

UNIVERSITY OF FLORIDA

CURRICULUM VITAE

Dejana Braithwaite, PhD, FRS (Med)

Associate Director, Population Sciences
Professor of Epidemiology, Aging and Geriatric Research
Department of Epidemiology, College of Medicine
2004 Mowry Rd, Gainesville, FL 32610
Phone 352-273-5468
dbraithwaite@ufl.edu

I. PERSONAL INFORMATION

A. Education:

Undergraduate: London Guildhall University, England, 1995-1998, B.Sc. (high honors), Psychology and Psychobiology

Graduate Education: University College London/Kings College, London, England, 1998-1999, M.Sc. (high honors), Public Health
University of Cambridge, Institute of Public Health, Faculty of Clinical Medicine, England, 2000-2004, Ph.D., Epidemiology

Fellowships: Fellow in Health Outcomes Research, Institute of Public Health, University of Cambridge, England and Cancer Research, UK, 2000-2004
Postdoctoral Fellow in Cancer Epidemiology, Helen Diller Family Comprehensive Cancer Center, University of California, San Francisco, 2004-2007
Cancer Prevention Fellow, American Society of Preventive Oncology/Prevent Cancer Foundation, 2006-2008
Postdoctoral Fellow in Health Services Research, Institute for Health Policy Studies, University of California, San Francisco, 2004-2006
Postdoctoral Fellow, Center for Health and Community, University of California, San Francisco, 2006-2007
Fellow of the Royal Society of Medicine (Epidemiology and Public Health), 2017-now

B. Professional Experience:

Assistant Professor, Department of Epidemiology and Biostatistics, Division of Cancer Epidemiology, University of California, San Francisco, 2007-2013

Associate Professor in-Residence, Department of Epidemiology and Biostatistics, Division of Cancer Epidemiology, University of California, San Francisco, 2013-2017

Associate Professor (Tenure line), Department of Oncology, Georgetown Lombardi Comprehensive Cancer Center, Washington, DC, 2017-2020

Associate Director for Population Sciences, University of Florida Health Cancer Center and Professor of Epidemiology, Aging and Geriatric Research, University of Florida, Gainesville, FL 2020-Present

II. RESEARCH AND SCHOLARLY ACTIVITIES

A. Publications:

i. Original Papers in Refereed Journals

1. Zhang D, Abraham L, Demb J, Miglioretti DL, Advani S, Sprague BL, Henderson LM, Onega T, Wernli KJ, Walter LC, Kerlikowske K, Schousboe JT, O'Meara ES, **Braithwaite D**. Function-related indicators and outcomes of screening mammography in older women: evidence from the Breast Cancer Surveillance Consortium cohort. *Cancer Epidemiol Biomarkers Prev*. 2021 Jun 2;:cebp.0152.2021. doi: 10.1158/1055-9965.EPI-21-0152. Online ahead of print. PMID: 34078641.

2. Zhang D, Taylor TD, Kim C, Atkins MB, **Braithwaite D**, Akinyemiju T. Immunotherapy Utilization Among Patients With Metastatic NSCLC: Impact of Comorbidities. *J Immunother*. 2021 Jun 1;44(5):198-203. doi: 10.1097/CJI.0000000000000366. PMID: 33758148.
3. GBD 2019 Chewing Tobacco Collaborators . (includes **D. Braithwaite**). Spatial, temporal, and demographic patterns in prevalence of chewing tobacco use in 204 countries and territories, 1990-2019: a systematic analysis from the Global Burden of Disease Study 2019. *Lancet Public Health*. 2021 May 27:S2468-2667(21)00065-7. doi: 10.1016/S2468-2667(21)00065-7. Online ahead of print. PMID: 34051920
4. GBD 2019 Tobacco Collaborators (includes **D. Braithwaite**). Spatial, temporal, and demographic patterns in prevalence of smoking tobacco use and attributable disease burden in 204 countries and territories, 1990-2019: a systematic analysis from the Global Burden of Disease Study 2019. *Lancet*. 2021 May 27:S0140-6736(21)01169-7. doi: 10.1016/S0140-6736(21)01169-7. Online ahead of print. PMID: 34051883.
5. Yang S, Bian J, George TJ, Daily K, Zhang D, **Braithwaite D**, Guo Y. The association between cognitive impairment and breast and colorectal cancer screening utilization. *BMC Cancer*. 2021 May 12;21(1):539. doi: 10.1186/s12885-021-08321-6. PMID: 33975576.
6. Advani S, Zhang D, Tammemagi M, Akinyemiju T, Gould MK, Silvestri GA, **Braithwaite D**. Comorbidity Profiles and Lung Cancer Screening among Older Adults: U.S. Behavioral Risk Factor Surveillance System 2017 to 2019. *Ann Am Thorac Soc*. 2021 May 3. doi: 10.1513/AnnalsATS.202010-1276OC. Online ahead of print. PMID: 33939595.
7. Zhang D, Advani S, Zhu Z, Dang L, Walter LC, **Braithwaite D**. Mammography use in relation to comorbidities and functional limitations among older breast cancer survivors. *J Cancer Surviv*. 2021 Feb;15(1):119-126. doi: 10.1007/s11764-020-00917-4. Epub 2020 Jul 28. PMID: 32720225; PMCID: PMC7855220.
8. Arana-Chicas E, Gómez-Trillos S, Cartujano-Barrera F, Xinico-Aju SA, Alvarez CS, Adsul P, Rosenthal MS, **Braithwaite D**, Hurtado-de-Mendoza A, Cupertino AP. Cancer Prevention in Indigenous Communities from Guatemala: A Needs Assessment Study. *J Health Care Poor Underserved*. 2020;31(4):1595-1611. doi: 10.1353/hpu.2020.0121. PMID: 33416741
9. Zhu Z, Zhang D, Wang JH, Qiao Y, Liu Y, **Braithwaite D**. Is education or income associated with insufficient fruit and vegetable intake among cancer survivors? A cross-sectional analysis of 2017 BRFSS data. *BMJ Open*. 2020 Dec 1;10(12):e041285. doi: 10.1136/bmjopen-2020-041285. PMID: 33262193
10. Sakhuja S, Deveaux A, Wilson LE, Vin-Raviv N, Zhang D, **Braithwaite D**, Altekruise S, Akinyemiju T. Patterns of de-novo metastasis and breast cancer-specific mortality by race and molecular subtype in the SEER population-based dataset. *Breast Cancer Res Treat*. 2020 Nov 11. doi: 10.1007/s10549-020-06007-4. Online ahead of print. PMID: 33175313
11. GBD Collaborators. (includes **D. Braithwaite**). The unfulfilled promise of prevention: the global burden of 87 risk factors, 1990–2019: a systematic analysis for the Global Burden of Disease Study 2019. *The Lancet*. 2020 Oct 17;396(10258):1223-1249. doi: 10.1016/S0140-6736(20)30752-2.
12. GBD Collaborators. (includes **D. Braithwaite**) Global, regional, and national age-sex-specific fertility, mortality, and population estimates, 1950–2019: a comprehensive demographic analysis for the Global Burden of Disease Study 2019. *The Lancet*. 2020 Oct 17;396(10258):1160-1203. doi:10.1016/S0140-6736(20)30977-6.
13. GBD Collaborators. (includes **D. Braithwaite**). Five insights from the Global Burden of Disease Study 2019. *The Lancet*. 2020 Oct 17;396(10258):1135-1159. doi: 10.1016/S0140-6736(20)31404-5.

14. GBD Collaborators. (includes **D. Braithwaite**). Measuring UHC effective coverage index in 204 countries and territories, 1990–2019: a systematic analysis from the Global Burden of Disease Study 2019. *The Lancet*. 2020 Oct 17;396(10258):1250-1284. doi: 10.1016/S0140-6736(20)30750-9. Epub 2020 Aug 27.
15. Advani SM, Swartz MD, Loree J, Davis JS, Sarsashek AM, Lam M, Lee MS, Bressler J, Lopez DS, Daniel CR, Morris V, Shureqi I, Kee B, Dasari A, Vilar E, Overman M, Hamilton S, Maru D, **Braithwaite D**, Kopetz S. Epidemiology and Molecular-Pathologic Characteristics of CpG Island Methylator Phenotype (CIMP) in Colorectal Cancer. *Clin Colorectal Cancer*. 2020 Oct 12:S1533-0028(20)30136-5. doi: 10.1016/j.clcc.2020.09.007. Online ahead of print.
16. GBD Injuries Collaborators (includes GBD Collaborators. (includes **D. Braithwaite**). Estimating global injuries mortality and morbidity: methods and data used in the Global Burden of Disease 2017 Study. *BMJ Injury Prevention Inj Prev*. 2020 Oct;26(Supp 1):i125-i153. doi: 10.1136/injuryprev-2019-043531. Epub 2020 Aug 24.
17. LBD Double Burden of Malnutrition Collaborators (includes **D. Braithwaite**): Author Correction: Mapping Local Patterns of Childhood Overweight and Wasting in Low- And Middle-Income Countries Between 2000 and 2017. *Nat Med*, 2020 Jul 2. doi: 10.1038/s41591-020-0972-7. PMID: 32616917
18. LBD Double Burden of Malnutrition Collaborators. (includes **D. Braithwaite**): Mapping Local Patterns of Childhood Overweight and Wasting in Low- And Middle-Income Countries Between 2000 and 2017. *Nat Med*. 2020 May;26(5):750-759. doi: 10.1038/s41591-020-0807-6. Epub 2020 Apr 20. PMID: 32313249
19. Zhang D, Advani S, Waller J, Cupertino AP, de Mendoza A, Chicaiza A, Rohloff P, Akinyemiju T, Gharzouzi E, Huchko M, Barnoya J, **Braithwaite D**: mHealth and cervical cancer screening in low-and middle-income countries: a systematic review. *JCO Glob Oncol*. 2020 Apr;6:617-627. doi: 10.1200/JGO.19.00201. PMID: 32302236
20. Zhang D, Chen W, Zhang H, Lv S, Ning Lu X, Tao Y, Zhang M, Liu J, Yang M, Qiao Y, **Braithwaite D**. Cervical neoplastic lesions in relation to CD4 T-lymphocyte counts and antiretroviral therapy among women with clinical stage 1 HIV in Yunnan, China. *The Kaohsiung Journal of Medical Sciences*, 2020. doi: 10.1002/kjm2.12175. [Epub ahead of print] PMID:31913555
21. Zhang D, Advani S, Huchko M, **Braithwaite D**. Impact of healthcare access and HIV testing on utilisation of cervical cancer screening among US women at high risk of HIV infection: cross-sectional analysis of 2016 BRFSS data, *BMJ Open*, 2020. doi: 10.1136/bmjopen-2019-031823. PMID:31911515
22. GBD 2017 Stomach Cancer Collaborators. (includes **D. Braithwaite**) The global, regional, and national burden of stomach cancer in 195 countries, 1990-2017: a systematic analysis for the Global Burden of Disease study 2017. *Lancet Gastroenterol Hepatol*. 2020 Jan;5(1):42-54. doi: 10.1016/S2468-1253(19)30328-0. Epub 2019 Oct 21. PMID: 31648970
23. Advani SM; **Braithwaite D**. Optimizing Selection of Candidates for Lung Cancer Screening: Role of Comorbidity, Frailty and Life Expectancy: Short Communication. *Translational Lung Cancer Research*, 2019. doi: 10.4172/2161-0711.1000651. PMID: 32038937
24. Dibaba DT, Ogunsina K, **Braithwaite D**, Akinyemiju T. Metabolic syndrome and risk of breast cancer mortality by menopause, obesity and subtype. *Breast Cancer Res Treat*. 2019. doi: 10.1007/s10549-018-5056-8. PMID: 30465158

25. Advani SM, Advani PS, Brown DW, DeSantis SM, Korphaisarn K, VonVille HM, Bressler, Lopez DS, Davis JS, Daniel CR, Sarshekeh AM, **Braithwaite D**, Swartz MD, Kopetz S. Global differences in the prevalence of the CpG island methylator phenotype of colorectal cancer. *BMC Cancer*. 2019 Oct 17;19(1):964. doi: 10.1186/s12885-019-6144-9. PMID: 31623592
26. Cadham CJ, Jayasekera JC, Advani SM, Fallon SJ, Stephens JL, **Braithwaite D**, Jeon J, Cao P, Levy DT, Meza R, Taylor KL, Mandelblatt JS; CISNET-SCALE Collaboration. Smoking cessation interventions for potential use in the lung cancer screening setting: A systematic review and meta-analysis. *Lung Cancer*. 2019 Sep;135:205-216. doi: 10.1016/j.lungcan.2019.06.024. Epub 2019 Jul 6. PMID:31446996
27. Rehkopf DH, Rodriguez D, Cress R, **Braithwaite D**, Oakley-Girvan I, West D, Hiatt RA. Socioeconomic gradients in cancer incidence by race and ethnicity in California, 2008-2012: the influence of tobacco use or screening detectable cancers. *Cancer Causes Control*. 2019 Jul;30(7):697-706. doi: 10.1007/s10552-019-01172-4. Epub 2019 May 7. PMID: 31065915
28. Demb J, Abraham L, Miglioretti M, Sprague B, O'Meara E, Advani S, Henderson L, Onega T, Buist D, Schousboe J, Walter L, Kerlikowske K, **Braithwaite D**. Screening mammography outcomes: risk of breast cancer and mortality by comorbidity score and age. *JNCI: Journal of the National Cancer Institute*. 2019 Sept 06. doi:[10.1093/jnci/djz172](https://doi.org/10.1093/jnci/djz172) [Epub ahead of print] PMID:31593591
29. Demb J, Akinyemiju T, Allen I, Onega T, Hiatt RA, **Braithwaite D**. Screening mammography use in older women according to health status: a systematic review and meta-analysis. *Clin Interv Aging*. 2018 Oct 12; 13:1987-1997. doi: 10.2147/CIA.S171739. eCollection 2018. PMID: 30349218
30. Dibaba DT, **Braithwaite D**, Akinyemiju T. Metabolic syndrome and the risk of breast cancer and subtypes by race, menopause and BMI. *Cancers (Basel)* 2018. doi: 10.1007/s10549-018-5056-8. PMID: 30078713
31. Akinyemiju TF, Demb J, Izano MA, Rehkopf DH, Fang ML, Hiatt RA, **Braithwaite D**. The association of early life socioeconomic position with breast cancer incidence and mortality: a systematic review. *Int J Public Health*. 2018 Sep;63(7):787-797. doi: 10.1007/s00038-017-1060-8. Epub 2017 Dec 2. PMID: 29197969
32. Rivera MP, Tanner NT, Silvestri GA, Detterbeck FC, Tammemägi MC, Young RP, Slatore CG, Caverly TJ, Boyd CM, **Braithwaite D**, Fathi JT, Gould MK, Iaccarino JM, Malkoski SP, Mazzone PJ, Tanoue LT, Schoenborn NL, Zulueta JJ, Wiener RS; American Thoracic Society Assembly on Thoracic Oncology. Incorporating Coexisting Chronic Illness into Decisions about Patient Selection for Lung Cancer Screening: An Official American Thoracic Society Research Statement. *Am J Respir Crit Care Med*. 2017 Jul 15;198(2):e3-e13. doi: 10.1164/rccm.201805-0986ST. PMID: 30004250
33. Demb J, Wei EK, Izano M, Kritchevsky S, Swede H, Newman AB, Shlipak M, Akinyemiju T, Gregorich S, **Braithwaite D**. Chronic inflammation and risk of lung cancer in older adults in the health, aging and body composition cohort study. *J Geriatr Oncol*. 2018 Aug 2. pii: S1879-4068(18)30044-4. doi: 10.1016/j.jgo.2018.07.008. [Epub ahead of print] PMID:30078713
34. **Braithwaite D**, Miglioretti DL, Zhu W, Demb J, Trentham-Dietz A, Sprague B, Tice JA, Onega T, Henderson LM, Buist DSM, Ziv E, Walter LC, Kerlikowske K; Breast Cancer Surveillance Consortium. Family History and Breast Cancer Risk Among Older Women in the Breast Cancer Surveillance Consortium Cohort. *JAMA Intern Med*. 2018 Feb 12. doi: 10.1001/jamainternmed.2017.8642. PMID: 29435563
35. Hiatt RA, Stewart SL, Hoeft KS, Kushi LH, Windham GC, Biro FM, Pinney SM, Wolff MS, Teitelbaum SL, **Braithwaite D**. Childhood socioeconomic position and pubertal onset in a cohort of multiethnic girls: implications for breast cancer. *Cancer Epidemiology, Biomarkers & Prevention*. 2017 Sep 22. doi: 1158/1055-9965.EPI-17-0496. PMID: 28939588.

36. Shiyambola OO, Arao RF, Miglioretti DL, Sprague BL, Hampton JM, Stout NK, Kerlikowske K, **Braithwaite D**, Buist DSM, Egan KM, Newcomb PA, Trentham-Dietz A. Emerging trends in family history of breast cancer and associated risk. *Cancer Epidemiology, Biomarkers & Prevention*. 2017 Oct 6. doi: 10.1158/1055-9965.EPI-17-0531. PMID: 28986348.
37. Ahern TP, Sprague BL, Bissell MCS, Miglioretti DL, Buist DS, **Braithwaite D**, Kerlikowske K. Family history of breast cancer, breast density, and breast cancer risk in a U.S. breast cancer screening population. *Cancer Epidemiology, Biomarkers & Prevention*. 2017 Jun;26(6):938-944. doi: 10.1158/1055-9965.EPI-16-0801. PMID: 28096200. PMCID:PMC5457358 [available on 2018-06-01].
38. Newton S, **Braithwaite D**, Akinyemiju TF. Socio-economic status over the life course and obesity: systematic review and meta-analysis. *PLoS One*. 2017 May 16;12(5):e0177151. doi: 10.1371/journal.pone.0177151. PMID: 28510579; PMCID: PMC5433719.
39. Akinyemiju T, Ogunsina K, Okwali M, Sakhuja S, **Braithwaite D**. Lifecourse socioeconomic status and cancer-related risk factors: analysis of the WHO Study on Global Ageing and Adult Health (SAGE). *International Journal of Cancer*. 2017 Feb 15;140(4):777-787. doi: 10.1002/ijc.30499. PMID: 27813060; PMCID:PMC5330617.
40. Hubbard RA, O'Meara ES, Henderson LM, Hill D, **Braithwaite D**, Haas JS, Lee CI, Sprague BL, Alford-Teaster J, Tosteson AN, Wernli KJ, Onega T. Multilevel factors associated with long-term adherence to screening mammography in older women in the U.S. *Preventive Medicine*. 2016 Aug;89:169-177. doi: 10.1016/j.ypmed.2016.05.034. PMID: 27261409; PMCID: PMC4969188.
41. Demb J, Allen I, **Braithwaite D**. Utilization of screening mammography in older women according to comorbidity and age: protocol for a systematic review. *Syst Rev*. 2016 Oct 04; 5(1):168. PMID: 27716433
42. **Braithwaite D**, Demb J, Henderson LM. Optimal breast cancer screening strategies for older women: current perspectives. *Clinical Interventions in Aging*. 2016 Feb 3;11:111-125. doi: 10.2147/CIA.S65304. PMID: 26893548; PMCID: PMC4745843.
43. **Braithwaite D**, Walter LC, Izano M, Kerlikowske K. Benefits and harms of screening mammography by comorbidity and age: a qualitative synthesis of observational studies and decision analyses. *Journal of General Internal Medicine*. 2016 May; 31(5):561-72. doi: 10.1007/s11606-015-3580-3. PMID: 26831305; PMCID: PMC4835373.
44. Din N, Allen IE, Satariano WA, Demb J, **Braithwaite D**. Alcohol consumption and mortality after breast cancer diagnosis: The health and functioning in women study. *Breast Disease*. 2016 Jul 28;36(2-3):77-89. doi: 10.3233/BD-150202. PMID: 27662274. Oct 4;5(1):168. doi: 10.1186/s13643-016-0345-y. PMID: 27716433; PMCID:PMC5050609.
45. Akinyemiju T, Ogunsina K, Sakhuja S, Ogbhodo V, **Braithwaite D**. Life-course socioeconomic status and breast and cervical cancer screening: analysis of the WHO's Study on Global Ageing and Adult Health (SAGE). *BMJ Open*. 2016 Nov 22; 6(11):e012753. doi: 10.1136/bmjopen-2016-012753. PMID: 27881528; PMCID: PMC5129035.
46. Swede H, Sarwar A, Magge A, **Braithwaite D**, Cook LS, Gregorio DI, Jones BA, R Hoag J, Gonsalves L, L Salner A, Zarfos K, Andemariam B, Stevens RG, G Dugan A, Pensa M, A Brockmeyer J. Mortality risk from comorbidities independent of triple-negative breast cancer status: NCI-SEER-based cohort analysis. *Cancer Causes & Control*. 2016 May;27(5):627-636. doi: 10.1007/s10552-016-0736-3. PMID: 27000206; PMCID:PMC5591028.

47. Izano M, Wei EK, Tai C, Swede H, Gregorich S, Harris TB, Klepin H, Satterfield S, Murphy R, Newman AB, Rubin SM, **Braithwaite D**; Health ABC study. Chronic inflammation and risk of colorectal and other obesity-related cancers: the Health, Aging, and Body Composition study. *International Journal of Cancer*. 2016 Mar 1;138(5):1118-1128. doi: 10.1002/ijc.29868. PMID: 26413860; PMCID:PMC4955608.
48. Henderson LM, O'Meara ES, **Braithwaite D**, Onega T; Breast Cancer Surveillance Consortium. Performance of digital screening mammography among older women in the United States. *Cancer*. 2015 May 1;121(9):1379-1386. doi: 10.1002/cncr.29214. PMID: 25537958; PMCID: PMC4409463.
49. Swede H, Andemariam B, Gregorio DI, Jones BA, **Braithwaite D**, Rohan TE, Stevens RG. Adverse events in cancer patients with sickle cell trait or disease: case reports. *Genetics in Medicine*. 2015 Mar;17(3):237-241. doi: 10.1038/gim.2014.105. PMID: 25144888.
50. Izano M, Satariano WA, Hiatt RA, **Braithwaite D**. Smoking and mortality after breast cancer diagnosis: the health and functioning in women study. *Cancer Medicine*. 2015 Feb;4(2):315-324. doi: 10.1002/cam4.359. PMID: 25511535; PMCID: PMC4329014.
51. Izano M, Satariano WA, Tammemagi MC, Ragland D, Moore DH, Allen E, Naeim A, Sehl ME, Hiatt RA, Kerlikowske K, Sofrygin O, **Braithwaite D**. Long-term outcomes among African-American and white women with breast cancer: what is the impact of comorbidity? *Journal of Geriatric Oncology*. 2014 Jul;5(3):266-275. doi: 10.1016/j.go.2014.02.003. PMID: 24613574.
52. Hiatt RA, Porco TC, Liu F, Balke K, Balmain A, Barlow J, **Braithwaite D**, Diez-Roux AV, Kushi LH, Moasser MM, Werb Z, Windham GC, Rehkopf DH. A multilevel model of postmenopausal breast cancer incidence. *Cancer Epidemiology, Biomarkers & Prevention*. 2014 Oct;23(10):2078-2092. doi: 10.1158/1055-9965.EPI-14-0403. PMID: 25017248.
53. Epplein M, Bostick RM, Mu L, Ogino S, **Braithwaite D**, Kanetsky PA. Challenges and opportunities in international molecular cancer prevention research: an ASPO molecular epidemiology and the environment and international cancer prevention interest groups report. *Cancer Epidemiology, Biomarkers & Prevention*. 2014 Nov;23(11):2613-2617. doi: 10.1158/1055-9965.EPI-14-0848. PMID: 25277796; PMCID: PMC4221505.
54. Izano M, Satariano WA, Hiatt RA, **Braithwaite D**. The impact of functional limitations on long-term outcomes among African-American and white women with breast cancer: a cohort study. *BMJ Open*. 2013 Oct 10; 3(10):e003232. doi: 10.1136/bmjopen-2013-003232. PMID: 24114369; PMCID: PMC3796273.
55. Dittus K, Geller B, Weaver DL, Kerlikowske K, Zhu W, Hubbard R, **Braithwaite D**, O'Meara ES, Miglioretti DL; Breast Cancer Surveillance Consortium. Impact of mammography screening interval on breast cancer diagnosis by menopausal status and BMI. *Journal of General Internal Medicine*. 2013 Nov;28(11):1454-1462. doi: 10.1007/s11606-013-2507-0. PMID: 23760741; PMCID: PMC3797353.
56. O'Meara ES, Zhu W, Hubbard RA, **Braithwaite D**, Kerlikowske K, Dittus KL, Geller B, Wernli KJ, Miglioretti DL. Mammographic screening interval in relation to tumor characteristics and false-positive risk by race/ethnicity and age. *Cancer*. 2013 Nov 15;119(22):3959-3967. doi: 10.1002/cncr.28310. PMID: 24037812; PMCID: 3935985.
57. Wernli KJ, Kitahara CM, Tamers SL, Al-Temimi MH, **Braithwaite D**. Undertaking cancer research in international settings: report from the American Society for Preventive Oncology Special Interest Group on International Issues in Cancer. *Cancer Epidemiology, Biomarkers & Prevention*. 2013 Sep;22(9):1638-1641. doi: 10.1158/1055-9965.EPI-13-0655. PMID: 23845714; PMCID:PMC3919027.

58. Castillo-Trivino T, **Braithwaite D**, Bacchetti P, Waubant E. Rituximab in relapsing and progressive forms of multiple sclerosis: a systematic review. *PLoS One*. 2013 Jul 2;8(7):e66308. doi: 10.1371/journal.pone.0066308. PMID: 23843952; PMCID:PMC3699597.
59. **Braithwaite D**, Mandelblatt JS, Kerlikowske K. To screen or not to screen older women for breast cancer: a conundrum. *Future Oncol*. 2013 Jun;9(6):763-6. doi: 10.2217/fon.13.64. PMID:23718292.
60. Kerlikowske K, Zhu W, Hubbard RA, Geller B, Dittus K, **Braithwaite D**, Wernli KJ, Miglioretti DL, O'Meara ES; Breast Cancer Surveillance Consortium. Outcomes of screening mammography by frequency, breast density, and postmenopausal hormone therapy. *JAMA Internal Medicine*. 2013 May 13;173(9):807-816. doi: 10.1001/jamainternmed.2013.307. PMID: 23552817; PMCID:PMC3699693.
61. **Braithwaite D**, Zhu W, Hubbard RA, O'Meara ES, Miglioretti DL, Geller B, Dittus K, Moore D, Wernli KJ, Mandelblatt J, Kerlikowske K; Breast Cancer Surveillance Consortium. Screening outcomes in older US women undergoing multiple mammograms in community practice: does interval, age, or comorbidity score affect tumor characteristics or false positive rates? *Journal of the National Cancer Institute*. 2013 Mar 6;105(5):334-341. doi: 10.1093/jnci/djs645. PMID: 23385442. PMCID:PMC3589257.
62. **Braithwaite D**, Izano M, Moore DH, Kwan ML, Tammemagi MC, Hiatt RA, Kerlikowske K, Kroenke CH, Sweeney C, Habel L, Castillo A, Weltzien E, Caan B. Smoking and survival after breast cancer diagnosis: a prospective observational study and systematic review. *Breast Cancer Research and Treatment*. 2012 Nov;136(2):521-533. doi: 10.1007/s10549-012-2276-1. PMID: 23053660; PMCID:PMC3507472.
63. **Braithwaite D**, Boffeta P, Rebbeck TR, Meyskens F. Cancer prevention for global health: a report from the ASPO International Cancer Prevention Interest Group. 2012 Sep;21(9):1606-1610. *Cancer Epidemiology, Biomarkers & Prevention*. doi: 10.1158/1055-9965.EPI-12-0848. PMID: 22850804.
64. **Braithwaite D**, Moore D, Satariano WA, Kwan M, Hiatt RA, Kroenke C, Caan B. Prognostic impact of comorbidity among long-term breast cancer survivors: results from the LACE study. *Cancer Epidemiology, Biomarkers & Prevention*. 2012 Jul;21(7):1115-1125. doi: 10.1158/1055-9965.EPI-11-1228. PMID: 22573797; PMCID:PMC3470873.
65. Rehkopf DH, Laraia BA, Segal M, **Braithwaite D**, Epel E. The relative importance of predictors of body mass index change, overweight and obesity in adolescent girls. *International Journal of Pediatric Obesity*. 2011 Jun;6(2-2):e233-242. doi: 10.3109/17477166.2010.545410. PMID: 21244233.
66. Joseph G, Beattie M, **Braithwaite D**, Lee R, Wilcox C, Metrikin M, Lamvik K, Luce J. Pre-counseling education for low literacy women at risk of Hereditary Breast and Ovarian Cancer (HBOC): patient experiences using the Cancer Risk Education Intervention Tool (CREdIT). *Journal of Genetic Counseling*. 2010 Oct;19(5):447-462. doi: 10.1007/s10897-010-9303-3. PMID:20490636; PMCID:PMC2944955.
67. **Braithwaite D**, Satariano WA, Sternfeld, B, Hiatt RA, Ganz PA, Kerlikowske K, Moore DH, Slattery ML, Tammemagi M, Castillo A, Melisko M, Esserman L, Weltzien E, Caan BJ. Long-term prognostic role of functional limitations among women with breast cancer. *Journal of the National Cancer Institute*. 2010 Oct 6;102(19):1468-1477. doi: 10.1093/jnci/djg344. PMID: 20861456; PMCID:PMC2950169.
68. **Braithwaite D**, Wernli KJ, Anton-Culver H, Engstrom P, Greenberg ER, Meyskens F. Opportunities for cancer epidemiology and control in low- and middle-income countries: a report from the American Society for Preventive Oncology International Cancer Prevention Interest Group. *Cancer Epidemiology, Biomarkers & Prevention*. 2010 July;19(7):1665-1667. doi: 10.1158/1055-9965.EPI-10-0523. PMID:20615883.

69. Glasspool DW, Oettinger A, **Braithwaite D**, Fox J. Interactive decision support for risk management: a qualitative evaluation in cancer genetic counseling sessions. *Journal of Cancer Education*. 2010 Sep;25(3):312-316. doi: 10.1007/s13187-009-0035-8. PMID:20162470; PMCID:PMC2933800.
70. **Braithwaite D**, Tammemagi CM, Moore DH, Ozanne EM, Hiatt RA, Belkora J, West DW, Satariano WA, Liebman M, Esserman L. Hypertension is an independent predictor of survival disparity among African American and white breast cancer patients. *International Journal of Cancer*. 2009 Mar 1;124(5):1213-1219. doi: 10.1002/ijc.24054. PMID:19058216.
71. **Braithwaite D**, Moore DH, Lustig RH, Epel ES, Ong KK, Rehkopf DH, Wang MC, Miller SM, Hiatt RA. Socioeconomic status in relation to early menarche among black and white girls. *Cancer Causes & Control*. 2009 Jul;20(5):713-720. doi: 10.1007/s10552-008-9284-9. PMID: 19107561.
72. Ozanne EM, **Braithwaite D**, Sepucha K, Moore D, Esserman L, Belkora J. Sensitivity to input variability of the Adjuvant! Online breast cancer prognostic model. *Journal of Clinical Oncology*. 2009 Jan 10;27(2):214-219. doi: 10.1200/JCO.2008.17.3914. PMID:19047286.
73. **Braithwaite D**, Emery J, Walter F, Prevost T, Sutton S. Psychological impact of genetic counseling for familial cancer: a systematic review and meta-analysis. *Familial Cancer*. 2006; 5(1):61-75. doi: 10.1007/s10689-005-2477-1. PMID:16528610.
74. **Braithwaite D**, Sutton S, Mackay J, Stein J, Emery J. Development of a risk assessment tool for women with a family history of breast cancer. *Cancer Detection and Prevention*. 2005;29(5): 433-439. doi: 10.1016/j.cdp.2005.06.001. PMID: 16055276.
75. **Braithwaite D**, Emery J, Walter F, Prevost T, Sutton S. Psychological impact of genetic counseling for familial cancer: a systematic review and meta-analysis. *Journal of the National Cancer Institute*. 2004 Jan 21;96(2):122-133. PMID:14734702.
76. Walter FM, Emery J, **Braithwaite D**, Marteau TM. Lay understanding of familial risk of common chronic diseases: a systematic review and synthesis of qualitative research. *Annals of Family Medicine*. 2004 Nov-Dec;2(6):583-594. doi: 10.1370/afm.242. PMID:15576545; PMCID: 1466757.
77. **Braithwaite D**, Emery J, De Lusignan S, Sutton S. Using the Internet to conduct surveys of health professionals: a valid alternative? *Family Practice*. 2003 Oct;20(5):545-551. doi: 10.1093/fampra/cm9509 PMID: 14507796.
78. **Braithwaite D**, Sutton S, Steggles N. Intention to Participate in Predictive Genetic Testing for Hereditary Cancer: The Role of Attitude toward Uncertainty. *Psychology & Health*, 2002. 17:6, 761-772, doi: 10.1080/0887044021000054764
79. **Braithwaite D**, Sutton S, Smithson H, Emery JD. Internet-based risk assessment and decision support for the management of familial cancer in primary care: A survey of GP's attitudes and intentions. *Family Practice*, 2002. 19(6):587-90. doi: 10.1093/fampra/19.6.587. PMID: 12429659

iii. Manuscripts in the publication process

1. Advani S, Zhu W, Demb J, Sprague B, Tice JA, Onega T, Henderson LM, Buist DSM, Ziv E, Walter LC, Kerlikowske K, Miglioretti DL, **Braithwaite D**; for the Breast Cancer Surveillance Consortium: Breast Cancer Risk by Breast Density, Body Mass Index and Age Among Older Women undergoing Screening Mammography (submitted)

2. Advani SM, Advani PS, Brown DW, DeSantis SM, Korphaisarn K, VonVille HM, Bressler, Lopez DS, Davis JS, Daniel CR, Sarshekeh AM, **Braithwaite D**, Swartz MD, Kopetz S. Epidemiology and Molecular-Pathologic Characteristics of CpG Island Methylator Phenotype (CIMP) in Colorectal Cancer (submitted)
3. Chicaiza A, Mishuri R, Lin K, Lopez K, Schoenborn N, **Braithwaite D**, O'Neill S: Reducing overscreening for breast cancer: clinician and patient perspectives (in preparation)
4. Advani S, Miglioretti DL, Zhu W, Trentham-Dietz A, Sprague B, Tice JA, Onega T, Henderson LM, Buist DSM, Demb J, Zhang D, Potosky A, Walter LC, Kerlikowske K, **Braithwaite D**: Breast Biopsy Patterns and Complications by Age and Comorbidity among Older Women undergoing Screening Mammography (submitted)
5. **Braithwaite D**, Advani S, Zhang D: Factors associated with participation in lung cancer screening: cross-sectional analysis of 2016 Behavioral Risk Factor Surveillance System (BRFSS) data (submitted)
6. Advani S, Chicaiza A, Zhang D, Harris M, Parikh V, Anderson E, Breece C, **Braithwaite D**: Lung cancer screening in community practice: patient characteristics and intermediate results (in preparation)
7. Zhang D, Miglioretti DL, Zhu W, Trentham-Dietz A, Sprague B, Tice JA, Onega T, Henderson LM, Buist DSM, Demb J, Potosky A, Walter LC, Kerlikowske K, **Braithwaite D**. Screening mammography outcomes in older women: impact of functional limitations (in preparation)
8. Zhang D, Miglioretti DL, Zhu W, Trentham-Dietz A, Sprague B, Tice JA, Onega T, Henderson LM, Buist DSM, Demb J, Walter LC, Kerlikowske K, **Braithwaite D**. Functional limitations and adherence to screening mammography in older women (in preparation)
9. **Braithwaite D**, Miglioretti DL, Zhu W, Trentham-Dietz A, Sprague B, Tice JA, Onega T, Henderson LM, Buist DSM, Demb J, Zhang D, Walter LC, Kerlikowske K. Performance of breast tomosynthesis in older women (in preparation)
10. Zhang D, **Braithwaite D**, Shah N, Atkins M.: The impact of functional status on immune-related adverse events among advanced-stage cancer patients receiving immunotherapy (submitted)

iii. Books or Chapters in Books (indicate if refereed)

1. Swede H, and **Braithwaite D**. Role of C-Reactive Protein in Cancer (Chapter 10). In: O. Reizes, N.A. Berger (eds.), "Adipocytokines, Energy Balance, and Cancer (Vol. 12)," Springer International Publishing, Switzerland, 2017.

B. Research Funding:

i. Currently Active

1. Agency: NIH/NIA

Identifying Number: **R01 AG065311**

Title: A conversation aid on mammography screening to support shared decision making between clinicians and women aged 75 and older

Goal: The goal of this project is to develop and test an interactive web-based conversation aid on mammography screening for primary care providers to use with women aged >75 years and involved family members during a visit.

Dates of Project Period: 02/01/2020 – 11/01/2024

Total Direct Costs over all years of award: \$2.5 million

Role: Consultant (PI: Mara Schonberg, Natasha Stout)

2. Agency: NIH/NCI
 Identifying Number: **R01 CA246418**
Title: Benefits and harms of lung cancer screening in Florida
 Goal: The goal of this project is to examine the contemporary use of lung cancer screening and associated health care outcomes and costs using data from a real-world setting in Florida.
 Dates of Project Period: 01/01/2020 – 12/31/2023
 Total Direct Costs over all years of award: \$903,562
 Role: Co-Investigator (PI: Jiang Bian)

3. Agency: NIH/NCI
 Identifying Number: **R01 CA246418S1**
Title: Examine the Effectiveness of Cancer Screening Among Patients with Alzheimer's Disease and Related Dementias Using Real-World Data. Role: Co-investigator.
 Dates of Project Period: 05/01/2021 – 4/30/2022
 Role: Co-Investigator (PI: Bian/Guo)

4. Agency: **NIH/NCI**
 Identifying Number: **R01 CA207361**
Title: Comorbidity and screening outcomes in older women undergoing mammography in community practice
 Goal: The goal of this research is to examine benefits, harms and costs of screening mammography in older women across levels of advancing age, comorbidity and functional status.
 Dates of Project Period: **01/01/2017 – 12/31/2021**
 Total Direct Costs over all years of award: \$1.8 million
PI: Braithwaite

5. Agency: **NIH/NCI**
 Identifying Number: **R01 CA249506**
Title: Personalized screening for lung cancer: the importance of co-existing chronic conditions to clinical practice and policy
 Goal: The goal is to evaluate potential harms and benefits of lung cancer screening with low-dose computed tomography using real-world data and simulation modeling among marginal candidates.
 Percent effort: 20%
 Duration: **06/01/2020 – 05/31/2025**
 Total Direct Costs over all years of award: **\$2.5 million**
Contact PI: Braithwaite (MPIs: Gould/Silvestri)

ii. Pending

1. Agency: **NIH/NCI**
 Identifying Number: **R01CA253207-A1**
07/01/2020 - 06/30/2025
Title: Reducing cancer overscreening in the elderly (ROSE): A multilevel intervention (scored in the 13th percentile, impact score 27, currently under consideration for funding by exception)
 Goal: The goal of this research is to accelerate the implementation of individualized mammography decisions among older women. We will evaluate intervention effects on the receipt of breast cancer screening among diverse older women. We will also assess the trial impact from the clinician perspective.
 Percent effort: 15%

Total budget: **\$434,313 (Y1)**

MPIs: O'Neill, Braithwaite

Recently Completed Awards

1. Sponsor: **Georgetown Global Health Initiative**

Title: Understanding dietary patterns and their Impacts on symptom management and functioning among Taiwanese and American breast cancer patients

Goal: The overarching goals of this pilot study are to examine dietary patterns among Taiwanese and American breast cancer patients before and after diagnosis, and determine whether dietary practices are related to breast cancer patients' treatment-related symptoms and functional status.

Duration: **11/30/2019-12/31/2020**

Total budget: **\$15,000**

Role: Co-Investigator (PI: Judy Wang)

2. Sponsor: **Georgetown University CCSG Pilot Developmental Award**

Title: Older lung cancer patients in community practice: diffusion and impact of immunotherapy

Goal: The goal of this project is to generate preliminary data on the diffusion and risks/benefits of immune checkpoint inhibitor therapy in patients age ≥ 65 with advanced NSCLC across the levels of advancing age and multimorbidity in the SEER-Medicare dataset.

Duration: **07/1/2020 - 6/30/2021**

Total budget: **\$18,000**

Role: PI

3. Sponsor: **Partners in Research Award from the Georgetown University Medical Center**

Title: Blueprint for Establishing the Capital Lung Cancer Screening Registry of the Georgetown Lombardi Cancer Center

Goal: The goal of this project is conduct preliminary research to establish the Capital Lung Cancer Screening Registry of the Georgetown Lombardi Cancer Center

Duration: 10/01/2018-12/30/2020

Total budget: **\$35,000**

Role: PI

4. Agency: **NIH/NCI**

Identifying Number: **1F31CA210399**

Title: The role of structural factors in mammography screening behavior in the United States

Dates of Project Period: 04/01/2017 – 03/31/2020

Goal: The goal is to obtain support for training in cancer screening and disparities.

Total Direct Costs over all years of award: **\$105,000** (\$35,080 direct/year 1)

Role on Project: Faculty sponsor/Mentor (PI: Joshua Demb)

5. Agency: **Georgetown Global Health Initiative**

Title: Luchando por eliminar el cancer de cervix: intervencion de salud movil (in Spanish... Striving to eliminate cervical cancer: an mHealth intervention)

Goal: The goal of this pilot project is to perform needs assessment as a prelude for implementing an mHealth intervention to increase HPV screening in Guatemala.

Duration: **05/01/2018 – 12/01/2019**

Total budget: **\$15,000**

PI: Braithwaite6. Agency: **American Cancer Society Mentored Research Scholar Award**Identifying number: **121891-MRSG-12-007-01-PHPS***Title: Breast Cancer Screening and Outcomes: Role of Comorbidity*

Goal: The goal of this career development award is to enable the candidate to obtain further training and research experience in order to become an expert in cancer epidemiology, with a specific focus on comorbidity, aging and outcomes from breast cancer screening.

Duration: **1/3/2012- 06/01/2017**Total budget: **\$ 675,000 total****PI: Braithwaite**7. Agency: **Cancer League Inc.***Title: Blueprint for Developing a Lung Cancer Screening Registry in Northern California*

Goal: The goal of this study is to pilot the lung cancer screening registry for the Northern Calif. Lung Cancer Screening Network. The proposed research platform will be an outstanding resource for addressing lung cancer screening policy and evaluating emerging methods for lung cancer detection

Duration: **9/1/16-9/30/17**Total budget: **\$30,000****PI: Braithwaite**8. Sponsor: **UCSF Clinical and Translational Science Institute Team Science Award***Title: Low dose computed tomography lung cancer screening in the San Francisco Bay Area: development of a population-based registry*

Goal: The goal of this team science award is to examine the feasibility of establishing a regional lung cancer screening registry.

Duration: **8/1/15-7/31/16**Total budget: **\$75,000****PI: Braithwaite**9. Agency: **NIH/NIA**

Identifying number: T32AG049663

Title: Translational Epidemiology – Training for research on aging and chronic disease

Goal: The goal of this program (Translational Epidemiology - Training for Research on Aging and Chronic disease: TE-TRAC) focuses on chronic diseases of aging, including Alzheimer's disease and related disorders, cancer, musculoskeletal, and cardiometabolic disorders. Formal training will be combined with experiential rotations in clinical practice, health policy, and public health practice.

Duration: **5/1/2016-4/40/2021**Year 1 direct costs: **\$238,126****Role: Faculty mentor/ Co-Investigator (PI: Haan)**10. Agency: **Susan Komen Foundation***Title: Disparities in Breast Cancer Outcomes: Role of Comorbidity and Physical Functioning*

Goal: The goal of this career catalyst award is to enable the candidate to enhance expertise in breast cancer disparities.

Duration: **1/1/2012-1/1/2015**Total budget: **\$300,000**

PI: Braithwaite**11. Agency: NIH/NIA**

UCSF Center for Aging in Diverse Communities (CADC) (Center PI: Perez-Stable)

Title: Inflammatory markers and incident breast cancer in older African-American and white women: the Health, Aging and Body Composition study

Goal: The goal of this award is to evaluate the association of inflammatory markers with incident breast cancer and adverse tumor characteristics.

Duration: **9/1/13-8/31/15**

Total budget: **\$15,000 total**

PI: Braithwaite

12. NIH/NCI R03 CA143936

Title: Etiology of Breast Development in the BCERC Network: Role of Socioeconomic Status

Goal: The major goal of this project is to evaluate the contribution of socioeconomic status to racial/ethnic differences in age at pubertal onset as a marker of breast cancer risk at three sites in the United States.

Duration: **12/01/09-08/31/11**

Total budget: **\$100,000**

PI: Braithwaite

13. NIH/NCI RC2 CA148577

Title: Comparative Effectiveness of Breast Imaging Strategies in Community Practice

Goal: The major goal of this project is to conduct comparative effectiveness research on breast cancer imaging modalities and strategies to inform evidence gaps on how to optimize breast cancer screening in community practice. This will be accomplished using longitudinal data from the Breast Cancer Surveillance Consortium and Medicare.

Duration: **10/01/09-08/31/11**

Total budget: **\$1.5 million**

Role: Co-Investigator (Kerlikowske, PI)

C. Invited Lectures and Presentations:

Moderator, , FLASCO Business of Oncology Summit 2021, Kissimmee, FL: "The Information Conundrum", April 16-18, 2021

Speaker, Preventing Overdiagnosis Conference, Sydney, Australia: "Downstream outcomes following biopsy among older women undergoing mammography in community practice", December 2019

Speaker, Grand Rounds, Medstar Health Research Institute, Washington, DC: "Multilevel interventions: screening mammography in the elderly", December 2019

Session Chair, The Regional Conference of Asia Oceania Research Organization on Genital Infections and Neoplasia (AOGIN 2019) & The 17th Annual Meeting of National Cervical Cancer Consortium (17th NCCC), Beijing, China; April 27-28, 2019

Lecturer, Faculty Development Committee, Georgetown University Medical Center, Washington DC; "Overcoming Funding Gaps via Internal Grant Review Committees," March 18, 2019

American Society of Preventive Oncology, Session on Cancer Screening Chair, Tampa, Florida; March 10-12, 2019

Speaker, Grand Rounds, Department of Oncology, Georgetown University: "Cancer Screening in the Elderly in the Era of Precision Medicine", January 2019

Symposium Organizer and speaker, Workshop on HPV Screening and Cervical Cancer Control, Rafael Landivar University, Guatemala City, Guatemala, February 2019

Speaker, Cancer Prevention and Control Program, Georgetown University Lombardi Comprehensive Cancer Center: "Screening Mammography in Older Women: When Less is More", 2018 (to staff and faculty)

Speaker, Georgetown University Medical Center, Senior Mentor Program: "Cancer Screening in Older Populations: Role of Comorbidity", March 2018 (to medical students)

Speaker, M.S. Aging and Health, Georgetown University Graduate School: "Research at the Intersection of Cancer and Aging" November 2018

Speaker, Workshop on Multiple Chronic Conditions and Lung Cancer Screening, American Thoracic Society Annual Conference, Washington, DC, 2017

Speaker, Cancer Prevention and Control Program, Georgetown University Lombardi Comprehensive Cancer Center: "Cancer Screening in Older Adults: Challenges and Potential Opportunities", 2017 (to faculty)

Speaker, Cancer Epidemiology Seminar Series, Helen Diller Family Comprehensive Cancer Center, University of California, University of California, San Francisco: "Greater San Francisco Bay Area Lung Cancer Screening Network (SFBayLCSN)" (presentation for fellows and faculty), 2016

Speaker, Greater San Francisco Bay Area Lung Cancer Screening Network (SFBayLCSN), "Potential research questions a regional Lung Cancer Screening Network could address," 2015

Speaker, Workshop on International Issues in Cancer and Molecular Epidemiology, American Society for Preventive Oncology, Washington, DC, 2014

Speaker, Center for Aging in Diverse Communities, UCSF: "Chronic inflammation and cancer risk in the Health ABC cohort" (seminar for fellows and faculty), 2014

Speaker, California Pacific Medical Center Research Institute, San Francisco; "Chronic inflammation and risk of colorectal and obesity-related cancers" (invited talk), 2014

Speaker, Greater San Francisco Bay Area Lung Cancer Screening Network (SFBayLCSN), "Why we need to develop a regional Lung Cancer Screening Network," 2014

Speaker, Center for Aging in Diverse Communities, UCSF: "Benefits and harms of screening mammography in older women" (seminar for fellows and faculty), 2013

Speaker, Cancer Epidemiology Seminar Series, Helen Diller Family Comprehensive Cancer Center, University of California, San Francisco; "Screening outcomes among older women undergoing multiple mammograms in community practice" (presentation for fellows and faculty), 2012

Speaker, American Society for Preventive Oncology, Washington, DC; "Mammography screening frequency in relation to tumor characteristics and false-positive risk by comorbidity and age," 2012

Speaker, Breast Cancer Surveillance Consortium Meeting, Sonoma, CA; "Breast Cancer Screening Interval by Comorbidity Score" (invited presentation), 2011

Presenter, American Association for Cancer Research, Frontiers in Cancer Prevention Research Annual Meeting, Philadelphia, PA; "Smoking and Survival after Breast Cancer Diagnosis: Role of Molecular Subtype, Body Mass Index and Menopausal Status" (presentation), 2010

Speaker, NIH/NCI Cancer Intervention and Surveillance Modeling Network (CISNET)/Breast Cancer Surveillance Consortium Meeting, Seattle, WA; "Breast Cancer Screening Interval by Comorbidity Score" (invited presentation), 2010

Speaker, Breast Oncology Program, Helen Diller Family Comprehensive Cancer Center, University of California, San Francisco: "Aging and Breast Cancer" (seminar for fellows and faculty), 2010

Speaker, The San Francisco Mammography Registry, "Tailoring Screening Mammography for Older Women" (invited talk), 2010

Presenter, NIH/NCI Breast Cancer Specialized Program of Research Excellence (SPORE) Roundtable, National Harbor, MD; "Aging, Functional Health and Breast Cancer Survival" (invited presentation), 2010

Speaker, American Society for Preventive Oncology Annual Meeting, Bethesda, MD; "Long-term prognostic role of functional limitations among women with breast cancer" (presentation), 2010

Speaker, American Society for Preventive Oncology Annual Meeting, Bethesda, MD; "Social determinants of pubertal activation as a marker of breast cancer risk" (invited presentation), 2008

Symposium Co-Chair, Society for Epidemiologic Research, Annual Meeting, Chicago, IL; "Unequal racial/ethnic distribution of breast cancer subtypes: identifying mechanisms by which the social environment modulates genetic vulnerabilities," 2008

Speaker, Institute for Health Policy Studies, University of California, San Francisco; "Cancer Control Opportunities in Developing Countries" (seminar for fellows and faculty), 2008

Speaker, Breast Oncology Program, Helen Diller Family Comprehensive Cancer Center, University of California, San Francisco: "Comorbidity and Breast Cancer Survival," 2007

Speaker, Department of Epidemiology and Biostatistics Seminar, University of California, San Francisco; "Early Life Determinants of Breast Cancer Risk" (seminar for faculty), 2007

Speaker, Breast Oncology Program, Helen Diller Family Comprehensive Cancer Center, University of California, San Francisco; "Social and environmental determinants of pubertal onset: Breast Cancer and the Environment Research Centers," 2007

Speaker, "Oncogenetics: Achievements and Challenges" Meeting, Montreal, Canada; "Psychological Impact of Genetic Counseling for Familial Cancer" (invited talk), 2004

D. Editorships, Editorial Boards, and Reviewing Activities

Ad-hoc reviewer for the following journals:

American Journal of Epidemiology, 2014- present

American Journal of Preventive Medicine, 2007-present

American Journal of Respiratory and Critical Care Medicine, 2017- present

Annals of Internal Medicine, 2007-present

BMC Cancer, 2007-present

BMC Family Practice, 2007-present

BMC Public Health, 2015-present

BMC Geriatrics, 2015-present

BMJ Open, 2014- present
 Breast Cancer Research and Treatment, 2007-present
 Breast Cancer Research, 2007-present
 Cancer, 2007-present
 Cancers, 2018 - present
 Cancer Medicine, 2015-present
 Cancer Causes and Control, 2008-present
 Cancer Detection and Prevention/now known as Cancer Epidemiology, 2008-present
 Cancer Epidemiology, Biomarkers and Prevention, 2008-present
 Cancer Research (AACR), 2018 - present
 Carcinogenesis, 2009-present
 European Journal of Cancer Care, 2014-present
 Journal of Clinical Oncology, 2010-present
 Journal of Translational Medicine, 2014-present
 JAMA Internal Medicine, 2015-present
 JAMA Oncology, 2015-present
 JNCI, 2017- present
 Journal of Clinical Oncology, 2015-present
 Journal of Geriatric Oncology, 2016-present
 Lancet Oncology, 2010-present
 Plos One, 2018-present
 Systematic Reviews, 2018-present
 The Gerontologist, 2018 – present
 Medical Care, 2019 – present

Summary: In addition to serving as an ad hoc reviewer, I also regularly review for Research Square, a pre-publication platform designed to improve research communication. In 2019, I reviewed ~40 articles.

III. TEACHING, MENTORING, AND ADVISING

A. Teaching Activities

Course Name and Number	Role	Topic Area	Years Taught	Number of students	Evaluation score
Georgetown University, Clinical and Translational Sciences Institute, M.S. in Clinical Research, CLTR507-101 "Epidemiologic Methods" (online course)	Course Director	Epidemiologic Methods	1 (2019)	12 (3 credits; January-April 2019)	3.5 out of 5 (overall score was impacted by limitations due to the course being purely online)
Georgetown University, MS in Epidemiology	Lecturer	Introduction to Research with Diverse Populations	0 (2020)	6	Not available yet; Started in February 2020

Georgetown University, M.S. in Tumor Biology	Lecturer	Screening	2	6	5 out of 5
Mechanisms, Methods and Malignancies Block, Fall 2015, Course for UCSF medical students	Small Group Leader	Medicine	1 (2015)	6	5 out of 5
UCSF EPI 150: Designing Clinical Research, Department of Epidemiology and Biostatistics	Section Leader (8 sessions)	100	10 (2007-2017)	10	Median ranged from 4 to 5 out of 5 (5 is the highest)
UCSF Postdoctoral Training Program in Health Services Research, Phillip R. Lee Institute for Health Policy Studies	Lecturer	2	1 (2008)	20	N/A
UCSF EPI 214: Systematic Reviews and Meta-analyses, Department of Epidemiology and Biostatistics	Co-Director, Lecturer and Section Leader; (6 sessions)	20	9 (2008-2017)	50-60	Median 4 out of 5 (5 is the highest)
Global Health Education Consortium, Introduction to Global Health	Co-wrote syllabus for the course on Cancer control in low and middle income countries	N/A	N/A	Web-based module	N/A

Summary: In addition to teaching courses above, I currently serve as a Co-Director of the Internal Grant Review Program at the Lombardi Cancer Center. The key objective of this Program is to increase the number of successful grant applications by providing constructive feedback to investigators. These sessions typically take place before standard NIH deadlines. Our early results suggest that success rates are considerably higher among investigators who undergo internal peer reviews of their grant proposals.

ii. Medical School Clerkships

Average number of Clinical Fellows I train per year =1-2

Average number of Residents I train per year =1

Average number of Medical students I train per year=1

iii. Graduate Biomedical Education Courses

Name and Course Number: **UCSF PhD Program in Epidemiology and Translational Science and T32 in Chronic Disease Epidemiology (2011-2017)**

Number of Direct Contact Hours: 150; Year(s) Taught: 4;

Number of Students: 1-2

Overall Evaluation Score: 5 out of 5;

Role: Mentor

Name and Course Number: **Georgetown MS in Clinical Research (an online course, 2019)**

Number of Direct Contact Hours: 25; Year(s) Taught: 1;

Number of Students: 6

Overall Evaluation Score: 3.5 out of 5;

Role: Course Director

Name and Course Number: **Georgetown MS in Epidemiology** (mentoring since 2019; teaching starting in 2020); Number of Direct Contact Hours: 50

Year(s) Taught: 1;
 Number of Students: 10;
 Overall Evaluation Score: N/A
Role: Lecturer and Mentor

iv. Undergraduate Courses: N/A

B. Mentoring:

Aug 2008 – Sept 2017 Served on Dissertation/Thesis Committees for Masters and Doctoral students in the UCSF Department of Epidemiology and Biostatistics and R25 training grants

October 2016- October 2017 Served as a mentor on a T32 grant in the UCSF Department of Epidemiology and Biostatistics (until the time I relocated from UCSF)

November 2017-present Currently serving as a mentor to graduate students and postdocs at the Georgetown Graduate School (Tumor Biology and Aging & Health MS Programs)

September 2019-present Currently serving as a mentor on the new MS in Epidemiology at the Georgetown Graduate School

January 2019-present Currently serving as a mentor to trainees within the Georgetown-Howard Clinical and Translational Science Award

PREDOCTORAL STUDENTS MENTORED

Mentee Name	Dates of mentorship	Outcomes	Role
Grace Kim, BS	2010 - 2012	-Helped her obtain research experience and enroll into a MS program	Co-Mentor
Samuel Rose, BS	2011 - 2012	-Chaired his MS in Clinical Research Dissertation Committee	Dissertation Committee Chair
Monika Izano, MS	2012 - 2014	-Helped her obtain research experience and enroll into a PhD Epidemiology Program at UC Berkeley; published multiple articles together (see publications)	Mentor
Vickram Tandon, BS	2012 - 2012	-Helped him gain research experience as a summer intern	Co-Mentor
Ruby Lin, BS, MD	2013 - 2014	-Helped her gain research experience as a summer intern	Co-Mentor
Caroline Tai, MPH	2013 - 2014	-Published an article based on her doctoral research rotation (see publications)	Co-Mentor
Jisu Shin	2013 - 2015	-Helped her gain research experience as a high school summer intern; this experience contributed to her being accepted into a Johns Hopkins undergraduate program	Co-Mentor
Joshua Demb, MPH	2014 - 2019	-Primary mentor on Mr. Demb's F31 award that supported his PhD research (see grants section) - published multiple articles thus far (see publications)	Mentor and Sponsor
Daniel Mota, BS	2015 - 2016	-Helped him gain research experience as an undergraduate summer intern from the San Francisco State University	Co-Mentor

Ping Wang, BS	2016-2017	-Chaired her Masters in Clinical Research Dissertation Committee	Dissertation Committee Chair
Sean Nemia, BA candidate	2019	-Helped him gain research experience as a fellow in the Academy for Research, Clinical, and Health Equity Scholarship (ARCHES) summer program	Mentor
Anthony Chicaiza, BA	2018-2020	-Helped him gain research experience and manuscript writing experience necessary for application to the Health and the Public Interest (HAPI) MS program at the Georgetown University Graduate School of Arts and Sciences	Mentor
Andrea Hobby, BA	2019-2020	-Mentoring and supervising her research project as part of her MS in Epidemiology at Georgetown	Mentor

POSTDOCTORAL FELLOWS AND JUNIOR FACULTY MENTORED

Mentee Name	Dates of mentorship	Outcome	Role
Joshua Demb, PhD	2019-2020	-Postdoctoral Fellow, UC San Diego; research collaboration (see Publications)	Mentor
Christine Hsu, MD	2019-2020	-Assistant Professor, provided guidance on epidemiological research components	Mentor
Le Dang, PhD	2019-2020	-Short-term Visiting Scholar, Cancer Screening Group, Georgetown University Medical Center	Mentor
Zhikai Zhu, PhD	2019-2020	-Visiting Scholar, Cancer Screening Group, Georgetown University Medical Center	Mentor
Shailesh Advani, MD, PhD	2017-2020	-Research Instructor, Cancer Screening Group, Georgetown University Medical Center (See Publications)	Primary Mentor
Dongyu Zhang, MD, PhD	2018-present	-Research Assistant Professor, Department of Epidemiology, University of Florida (See Publications)	Primary Mentor
Tomi Akinyemiju, PhD	2015 - 2017	-Assistant Professor, served as a co-mentor and collaborated on several research projects (See Publications)	Co-Mentor
Melissa Wong, MD	2014 - 2015	-Resident, provided guidance on epidemiological research components	Career Mentor
Natasha Din, MBBS	2014 - 2016	-Chaired her Masters in Clinical Research Dissertation Committee -published a paper together (See Publications)	Dissertation Committee Chair and Mentor
Tamara Castillo-Trivino, MD	2009 - 2010	-Chaired her Masters in Clinical Research Dissertation Committee - published a paper together (See Publications)	Dissertation Committee Chair and co-Mentor

4. SERVICE

A. University Service:

i. Department – UCSF:

Dissertation Committee, Masters in Clinical Research, 2008-present

Committee Member, Taskforce to Improve Gender Equality, 2013-2014

Head, Screening and Early Detection Area of Concentration, 2014-present

ii. School**School of Medicine - UCSF:**

Member, Center for Health and Community, Robert Wood Johnson Foundation, Health Disparities Working Group, 2006-2012

Full Member, UCSF Helen Diller Family Comprehensive Cancer Center, 2010-2017

Reviewer, UCSF Resource Allocation Program, 2010-2012

Reviewer, UCSF Resource Allocation Program, Medical Student Grants Program, 2015-2015

Reviewer, UCSF Resource Allocation Program, Career Development Grants, 2015-2017

Georgetown University Medical Center:

Chair, Grant Review Subcommittee, GUMC, 2018-present

Member, Faculty Development Committee, GUMC, 2018-present

Director, Internal Grant Review Program, Lombardi Comprehensive Cancer Center, 2019-present

iii. University**University of California System and Multi-Campus Service:**

Co-Chair, Comorbidity Core Support Group, University of California-wide ATHENA Breast Health Network, 2010-2012

Founding Principal Investigator, Northern California Lung Cancer Screening Network (includes UCSF, UC Davis), 2014-2017

UCSF Campus-wide:

Member, Academic Senate Committee on Research, 2008-2011

Reviewer, Resource Allocation Program for Trainees (RAPtr) Review Committee, 2014-2017

Georgetown University:

Reviewer, Fulbright Scholar Fellowship Committee, 2019

B. Hospital Service

N/A

C. Professional Service:

Member of the Executive Committee (Board of Directors) and Co-Chair of the International Cancer Prevention Special Interest Group, American Society for Preventive Oncology, 2010

Planning Committee Member for the workshop on Cancer Control in Low Resource Areas, National Academy of Sciences, Institute of Medicine, National Cancer Policy Forum, 2015

Poster Review Committee, American Society of Preventive Oncology Annual Meeting, 2018

Program Committee, American Society of Preventive Oncology Annual Meeting, 2019

Chair, Program Committee, Special Workshop on HPV and Cervical Cancer Control, Guatemala, 2019

Government and Other Professional Service:

Reviewer, Department of Health, London, England, 2005

Reviewer/Advisor, The Agency for Healthcare Research and Quality Technical Advisory Board, "Clinical Utility of Ascertaining Family History of Cancer" (Task Order Report), 2006

Reviewer, National Institutes of Health/National Cancer Institute, Special Emphasis Panel: Small Grants for Cancer Epidemiology, 2010-present

Reviewer, National Institute for Health Research, Research for Patient Benefit (RfPB), Twickenham, England, 2010

Reviewer, Patient-Centered Research Outcomes Initiative (PCORI), National Institutes of Health, 2012

Reviewer, American Cancer Society/UICC Fellowships Committee, 2012

Reviewer, Cancer Research UK, 2014-2014

Reviewer, Prevent Cancer Foundation, 2015-2015

Reviewer, Department of Defense Breast Cancer Research Program, 2016-2017

Reviewer, Breast Cancer Now (largest breast cancer research non-profit in England), 2017

Study Section Member, Small Business Innovation Research: Health Informatics, NIH, 2018-present (3 times per year)

Community and Public Service:

Reviewer, Breast Cancer Fund, San Francisco, CA, Report, "The Falling Age of Puberty in U.S. Girls," 2007

5. HONORS AND AWARDS

Pre-doctoral Fellowship from Cancer Research U.K. (2 awarded nationally in the United Kingdom), 2000

American Association for Cancer Research, Frontiers in Cancer Prevention, Scholar-in-Training Award, 2003

Cancer Prevention Research Fellowship from the Prevent Cancer Foundation/American Society for Preventive Oncology (1 awarded nationally in the United States), 2007

Developmental Award from the NIH Bay Area Breast Cancer Specialized Program of Research Excellence (SPORE), 2009

Hellman Foundation Award for Early Career Faculty, University of California, San Francisco, 2009

Junior Investigator Award, Academic Senate, University of California, San Francisco, 2010

Junior Investigator Award, National Center of Excellence in Women's Health, University of California, San Francisco, 2011

Susan Komen Foundation Career Catalyst Award, 2011-2014

American Cancer Society Mentored Research Scholar Award, 2012-2017

Member, Expert Panel, National Academy of Sciences, Institute of Medicine, National Cancer Policy Forum, 2015

Elected into the Royal Society of Medicine (UK), 2017

6. PROFESSIONAL SOCIETY MEMBERSHIPS

2004-present American Society for Preventive Oncology

2007-present Society for Epidemiology Research

2017-present Royal Society of Medicine

2019- American Society for Clinical Oncology

7. SIGNIFICANT PUBLICATIONS

a) *Demb J, Abraham L, Miglioretti D, Sprague B, O'Meara E, Advani S, Henderson L, Onega T, Buist D, Schousboe J, Walter L, Kerlikowske K, Braithwaite D, for the Breast Cancer Surveillance Consortium Screening mammography outcomes: risk of breast cancer and mortality by comorbidity score and age*

Journal of the National Cancer Institute (2019)

In a cohort study of 222,088 women conducted in the Medicare-linked Breast Cancer Surveillance Consortium (BCSC), we provide prospective evidence that older women between ages 66 and 94 with ≥ 1 screening mammogram may experience diminished benefit from continued screening. With advancing age, there was a decrease in cumulative incidence of invasive breast cancer and DCIS and no marked change in risk of breast cancer death irrespective of comorbidity. On the other hand, cumulative incidence of other cause death was many times higher than the breast cancer incidence and death, depending on comorbidity and age. Our findings are consistent with recent SEER data showing breast cancer incidence decreasing after age 75, suggesting that women may benefit from stopping ages for screening mammography based on their unique combinations of age and health status. The results from this study appeared in numerous media outlets, including the Chicago Tribune, Reuters News, NPR etc.

This paper was also among the most shared articles in 2019 for JNCI (6th out of the top 10 shared articles) (<https://academic.oup.com/jnci/pages/The-most-shared-articles-of-2019>).

b) Braithwaite D, Miglioretti D, Zhu W, Demb J, Trentham-Dietz A, Sprague B, Tice J, Onega T, Henderson L, Buist D, Ziv E, Walter L, Kerlikowske K, for the Breast Cancer Surveillance Consortium
Family History and Breast Cancer Risk Among Older Women in the Breast Cancer Surveillance Consortium Cohort. JAMA Internal Medicine (2018)

In a prospective cohort study of 403,268 women 65 years and older between 1996 and 2012 from 7 Breast Cancer Surveillance Consortium (BCSC) registries, we provide evidence that first-degree family history was associated with increased risk of invasive breast cancer in all subgroups of older women irrespective of a relative's age at diagnosis. Additionally, among women ages 65 to 74 years, the risk associated with first-degree family history was highest among those with fatty breasts, whereas in women 75 years and older the risk associated with family history was highest among those with dense breasts. We extend existing literature focused on younger women by demonstrating that, for older women, associations between family history and breast cancer are similar by age and the first-degree relative's age at diagnosis. Our findings suggest that clinicians should continue to ask older women about family history of breast cancer to personalize mammography screening strategies and assess benefits vs. harms. The results from this study appeared in numerous media outlets.

c) Braithwaite D, Zhu W, Hubbard R, O'Meara E, Miglioretti D, Geller B, Dittus K, Moore D, Wernli K, Mandelblatt K, Kerlikowske K, for the Breast Cancer Surveillance Consortium
Screening Outcomes in Older US Women Undergoing Multiple Mammograms in Community Practice: Does Interval, Age, or Comorbidity Score Affect Tumor Characteristics or False Positive Rates?
Journal of the National Cancer Institute (2013)

In a cohort study, data were collected prospectively on 2,993 older women with breast cancer and 137,949 older women from January 1999-2006 without breast cancer who underwent mammography at facilities that participated in a data linkage between the Breast Cancer Surveillance Consortium and Medicare claims. Prospective evidence indicates that women aged 66 to 89 years who undergo biennial screening mammography have similar risk of advanced-stage disease and lower cumulative risk of a false-positive recommendation than annual screeners, regardless of comorbidity. Our findings are generally consistent with earlier work showing that biennial screening compared with annual screening at age 50 to 74 years retains most benefits but results in fewer harms. Our analyses indicated no association between comorbidity, screening interval, and tumor stage at diagnosis. Our findings suggest that annual screening for women without comorbidity would not lead to a better balance of benefits vs harms, as most older women who undergo annual mammography are at high risk of false-positive mammography results and biopsy recommendations without added benefit from more frequent screening. The results from this study appeared in numerous media outlets.

d) Braithwaite D, Satariano WA, Sternfeld, B, Hiatt RA, Ganz PA, Kerlikowske K, Moore DH, Slattery ML, Tammemagi M, Castillo A, Melisko M, Esserman L, Weltzien E, Caan BJ. Long-term prognostic role of functional limitations among women with breast cancer. Journal of the National Cancer Institute (2010)

In a cohort study of 2270 women with breast cancer, we provide prospective evidence that functional limitations following initial breast cancer treatment were associated with an important reduction in all-cause and competing

cause survival, irrespective of clinical, lifestyle and sociodemographic factors. Whereas the impact of functional limitations on survival did not differ by age and body mass index, it differed by stage as reflected by the modest impact among women with advanced disease and remarkably strong effects among women with localized disease. Our observations, combined with those of other investigators, suggest that failure to address physical functioning may have wide-reaching consequences for the quality of life and longevity among cancer survivors. In addition to being selected by the JNCI for a media message, this publication was chosen by the NIH as one of the five most significant San Francisco Bay Area Breast Cancer SPORE publications in 2010. The results from this study appeared in numerous media outlets.

e) **Braithwaite D, Tammemagi M, Moore D, Ozanne E, Hiatt RA, Belkora J, Satariano W, West D, Liebman M, Esserman L. Hypertension is an independent predictor of survival disparity among African American and white breast cancer patients. *International Journal of Cancer* (2009)**

In this retrospective cohort study of 416 African American and 838 white women diagnosed with breast cancer between 1973 and 1986 and followed through 1999 in the Kaiser Permanente Northern California Medical Care Program, we were the first to link hypertension with an increased risk of breast cancer recurrence and death among African American women. These findings were reported in a number of media outlets nationwide.

8. SUMMARY OF RESEARCH INTERESTS

Research interests:

- Screening (particularly for breast, lung and cervical cancers), real-world data analysis, cancer epidemiology
- The intersection of cancer and aging, geriatric oncology
- Translational research, including multilevel interventions to personalize cancer screening in older adults
- Health disparities, research with diverse populations, global health

My research is focused on cancer prevention and control, particularly cancer epidemiology, the cancer and aging interface and cancer health disparities. The overarching goals of my research program are to characterize the implementation and impact of cancer prevention and control interventions and to develop epidemiologic evidence relevant to clinical practice and policy. To accomplish my research objectives, I have conducted large population-based studies -- including those within the U.S. Breast Cancer Surveillance Consortium, Surveillance, Epidemiology and End Results program -- to study the impact of multi-level factors on cancer outcomes among diverse populations.

My current research program including the following:

Breast cancer screening in older women: With my colleagues from the Breast Cancer Surveillance Consortium (www.bcsc-research.org), I have a grant evaluating the long term benefits, harms and costs of breast imaging in older women, for whom screening guidelines are uncertain. One thread of this research examines how chronic comorbid conditions might influence outcomes following screening mammography among older women in this multi-site population-based cohort. My results suggest that, with advancing age, there is a decrease in cumulative incidence of invasive breast cancer and ductal carcinoma in situ and no marked change in risk of breast cancer death irrespective of comorbidity. On the other hand, I have found that cumulative incidence of other cause death is many times higher than the breast cancer incidence and death, depending on comorbidity and age. Hence, older women with increased comorbidity may experience diminished benefit from continued screening.

Lung cancer screening in older and sicker populations: A separate theme of my research focuses on lung cancer screening with low-dose computed tomography, specifically examining whether the benefits/harms ratio found in clinical trials would apply to an older and sicker population. I have a new grant with my colleagues, Drs. Michael Gould and Gerard Silvestri, to precisely characterize this vulnerable subpopulation with high comorbidity burden,

quantifying for them the benefits and harms of screening to enable more informed decision-making. The basic conundrum facing candidates for lung cancer screening is that the single risk factor most strongly linked to lung cancer -- smoking history -- is also strongly linked to morbidity and death from non-lung cancer causes (e.g. chronic obstructive pulmonary disease emphysema), which limit life expectancy and increase risk of complications from diagnostic or therapeutic procedures. The overarching goal of this new PLoS (Personalized Lung Cancer Screening) initiative is to help close this knowledge gap by leveraging real-world data to more fully characterize this subpopulation of “marginal” candidates for lung cancer screening, reducing the uncertainty currently facing patients and providers. More specifically, we are developing a unique cohort of nearly 35,000 patients undergoing annual screening with LDCT in California, South Carolina and Oregon. Crucially, a large proportion of the PLoS cohort will be drawn from underserved racial/ethnic minorities (principally African Americans and Hispanics) as well as rural populations in Appalachia and Oregon. We will then use these observational data with validated models in the Cancer Intervention Simulation Network to simulate lung cancer screening outcomes in the real-world US population. A longer-term goal is to establish a program project in this line of research through P01 or PROSPR mechanisms.

Multilevel interventions to individualize cancer screening decisions in the elderly: I have advocated the use of multilevel interventions to individualize cancer screening decisions in the elderly. For example, we currently lack tools to educate patients and support clinicians in how to incorporate breast cancer risks and overall health trajectory in order to inform the balance of screening benefits and harms. Our work has demonstrated that primary care clinicians are specifically challenged by uncertainty in predicting life expectancy, difficulty in discussing life expectancy, and concern about patient reactions to a recommendation to stop cancer screening. With my colleague, Dr. Suzanne O’Neill, I am implementing the Reducing breast cancer OverScreening in the Elderly (ROSE) trial to fill these gaps. The goal of this work is to assess intervention effects on screening mammography uptake among older women; identify intervention effects on patient’s cognitive and emotional outcomes; and evaluate trial impact from the clinician perspective.

Global health: Beyond focusing on the populations in the U.S., I have also started to make strides in global cancer research. Specifically, over the past few years, I have built partnerships in Guatemala and China focusing on cervical cancer screening. For example, in February 2019, I organized a high-level workshop on cervical cancer prevention and control in Guatemala as a key step to increase dialogue and create a consortium; stakeholders included the NCI Center for Global Health, Guatemalan Ministry of Health, WHO/PAHO, the local CDC office in Guatemala and Landivar University. With colleagues, Drs. Paula Cupertino and Alejandra de Mendoza, I have also conducted formative research on cancer screening practices and health care access in an indigenous community in Southwestern Guatemala. With colleagues from Beijing’s Peking Union Medical College, a parallel line of research has involved performing a study on cervical cancer screening outcomes among high risk, HIV-infected populations in Yunnan, China. This year, two PhD candidates from Peking Union Medical College are collaborating with my team in their roles as visiting scholars at Georgetown. Longer-term, my goal is to harness partnerships and develop innovative solutions for reducing the burden of cervical cancer in these low resource areas. For example, potential solutions may include mobile health technologies and other technology innovation focused on low cost interventions.

Diffusion and impact of immunotherapy in diverse populations with advanced cancer: An emerging focus area of my research program is concerned with pharmacoepidemiology and real-world data analysis in the setting of lung cancer immunotherapy. A fundamental question this thread of research raises is: Compared with trial patients, do real-world patients experience: a) different response rates, b) different immune-related adverse event rates, or c) new treatment-related adverse events that are either rare or specific to subgroups not represented in trials? A second line of enquiry relates to equitable access to immunotherapy. Are there any subgroups of eligible lung cancer patients who are eligible for immunotherapy but do not receive this potentially life-sustaining or life-saving therapy? That is, do factors such as race/ethnicity, rural vs urban residence, socioeconomic position, age or functional status affect patient access to safer, more effective treatment? As immunotherapy rapidly diffuses into the real world of community practice, the goal of this research is twofold: first, identify patterns and predictors of immunotherapy use in older real-world patients with advanced lung cancer, and second, characterize the effectiveness and safety of immunotherapy in older real-world patients with

advanced lung cancer. To date, I have an R21 proposal on this topic pending review. Moving forward, I envision this line of research to be a major focus of my work. For example, related additional important areas of investigation may include genetic factors that may be associated with immune-related adverse events and response to immunotherapy regimens.

The American Cancer Society has recognized my research work, including in 2012 when I received the Mentored Research Scholar Award. I have also been honored with the American Society of Preventive Oncology and the Prevent Cancer Foundation's New Investigator and Cancer Prevention Fellowship Awards, the Susan Komen Foundation's Career Catalyst Award and the American Association for Cancer Research Scholar-in-Training Career Award. In 2017, I was elected to the Royal Society of Medicine in the U.K. Thus far, I have mentored 14 postdocs and graduate students.