-2015)	2007 2010
Vice-Chair, Executive Committee (2011-2012)	
Executive Committee (2010-2018)	
UCSD School of Medicine Health Sciences Faculty Council (HSFC)	2012-15
UCSD School of Medicine Committee on Educational Policy (CEP)	2012-15
UCSD Transdisciplinary Research on Energetics and Cancer (TREC) Center	2011-16
<b>Director</b> , Developmental Projects Core (2011-16)	
Chair, TREC Consortium Biomarkers Working Group (UCSD/UPenn/WUStL/Harvard	(2011-14)
Co-chair, TREC Consortium Biomarkers Working Group (2014-16)	
UCSD Institute of Metabolomic Medicine	2012-2017
UCSD Department of Family Medicine & Public Health "Energy Balance, Obesity and Cancer	2013-2016
Prevention" Center of Excellence	
UCSD Department of Family Medicine & Public Health "Women's Health" Center of Excellent	ce 2012-2022
UCSD School of Medicine Core Curriculum Committee (CCC)	2010-12
UCSD Bioinformatics & Systems Biology Graduate Program – Faculty member	2010-2018
UCSD/Pfizer Diabetes Seminar Series - Coordinator	2005
Community Service & Leadership	
American Diabetes Association – Arizona/New Mexico Community Leadership Board	2020-present
NCI-funded Transdisciplinary Research in Energetics & Cancer Training Workshop Faculty	2016-present
Senior Advisory Board (R25 CA203650; Irwin - PI, 2020-present); Website	F
Association for Women in Science (AWIS)	2001-present
AWIS-San Diego (AWIS-SD) Executive Board	1
Past-President (2014-15)	
<b>President</b> (2010-13)	
Member-at-Large (2010)	
AWIS-SD Scholars Celebration Planning Committee (Chair, 2014)	
AWIS-SD Women in Science & Technology (WIST) Conference - Planning Committee	
Co-Chair, Facilities Subcommittee (2015)	
<b>Co-Chair</b> (2013)	
AWIS-SD Leadership Network ( <b>Co-Founder</b> 2012; Member 2012-present)	
AWIS-SD Strategy Sessions Committee (Co-Chair 2009-10; Member 2007–15)	
<b>Co-organizer/presenter</b> of 10+ career development seminars including topics:	
"Making an Impact," "Speed Networking," "Negotiation Skills," "Develop Effective	;
Communication," "Get Promoted," "Body Language"	2020
American Heart Association "The Heart of Team Science" Pilot Test, participant & evaluator	2020
American Diabetes Association - San Diego Area Community Leadership Board	2011-2018
Board President (2013-2017)	
Executive Leadership Committee (2013-2017)	
Advocacy Committee (2012-2018)	

American Diabetes Association - San Diego Research Committee	2009-2015
Education & fundraising advocate, speaker, and "local researcher" participant for events	
Committee Chair (2011-2015)	
Association for Women in Science (AWIS), Central Arizona Chapter (AWIS-CAZ)	2018-2021
<b>External Research Grant Proposal Review Service</b>	
The Dutch Cancer Society [NETHERLANDS]	2024
KWF Kankerbestrijding; leading funder of cancer research in the Netherlands	
NIH/NCI Clinical Research (L30) Loan Repayment Program Review Committee	
ZCA1 PCRB-A	2023-present
NIH/NIDDK Diabetes Endocrinology & Metabolism NRSA Fellowship Training Grant	
Review Committee ZDK1 GRB-R (2015-2023), DDK-E (2023-present)	2015-present
NIH/NCI R13 Grant Review Committee	2020
Department of Defense Congressionally Directed Medical Research Program (DOD-CDMRP)	
Grant Review Committee	2018
UC San Diego Institute for Public Health (IPH) Pilot Project Grants, Phase I review	2018
Diabetes UK (leading UK non-profit supporting people with diabetes)	2017
UCSD Altman Clinical Translational Research Institute KL2 Grant Program	2017
National Institute for Health Research (NIHR) Programme Grants for Applied Research	
[UNITED KINGDOM]	2015
Doris A. Howell Foundation for Women's Health Research	2014
Christian Doppler Research Association, Site Reviewer [AUSTRIA]	2013
American Diabetes Association Research Grant Review Committee (3-year term)	2012-2014
Christian Doppler Research Association (CDG) [AUSTRIA]	2011
Michigan Metabolomics & Obesity Center/Nutrition Obesity Research Center	2010
Pennsylvania Department of Health	2008

### **Manuscript Review Service**

The Journal of Biological Chemistry – 2004

Molecular Genetics and Metabolism - 2005

John Wiley & Sons, Inc. (Systems Biology book manuscript review) – 2007

PLoS ONE – 2009-present (**Guest Editor** 2017)

Diabetes -2010+

<u>Cell Metabolism</u> – 2010+

Journal of Lipids Research – 2010-present

<u>Journal of Inflammation</u> – 2010-present

Diabetes Care – 2012-present

International Journal of Molecular Sciences – 2013

AJP- Renal Physiology - 2015

Cancer Epidemiology, Biomarkers & Prevention – 2015-present

Genome Biology - 2017

Journal of Human Nutrition & Dietetics – 2017-present

Hormone Molecular Biology & Clinical Investigation - 2017

Applied Physiology, Nutrition, and Metabolism – 2017-present

Obesity Research and Clinical Practice – 2018-present

Contemporary Clinical Trials Communications – 2018-present

Journal of Biological Rhythms – 2019

Nature Communications – 2019-present

Nutrition Research – 2019-present

<u>European Journal of Nutrition</u> – 2019-present

Communications Biology – 2019-present

Obesity - 2019-present

Journal of the American College of Cardiology – 2019-present

New England Journal of Medicine - 2020

Nutrients - 2020-present, Editorial Board member 2021-2024

IF 5.9 (Journal Citation Report, <u>2022 Edition</u>). Ranked 17/88 (Q1) in "Nutrition & Dietetics" category <u>American Journal of Preventive Medicine</u> – 2021-present

Journal of the National Cancer Institute – 2022-present, Monograph Coordinator, reviewer

iScience – 2023-present

Journal of Molecular Medicine – 2023 – present

British Journal of Cancer - 2023

## **Industry Consulting and Laboratory Service**

Pfizer (Laboratory Service Agreement)	2005-2012
Metabolomics (Laboratory Service Agreement)	2008-2011
Merck (Laboratory Service Agreement)	2010-2011
Zone Labs, Inc. (Grant proposal consultant)	2010-2011
Clinical Metabolomics, Inc. (Systems Biology consultant)	2012-2015

## **INVITED PRESENTATIONS**

#### 2023:

University of Alabama Birmingham O'Neal Comprehensive Cancer Center Research Seminar Series Sears Presentation (Nov 3<sup>rd</sup>): "Metabolism-Targeted Interventions for Reducing Cancer Risk"

Mayo Clinic Cancer Center Coalition of Blacks Against Breast Cancer monthly support & education meeting Sears Presentation (Mar 19<sup>th</sup>): "Intermittent Fasting and Breast Cancer: Evidence for Prevention, Treatment Adjuvant, and Survivorship Benefit"

American Society of Preventive Oncology Annual Meeting. Early-Stage Investigator Special Interest Group Workshop (Mar 12<sup>th</sup>)

Co-Chairs: Co-Chairs: Melissa Lopez-Pentecost, PhD, MS, RDN & Marlo Vernon PhD, MPH Sears Presentation: "Your Scholarly Impact: Practical tools and advice for tracking and measurement" Mayo Clinic Cancer Center Med/Onc Breast Case Conference Series

Sears Presentation (Feb 21<sup>st</sup>): "TRE & Prolonged Nightly Fasting: Feasibility in Reducing Cancer Risk, Improving Cancer Outcomes"

#### 2022:

Trans-NIH Obesity & Cancer Working Group's Time Restricted Eating Subgroup Webinar (Mar 16<sup>th</sup>)

"Time Restricted Eating and Dietary Adherence: Current Evidence and Future Directions." Roles: Presenter and expert panelist. Chairs: Dr. Sydney O-Connor & Dr. Edward Sauter (NCI). Co-presenter: Dr. Krista Varady.

Sears Presentation: "TRE & Prolonged Nightly Fasting: Feasibility in Reducing Cancer Risk, Improving Cancer Outcomes"

ASU Cancer Prevention & Control Translational Team's Preventing & Controlling Cancer Workshop (Mar 17<sup>th</sup>). Roles: Workshop Co-Organizer, Roundtable Discussion Lead "Physical Activity & Sleep"

Mirabella at Arizona State University (May 26<sup>th</sup>) Lecture

"Prolonged Sitting Time Impairs Your Health and Reduces Your Life Span - Get Up, Stand Up!" ASU College of Health Solutions Health Talks Series Webinar (Dec 8<sup>th</sup>)

"Vitamin Supplements and Precision Health: Insights and Uses." Role: Presenter. Moderator: Simin Levinson, MS, RD, CSSD; Co-Presenter: Carol Johnston, MS, PhD. 69 attendees, 318 registrants emailed presentation recording.

American Society of Preventive Oncology, Lifestyle Behaviors, Energy Balance, and Chemoprevention Special Interest Group Webinar (Dec 9<sup>th</sup>)

"Current Perspectives on Chrononutrition for Cancer Survivorship." Role: Presenter. Co-Chairs: Drs. Adriana Coletta and Cynthia Thomson. Co-presenters: Dr. Mary Playdon, Dr. Susan Schembre. Sears Presentation: "Chrononutrition and Cancer: What the Mice Tell Us"

#### 2021:

San Diego High School Chemistry and Biology; Science & Research Interest Group (Feb 18<sup>th</sup>) "Stand Up and Improve Your Health!"

UC San Diego Preventive Medicine Residency Program Seminar Series (Feb 26<sup>th</sup>)

"Disease Prevention Simply by Intervening on Sitting Time: Physiologic, Metabolic, and Epigenetic Impact" Sedentary Behavior Science Presentation Series (June 23<sup>rd</sup>)

"Arriba por la Vida Estudio Clinical Trial: Preliminary Results"

American Diabetes Association 81<sup>st</sup> Scientific Sessions (virtual event due to COVID-19)

5-speaker Symposium: "When Time Matters—The Influence of Time-Restricted Feeding" (June 25th)

Chair: Lisa S. Chow, MD, MS; Speakers: Dorothy D. Sears, PhD, Amandine Chaix, PhD, Leonie

Heilbronn, PhD, Manjunath Pai, PharmD, Courtney M. Peterson, PhD, MSc, MA, MS

Sears Presentation: "Timing of Food Intake and Fasting: Circadian Rhythms and Biological Mechanisms that Mediate Health Benefits"

UC San Diego Moores Cancer Center – Cancer Control & Prevention Program Retreat (Sept 24<sup>th</sup>)

"Dietary interventions and cancer: Have we moved beyond a low-fat diet?"

American Diabetes Association Wellness Week (Oct 6<sup>th</sup>)

"Intermittent Fasting to Reduce Diabetes Risk: What we know and what we don't know"

Association for Women in Science San Diego Virtual Open House (Oct 7<sup>th</sup>)

2-Speaker Panel: "Gender Diversity in Leadership"

Chair: Varykina Thackery, PhD. Panelists: Rachel Soloff, PhD, Dorothy D. Sears, PhD

The Obesity Society's Obesity Week (Nov 1-5)

2-Speaker Symposium: "Lifestyle Interventions and Weight Loss for Cancer Prevention and Control" Chair: Tanya Agurs-Collins, PhD, RD; Speakers: Kathryn Schmitz, PhD, MPH, Dorothy D. Sears, PhD Sears Presentation: "Biomarkers of Obesity-Related Cancer Risk and Lifestyle Intervention Efficacy"

#### 2020:

ASU CHS Research Day: Flash Talk (Jan 31<sup>st</sup>)

"Get Up Off of Your Seat - Epigenetic and Physiologic Mechanisms Impacted by Prolonged Sitting Time" NIH National Cancer Institute's Time-Restricted Feeding & Intermittent Fasting Webinar Series (inaugural webinar, Mar 11<sup>th</sup>). Organized by the Division of Cancer Control and Population Science's (DCCPS) Behavioral Research Program (BRP). Initiative aims to foster cross-disciplinary behavioral and social science research on Time-Restricted Eating/Feeding (TRF) and Intermittent Fasting (IF) that can help prevent, treat, and/or control cancer. Presenter and expert panelist. Co-presenters: Dr. Courtney Peterson, Dr. Satchin Panda.

Sears Presentation: "Food Intake Timing and Fasting: Associations with Cancer Risk"

American Diabetes Association New Mexico Community Leadership Board guest speaker (Apr 21st)

"Prolonged Sitting Time Impairs Your Health and Reduces Your Life Span - Get Up, Stand Up!"

American Diabetes Association Arizona Community Leadership Board guest speaker (Aug 20<sup>th</sup>)

"Prolonged Sitting Time Impairs Your Health and Reduces Your Life Span - Get Up, Stand Up!"

American Society of Preventive Oncology, Lifestyle Behaviors, Energy Balance, and Chemoprevention Special Interest Group Webinar (Oct 21<sup>st</sup>)

"Intermittent Fasting, Body Weight and Cancer Risk" Presenter and expert panelist. Co-presenters: Dr. Krista Varady, Dr. Catherine Marinac, Dr. Marian Neuhouser.

Academy of Nutrition and Dietetics Weight Management Group Teleforum (Nov 11<sup>th</sup>)

"Intermittent Fasting to Improve Weight Control and Metabolic Outcomes - What we know and what we don't know"

#### 2019:

UCSD Center for Circadian Biology, Public Workshop (Feb 13<sup>th</sup>)

"It's About Time for Health: Exercise, Light & Food" - Workshop Co-Organizer

Presentation: "Effect of Meal-Timing and Fasting on Rhythms, Sleep and Health"

ASU College of Health Solutions, Undergraduate Research Colloquium (Feb 19th)

"Healthy Behaviors, Health Solutions"

ASU College of Health Solutions, Grant Writing Workshop (Mar 14<sup>th</sup>)

"NIH Clinical Trials - What You Need to Know" Co-presented w/Nancy Osgood, & Matt Buman, PhD

American Association for Cancer Research (AACR), Annual Meeting (April 1st; Atlanta, GA)

Session: "Nonpharmacologic Approaches to Improving Survival and Patient-Reported Outcomes."

Presentation: "Dietary interventions and cancer: Have we moved beyond a low-fat diet?"

Fleet Science Center, Sharp Minds Lecture Series (June 3<sup>rd</sup>; San Diego, CA)

"Prolonged Sitting Time Impairs Your Health and Reduces Your Life Span - Get Up, Stand Up!" ADAPT Phoenix AZ (Oct 5<sup>th</sup>)

"Health Benefits of Food Intake Timing/Time-Restricted Feeding" Excerpt video.

University of Arizona, Cancer Biology Program Seminar Series (Oct 21<sup>st</sup>)

"Dietary Interventions and Cancer: Have We Moved Beyond a Low-Fat Diet?"

## 2018:

American Gut Project Mini-Symposium (May 15th; La Jolla, CA)

"Nucleotides to Neighborhoods: Bridging Citizen Science to Defined Cohorts"

Quantified Self CVD Symposium (April 19<sup>th</sup>; La Jolla, CA)

"Why One Measurement Is Not Enough: Circadian Rhythms and Cardiometabolic Health"

19th Annual Meeting of the Society of Urologic Oncology (Nov 28th; Phoenix, AZ)

Co-Chair of and presenter during session "Fasting Interval, Metabolism, and Cancer Risk"

"Impact of Time-Restricted Feeding on Cancer Risk in Mice"

Conference highlights write-up about presentation here

Villanova University M. Louise Fitzpatrick College of Nursing and the MacDonald Center for Obesity Prevention and Education (COPE) Professional Webinar Series (Dec 12<sup>th</sup>)

"The Evidence: Impact of Intermittent Fasting and Food Intake Timing on Cardiometabolic Disease and Cancer Risk"

This webinar had the highest registration for the series in 2018.

### 2017:

Mayo Clinic (Scottsdale, AZ; telecast to Rochester, MN site)

"Novel Diet & Behavioral Interventions for Reducing Cardiometabolic Disease & Cancer Risk"

UCSD Center for Circadian Biology 8th Annual Symposium – From Cells to Clinic

"Translational Impact of Food Intake Timing on Cardiometabolic Disease & Cancer Risk"

**UCSD Endocrine Grand Rounds** 

"Acute Effects of Interrupting Prolonged Sitting Time"

UCSD Center for Microbiome Innovation Research Summit

"Built Environment and Food Exposure Effects on Host and Gut Microbe Genomics"

UCSD FMPH Center of Excellence for Women's Health

"Acute Glucoregulatory and Vascular Effects of Interrupting Prolonged Sitting Time: A Laboratory Study in Postmenopausal Women"

Washington State University College of Medicine – Faculty & Trainee Workshop

(with Cindy Simpson, Association for Women in Science)

"Strategies for Addressing Biases and Barriers in Advancing to Positions of Leadership"

Washington State University College of Medicine – Faculty & Trainee Workshop

(with Cindy Simpson, Association for Women in Science)

"Importance of Mentoring Relationships for Sustained Career Success"

C3 Scientific Retreat – Sanford Burnham Prebys Medical Discovery Institute

"Mechanisms Linking Prolonged Nightly Fasting with Cancer Risk"

14<sup>th</sup> Women in Science and Technology Conference: Explore, Encourage, Evolve

"P(l)ay it Forward: Past AWIS SD Presidents Panel"

Oncology Nutrition Dietetic Practice Group - Spotlight session for the Centennial Food & Nutrition Conference and Expo. (Chicago, IL)

"The Evidence: Intermittent Fasting Effects on Cardiometabolic Disease and Cancer"

#### 2016:

Corona Rotary Club – "Stand Up and Reduce Your Risk!"

UCSD Frontiers in Innovation Scholars Program Symposium (Keynote Speaker)

"Researching the Frontiers of Biomedical Knowledge Using Innovative Transdisciplinary Science" <a href="https://students.ucsd.edu/sponsor/fisp/">https://students.ucsd.edu/sponsor/fisp/</a>

The Doris A. Howell Foundation for Women's Health Research Health Lecture Series (La Jolla, CA)

"Simple Lifestyle Changes for Improving Women's Health" - La Jolla Light article about presentation: http://www.lajollalight.com/news/2016/jun/01/howell-speaker-touts-lifestyle-changes/

Arizona State University School of Nutrition & Health Promotion's Spring Speaker Series

"Novel Diet & Behavioral Interventions for Reducing Cardiometabolic Disease & Cancer Risk"

NIH/NCI Transdisciplinary Research on Energetics & Cancer (TREC) Scientific Meeting (Bethesda, MD)

"Leveraging the Power of TREC: Cross-Center Study of Cancer Recurrence/Mortality Risk Biomarkers"

American Diabetes Association - Riverside Father of the Year Honorees Reception

Casa de las Campanas Retirement Community (San Diego, CA)

"Type 2 Diabetes: What Do We Know & What Can We Do About It?"

UCSD CVD/EPI NIH T32 Trainees Seminar Series

"Sedentary Behavior and Cardiometabolic Disease Risk"

#### 2015:

Zone Diet Mexico Conference (2 presentations) (Mexico City, MX)

"Pilot Diet Intervention Study for Reducing Insulin Resistance in Obese Subjects with the Metabolic Syndrome"

"Novel Diet & Behavioral Interventions for Reducing Chronic Disease Risk"

National IRACDA Conference (San Diego, CA)

"Advocacy and Its Role in Shaping Science Policy, Politics, and Funding Opportunities" (Panelist)

Pint of Science, San Diego

"How Can You Reduce Your Risk of Type 2 Diabetes?"

UCSD Pathology Research Lecture Series

"Novel Diet & Behavioral Interventions for Reducing Insulin Resistance & Cancer Risk"

WGEA/WGSA/WOSR/WAAHP Regional Spring Meeting (San Diego, CA)

"Boundaries: Does Shadowing Cross the Line?" (Panelist)

UCSD Society for Advancement of Women in Anesthesiology (SAWA)

"Networking in Medicine"

American Diabetes Association - San Diego Father of the Year Honorees Reception

American Diabetes Association - Riverside Father of the Year Honorees Reception

UCSD Women's Conference "Campus Climate Change for Women in STEMM" (Panelist)

Video link below

American Diabetes Association – Greater San Diego Area Annual Meeting and Volunteer Awards (Temecula, CA)

"Sedentary Behavior: An Under-Studied, Mis-Understood Risk Factor for Type 2 Diabetes"

#### 2014

Transdisciplinary Research on Energetics & Cancer (TREC) Scientific Meeting (2 presentations) (Boston, MA) "Novel Biomarkers of Energetics-Related Cancer Risk: Thinking Outside the Box"

"Lipidomic Profiling of Energetics-Associated Cancer Models in Mice"

Association for Women in Science – "Building a Leadership Network for Senior Career Level Women in Science" (national webinar)

Centers for Population Health & Health Disparities/Transdisciplinary Research on Energetics & Cancer (TREC) Conference (Los Angeles, CA)

"Diet Composition-Specific Intervention for Reducing Insulin Resistance and Cancer Risk in Obese Subjects: A Pilot Study"

**UCSD Endocrine Grand Rounds** 

"Pilot Diet Intervention Study for Reducing Insulin Resistance in Obese Subjects with the Metabolic Syndrome"

We are WELL (San Diego community health organization)

"Recent Experimental Findings about Diet Interventions for Reducing Risk for Type 2 Diabetes"

### 2013:

UCSD Department of Family and Preventive Medicine

The Center for Ethics in Science and Technology - Exploring Ethics Series: "Women in Science: 50 Years After Silent Spring Series" (presentation & panelist) (San Diego, CA) UCTV Video link below

#### 2012:

UCSD General Internal Medicine Division Seminar Series

UCSD Topics and Advances in Internal Medicine CME Course

American Diabetes Association - Riverside Father of the Year Honorees Reception

### 2011:

NIH/NIDDK Workshop "Drug Response – A Tool for Understanding the Systems Biology of Type 2 Diabetes" (Bethesda, MD)

We are WELL (San Diego community health organization)

**UCSD Endocrine Grand Rounds** 

UCSD Frontiers in Bioinformatics and Systems Biology Colloquium

#### 2010:

University of Maryland School of Medicine

University of Wisconsin Department of Biochemistry

UCSD Hillcrest Biomedical and Clinical Research seminar series

American Diabetes Association - San Diego Father of the Year Honorees Reception

American Diabetes Association - 4th Annual Diabetes EXPO (Long Beach, CA)

#### **Prior to 2010:**

The 6th Aegean International Conference on Pathways, Networks & Systems Medicine – 2008 UCSD Atherosclerosis and Vascular Biology Seminar Series – 2008

## ONLINE VIDEO INTERVIEWS/PRESENTATIONS/LAY ARTICLES

<u>Arizona Horizon</u> (2022, Arizona PBS television) "The link between cancer and suppressed insulin." Interview of Dr. Sears. Link to episode with interview.

<u>Cancer Today</u>, Forward Look section (2022) "Fasting-Mimicking Diet Increases Anti-Tumor Immunity" by Robin Donovan. Contains quotes from interview with Dr. Sears. <u>Link to article</u>.

Washington Post, Health section (2021) "Intermittent fasting and why when you eat makes a difference" by Andreas von Bubnoff. Contains quotes from interview with Dr. Sears. Link to article.

Knowable Magazine, from Annual Reviews (2021) "The when of eating: The science behind intermittent fasting" by Andreas von Bubnoff. Contains quotes from interview with Dr. Sears. https://knowablemagazine.org/article/health-disease/2021/the-when-eating-update-intermittent-fasting

- <u>Consumer Reports</u> (2021) "Reap the Rewards of Intermittent Fasting, and Avoid the Downsides" by Jennifer Cook. Contains quotes from interview with Dr. Sears. <a href="https://www.consumerreports.org/dieting-weight-loss/intermittent-fasting-best-times-to-eat-for-weight-loss-health/">https://www.consumerreports.org/dieting-weight-loss-health/</a>
- <u>Washington Post</u>, Health section (2021) "How sensible intermittent fasting can keep you healthy", by Jennifer Cook. Contains quotes from interview with Dr. Sears. <a href="https://www.washingtonpost.com/health/intermittent-fasting-tips/2021/05/21/73dd17cc-a22c-11eb-85fc-06664ff4489d\_story.html">https://www.washingtonpost.com/health/intermittent-fasting-tips/2021/05/21/73dd17cc-a22c-11eb-85fc-06664ff4489d\_story.html</a>
- <u>Health</u> Magazine (2020) Nutrition section (Sept 2020) "3 Benefits of Fasting for a Healthy Gut" by Marnie Schwartz. Contains quotes from 2020 interview with Dr. Sears. <a href="https://www.health.com/nutrition/how-to-fast-healthy-gut">https://www.health.com/nutrition/how-to-fast-healthy-gut</a>
- Fitbit Blog (2019) "Just How Healthy is Intermittent Fasting?" by Alice Oglethorpe. Contains quotes from interview with Dr. Sears. <a href="https://blog.fitbit.com/intermittent-fasting/">https://blog.fitbit.com/intermittent-fasting/</a>
- New York magazine The Cut article (2018) "The Ultimate Guide to Intermittent Fasting" by Katie Heaney. Contains quotes from interview with Dr. Sears. <a href="https://www.thecut.com/article/intermittent-fasting.html">https://www.thecut.com/article/intermittent-fasting.html</a>
- Medscape Gastroenterology article (2018) "Hungry for Health: Fasting's Medical Benefits" by John Walker. Contains quotes from interview with Dr. Sears. <a href="https://www.medscape.com/viewarticle/898953">https://www.medscape.com/viewarticle/898953</a> 1
- Food Sleuth Radio hosted by Melinda Hemmelgarn, R.D. (2017) 30-minute interview of Dr. Sears on the evidence supporting intermittent fasting and cardiometabolic disease and cancer risk. Public Radio Exchange <a href="https://beta.prx.org/stories/225407">https://beta.prx.org/stories/225407</a>
- UC San Diego Community Marching for Science (2017 article, "Why I March") <a href="http://ucsdnews.ucsd.edu/feature/marching\_for\_science">http://ucsdnews.ucsd.edu/feature/marching\_for\_science</a>
- UC San Diego Go Red For Women Strategically Focused Research Network Sedentary Behavior Research in Latinas (2016, American Heart Association video and interview) <a href="https://youtu.be/bZHafjYbcus">https://youtu.be/bZHafjYbcus</a> Campus Climate Change for Women in STEMM (2015, panelist) -
- http://ucsdwomensconference.com/2015/03/19/session-video-campus-climate-change-for-women-in-stemm/ Hera Hub "Women in Science Rock" (2014, interview) - http://herahub.com/blog/2014/02/27/women-science-rock-dorothy-sears-ph-d/
- Career Girls "Diabetes Researcher" (2014, interview) <a href="http://www.careergirls.org/careers/diabetes-researcher">http://www.careergirls.org/careers/diabetes-researcher</a> Elsevier "Empowering Knowledge in the Lab and Beyond" (2015, interview)
  - https://www.elsevier.com/connect/video-empowering-knowledge-in-the-lab-and-beyond
- American Diabetes Association Tour de Cure (2012, event promotion video)
  - https://www.youtube.com/watch?v=FKsageRUAPg
- Women in Science: 50 Years After Silent Spring Series (2013, presentation & panel) <a href="http://www.uctv.tv/shows/Women-in-Science-50-Years-After-Silent-Spring-The-Silent-Spring-Series-Exploring-Ethics-24437">http://www.uctv.tv/shows/Women-in-Science-50-Years-After-Silent-Spring-The-Silent-Spring-Series-Exploring-Ethics-24437</a>
- Selecting a Mentor Building a Successful Career (2012, panelist) https://www.youtube.com/watch?v=IE0rm4yBTsE

### ADDITIONAL TRAINING

TEDITION TE TRAIN THE	
ASU peerLA (Leadership Academy)	2022-2023
CITI Good Clinical Practice	2020-present
American Heart Association Research Leaders Academy (Salt Lake City, UT)	2018
Cultivating a Culture of Respect in the Academic Environment (UCSD OFA, PACE, OPHD, ED	OI) 2018
CITI Biomedical Research Certification	2011-present
TREC Consortium Training Workshop (Los Angeles, CA) - "Media Communications Training"	2014
TREC Consortium Training Workshop (Boston, MA) - "Energy Balance Research in Cancer	2014
Survivors: Integrating Medical Oncology and Behavioral Science"	
TREC Consortium Training Workshop (San Diego, CA) - "Career Development and Mentoring	2013
for Young Investigators"	
AAMC Mid-Career Women Faculty Professional Development Seminar (3 days, Austin, TX)	2013
TREC Consortium Training Workshop (Washington University, St. Louis) - "Cost effectiveness	2012

with a broad focus for multiple disciplines"	
UCSD Medical Education Development Series – regular attendee	2008-2017
UCSD Extension – "Intermediate Statistics"	2005
UCSD National Center of Leadership in Academic Medicine (NCLAM)	2005
UCSD Pathology 241 – "Ethics and Survival Skills in Academia"  UCSD Extension "Prior total trian" & "Microsomer Technologies An Occapion"	2003
UCSD Extension— "Biostatistics" & "Microarray Technologies: An Overview" UCSD Extension— "Database & Genome Analysis" workshop	2003 2002
OCSD Extension— Database & Genome Analysis workshop	2002
TEACHING, ADVISING, MENTORING, STUDENT RECRUITMENT/RETENTION	
Formal Teaching ASU	
CHS Course EXW 701 Grant Writing	2024
Lecture "Significance"	2022
CHS Course GCO 650 Cancer, Cardiac Genomics & Precision Medicine Lecture "Nutrigenomics & Precision Health: Insights and Uses"	2023-present
CHS Course CHS 791 "F31 Training Grant Preparation"	2020, 21, 23
Presentation "Experience of and advice from an F31 Study Section Member"	
CHS Course NTR 535 "Nutrigenomics" (Fall & Spring, Session A or B), Instructor	2019-present
CHS Course Mayo School of Medicine Selective "Food as Medicine"	2019-2023
Lecture "Anti-Inflammatory Diet" (Mar 14, 2019) Lecture "Intermittent Fasting & Food Intake Timing" (Mar 13, 2020)	
Lecture "Anti-Inflammatory Diets" (Aug 10, 2022)	
Course highlighted in Fall 2022 ASU News article	
CHS Course NTR 511 "Medical Nutrition" (Session A or B), Instructor	2019-2021
CHS Course NTR/EXW 791	
Lecture: "Scholarly Impact" (Jan 29, 2019; Feb 4, 2020) 2019-2020	
CHS Course NTR 290 "Intro to Evidence-Based Practice" (Fall, Session C), Instructor	2019
NIH-Funded	
Transdisciplinary Research in Energetics & Cancer Training Course; NIH/NCI R25 CA203650	2016-present
Week-long summer course and year-long mentorship of 2 trainees per year	
UC San Diego	
UCSD Course NEU 233 "Circadian Biology & Health"; Course Co-Director	2018-present
Lecture "Impact of Food Intake Timing on Cardiometabolic Disease and Cancer Risk"	2021
UCSD BIOM 285 "Statistical Inference" for PhD & PharmD students	2021
Topic: Epidemiology; 3 lectures UCSD Course SOMC 223 "Renal System" – Problem Based Learning Facilitator	2017-2018
UCSD Course SOMC 223 "Gastrointestinal System" – Problem Based Learning Facilitator	2017-2018
UCSD Course SOMC 227 "Mind, Brian & Behavior" – Problem Based Learning Facilitator	2012-14,16,17
UCSD Course SOMC 220 "Foundations of Human Biology" – Literature Group instructor	2010-14
UCSD Courses SOMC 229A "Endocrinology/Reproduction/Metabolism" – Problem Based	2010-2018
Learning Facilitator UCSD Courses SOMC 221A "Cardiovascular System" – Problem Based Learning Facilitator	2010-11,14,15
UCSD Course SOMC 230A "Microbiology/Immunology" – Problem Based Learning Facilitator	
UCSD Course SOM204 "Cell Biology & Biochemistry" – Reading Group Workshop instructor	2006-09
UCSD Course SOM209 "Endocrinology, Reproduction & Metabolism"	2006-10
Facilitator for Problem-Based Learning & Small Group Discussion sections	
UCSD Course BIOM226 Hormone Action - "Receptors" & "Signaling" lectures	2006-08
UCSD Course MED260 Modern Techniques of Biomedical Research	2003

### Research advisor/mentor

## **Assistant/Associate Faculty:**

#### **ASU**

Maricarmen Vizcaino (2023-present) (Co-PI, co-investigator) Currently Assistant Research Professor at Arizona State University CHS

Taichi Suzuki, PhD (2023-present) Currently Assistant Professor at Arizona State University CHS, Biodesign Susan Racette, PhD (2022-present) – Currently Professor at Arizona State University CHS

Min-Hyun Kim, PhD (2022-present) - Currently Assistant Professor at Arizona State University CHS

Ronald O'Donnell, PhD (2022-present) - Currently Clinical Professor at Arizona State University CHS

Corrie Whisner, PhD, RD (2019-2022) - Currently Associate Professor at Arizona State University CHS

Sonia Vega Lopez, PhD, RD (2019-2022) - Currently Professor at Arizona State University CHS

Jennifer Huberty, PhD (2020-2021) - Currently Founder & CSO, Fit Minded, LLC

Abhinav Acharya, PhD (2019-2021) – Currently Assistant Professor at Arizona State University Engineering, Biodesign

### **UCSD**

Sheri Hartman, Ph.D. (2013-2019) (NIH/NCI K07 Award Research Mentor) – Currently Associate Dean & Professor, UC San Diego School of Public Health

Marta Jankowska, Ph.D. (2017-2021) (Co-PI; co-investigator) - Currently Associate Professor, City of Hope

## **UCSD Clinical Faculty**

Jamie Resnik, M.D. (2001-02) (Research advisor) – Currently Clinical Professor of Reproductive Medicine, UC San Diego

### **CUIMC**

Nour Makarem, PhD (2019-present) (NIH K99/R00 Award Mentor; R00 HL148511) – Currently Assistant Professor at Columbia University Irving Medical Center (CUIMC)

### **University of South Alabama**

Darith L. James, PhD (2022-present) (NIH/NIA LRP and CTSA KL2 Award Mentor; co-investigator) – Currently Assistant Professor at University of South Alabama

### Postdoctoral Fellows/Visiting Scholars:

#### **ASU**

Darith L. James, PhD (2019-2022) (Research co-advisor; co-investigator; NIH/NIA LRP Award Mentor) Maricarmen Vizcaino (2019-2023) (Research co-advisor, co-investigator)

### **UCSD**

Yessica Diaz Roman, DPH (2013-2017) (UCSD; Research advisor)

Adriana Villaseñor, PhD (2013-2019) (UCSD; Research co-advisor)

Marta Jankowska, PhD (2013-2017) (UCSD; Research co-advisor, co-PI)

Morgana Mongraw-Chaffin, PhD (2013-2016) (UCSD; Research co-advisor)

Lorena Martin, PhD (2013-2016) (UCSD; Research co-advisor)

Michelle Takemoto, PhD (2017-2019) (UCSD; Research co-advisor)

Ya-Ju Chang, PhD (2018-2021) (UCSD; Research advisor)

John Bellettiere, PhD (2018-2019) (UCSD; Research co-advisor)

Nour Makarem, PhD (2017-2019) (Columbia University Medical Center; Research co-advisor, co-PI)

### **UCSD Clinical Fellows**:

Barbara Ramlo-Halsted, MD (1996-98) (Research advisor) – Currently Assistant Professor, Director of The Diabetes Center, University of Cincinnati School of Medicine

Andrej Janez, MD (1998-1999) (Research advisor) – Currently Professor, Head of Dept. of Endocrinology and Diabetes at University Medical Center Ljubljana, Slovenia.

Adrienne Nassar, MD (2011-2013) – Currently Endocrinologist at Kaiser Permanente in San Diego, CA. Ellen Lee, MD (2017-2019) (Research co-advisor)

### **Pre-Doctoral Students:**

#### **PhD Graduate Student Trainees:**

#### **ASU**

Adam Seal (2018) – NIH/NIDDK F31 Training Grant Application Co-Sponsor; ASU College of Health Solutions. PhD granted in 2020. Currently postdoctoral fellow at CSU San Luis Obispo.

Alex Mohr (2019-2022) – PhD Supervisory & Dissertation Committee; ASU College of Health Solutions. PhD granted in 2022.

Kristina Hasanaj (2019-present) – PhD Supervisory & Dissertation Committee; ASU College of Health Solutions

Miranda Larouche (2019-present) – PhD Supervisory Committee; ASU College of Health Solutions Selicia Mayra (2019-2020) – PhD Supervisory & Dissertation Committee; ASU College of Health Solutions. PhD granted in 2020.

Armando Peña (2019-2022) – NIH/NIDDK F31 Training Grant Co-Sponsor (funded), Thesis Committee; ASU College of Health Solutions. PhD granted in 2022.

Shannon Wilson (2020-2022) - PhD Supervisory & Dissertation Committee, research mentor/supervisor; ASU College of Health Solutions. PhD granted in 2022.

Priyanka Gopal (2020) - PhD thesis advisor; ASU College of Health Solutions. Left program due to COVID-related VISA challenges.

Jeffrey Patterson (2021-present) – PhD thesis advisor; ASU College of Health Solutions.

#### **UCSD**

Albert Hsiao, MD, PhD (2003-2005) – Bioengineering Ph.D. thesis research advisor and committee member. Currently Assistant Professor of Radiology and Associate Director of Cardiovascular Diseases for the Center for Translational Imaging and Personalized Medicine (CTIPM) at UCSD. Ph.D. in 2005, M.D. in 2007.

Gene Hsiao, PhD (2004-2010) - PhD thesis research co-advisor and committee member. Bioengineering PhD in 2010.

Merrie Mosedale, PhD (2007) - Minor Committee Member. PhD in 2012, School of Medicine BSMS program. Alex Thomas (2011-2015) – PhD thesis research advisor and committee member, Senate Exam Committee Co-Chair. PhD granted in 2015.

Nassim Ajami, PhD (2013-2018) – Rotation project research advisor & thesis research co-mentor in the Bioinformatics & Systems Biology Graduate Program of the UCSD Jacobs School of Engineering. PhD granted in 2018.

Anthony Aylward (2013-2021) – Rotation project research advisor & Thesis Committee Co-Chair in the Bioinformatics & Systems Biology Graduate Program of the UCSD Jacobs School of Engineering. PhD granted in 2021. Thesis title: "Statistical strategies and resources for deciphering mechanisms of diabetes risk loci"

Catherine Marinac, PhD (2013-2016) – (PhD Thesis Committee) – PhD granted in 2016, UCSD/SDSU Joint Doctoral Program. Assistant Professor at Harvard University School of Medicine and Dana-Farber Cancer Institute

Lorena Pacheco (2016-2019) - PhD thesis research co-advisor and committee member. UCSD/SDSU Joint Doctoral Program. PhD granted in 2019. Currently postdoctoral fellow at Harvard University School of Public Health.

Benjamin Sarno (2018-2020) - PhD thesis research co-advisor and Senate Exam Co-Chair; UCSD Nanobiology Graduate Program. PhD granted in 2020.

Kelly Anne Fogelson (2022) – (PhD Thesis Committee) – PhD granted in 2022. UCSD Biomedical Sciences Graduate Program.

## **University of South Florida**

Tiffany Gandolfo (2017-2020) – (PhD Thesis Committee) - PhD granted in 2020. University of South Florida. Thesis title "Circadian Rhythms and the Embodiment of Social Zeitgebers: Linking the Bio and Social"

### **UCSD Medical Students:**

Hayley Baines, M.D. (2008-2012) – Independent Study Project (ISP) committee member.

Yarah Haidar, M.D. (2009) – Faculty mentor.

Benjamin Maslin, M.D. (2010-2012) – Independent Study Project (ISP) committee member.

Suzanne Hyun, M.D. (2010-2013) – Independent Study Project (ISP) committee member.

Praveena Selvaduray, M.D. (2012-2014) – Independent Study Project (ISP) Committee Chair. Currently OB/GYN resident, Kaiser Permanente San Diego.

Jenny Koo, M.D. (2014) – Independent Study Project (ISP) committee member. Currently Neonatology Fellow, UCSD Pediatrics/Rady Children's Hospital.

Susan Duan, M.D. (2014) – Independent Study Project (ISP) committee member. Currently Internal Medicine – Pediatrics resident, Baylor College of Medicine.

Simmi Deo (2012-2016) - Independent Study Project (ISP) Committee Chair. Currently Psychiatry Resident, University of Iowa.

Eleasa Sokolski (2013-2016) - Independent Study Project (ISP) committee member.

Christine Sugimoto (2015-2019) - Independent Study Project (ISP) Committee Chair. Currently MS4.

Torrey Czech (2016-2020) - Independent Study Project (ISP) Committee Chair. Graduated 2020.

Sophia Xiao (2020-2022) - NIDDK Summer Research Program, research advisor. Currently MS3.

## **UCSD Skaggs School of Pharmacy & Pharmaceutical Sciences Students:**

Tiffany Wong, Pharm.D. (2010) – Research advisor for Summer Research Training Fellowship. Pharm.D. granted in 2012.

Iris Chen, Pharm.D. (2011) - Research advisor for Summer Research Training Fellowship. Pharm.D. granted in 2013, currently Oncology Pharmacist at UC Davis Medical Center.

# **Master's Degree Graduate Student Trainees:**

### **ASU**

Christian Voutsas (2023-present) – Thesis Advisor; Master of Nutrition Sciences Program, ASU College of Health Solutions.

Mario Hernandez (2022-present) (Research advisor) – Master of Clinical Exercise Physiology Program

Vanessa Garcia (2022-present) (Research advisor) - Master of Clinical Exercise Physiology Program

Jingyu Ling (2022-present) – Thesis Committee; Master of Nutrition Sciences Program, ASU College of Health Solutions.

Tav Gross (2022-2023) - Thesis Committee; Nutritional Science Masters Program and Dietetic Internship Program, ASU College of Health Solutions.

Bethany Liedike (2022-present) - Thesis Committee; Nutritional Science Masters Program and Dietetic Internship Program, ASU College of Health Solutions.

Christian Cebuhar (2021-2022) - Thesis Committee; Master of Science, Aviation Management and Human Factors; ASU School of Engineering.

Brittany Hawkes (2020-2021) – Research advisor; Master of Medical Nutrition Program, ASU College of Health Solution.

Samantha Toffoli (2020-2021) – Thesis Committee; Master of Nutrition Sciences Program, ASU College of Health Solutions. MS granted in 2021.

Heather Ray Anderson (2020-2022) - Thesis Advisor; Master of Nutrition Sciences Program, ASU College of Health Solutions. MS granted in 2022.

Sara Lolley (2019-2020) – Thesis Committee; Master of Nutrition Sciences Program, ASU College of Health Solutions. MS granted in 2020.

Natalie (Kopplin) Kravat (2019-2020) – Thesis Committee; Master of Nutrition Sciences Program, ASU College of Health Solutions. MS granted in 2020.

Kelly Chondropoulos (2019-present) – Thesis Committee; Master of Nutrition Sciences Program, ASU College of Health Solutions

Amanda Harb (2019-2020) - Thesis Advisor; Master of Nutrition Sciences Program, ASU College of Health Solutions. MS granted in 2020. Currently Nutrition PhD student at Columbia University.

Savannah Regensburger (2019-2020) – MS in Medical Nutrition student; NTR593 Applied Project Mentor and research mentor; ASU College of Health Solutions. MS granted in 2020.

Mary Ahern (2019-2021) - Thesis Committee; Master of Nutrition Sciences Program, ASU College of Health Solutions. MS granted in 2021.

Makenna Baum (2018-2019) – Master of Nutrition Sciences Program, ASU College of Health Solutions. MS granted in 2019.

### **UCSD**

Divya Thapar, MD, MS (2007-2008) – Master's Thesis research advisor. MS degree granted 2008. UC San Diego BS/MS program. Earned MD at UCSF in 2014. Currently ED Resident at UCSF.

Madlena Nalbandian, MD, MS, MPH (Fall 2012-2013) – Master's Thesis research advisor. MS in 2013. UC San Diego BS/MS program. MD and MPH in 2017 from St. George's University Medical School. Currently Internal Medicine Resident Physician

Rachel Marty (2015-2016) – Rotation project research advisor. Currently a PhD student in the Bioinformatics & Systems Biology Graduate Program of the UCSD Jacobs School of Engineering.

Kristina Mardinian, MPH (2017) - MPH, lab research advisor. UCSD/SDSU Joint Program. MPH granted in 2018.

Kaitlin Bessinger, MS (2018) - Master's Thesis research advisor. MS granted in 2018. UC San Diego BS/MS program.

### **Undergraduate Student Trainees:**

#### **ASU**

Adrianna Navarro (2024-present) – Capstone thesis advisor

Kathryn Searson (2023-present) Honor thesis committee

Amanda Huynh (2023) Research advisor for CHS 494, Get Smart Project – WP Carey undergraduate

Ashwaq Mohamed (2022-present) Research advisor for CHS 494, MHTT WorkWell Project - CHS undergraduate

Aria Shah (2022-present) Research advisor for CHS 494 - CHS undergraduate

Cambrei Hoffart (2022) (Research advisor, CHS 484) - CHS undergraduate

David Clauschee (2022) (Research advisor) – CHS undergraduate

Mario Hernandez (2021-2022) (Research advisor) - CHS undergraduate

Vanessa Garcia (2021-2022) (Research advisor, CHS 484) - CHS undergraduate

Sophia Demski (2021-2022) (Capstone Project Research advisor) - CHS undergraduate

Krish Bhalla (2021-2022) (Research advisor, CHS 484) - SOLS undergraduate

Hannah Francis (2021) (Research advisor) – CHS undergraduate

Carissa McEvoy (2020-2021) (Thesis Committee) – Barrett Honors Student

Autumn Childers (2020) (Thesis Committee) – Barrett Honors Student. BS granted 2020

### **UCSD/SDSU**

Jessica Chao (Winter/Spring 2006) (BISP199 Research advisor, UCSD Faculty Mentor Program – Mentor) – BS in 2007

Jeff Lee (Winter 2008) - BISP199 Research advisor. BS in 2008

Simmi Deo (2012) (Research advisor) – BS degree granted in 2012, currently 2<sup>nd</sup> year medical school student at UCSD.

Madlena Nalbandian, MD, MS, MPH (2010-2012) (Research advisor) – BS degree granted in 2012, currently medical student at St. George's University Medical School.

Olushade Unger (2013-2014) (Research advisor) – BS degree granted in 2014.

Steven Noh (Summer 2015) (Research advisor) – UC Berkeley undergraduate.

Savannah Afsahi (2015-2016) (Research advisor) – UC San Diego undergraduate.

Basma Abdellaoui (2016-2019) (Research advisor) – UC San Diego undergraduate. BS granted in 2019.

Sabrina Aden (2016-2018) (Research advisor) – **SDSU** undergraduate. NIH U54 UCSD/SDSU Partnership Program. BS granted in 2018.

Kaitlin Bessinger, MS (2017-2018) (Research advisor) - BS degree granted in 2017, MS degree granted in 2018. UC San Diego BS/MS program.

Max Fang (2017-2018) (Research advisor) – **SDSU** undergraduate. NIH U54 UCSD/SDSU Partnership Program. BS granted in 2018.

Cloie Chiong (2018-2019) (Research advisor) - UC San Diego undergraduate. BS granted in 2019.

Yesenia Avitia (2018-2019) (Research advisor) – **SDSU** undergraduate. NIH U54 UCSD/SDSU Partnership Program. BS granted in 2019. Currently UCSD Staff Research Associate.

Joseph Maestas (2018-2121) (Research advisor) – UC San Diego undergraduate. BS granted in 2020.

Sabrina Ephrem (2019) (Research advisor) – **SDSU** undergraduate. NIH U54 UCSD/SDSU Partnership Program. BS granted 2020.

## **High School Research Trainees:**

#### UCSD

Divya Bhat (summer 2006 and 2007) – Lab research advisor

Courtney Chaplin (Winter/Spring 2014) (Research advisor) – High school diploma in 2014, currently an undergraduate student at UC Davis.

Amal Gebara-Lamb (Summer 2015) (Research advisor) – High school diploma in 2016 from Torrey Pines High School, currently an undergraduate student at UC Davis.

John Finkelman (Summer 2017 & 2018) – Lab research advisor. High school diploma in 2019 from Torrey Pines High School.

Madeline Dow (Summer 2018) (Research advisor) – Lab research advisor.

### **ASU Student Recruitment & Retention Activities:**

EXW 701 Grant Reviewer	2023
Faculty presenter to Translational Research Club	2022, 2023
Faculty presenter to CHS 101	2022
Bowling with the Dean Event	2019
Dinner with the Dean Event	2019

# **PUBLICATIONS** - DOROTHY DEE SEARS & DOROTHY SEARS WORRALL

**ORCID:** 0000-0002-9260-3540

Google Scholar Profile: Citations: 7916 h-index: 41 i10-index: 74 (August 24, 2023)

- 1. Pavan W, Hieter P, **Sears D**, Burkhoff A, Reeves R. (1991) High efficiency yeast artificial chromosome fragmentation vectors. Gene 106:125-127. PMID: 1937033.
- 2. **Sears DD**, Hegemann JH, Hieter P. (1992) Meiotic recombination and segregation of human derived artificial chromosomes in *S. cerevisiae*. Proc Natl Acad Sci. USA 48:5296-5300. PMID: 1608938.

- 3. **Sears DD**, Hieter P, Simchen G. (1994) An implanted recombination hot spot stimulates recombination and enhances sister chromatid cohesion of heterologous YACs during yeast meiosis. <u>Genetics</u> 138:1055-1065. PMID: 7896090.
- 4. **Sears DD**, Hegemann JH, Shero J, Hieter P. (1995) Cis-acting determinants affecting centromere function, sister chromatid cohesion, and reciprocal recombination during meiosis in Saccharomyces cerevisiae. Genetics 139:1159-1173. PMID: 7768430.
- 5. Cohen H, **Sears DD**, Zenvirth D, Hieter P, Simchen G. (1999) Increased instability of human CTG repeat tracts on yeast artificial chromosomes during gametogenesis. <u>Mol Cell Biol</u>. 19:4153-4158. PMID: 10330155.
- 6. Janez A, **Worrall DS**, Imamura T, Sharma PM, Olefsky JM. (2000) The osmotic shock-induced glucose transport pathway in 3T3-L1 adipocytes is mediated by Gab-1 and requires Gab-1-associated phosphatidylinositol 3-kinase activity for full activation. <u>J Biol Chem.</u> 275:26870-26876. PMID: 10842168.
- 7. Janez A, **Worrall DS**, Olefsky JM. (2000) Insulin-mediated cellular insulin resistance decreases osmotic shock-induced glucose transport in 3T3-L1 adipocytes. <u>Endocrinology</u> 141:4657-4663. PMID: 11108280.
- 8. **Worrall DS**, McDunn J, List B, Reichart D, Hevener A, Gustafson T, Barbas CF, III, Lerner RA, Olefsky JM. (2001) Synthesis of an organoinsulin molecule that can be activated by antibody catalysis. <u>Proc Natl</u> Acad Sci., U.S.A. 98:13514-13518. PMID: 11707596.
- 9. Kruszynska Y.T., **Worrall**, D.S., Ofrecio, J., Frias, J.P., Macaraeg, G., Olefsky, J.M. (2002) Fatty acid induced insulin resistance: decreased muscle PI3K activation but unchanged Akt phosphorylation. <u>J Clin Endo & Metab.</u> 87:226-234. PMID: 11788651.
- 10. **Worrall**, D.S.\* & Olefsky, J.M.\* (2002) The effects of intracellular calcium depletion on insulin signaling in 3T3-L1 adipocytes. \*Corresponding authors. Mol Endocrinol. 16:378-389. PMID: 11818508.
- 11. Dalle, S., Imamura, T., Rose, D., **Worrall**, D.S., Ugi, S., Hupfeld, C.J., Olefsky, J.M. (2002) Insulin induces heterologous desensitization of G protein-coupled receptor and insulin-like growth factor I signaling by down-regulating β-arrestin-1. <u>Mol Cell Biol</u>. 22: 6272-6285. PMID: 12167719.
- 12. Miller, Y.I, **Worrall**, D.S., Funk, C.D., Feramisco, J.R., and Witztum, J.L. (2003) Actin polymerization in macrophages in response to oxidized LDL and apoptotic cells: Role of 12/15-Lipoxygenase and Phosphoinositide 3-kinase. Mol Biol Cell 14:4196-4206. PMID: 14517329.
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- 33. <u>Aylward, A.</u>, Armando, A., Quehenberger, O., **Sears, D.D**. (2014) Effects of diet intervention on plasma eicosanoid profiles in obese human subjects. LIPID MAPS Annual Meeting; May 2014. Poster presentation.
- 34. <u>Ajami N</u>, Thomas A, **Sears DD**. (2014) Lipidomic profiles of human adipose tissue associated with insulin resistance. LIPID MAPS Annual Meeting; May 2014. Poster presentation.
- 35. Quehenberger O, Armando A, Natarajan L, Li H, Chung H, Ellies L, Webster N, Belka G, Sterner C, Benesh E, Moley K, Chodosh L, <u>Sears DD</u>. (2014) Lipidomic profiling of energetics-associated cancer models in mice. TREC Scientific Meeting; Nov 2014. Oral presentation.
- 36. <u>Marinac C</u>, Arredondo E, Gallo L, Hartman S, Natarajan L, **Sears DD**, Patterson R. Prolonged nightly fasting and breast cancer risk: findings from NHANES (2009-2010). (2015) AACR Annual Meeting; Apr 2015. Poster presentation.
- 37. <u>Marinac C</u>, **Sears DD**, Natarajan L, Gallo LD, Breen C, and Patterson RE. (2015) Frequency and circadian timing of eating may influence metabolic risk of breast cancer. AACR Special Conference on Metabolism and Cancer; June 2015. Poster Presentation.
- 38. <u>Roman YD</u>, Martin L, Becerra BJ, **Sears DD**. (2015) Diabetes Management Class Utilization in Hispanics vs. Non-Hispanics, BRFSS 2012. UC San Diego Public Health Research Day; Apr 2015. Poster presentation.
- 39. <u>Marinac CR</u>, **Sears DD**, Nelson SH, Natarajan L, Breen CI, Pierce JP, Patterson RE. (2015) Prolonged nightly fasting and breast cancer prognosis. TREC Scientific Meeting; Sept 2015. Poster presentation.
- 40. <u>Sears DD</u>, Chung H, Chou W, Patterson RE, Webster N, Ellies L. (2015) Effects of time-restricted feeding intervention on insulin resistance, adiposity, and locomotor activity in an obese, postmenopausal mouse model. TREC Scientific Meeting; Sept 2015. Poster presentation.
- 41. <u>Bellettiere J</u>, Carlson JA, Rosenberg D, Singhania A, Natarajan L, Berardi V, LaCroix AZ, **Sears DD**, Moran K, Crist K, & Kerr J. (2015). Gender and Age Differences in Hourly and Daily Patterns of Sedentary Time in Older Adults Living in Retirement Communities. 9th International Conference of Diet and Activity Measurement. Brisbane, Australia. Sept 2015. Poster presentation.
- 42. <u>Afsahi S</u>, Goldsmith B, **Sears DD**, Barron F. (2016) Comparison of a Novel Commercial Immunoassay, AGILE Research, and the Meso Scale Discovery Array System for the Quantification of Insulin and Leptin in Human Plasma. Experimental Biology Conference; April, 2016. Poster presentation.
- 43. <u>Ehrlich C</u>, Iker E, Herbst KL, Kahn L-A, **Sears DD**, Kenyon M. (2016) Eating to Starve Lymphedema and Lipedema. 12th National Lymphedema Network International Conference; August 2016. Poster presentation.
- 44. <u>Ehrlich C</u>, Iker E, Herbst KL, Kahn L-A, **Sears DD**, Kenyon M. (2016) Vitamins, Minerals, and Supplements for Lymphedema and Lipedema. 12th National Lymphedema Network International Conference; August 2016. Poster presentation.
- 45. <u>Eguchi A</u>, Lazic M, Armando AM, Phillips SA, Quehenberger O, **Sears DD**, Feldstein AE. (2016) Perilipin a is a Novel Biomarker of Circulating Adipocyte-Derived Extracellular Vesicles in Both Murine Models of Obesity and Obese Humans. European Association for the Study of the Liver meeting; April 2016. Poster presentation. <u>J Hepatology</u> 64 (2) Suppl. S672–S673.
- 46. <u>Hartman SJ</u>, Nelson SH, Myers E, Natarajan L, **Sears DD**, Palmer BW, Parker BA, Patterson RE. (2017) Increasing physical activity and changes in cognitive functioning in breast cancer survivors: A randomized controlled pilot study. 38<sup>th</sup> Annual Society of Behavioral Medicine Meeting; March 2017 Meeting. Poster presentation.
- 47. <u>Lee SMC</u>, Rana BK, Stenger MB, **Sears DD**, Smith SM, Zwart SR, Macias BR, Hargens AR, Sharma K, and De Vivo I. (2017) Metabolomic and genomic markers of atherosclerosis as related to oxidative stress, inflammation, and vascular function in twin astronauts. NASA Human Research Program Investigators' Workshop; January 2017. Oral presentation.

- 48. Mongraw-Chaffin M, Bertoni AG, Golden SH, Mathioudakis N, Sears DD, Szklo M, Anderson CAM. (2017) Association of subclinical hypoglycemia with incident cardiovascular disease and all-cause mortality: The Multi-Ethnic Study of Atherosclerosis. American Heart Association EPI|Lifestyle Scientific Sessions; March 2017. Poster presentation. Circulation 135 (Suppl 1), AP051-AP051.
- 49. <u>Aden SA</u>, Kerr J, Crist K, Vital D, Dillon L, Castellanos LR, Allison M, Khemlina G, Takemoto M, Schenk S, Sallis J, Dunstan D, Natarajan L, LaCroix AZ, **Sears DD**. (2017) Acute Effects of Sitting Interruption Modalities on Plasma Glucose in Postmenopausal Women. San Diego State University Student Research Symposium; March 2017. Poster presentation. Recipient of Undergraduate Research Excellence Award.
- 50. <u>Vital DG</u>, Kerr J, Crist K, Dillon L, Aden SA, Trivedi M, Castellanos LR, Godbole S, Li H, Allison MA, Khemlina GL, Takemoto ML, Schenk S, Sallis J, Grace M, Dunstan D, Natarajan L, LaCroix AZ, **Sears DD**. (2017) Acute glucoregulatory and vascular outcomes of three strategies for interrupting prolonged sitting time in postmenopausal women: A laboratory-based pilot study. UCSD Institute for Public Health Public Health Research Day; April 2017. Poster presentation.
- 51. <u>Felgar E</u>, Jankowska M, **Sears DD**, Dillon L, Kerr J. (2017) Building a Literature Base and Analytic Protocol for Linking Self-Reported Depression and Anxiety to the Gut Microbiome in the Community of Mine Study. UCSD Institute for Public Health Public Health Research Day; April 2017. Poster presentation.
- 52. <u>Araiza D</u>, Hartman S, Godbole S, Crist K, Patterson R, **Sears DD**, Natarajan L, Kerr J. (2017) Association Between Inflammation and Quality of Life in Breast Cancer Survivors. UCSD Institute for Public Health Public Health Research Day; April 2017. Poster presentation.
- 53. <u>Full KM</u>, Hartman SJ, Natarajan L, **Sears DD**, Kerr J, Patterson RE. (2017) Using Isotemporal Analyses to Examine the Relationships Between Daily Activities & Biomarkers in Breast Cancer Survivors. San Diego Epidemiology Research Exchange (UCSD Moores Cancer Center); May 2017. Oral presentation.
- 54. <u>Takemoto, M.</u>, Schechtman, M., Villa, N., Talavera, T., **Sears, D.**, Owen, N., Rosenberg, D., Dunstan, D., Allison, M., Kerr, J. Arriba por la Vida Estudio (AVE): Development of a Sedentary Behavior Intervention Targeting Post-Menopausal Latinas. American Heart Association Annual Meeting: Anaheim, CA; November 2017. Oral presentation.
- 55. Makarem N, Aggarwal B, St-Onge M-P, **Sears DD**, Castaneda SF, Marinac CR, Talavera G, Sotres-Alvarez D, Garcia ML, Gallo LC. (2018) Nightly Fasting Duration is Associated with Cardiometabolic Risk Profiles among Hispanic/Latina Women in the Hispanic Community Health Study/Study of Latinos. American Heart Association EPI|Lifestyle Scientific Sessions. March 2018. Poster presentation. <a href="Circulation.2018;137">Circulation. 2018;137</a> (Suppl 1):AP248.
- 56. Das M, Gross E, Kumar D, Sauceda C, Park H-T, **Sears DD**, Ellies L, Webster N. (2018) Time-Restricted Feeding Attenuates Breast Cancer Growth in a Mouse Model of Postmenopausal Obesity. Experimental Biology. Oral presentation. The FASEB Journal 32 (1\_supplement), 811-19.
- 57. <u>Jankowska MM</u>, **Sears DD**, Godbole S, Kerr J. (2018) Effects of compounding exposure to environmental stress on insulin resistance in Hispanic and non-Hispanic adults. UCSD Institute for Public Health Public Health Research Day; April 2018. Poster presentation.
- 58. <u>Makarem N</u>, Aggarwal B, **Sears DD**, St-Onge M-P, Castañeda SF, Talavera GA, Marinac CR, Patterson R, Sotres-Alvarez D, Garcia ML, Gallo LC. (2018) Circadian Timing of Food Intake is Associated with Cardiometabolic Risk in US Hispanics/Latinos: Results from the Hispanic Community Health Study/Study of Latinos. American Heart Association Scientific Sessions; Nov 2018. Oral presentation. <a href="Circulation.2018;138"><u>Circulation.</u>2018;138 (Suppl 1):A11503.</a>
- 59. <u>Bellettiere, J, Ervin, D, Godbole S, Keshevarz S, Maestas J, [Unkart J, Allison M, Rock CL, Patterson RE, Kerr J, Natarajan L,] Chang, Y-J, **Sears DD**. (2018). [bracketed authors listed on actual poster but not in submitted abstract due to author number limitation] Ethnic Differences in Sitting Time and Associations of Sitting Time with Cardiometabolic-Risk Biomarkers in Postmenopausal Women. Gerontological Society of America Annual Scientific Meeting. Boston, MA. November 2018. Poster presentation. <u>Innovation in Aging</u>, Volume 2, Issue suppl\_1, November 2018, Page 931, <a href="https://doi.org/10.1093/geroni/igy031.3461">https://doi.org/10.1093/geroni/igy031.3461</a></u>
- 60. <u>Maestas JP</u>, Bellettiere J, Ervin D, Godbole S, Keshevarz S, Chang Y-J, Avitia Y, Unkart J, Haimovich A, Gurrola ML, Allison M, Talavera G, Rock CL, Patterson RE, Kerr J, Natarajan L, **Sears DD**. (2018) Ethnic

- Differences in Sitting Time and Associations of Sitting Time Patterns with Cancer-Related Cardiometabolic Risk Biomarkers in Postmenopausal Women. UCSD Moores Cancer Center Delivering Discoveries Scientific Retreat. La Jolla, CA. November 2018. Poster presentation.
- 61. <u>Takemoto M</u>, **Sears D**, Talavera G, Allison M, Villa N, Kerr J. Individual behavior change strategies for reducing sedentary time in older adults. International Society for Behavioral Nutrition and Physical Activity Annual Meeting: Hong Kong, China, June 4-6, 2018. Oral presentation.
- 62. <u>Das M</u>, Gross E, Kumar D, Sauceda C, Park H-T, **Sears DD**, Ellies L, Webster N. (2018) Time-restricted feeding: A dietary intervention to treat breast cancer in postmenopausal obese mice. AACR Annual Meeting. <u>Cancer Research 78 (13 Supplement)</u>, 377-377.
- 63. <u>Chiong CL</u>, Chang Y-J, Godbole S, Bellettiere J, Rock CL, Patterson RE, Kerr J, Jankowska M, Allison M, Natarajan L, **Sears DD**. (2019) Investigating the Relationship Between Sitting Time on DNA Methylation: A Predictive Marker of Aging and Disease Risk. 5th Annual UCSD Public Health Research Day, La Jolla, CA. April 2019. Poster presentation.
- 64. <u>Avitia Y</u>, Chang Y-J, Godbole S, Bellettiere J, Rock CL, Patterson RE, Kerr J, Allison M, Natarajan L, **Sears DD**. (2019). Associations between sedentary patterns and cardiometabolic disease-associated microRNAs among postmenopausal women. 5th Annual UCSD Public Health Research Day, La Jolla, CA. April 2019. Poster presentation.
- 66. Chiong CL, Chang Y-J, Godbole S, Bellettiere J, Rock CL, Patterson RE, Kerr J, Jankowska M, Allison M, Natarajan L, **Sears DD**. (2019) Investigating the Relationship Between Sitting Time on DNA Methylation: A Predictive Marker of Aging and Disease Risk. 2019 UCSD Biology Research Showcase, La Jolla, CA. June 2019. Poster presentation.
- 67. <u>Hartman SJ</u>, Weiner LS, Nelson SH, Natarajan L, **Sears DD**, Patterson RE, Palmer BW, Parker BA. (2019) Mediators of a Physical Activity Intervention on Cognition in Breast Cancer Survivors: Evidence from a Randomized Trial. Poster presentation. <u>Annals of Behavioral Medicine</u> 2019 Mar 1 (Vol. 53, pp. S13-S13).
- 68. <u>Das M</u>, Kumar D, Sauceda C, Gross E, Park H-T, Kaur M, Kuo K, Parwal P, **Sears D**, Ellies L, Newton I, Webster N. (2019) Time Restricted Feeding Delays Breast Cancer Initiation and Growth in a Mouse Model of Postmenopausal Obesity. Oral presentation. <u>Journal of the Endocrine Society Vol 3, Supplement 1, April-May 2019, SAT–336</u>
- 69. Withycombe JS, Mitchell R, Castellino S, Sears DD, Lin Y, McFatrich M, Reeve B, Pediatric PRO-CTCAE Study Team. Metabolomic Pathways and Biomarkers Associated with Pediatric Patient Reported Outcomes (PRO) during Childhood Cancer. Annual Conference of the Pediatric Research Alliance. Atlanta, GA. June 2019. Oral presentation.
- 70. Chang, Y-J, Avitia Y, Godbole S, Bellettiere J, Rock CL, Patterson RE, Jankowska MM, Kerr J, Allison MA, Natarajan L, **Sears DD**. (2019) Circulating extracellular vesicles as novel biomarkers of cardiovascular risk in older women with different sitting time patterns. American Heart Association Basic Cardiovascular Sciences 2019 Scientific Sessions: Approaches to Complex Cardiovascular Diseases. July 2019. Boston, MA. Poster presentation. Circulation Research. 2019;125 (Suppl 1):A748.
- 71. Makarem N, Sears DD, St-Onge M-P, Castaneda S, Gallo L, Talavera G, Liao M, Byun S, Mayat Z, Zuraikat F, Aggarwal B. (2019) Evening Caloric Intake is Associated with Cardiovascular Health in Women: Results from the American Heart Association Go Red for Women Strategically Focused Research Network. American Heart Association 2019 Scientific Sessions. November 2019. Philadelphia, PA. Oral presentation. Circulation. 2019;140 (Suppl 1):A11503. Press release.
- 72. <u>Hartman SJ</u>, **Sears DD**, Parker B, Palmer B, Natarajan L, Ahles T, Irwin M, Weiner L, Barkai HS, Deiotte E. (2020) A Randomized Controlled Trial of Physical Activity for Cognitive Functioning in Breast Cancer Survivors: Study Design of I Can! Improving Cognition After Cancer. International Cognition and Cancer Task Force Meeting. February 2020. Denver, CO. Poster presentation.
- 73. <u>Harb AA</u>, Alexon C, Ohri-Vachaspati P, Jankowska M, **Sears DD**. (2020) Is a Dynamic Measurement of Exposure to the Retail Food Environment Associated with Fiber Intake of Adults Residing in San Diego County, California? Arizona State University College of Health Solutions Research Day. January 2020. Phoenix, AZ. Poster presentation.

- 74. Chang Y-J, Avitia Y, Tuz-Zahra F, Godbole S, Bellettiere J, Rock CL, Patterson RE, Jankowska MM, Kerr J, Allison MA, Natarajan L, **Sears DD**. (2020) Endothelial-Derived MicroRNAs are Novel Biomarkers Reflecting Prolonged Sitting Pattern and Physical Activity in Postmenopausal Women: Possible Ethnic Differences. Experimental Biology 2020. April 2020. San Diego, CA. For poster presentation meeting cancelled due to COVID-19. The FASEB Journal 34 (S1), 1-1.
- 75. <u>Xue C</u>, Ramsey M, **Sears D**, Lee E. (2020) Associations between sleep disturbance and metabolic syndrome in persons with schizophrenia and a non-psychiatric comparison group. 2020 American Geriatrics Society Annual Conference. J Am Geriatrics Soc 68, S342-S343.
- 76. Ambeba EJ, **Sears DD**, Anderson CAM, Zamora S, Benmarhnia T, Natarajan L, Jankowska MM. (2020) Sex and Depression as Modifiers of the Association Between Life's Simple 7 and Perceived Quality of Life. American Public Health Association (APHA) Annual Meeting and Expo. October 2020. Virtual meeting (due to COVID-19). Poster presentation.
- 77. Natarajan L, Reuter C, Bellettiere J, Liles S, Di C, Sears DD, LaMonte M, Stefanick ML, LaCroix AZ. (2020) Diurnal pattern of sedentary behavior and physical function in older women. International Society of Behavioral Nutrition and Physical Activity (ISBNPA) Annual Meeting. June 2020. Virtual meeting (due to COVID-19). Poster presentation.
- 78. <u>Jankowska MM</u>, Benmarhnia T, **Sears DD**, Zamora S, Yang J-A, Spoon C. (2020) Dynamic versus static measures of air pollution exposure and their effects on insulin resistance in Hispanic/Latinos compared to non-Hispanics. International Society of Exposure Science (ISES) Annual Meeting. September 2020. Virtual meeting (due to COVID-19).
- 79. <u>Talavera GA</u>, Castañeda SF, Lopez-Gurolla M, Alvarez-Malo AR, Hernandez J, Reuter C, Natarajan L, **Sears DD**, Takemoto M, Chang Y-J, Avitia Y, Haimovich A, Ornelas L, De La Torre A, Carlson J, Allison MA. (2020) Arriba por la Vida Estudio (AVE): A single-blind randomized controlled trial promoting short bouts of standing behavior among sedentary postmenopausal Latinas. American Heart Association 2020 Scientific Sessions. November 2020. Virtual meeting (due to COVID-19). <u>Circulation 142 (Suppl\_3)</u>, A15954-A15954
- 80. Makarem N, Sears DD, St-Onge M-P, Zuraikat F, Gallo L, Talavera GA, Castaneda SF, Xi H, Aggarwal B. (2020) Social Jet Lag in Eating Patterns as a Marker of Meal Timing Variability Is Associated with Elevated Cardiometabolic Risk in the AHA Go Red for Women Strategically Focused Research Network. American Heart Association 2020 Scientific Sessions. November 2020. Virtual meeting (due to COVID-19). Circulation 142 (Suppl\_3), A13175
- 81. Ambeba EJ, **Sears DD**, Benmarhnia T, Natarajan L, Anderson CAM, Zamora S, Jankowska MM. (2020) Social connectedness is independently associated with the American Heart Association's Impact Goals (Life's Simple 7). American Heart Association 2020 Scientific Sessions. November 2020. Virtual meeting (due to COVID-19). Circulation 142 (Suppl\_3), A15768.
- 82. <u>Makarem N</u>, St-Onge M-P, Shimbo D, Aggarwal BA, Baccarelli A, **Sears DD**, Shea S, Mariani S, Marinac C, Zee P, Ouyang P, Redline S. (2020) Actigraphy-Derived Rest-Activity Patterns Are Associated With Blood Pressure Level and Hypertension: A Prospective Analysis of the Multi-Ethnic Study of Atherosclerosis (MESA). American Heart Association 2020 Scientific Sessions. November 2020. Virtual meeting (due to COVID-19). <u>Circulation 142 (Suppl\_3)</u>, <u>A14153</u>.
- 83. <u>Anderson HR</u>, Jankowska M, Zamora S, **Sears DD**. (2021). Do Genetic Variants Influence Circulating Levels of Vitamin D Resulting from Outdoor Time and Food Intake? Arizona State University College of Health Solutions Research Day. January 2021. Phoenix, AZ. Poster presentation.
- 84. Mavoa S, Jankowska MM, Crist K, Cuomo R, Tribby CP, Yang J, Zamora S, **Sears DD**, Natarajan L. (2021) Using sensors to assess UV radiation dose and associations with Vitamin D. Association of American Geographers Annual Meeting, Seattle, WA, United States. April 2021. Virtual meeting (due to COVID-19).
- 85. <u>Bellerba</u> F, Johansson H, **Sears D**, Gandini S, Chatziioannou C, Keski-Rahkonen P, Robinot N, Gicquiau A, Scalbert A, Bonanni B. (2021) Metabolic Effects of Metformin treatment in Breast Cancer Survivors with

- Metabolic Imbalance. Annual Conference of the Metabolomics Society. June 2021. Virtual meeting (due to COVID-19).
- 86. Giles ED, Liao Y, Thomson CA, Sears DD, Schembre SM. (2021) Pilot study to model inter-meal fasting (IMF) in preclinical animal models for translation to human postmenopausal, obesity-related cancer. 2021 MD Anderson Conference. Translating Energy Balance From Bench to Communities: Application of Parallel Animal-Human Studies. July 2021. Virtual meeting (due to COVID-19). Selected for live lightening session oral presentation.
- 87. <u>Peña A</u>, Colburn A, Nwabichie E, **Sears DD**, Vega-López S, Olson ML, Ayers SL, Knowler WC, Shaibi GQ. (2022) Changes in Adiponectin but Not TNFα Predict Changes in Insulin Sensitivity Following Health Behavior Interventions among Latino Youth. American Heart Association EPI|Lifestyle Scientific Sessions. March 2022. Chicago, IL. https://doi.org/10.1161/circ.145.suppl\_1.P100 Circulation. 2022;145:AP100
- 88. <u>Park S</u>, Rong Z, Williamson L, Luger T, Johnson E, Hartman S, Lindsley C, **Sears DD**, Bejar R. (2022) Clonal hematopoiesis profiles in breast cancer survivors using error-corrected sequencing. American Association for Cancer Research (AACR) Annual Meeting. April 2022. New Orleans, LA.
- 89. <u>Ibarra C</u>, Hernandez A, **Sears DD**, Marquine M, Lee E. (2022) Differences in metabolic biomarkers in people with schizophrenia who are of Mexican descent compared to non-Hispanic Whites. American Association for Geriatric Psychiatry (AAGP) Annual Meeting. March 18-21, 2022. Orlando, FL. Poster presentation. <u>The American Journal of Geriatric Psychiatry</u>, 2022 Apr 1;30(4):S48-9.
- 90. <u>Irwin ML</u>, Lowry D, Neuhouser M, Henry C, **Sears D**, Schmitz K, Nebeling L, Ligibel J. (2022) Transdisciplinary Research in Energetics and Cancer (TREC) Training Program for Early Career Investigators. American Society of Clinical Oncology (ASCO) Annual Meeting. June 2022. Chicago, IL and online.
- 91. <u>Jankowska MM</u>, Tribby CP, Zamora S, **Sears DD**, Rosenberg D, Tuz-Zahra F, Bellettiere J, Carlson J, Hibbing PR, Zou J, LaCroix AZ, Greenwood-Hickman MA, Nakandala S, Kumar A, Natarajan L. (2022) A comparison of the CHAP versus cut point method for measuring accelerometry derived sitting patterns as associated with metabolic syndrome in adults. International Conference on Ambulatory Monitoring of Physical Activity and Movement (ICAMPAM). June 2022. Denver, CO.
- 92. <u>James D</u>, **Sears DD**, Larkey LK, Maxfield M, Ofori E, Han SY, Graves R, Alperin K. (2022) Intermittent Fasting in Older Adults: Pilot Analysis in Body Mass Index, Insomnia and Eating. The Obesity Society Obesity Week. November 2022. San Diego, CA. Poster presentation.
- 93. <u>James D</u>, **Sears DD**, Larkey LK, Maxfield M, Ofori E, Han SY, Osha P. (2022) Prolonged Nightly Fasting among Older Adults: A Pilot Study Exploring Changes in Cognitive Function. Gerontological Society of America Annual Scientific Meeting. November 2022. Indianapolis, IN. Poster presentation.
- 94. Makarem N, St-Onge M-P, Sun Y, **Sears DD**, Aggarwal BA, Baccarelli A, Shea S, Marinac C, Zee P, Ouyang P, Redline S. (2022) Actigraphy-Derived Rest-Activity Rhythms are Associated with Metabolic Markers and Type 2 Diabetes in the Multi-Ethnic Study of Atherosclerosis (MESA). American Heart Association 2022 Scientific Sessions. November 2022. Oral presentation and ROBERT LEVY MEMORIAL LECTURE AND LIFESTYLE AND CARDIOMETABOLIC HEALTH EARLY CAREER INVESTIGATOR Award Winner. Circulation 146 (Suppl 3), A10895.
- 95. <u>Vaughan</u> M, Vizcaino M, **Sears D**. (2023) The effect of yoga-based interventions on diurnal cortisol regulation among cancer patients: a systematic review. Society of Behavioral Medicine's 44th Annual Meeting & Scientific Sessions. April 2023. Phoenix, AZ. Poster presentation.
- 96. <u>Patterson</u> J, Rana BK, Natarajan L, **Sears DD**. (2023) Sitting Interruption Modalities Result in Acutely Improved Metabolome During Prolonged Sitting Time in Crossover Pilot Trial. Society of Behavioral Medicine's 44th Annual Meeting & Scientific Sessions. April 2023. Phoenix, AZ. Poster presentation.
- 97. Thomas JM, Kern PA, Sears DD, Pendergast JS. (2023) Late sleep and disrupted eating rhythms are associated with obesity and metabolic risk in postmenopausal women. SLEEP 2023, the 37th annual meeting of the Associated Professional Sleep Societies, LLC (APSS), a joint venture of the American Academy of Sleep Medicine (AASM) and the Sleep Research Society (SRS). June 2023. Indianapolis, IN.

- 98. Thomas JM, Kern PA, **Sears DD**, Armstrong SE, Bumgardner C, Mullen A, Fry JL, Pendergast JS. (2023) Sleep and Eating Rhythms are Associated with Metabolic Risk in Postmenopausal Women. University of Kentucky CCTS Spring Conference. April 2023. Loiusville, KY. Poster presentation.
- 99. <u>Patterson</u> J, Jasbi P, Gu H, Allison MA, Talavera GA, Reuter C, Rana BK, Natarajan L, **Sears DD**. (2023) Metabolome alterations associated with 12-week sitting time reduction among sedentary, postmenopausal Latinas. American Diabetes Association Scientific Sessions. June 2023. San Diego, CA. Poster presentation.
- 100. James DL, <u>Huynh A</u>, Alperin K, Osha P, Kantor J, Alkhatib S, Checkett D, Hawley N, Chelberg P, **Sears DD**. (2023) Cognitive function and weight reduction: A nationwide pilot study testing a remotely-delivered prolonged nightly fasting intervention in stressed midlife adults living with obesity and memory decline. Arizona State University College of Health Solutions Student Research Symposium. April 2023. Phoenix, AZ. Poster presentation.
- 101. <u>Thomas</u> JM, Kern PA, **Sears DD**, Armstrong SE, Bumgardner C, Mullen A, Fry JL, Pendergast JS. (2023) Sleep and Eating Rhythms are Associated with Metabolic Risk in Postmenopausal Women. Biennial Rhythms in SouthEastern Region (RISER) Conference. May 2023. Blacksburg, VA.
- 102. Hernandez M, Garcia V, Wilson SL, Anderson H, Patterson J, Chen R, Dillon L, Natarajan L, Sears DD. (2023) Get up, stand up! (2023) Arizona State University College of Health Solutions Student Research Symposium. April 2023. Phoenix, AZ. Poster presentation.
- 103. <u>Thomas JM</u>, Kern PA, **Sears DD**, Armstrong SE, Bumgardner D, Mullen A, Fry JL, Pendergast JS. (2023) Sleep and Eating Rhythms are Associated with Metabolic Risk in Postmenopausal Women. UK Cardiovascular Research Day. Louisville, KY.
- 104. <u>Thomas JM</u>, Kern PA, **Sears DD**, Armstrong SE, Bumgardner D, Mullen A, Fry JL, Murray C, Coatley-Thomas J, Pendergast JS. (2023) Sleep and Eating Rhythms are Associated with Metabolic Risk in Postmenopausal Women. Markesbury Symposium. Louisville, KY.
- 105. Thomas JM, Kern PA, Sears DD, Armstrong SE, Bumgardner D, Mullen A, Fry JL, Pendergast JS. (2023) Sleep and Eating Rhythms are Associated with Metabolic Risk in Postmenopausal Women. UK Rising Stars Symposium. Nov 2023 Louisville, KY.
- 106. James DL, Larkey LK, Maxfield M, Ofori E, Hawley NA, Alperin K, Osha P, Mun CJ, <u>Sears DD</u>. (2024) A Nationwide Pilot Study Testing a Remotely-Delivered Prolonged Nightly Fasting Intervention in Stressed Midlife Adults Living with Obesity and Memory Decline. Association for Clinical and Translational Science (ACTS) Translational Science 2024 Conference. April 2024. Las Vegas, NV.
- 107. <u>Vizcaino M</u> & **Sears DD**. A Feasibility Trial to Assess a New Yoga Program to Enhance Quality of Life and Well-Being among Hispanic Women at Risk for or Living with Type 2 Diabetes. International Society for Quality-of-Life Studies Annual Meeting. Virtual. Feb 7-8, 2024. *Submitted*.
- 108. <u>Vizcaino M</u>, **Sears DD**, Lee RE. (2024) Mi Ciudad, Mi Salud: Exploring elements of the urban environment that increase the risk of developing diabetes within Hispanic neighborhoods. Society of Behavioral Medicine's 45th Annual Meeting & Scientific Sessions. Philadelphia, PA. April 2024. *Submitted*.

### **MISCELLANEOUS**

- 1. Tugendreich S, Feng QH, Kroll J, **Sears DD**, Boeke JD, Hieter P. (1994) Alu sequences in RMSA-1 protein? Nature 370(6485):106. (Letter to the Editor) PMID: 8022478.
- 2. Chapman J, **Worrall DS**, North M, Olefsky JM. (2003) Diagnostics & Therapeutics for the Gene Expression Signature of PPARγ Receptor Ligands. U.S. Patent Application #10/791,950; filed 03/03/04.
- 3. Bingham JT, Chapman JG, North MA, **Sears DD**. (2008+) Method for Controlling Glucose Uptake and Insulin Sensitivity. Patents #s: WO2008131094-A1 (2008); WO2008131094-A8 (2009); EP2140268-A1 (2010); CA2684254-A1 (2008); JP2010524961-W (2010); US2011008328-A1 (2011). Patent application.

### RESEARCH SUPPORT

**Ongoing Research Support** 

R01 CA281861-01 (PI – Crane, Tracy)

07/01/2023-06/30/2028 (NOA pending) NIH/NCI

"Randomized Phase II Trial of Prolonged Overnight Fasting and/or Exercise on Fatigue and Other Patient Reported Outcomes in Women with Hormone Receptor Positive Advanced Breast Cancer (FastER)"

Major Goals: Investigate the impact of prolonged nightly fasting and/or exercise intervention on fatigue and other patient reported outcomes in women with metastatic hormone positive breast cancer.

## **Role: Subcontract PI, Co-Investigator**

R01DK135488 (PI – Stecher, Chad)

12/15/2023-11/30/2026

NIH/NIDDK

"StandUPTV Habits: Feasibility trial for maintaining reductions in sedentary screen time"

Major Goals: Investigate the long-term maintenance of reducing sedentary screen time habits developed in a randomized controlled trial "StandUPTV"

## **Role: Co-Investigator**

no grant # (PI - Mun) 03/01/23-02/28/24

Arizona State University Start-Up Funds

"Prolonged Nightly Fasting in Individuals with Fibromyalgia"

Aim: The present randomized-controlled pilot trial will test the feasibility, acceptability, and preliminary efficacy of an 8-week prolonged nightly fasting intervention protocol in 20 adults with fibromyalgia.

## **Role: Co-Investigator**

R01 DK124774 (PI - Pendergast)

04/01/2021 - 03/31/2026

NIH/NIDDK

"Circadian regulation of metabolic risk in mice and women: role of estrogen and time-restricted feeding" Aim: Investigate the mechanisms by which estrogen protects against diet-induced circadian clock disruption (mouse models) and the metabolic benefits of prolonged nightly fasting among postmenopausal women.

## **Role: Subcontract PI, Co-Investigator**

R01DK124774-03S1 (PI – Pendergast)

05/01/2023-04/30/2024

NIH/NIDDK

"Feasibility of implementing time-restricted eating in women with mild cognitive impairment" [Administrative Supplement]

Aim: This is to a project responsive to the National Institute on Aging NOT-AG-22-025 Alzheimer's-focused administrative supplements for NIH grants that are not focused on Alzheimer's disease. The goals are to conduct a feasibility study of TRE in women with mild cognitive impairment. We will recruit from the ongoing, prospective study where participants are brought in once a year for comprehensive cognitive testing. We will recruit them from their annual appointment and then do the baseline texting to determine their eating/fasting durations and then do an 8-week TRE intervention. Fasting blood work and DXA at beginning and end to keep the burden small for the participants.

#### **Role: Consultant**

P01 AG052352-01 (Program PI – LaCroix)

07/01/17-05/31/23 (+1yr NCE) NIH/NIA

"Sedentary Behavior Interrupted: Acute, medium and long-term effects on biomarkers of healthy aging, physical function and mortality"

Aim: Investigate the short-, medium-, and long-term effects of sedentary behavior interruptions on biomarkers associated with age-related, chronic disease in post-menopausal women. Project 1 (**Sears - PI**) is a clinical laboratory study of acute effects, Project 2 (Hartman – PI) is a randomized controlled trial of medium-term effects, and Project 3 (LaCroix – PI) is an epidemiological study of long-term effects. The Sedentary Time & Aging Research (STAR) Program is supported by Administrative & Biostatistics Cores.

STAR Program website: <a href="http://riseforhealth.ucsd.edu/">http://riseforhealth.ucsd.edu/</a>

#### Roles:

**PI – Project 1** "Sedentary Behavior Interrupted: A randomized crossover trial of acute effects on biomarkers of healthy aging in the laboratory" (AKA "Rise for Heath – Lab Study; ClinicalTrials.gov ID: NCT03511352, UCSD IRB Protocol ID: 171547)

**Co-Investigator** – **Project 2** "Sedentary Behavior Interrupted: A randomized trial of 3-month effects on biomarkers of healthy aging and physical functioning in the real world" (AKA "Rise for Health – Field)

R01 CA225746-01A (PI – Hartman)

02/01/19 - 01/31/24

NIH/NCI

"A Randomized Trial of Physical Activity for Cognitive Functioning in Breast Cancer Survivors"

Aim: Conduct a 2-arm RCT in 250 breast cancer survivors to test the effect of exercise to improve cognition and related circulating biomarkers over a 12-month intervention period.

**Role: Co-Investigator** 

**Publications**: Protocol paper: #75 in list above.

R01 CA228147 (PIs – Jankowska, Benmarhnia)

04/01/19 - 03/31/24

NIH/NCI

"Integrating novel GIS and GPS data to assess the impact of built environments on changes in BMI, physical activity and cancer-related biomarkers in two successful weight loss interventions in women at risk for breast cancer"

Aim: Evaluate impact of dynamic measures of built environment exposures on variable associated with weight loss and breast cancer risk reduction.

**Role: Co-Investigator** 

## **Completed Research Support**

no grant # (PI – Vizcaino) 12/01/21-11/30/22 (+6mo NCE) AS Science Research

ASU Institute for Social

A FEASIBILITY TRIAL TO ASSESS AN INNOVATIVE ONLINE YOGA-BASED PROGRAM THAT SEEKS TO IMPROVE OVERALL WELL-BEING, SELF-CARE, AND DIABETES OUTCOMES AMONG ADULTS WITH TYPE 2 DIABETES

Aim: Assess the feasibility and potential effectiveness of a yoga program intervention on well-being, self-care, and diabetes outcomes in adults how are living with type 2 diabetes.

Role: Co-PI

no grant # (PI – James) 06/01/21-05/31/22 (+1yr NCE)

**ASU Institute for Social** 

Science Research

WEIGHT REDUCTION AND COGNITIVE HEALTH: A PILOT STUDY TESTING A PROLONGED NIGHTLY FASTING INTERVENTION AMONG OBESE, STRESSED MID-LIFE ADULTS (AKA "Get Smart")

Aim: Assess the feasibility and potential effectiveness of a prolonged nightly fasting intervention on cognition and cardiometabolic risk biomarkers among obese adults.

# **Role: Co-Investigator, Biomarkers**

UL1TR003096/KL2TR003097 (PI – James) 2023

NIH/NCATS

Deep South Mentored Career Development Program (KL2), Center for Clinical and Translational Science FEASIBILITY STUDY OF AN INTERMITTENT FASTING INTERVENTION TO REDUCE OBESITY AND DEVELOP A RACIALLY-OPTIMIZED PROTOCOL AMONG AFRICAN AMERICANS IN THE DEEP SOUTH REGION OF THE UNITED STATES

Role: Mentor, Co-Investigator

MTA-2020-IMP-BMA-0587 (PI – Hartman) 01/27/2020-12/31/2022 International Agency for Research on Cancer (IARC)

MOLECULAR ANALYSES OF REACH FOR HEALTH

Aim: Biospecimens from the UCSD-based Reach for Health Study will be used for a multi-site, multiomics study that includes targeted and untargeted metabolomic, biomarker (proteins and hormones), genotyping, and epigenomic analyses of metformin treatment and lifestyle intervention effects in breast cancer survivors.

Role: Co-Investigator, Lead - Biospecimens

F31 DK125037 (PI – Peña) 08/10/2020-05/31/2022 NIH/NIDDK INFLAMMATORY MEDIATORS AND BETA-CELL FUNCTION AMONG OBESE LATINO YOUTH WITH PREDIABETES

Aim: This study will explore the association between changes in pro- and anti-inflammatory mediators and changes in beta-cell function in obese Latino youth with prediabetes. This proposal leverages the resources and infrastructure of an ongoing diabetes prevention study and builds upon a transdisciplinary team of mentors to address a critical gap in chronic disease prevention in obese Latino youth, age 12-16 years. This innovative approach is an essential first step in the development of lifestyle interventions aimed at targeting inflammatory mechanisms to assess changes in T2D risk in this high-risk population.

**Role: Co-Sponsor** 

no grant # (PI – James) 06/01/20-05/31/21 (+1yr NCE)

**ASU Institute for Social** 

Science Research

PROLONGED NIGHTLY FASTING IN OLDER ADULTS WITH MILD COGNITIVE IMPAIRMENT (MCI): A PILOT STUDY EXPLORING CHANGES IN NEUROCOGNITIVE FUNCTION (AKA "Think Fast")

Aim: Examine the effects of prolonged nightly fasting on MCI, sleep, diet, and metabolic biomarkers.

# **Role: Co-Investigator, PNF and Biomarkers**

16SFRN28420000 (Center Director – Allison) 04/01/16-03/31/20 (+2yr NCE) American Heart Association UCSD STRATEGICALLY FOCUSED GO RED FOR WOMEN RESEARCH CENTER

Aim: Establish a Women's Cardiovascular Health Research Center with investigative theme of sedentary behavior in Latinas focusing on behavioral and psychosocial parameters, behavioral intervention, and biological mechanisms influencing cardiovascular disease risk. The Center research involves three interdependent projects (basic, clinical, and population science studies) and includes a scholars Training Core.

Center website: <a href="https://medschool.ucsd.edu/som/fmph/divisions/prevmed/research/wrc/Pages/default.aspx">https://medschool.ucsd.edu/som/fmph/divisions/prevmed/research/wrc/Pages/default.aspx</a>
Press story: <a href="https://www.universityofcalifornia.edu/news/new-uc-san-diego-center-will-focus-heart-health-among-latinas">https://www.universityofcalifornia.edu/news/new-uc-san-diego-center-will-focus-heart-health-among-latinas</a>

Clinical study protocol paper: PMID: 30771560

Go Red for Women SFRN summary paper: <a href="http://doi.org/10.1161/JAHA.120.019519">http://doi.org/10.1161/JAHA.120.019519</a> Role: PI - Project 1 (Basic Science Project "Molecular Transducers of Sitting Time")

**Basic Science Project papers**: #69 and #79 in list above.

25IB-0023 (PI – Davies) 08/01/2019-07/31/2020 (+1yr NCE) Calif. Breast Cancer Research Program - IDEA ENHANCING MUSCLE STRENGTH AND IMMUNITY IN BREAST CANCER

Aim: This 1-year pilot study will test the hypothesis that high levels of immune activation markers are associated with muscle strength in breast cancer patients.

Role: Site PI

Demonstration Project in Systems Biomedicine (PIs – Sears; Jankowska) 5/1/15-4/30/22

UCSD Center for Computational Biology and Bioinformatics and the San Diego Center for Systems Biology NUCLEOTIDES TO NEIGHBORHOODS: OBESITY-RELATED ASSOCIATION NETWORKS SPANNING GENOMES, BEHAVIORS, AND BUILT ENVIRONMENT

Aim: Model interaction between the behaviors (e.g., physical activity, nutrition), environment exposure (e.g., "built" characteristics, fast food density, outdoor time), clinical measures and obesity-related biomarkers, host genome and gut microbiome using systems biomedicine approaches.

Role: PI

Related review: Current Epidemiology Reports (2019) 6:476–485.

R15 CA242394-01 (PI – Kroll)

07/01/19 – 06/30/20 (+1yr NCE)

NIH/NCI

"A combination therapy for interventional treatment of triple-negative breast cancer"

Aim: Exploit the potential vulnerability of glucose-requiring breast tumor growth with a combination of dietary and pharmaceutical manipulation of blood glucose levels in a murine breast cancer model.

#### **Role: Consultant**

 $16SFRN28420002 \; (PI-Sharma; \; UCSD \; Site \; PI-Sears) \; \; 07/01/17 - 6/30/21 \; (+1yr \; NCE) \; American \; Heart \; Assn \; Go \; Red \; for \; Women \; Strategically \; Focused \; Research \; Network \; Soter \; Collaborative \; Grant$ 

INTEGRATING METABOLOMICS INTO DEEP PHENOTYPING OF HEART FAILURE WITH PRESERVED EJECTION FRACTION

Aim: Metabolomic profiling of plasma, skeletal muscle and endomyocardial biopsies from HFpEF patients and control participants will be conducted and correlated with clinical features of HFpEF and covariates with the goal of identifying a biomarker for HFpEF patient diagnosis and targeted therapy.

**Role: Site PI** 

**Publications:** #83 in list above.

R01 CA196853-01A1 (PI – Webster)

04/01/16-03/31/21

NIH/NCI

TIME-RESTRICTED FEEDING AND BREAST CANCER

Aim: The goal of this study is to test whether time-restricted feeding reduces inflammation, attenuates insulin resistance, and inhibits obesity-induced breast cancer growth in postmenopausal mouse models.

**Role: Co-Investigator** 

**Primary outcomes paper:** <a href="https://doi.org/10.1038/s41467-020-20743-7">https://doi.org/10.1038/s41467-020-20743-7</a>.

PEDAL18 (PIs – **Sears**; Bejar)

03/01/19-2/29/20

San Diego NCI Cancer Centers Council (C3) Collaborative Translational Cancer Research Pilot Project "Impact of Metformin on Clonal Hematopoiesis and Clinical Outcomes in Breast Cancer"

Aim: Using high-sensitivity error-corrected sequencing, characterize rates of clonal hematopoiesis in blood samples from a cohort of metformin-treated breast cancer survivors who have received adjuvant chemotherapy.

Role: PI

PEDAL15 (PIs – **Sears**; Patterson; Panda)

5/1/16-12/31/19

San Diego NCI Cancer Centers Council (C3) Collaborative Translational Cancer Research Pilot Project MECHANISMS LINKING PROLONGED NIGHTLY FASTING WITH CANCER RISK

Aim: Compare associations of metabolic, inflammatory, and behavioral cancer risk factors in participants with "short" vs. "prolonged" nightly fasting patterns. Explore associations between the plasma metabolome and gut microbiome with nightly fasting patterns.

Role: PI

16SFRN28420002 (PI – Makarem; UCSD Site PI – **Sears**) 05/01/17 – 4/30/19 American Heart Assn Go Red for Women Strategically Focused Research Network Soter Collaborative Grant NIGHTLY FASTING AND EATING PATTERNS AND CARDIOMETABOLIC RISK IN

HISPANIC/LATINA WOMEN

Aim: Conduct a prospective observational study in Hispanic/Latina women of the relationship between length of nightly fasting duration and parameters of cardiometabolic risk including biomarkers, and sleep.

**Role: Site PI** 

Primary outcomes paper:

Pro1250 (PI – Lee; UCSD Site PI –Rana) 1/1/14-12/31/17 NASA METABOLOMIC AND GENOMIC MARKERS OF ATHEROSCLEROSIS AS RELATED TO OXIDATIVE STRESS, INFLAMMATION, AND VASCULAR FUNCTION IN TWIN ASTRONAUTS

Aim: Astronauts participating in long-duration missions may be at an increased risk of oxidative stress and inflammatory damage. This proposal extends a current NASA-funded investigation to determine whether spaceflight contributes to an accelerated progression of atherosclerosis. We propose to measure blood and urine biomarkers of oxidative stress and inflammation as well as arterial structure and function in one twin astronaut before, during, and after long duration spaceflight and in his twin who serves as a ground-based control. We will also measure metabolomic and genomic markers to elucidate the molecular mechanisms involved. Our project is 1 of 10 in the NASA Twins Study.

**Role: Co-investigator** 

Publications: Primary paper: PMID: 30975860 (#61 above).

R01 CA179977-01 (PI - Kerr) 09/01/13 - 08/31/17

NIH/NCI

GPS EXPOSURE TO HEALTHY ENVIRONMENTS & RELATIONS WITH BIOMARKERS OF CANCER RISK (aka, "Community of Mine")

Aim: Investigate whether dynamic GPS-GIS measures of exposure to PA-supportive, high fat and sugar food, and social environments will have a stronger association with cancer risk factors – insulin resistance and inflammation (e.g. CRP, IL-6, HOMA-IR) – than do static GPS-GIS measures.

Role: Lead - Biomarker Data Collection & Analysis

Protocol paper: PMID: 30760246 (#58 above). Data analyses are on-going.

No grant# (PI – Knight)

09/01/17 - 08/31/22

**IBM** 

"Artificial Intelligence for Healthy Aging and Microbiome"

Aim: Utilize Watson artificial intelligence and big data systems to conduct analyses on microbiome data generated from multiple sources and populations and develop a public-source platform for future analyses.

**Role: Co-investigator** 

Internal pilot funding (PI - Sears)

01/01/16 - 12/31/16

Department of Family Medicine & Public Health, Women's Health Center of Excellence SEDENTARY BEHAVIOR INTERRUPTED - A PILOT STUDY OF ACUTE INTERVENTIONS ON PROLONGED SITTING

Aim: To investigate the clinical, metabolic, and vascular outcomes of acute interruptions of prolonged sitting in a clinical laboratory setting. Study population is overweight/obese postmenopausal women aged 55+ years. ClinicalTrials.gov ID: NCT02743286, UCSD IRB Protocol ID: 150509

Role: PI

Main outcomes paper: PLOS ONE (Kerr, et al. Nov 2017). Preliminary data leveraged to secure NIH funding noted above from National Institute of Aging (P01 AG052352).

U54 CA155435-01

(PI - Patterson)

07/01/11 - 05/31/16

NIH/NCI

ENERGETICS & BREAST CANCER: OBESITY, INFLAMMATION, INSULIN RESISTANCE & RISK Aim: The overall objective of the UCSD Transdisciplinary Research on Energetics & Cancer (TREC) Center is to assemble transdisciplinary scientific collaborators to address questions regarding insulin resistance and inflammation underlying the association of energetic with breast cancer carcinogenesis, from the cell to the

Roles: Director - Developmental Projects Core; Co-investigator - Project #1 **Outcome papers:** 

Developmental Cross-TREC Project (PI – Sears, 06/01/15 - 05/31/16 NIH/NCI - TREC LEVERAGING THE POWER OF TREC: CROSS-CENTER STUDY OF CANCER RECURRENCE/ MORTALITY RISK BIOMARKERS

Aim: The goal of this study is to measure baseline levels of cancer recurrence/mortality biomarkers in a pan-TREC multi-site pooled cohort of breast cancer survivors and assess randomized controlled trial intervention efficacies in reducing these biomarkers.

Role: PI

No grant # (PI - Sears)

12/01/10 - 12/31/15

P. Robert Majumder Foundation

ROLE OF DIETARY FAT ON ADIPOSE TISSUE INFLAMMATION

Aim: Examine how the gene-diet interaction between 12/15-lipoxygenase expression in immune cells and dietary composition affects adipose tissue inflammation.

Role: PI

No grant #

(PI - Sears)

12/01/10 - 12/31/14 P. Robert Majumder Foundation

#### NOVEL DIETARY INTERVENTIONS FOR TREATING INSULIN RESISTANCE

Aim: Test the efficacy of an anti-inflammatory diet to lower indices of insulin resistance and the metabolic syndrome in obese human subjects.

Role: PI

Developmental Cross-TREC Project (Site PI – **Sears**) 06/01/13 - 05/31/14 NIH/NCI – TREC TRANSGENERATIONAL EFFECT OF MATERNAL DIET ON METHYLATION OF CANCER RELATED GENES

Aim: Assess maternal diet effects on epigenetic DNA methylation of cancer-associated genes.

Role: PI

Developmental Cross-TREC Project (Lead PI – **Sears**) 06/01/13 - 05/31/14 NIH/NCI - TREC LIPIDOMIC PROFILING OF ENERGETICS-ASSOCIATED CANCER MODELS IN MICE

Aim: Create and assess lipid profiles from three mouse models of energetics-related cancer and identify tumor-promoting lipid-based biomarkers and biochemical pathways regulated by energetics.

Role: PI

No grant # (PI - Olefsky) 04/01/13 – 03/31/14 Regulus TRANSCRIPTOME PROFILES OF HUMAN ADIPOSE, MUSCLE, AND LIVER IN INSULIN RESISTANCE

Aim: Determine a definitive expression atlas of liver, adipocytes, adipose tissue stromal vascular fraction, and skeletal muscle tissue associated with obesity, thiazolidinedione treatment, and bariatric surgery. Association of these expression profiles with biomarkers of insulin resistance and inflammation will be assessed. Advanced pathway and expression module analysis will be conducted.

Role: Co-investigator/Clinical Project Manager

BC102147 (PI - Olefsky) 03/15/11-03/14/13 DOD

ROLE OF INFLAMMATION AND INSULIN RESISTANCE IN MOUSE MODELS OF BREAST CANCER Aim: Investigate the mechanism by which insulin resistance increases risk of breast cancer in mouse genetic models of obesity.

**Role: Co-investigator** 

5R01DK074828 (PI - Snitker) 04/01/11 – 03/31/12 NIH/NIDDK

PHARMACOGENOMICS OF THIAZOLIDINEDIONE RESPONSE

Aim: Search for genomic polymorphisms that are associated with insulin sensitization response to thiazolidinedione drugs in human subjects.

**Role: Consortium PI** 

UCSD Internal Support (PI - **Sears**) 05/01/10 – 4/30/11 UCSD Academic Senate

REGULATION OF BRANCHED CHAIN AMINO ACID DEGRADATION IN ADIPOCYTES

Aim: Study the mechanisms by which adipocyte branched chain amino acid degradation is regulated in the normal state, insulin resistance, and pharmacological insulin sensitization.

Role: PI

R01 HL81862-04 and S1 (PI - Miller) 04/01/2006 - 03/31/2011 NIH

EARLY FORMS OF OXIDIZED LDL, TLRS AND ATHEROSCLEROSIS

Aim: Examine the hypothesis that early forms of oxidized LDL promote inflammation in atherosclerotic lesions via modulation of Toll-like receptor-4 signaling.

**Role: Co-investigator** 

UCSD# 2009-3206 (PI - Olefsky) 04/01/09 – 03/31/11 Pfizer

INFLAMMATION, INSULIN RESISTANCE & DIABETES

Aim: Explore the interlocking biology between pro-inflammatory and anti-inflammatory nuclear and 7-trasmembrane receptors and identify novel biologic targets uniquely expressed within the specialized population of pro-inflammatory tissue macrophages.

**Role: Co-investigator** 

UCSD# 2009-2029R (PI - **Sears**)

07/31/09 - 07/30/10

Merck

VALIDATING MOUSE-DERIVED PPAR $\gamma$  SUB-NETWORKS WITH HUMAN ADIPOSE

**EXPRESSION PROFILING DATA** 

Aim: Identify key metabolic mechanisms involved in regulating insulin resistance by comparing expression profiling data sets from mouse and human models.

Role: PI

P30 DK063491

(PI - Sears)

04/01/09 - 03/31/10

NIH via the UCSD/UCLA

OSTEOPONTIN – A NOVEL MODULATOR OF INFLAMMATION-INDUCED INSULIN RESISTANCE IN ADIPOSE TISSUE

Diabetes &

INSULIN RESISTANCE IN ADIPOSE TISSUE

Endocrinology

Aim: Study the mechanisms by which osteopontin-deficiency protects against

Research Center

diet-induced insulin resistance and adipose tissue inflammation.

Role: PI

UCSD# bio03-10383 (PIs – **Sears** & Olefsky)

01/21/04-01/20/06

Pfizer Biostar & UC

STUDIES OF SELECTIVE PPARY MODULATOR BIOLOGY

Discovery

Aim: Conduct gene expression profiling of human tissues to identify gene expression patterns that are associated with insulin resistance, type 2 diabetes, and pharmacological insulin sensitization.

Role: PI

UCSD# 2005-1103 (PI - **Sears**)

12/01/03 - 02/14/06

Pfizer

GLUCOSE CLAMP MODEL OF TEST AGENT

Aim: Conduct gene expression profiling of different tissues from an insulin resistant rat model to identify gene expression patterns that are associated with insulin resistance and pharmacological insulin sensitization.

Role: PI

UCSD Internal Support (PI - Sears)

01/01/05 - 12/31/05

**UCSD** Academic Senate

THE ROLE OF PPARY GENES IN INSULIN ACTION

Aim: Screen for genes that are candidate modulators of insulin sensitivity. Using siRNA methods, the roles of these genes insulin-stimulated glucose transport will be characterized.

Role: PI

K01 DK62025-01 (PI - Sears/Worrall)

09/15/02 - 06/30/05

NIH/NIDDK

IDENTIFICATION AND STUDY OF PPARGAMMA-REGULATED GENES

Aim: Identify PPARgamma-regulated genes in 3T3-L1 adipocytes and characterization of the mechanisms that modulate pharmacological regulation of PPARgamma target genes.

Role: PI

F32 DK009595

(PI - Sears)

07/01/97 - 06/30/00

NIH/NIDDK

NOVEL INSULIN SIGNAL TRANSDUCTION PROTEINS

Aim: Identify and characterize new factors that are involved in insulin-mediated signal transduction by using protein-protein interaction studies.

Role: PI