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EDUCATION

PhD, UNC School of Social Work (2010), University of North Carolina at Chapel Hill
Specialty: Health Services Research

MACT in Political Science and Higher Education (1976), University of North Carolina at Chapel Hill (Noyes Scholarship)
Specialty: Political Science and Higher Education

BA in Political Science (1974), University of North Carolina at Chapel Hill
Specialty: Political Science

Additional studies:

DrPH Program, Health Policy and Administration, UNC School of Public Health, University of North Carolina at Chapel Hill
(completed all of the coursework and comprehensive exams, all but dissertation, 1980-1984)

PROFESSIONAL EXPERIENCE – Employment History

- **Research Associate Professor (2121-present)**, Division of Oncology, School of Medicine, University of North Carolina at Chapel Hill, Chapel Hill, NC
Deputy Director/Research, Geriatric Oncology Program (2015 – present) – University of North Carolina Lineberger Comprehensive Cancer Center
- **Research Assistant Professor (2015 – 2021)**, Division of Hematology and Oncology, School of Medicine, University of North Carolina at Chapel Hill, Chapel Hill, NC
- **Research Associate (2010 - 2014)**, UNC Thurston Arthritis Research Center (TARC), School of Medicine, University of North Carolina at Chapel Hill, Chapel Hill, NC
- **Center Coordinator (2004 - 2009)**, UNC Center for Functional GI & Motility Disorders, School of Medicine, University of North Carolina at Chapel Hill, Chapel Hill, NC
- **Executive Director (1999 – 2002)**, United Cerebral Palsy Associations, Inc. (UCPA), Washington, D.C.
- **Executive Vice President/COO (1998)**, National Healthcare Advisors (NHA), Atlanta, GA
- **Vice President for Government Relations and Assistant Secretary (1995 - 1997)**, Coastal Physician Group, Inc. Durham, NC
- **Independent Management Consultant**, Wisconsin and North Carolina (1994 - 1995)
- **Commissioner of City Development (Mayor’s Cabinet) (1992-1993)**, Department of City Development, City of Milwaukee, Milwaukee, WI
- **Secretary of Economic Development (Governor’s Cabinet) (1991 - 1992)**, Department of Economic Development, State of Louisiana, Baton Rouge, LA
- **National Coordinator, Technology Development Services (1988 - 1990)**, Senior Manager, Management Consulting Division, KPMG Peat Marwick, Chicago, IL
- **Senior Domestic Policy and Economic Advisor (1987 - 1988)**, Presidential Campaign of Al Gore, Washington, D.C.
- **Independent Consultant (1986 - 1987)**
- **Executive Director (1984 - 1985)**, Technological Development Authority, N.C. Department of Commerce, Raleigh, NC
- **Economic Analyst/Research Associate (1983)**, Governor’s Task Force on Science and Technology, Raleigh, NC
- **Professional Staff (1976 - 1980)**, various committees of the U.S. Senate and U.S. House of Representatives, Washington, D.C.

HONORS

- Associate Member, Lineberger Comprehensive Cancer Center, University of North Carolina at Chapel Hill
- Mentee (by invitation) of ICARUS (Interdisciplinary Center for Aging Research: Uniting Scientists), UNC at Chapel Hill; UNC-CH Junior Investigator, Building Interdisciplinary Geriatric Health Research Centers (Rand Health and the John A. Hartford Foundation)
- Rand-Hartford Career Development Institute (CDI), June 18-19, 2009, Washington DC
- Noyes Scholar (full scholarship for MACT in Higher Education/Political Science, provided through the UNC Carolina Population Center)

BIBLIOGRAPHY

Book Chapter

1. **Nyrop KA**, Lee JT, Erin A. O'Hare EA, Chelsea Osterman C, Muss HB (2020). *Obesity, weight gain and weight management in women with early breast cancer*. Kimmick GG, Shelby S, Sutton L. (eds). Common Issues in Breast Cancer Survivors – A Practical Guide to Evaluation and Management. [printing in progress]
2. Scott SM, Sokolov JJ, **Nyrop KA** (1997). "Fourth-Generation Management Services Organizations." *Integrating the Practice of Medicine: A Decision Maker's Guide to Organizing and Managing Physician Services*, Ed. R.B. Conners. Jossey-Bass.

Refereed Papers/Articles

1. **Nyrop KA**, O'Hare EA, Teal R, Stein K, Muss HB, Charlot M (2021). Person-centered communication about weight and weight management: focus group discussions in a diverse sample of women with nonmetastatic breast cancer. *Cancer*. [August 2021 Epub ahead of print]
2. Hanson ED, Bates LC, Harrell EP, Bartlett DB, Lee JT, Wagner CW, Alzer MS, Amatuli DJ, Jensen BC, Deal AM, Muss HB, **Nyrop KA**, Battaglini CL (2021). Exercise training partially rescues impaired mucosal associated invariant t-cell mobilization in breast cancer survivors compared to healthy women. *Exp Gerontology* [Sept 2021 Epub ahead of print]
3. Lee JT, Wagoner CM, Sullivan SA, Amatuli DJ, **Nyrop KA**, Hanson ED, Stoner L, Jensen BC, Muss HB, Battaglini CL (2021). Impact of community-based exercise program participation on aerobic capacity in women with early breast cancer. *World J Clinical Oncology*. 12(6):468-481.
4. Jensen CE, Vohra SN, **Nyrop KA**, Deal AM, Muss HB, Lichtman EI, Rubenstein SM, Wood WA, Mangieri NJ, Jamison L, Grant SJ, Tuchman SA (2021). Geriatric-assessment-identified functional deficits among adults with multiple myeloma with normal performance status. *J Geriatric Oncology*. [Aug 2021 Epub ahead of print]
5. **Nyrop KA**, Damone E, Deal AM, Carey LA, Lorentsen M, Shachar SS, Williams GR, Muss HM (2020). Obesity, comorbidities and treatment selection in black and white women with early breast cancer. *Cancer* 127(6):922-930 [with accompanying editorial]. PMID: 33284988
6. Aleixo GFP, Yu H, Chen YT, **Nyrop KA**, Louie RJ, Deal AM, Shachar SS, Muss HB, Williams GR (2021). Myosteatosis evaluation using erector spinae and psoas muscles to predict adverse events during adjuvant chemotherapy for breast cancer. *Breast Cancer Research and Treatment* 186(2):487-495. PMID:33423178
7. **Nyrop KA**, Deal AM, Chen YT, Reeve BB, Basch E, Wood WA, Shachar SS, Carey LA, Reeder-Hayes KE, Dees EC, Jolly TA, Kimmick GG, Karuturi MS, Reinbolt RE, Specia JC, Lee JT, Brenizer A, Muss HB (2020). Patient-reported symptom severity, interference with daily activities and adverse events in older and younger women receiving chemotherapy for early breast cancer. *Cancer* 127(6):957-967. PMID 33216355
8. Hirschev R, **Nyrop KA**, Mayer DK (2020). Healthy behaviors in cancer survivors (2020). *Clinical Journal of Oncology Nursing*. 24(5):19-29.PMID:32945809.
9. Shachar SS, Deal AM, Reeder-Hayes K, **Nyrop KA**, Mitin N, Anders CK, Carey LA, Dees EC, Jolly TA, Kimmick GG, Karuturi MS, Reinbolt RE, Specia JC, Muss HB (2020). Effects of breast cancer adjuvant chemotherapy regimens on expression of the aging biomarker, p16INK4a. *JNCI Cancer Spectrum* [accepted September 2020]
10. Nakamura Z, Deal AM, **Nyrop K**, Chen YT, Quillen LJ, Brenizer T, Muss HB (2020). Serial Assessment of Depression and Anxiety by Patients and Providers in Women Receiving Chemotherapy for Early Breast Cancer. *The Oncologist* Feb26(2):147-156. PMID:32946156
11. Fitch MI, Strohshein FJ, **Nyrop KA**. Measuring quality of life in older people with cancer (2021). *Current Opinion in Supportive and Palliative Care* 15(1):39-47. PMID:33507038.
12. VanderWalde N, Martin MY, Kocak M, Morningstar C, Deal AM, **Nyrop KA**, Farmer M, Ballo M, VanderWalde A, Muss H (2020). Randomized Phase II Study of a Home-Based Walking Intervention for Radiation-related Fatigue among Older Adult Breast Cancer Patients. *Journal of Geriatric Oncology* Mar 12(2):227-234. PMID 32978102
13. Osterman CK, Deal AM, McCloskey H, **Nyrop KA**, Bjurlin MA, Tan HJ, Nielsen ME, Milowsky MI, Muss HB, and Smith AB (2020). Impairment and longitudinal recovery of older adults treated with radical cystectomy for muscle-invasive bladder cancer. *Journal of Urology*. 205(1):94-99. PMID;32716672
14. **Nyrop KA**, Deal AM, Reeve BB, Basch E, Chen YT, Park JH, Shachar SS, Carey LA, Reeder-Hayes KE, Dees EC, Jolly TA, Kimmick GG, Karuturi MS, Reinbolt RE, Specia JC, Lee JT, Wood WA, Muss HB (2020). Congruence of patient- and clinician-reported toxicity in women receiving chemotherapy for early breast cancer. *Cancer*. 126(13):3084-3093. PMID: 32315091
15. Aleixo GFP, Shachar SS, Deal AM, **Nyrop KA**, Muss HB, Chen YT, Yu H, Williams GR (2020). The association of body composition parameters and adverse events in women receiving chemotherapy for early breast cancer. *Breast Cancer Research and Treatment*. 182(3):631-642. PMID:32519169.
16. Aleixo GFP, Deal AM, **Nyrop KA**, Muss HB, Damone EM, Williams GR, Yu H, Shachar SS (2020). Association of body composition with function in women with early breast cancer. *Breast Cancer Research and Treatment*. 181(2):411-421. PMID:32253683

17. Aleixo GFP, Shachar SS, **Nyrop KA**, Muss HB, Malpica L, Williams GR (2020). Myosteatosis and prognosis in cancer: systematic review and meta-analysis. *Critical Reviews in Oncology and Hematology*. 145:102839. PMID:31877534
18. Nakamura ZM, Deal AM, **Nyrop KA**, Damone EM, and Muss HB (2020). Associations of functional, psychosocial, and medical factors with cognitive impairment in older, chemotherapy naïve patients with early breast cancer. *Psychooncology*. 29(8):1366-1369. PMID:32458438
19. Muss HB, Shachar SS, Smitherman, Wood WA, **Nyrop KA**, Tuchman S, Randhawa, Mitin N (2020). p16 biomarker of aging and tolerance for cancer therapy. *Translational Cancer Research*. 9(9):
20. **Nyrop KA**, Deal AM, Shachar SS, Park J, Choi SK, Lee JT, O'Hare EA, Wheless A, Carey LA, Muss HB (2020). Weight trajectories in women receiving systemic adjuvant therapy for breast cancer. *Breast Cancer Research and Treatment*. 179(3), 709-720. PMID:31719154
21. Jolly TA, Deal AM, Mariano C, Markowski N, Kirk S, Permutt MS, Jones F, Choi SK, **Nyrop KA**, Busby-Whitehead J, Muss HB. (2020) A randomized trial of real time geriatric assessment reporting in non-electively hospitalized older adults with cancer. *The Oncologist*. 26(6):488-496. PMID:31985125
22. Aleixo GFP, Shachar SS, **Nyrop KA**, Muss HB, Battaglini CL, Williams GR (2020). Bioelectrical Impedance Analysis (BIA) for the assessment of sarcopenia in patients with cancer: a systematic review. *The Oncologist*. 25(2):170-182. PMID:32043785
23. Aleixo GFP, Choi SK, Tan J, **Nyrop KN**, Deal AM, Wood WA, Jolly TA, Muss HB (2020). Is "Geriatric Assessment" Just for Older Patients? *The Oncologist*. 25(4):355-358. PMID:31519794
24. **Nyrop KA**, Lee JT, Deal AM, Choi SK, Muss HB (2020). Weight-related communications between oncology clinicians and women with obesity at early breast cancer diagnosis: findings from a review of electronic health records. *Nutrition and Cancer*. 72(4):576-583. PMID:31347408
25. Aleixo GFP, Williams GR, **Nyrop KA**, Muss HB, Shachar SS (2019). Muscle composition in patients with breast cancer: meta-analysis and systematic review. *Breast Cancer Research and Treatment*. 177(3):569-579. PMID: 31292800
26. Wagoner CW, Choi SK, Deal AM, Lee JT, Wood WA, Muss HB, **Nyrop KA** (2019). Establishing physical activity in breast cancer: self-report versus activity tracker. *Breast Cancer Research and Treatment*. 176(2):395-400. PMID: 31041684
27. **Nyrop KA**, Deal AM, Reeder-Hayes KE, Shachar SS, Reeve BB, Basch E, Choi SK, Lee JT, Wood WA, Anders CK, Carey LA, Dees EC, Jolly TA, Kimmick GG, Karuturi MS, Reinbolt RE, Specia JC, Muss HB (2019). Patient and clinician-reported chemotherapy-induced peripheral neuropathy (CIPN) in early breast cancer: current clinical practice. *Cancer*. 125(17):2945-2954. PMID: 31090930
28. Nakamura Z, Deal AM, **Nyrop KA**, Choi SK, Wood WA, Muss HB (2019). Associations of functional, psychosocial, medical, and socio-demographic factors with cognitive screening in patients with breast cancer who are chemotherapy naïve. *Psycho-Oncology*. 28(1):167-173. PMID:3035629
29. Nishijima TF, Deal AM, Lund JL, **Nyrop KA**, Muss HB, Sanoff HK (2019). Inflammatory markers and overall survival in older adults with cancer. *Journal of Geriatric Oncology*. 10(2):279-284. PMID:30131235
30. Wagoner CW, Choi SK, Deal AM, Lee JT, Wood WA, Muss HB, **Nyrop KA**. Establishing baseline physical activity for interventions in women with early breast cancer: self-report compared to activity tracker. *Breast Cancer Research and Treatment*. 176(2):395-400. PMID:31041684
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32. Williams G, Deal A, Sanoff H, **Nyrop K**, Guerard E, Pergolotti M, Shachar S, Reeve B, Bensen J, Choi SK, Muss H (2019). Frailty and Health-Related Quality of Life in Older Women with Breast Cancer. *Supportive Care in Cancer*. 27(7):2693-2698. PMID:30484012
33. **Nyrop KA**, Deal AM, Shachar SS, Basch E, Reeve BB, Choi SK, Lee JT, Wood WA, Anders CK, Carey LA, Dees EC, Jolly TA, Reeder-Hayes KE, Kimmick GG, Karuturi MS, Reinbolt RE, Specia JC, Muss HB (2019). Patient-reported toxicities during chemotherapy regimens in current clinical practice for early breast cancer. *The Oncologist*. 24(6):762-771. PMID:30552158
34. Pergolotti M, Langer MM, Deal AM, Muss HB, **Nyrop KA**, Williams G (2019). Mental status evaluation in older adults with cancer: development of the Mental Health Index-13. *Journal of Geriatric Oncology*. 10(241-245). PMID:30205939
35. Nishijima TF, Deal AM, Lund JL, **Nyrop KA**, Muss HB, Sanoff HK (2018). The incremental value of a Geriatric Assessment-derived three-item scale on estimating overall survival in older adults with cancer. *Journal of Geriatric Oncology*. 9(4);329-336. . PMID:2946572
36. **Nyrop KA**, Deal AM, Choi SK, Wagoner CW, Lee JT, Wood WA, Anders C, Carey LA, Dees EC, Jolly TA, Reeder-Hayes KE, Muss HB. (2018) Measuring and understanding adherence in a home-based exercise intervention during chemotherapy for early breast cancer. *Breast Cancer Research and Treatment*. 168(1):43-55. PMID:29124455
37. Nishijima TF, Deal AM, Williams GR, Sanoff HK, **Nyrop KA**, Muss HB (2018). Chemotherapy Toxicity Risk Score for treatment decisions in older adults with advanced solid tumors. *The Oncologist*. 23(5):573-579. PMID:29371477
38. **Nyrop KA**, Deal AM, Lee JT, Muss HB, Choi SK, Wheless A, Carey LA, Shachar SS. (2018) Weight gain in hormone receptor positive (HR+) early-stage breast cancer: is it menopause or something else? *Breast Cancer Research and Treatment*. 167(1):235-248. PMID: 28913660

39. Weinberg MS, Shachar SS, Muss HB, Deal AM, Popuri K, Yu H, **Nyrop KA**, Alston SM, Williams GR. (2018) Beyond sarcopenia: characterization and integration of skeletal muscle quality and radiodensity in a curable breast cancer population. *The Breast Journal*. 24(3):278-284. PMID:29139618
40. Williams GR, Deal AM, Muss HB, Weinberg MS, Sanoff HK, Guerard EJ, **Nyrop KA**, Pergolotti M, Shachar SS (2018). Frailty and Skeletal Muscle in Older Adults with Cancer. *Journal of Geriatric Oncology*. 9(1):68-73. PMID: 28844849
41. **Nyrop KA**, Callahan LF, Cleveland RJ, Arbeeve LL, Hackney BS, Muss HB. (2017). Randomized controlled trial of a home-based walking program to reduce moderate to severe aromatase inhibitor-associated arthralgia in breast cancer survivors. *The Oncologist*. 22(10):1238-1249. PMID: 28698390.
42. Guerard EJ, Deal AM, Chang Y, Williams GR, **Nyrop KA**, Pergolotti M, Muss HB, Sanoff HK, Lund JL. (2017) Frailty index developed from a cancer-specific geriatric assessment and the association with mortality among older adults with cancer. *JNCCN*. 15(7):894-902. PMID: 28687577.
43. Williams GR, Deal AM, Muss HB, Weinberg MS, Sanoff HK, **Nyrop KA**, Pergolotti M, Shachar SS. (2017) Skeletal muscle measures and physical function in older adults with sarcopenia: sarcopenia or myopenia? *Oncotarget*. 8(20):33658-33665. PMID: 28431396
44. **Nyrop KA**, Deal AM, Lee JT, Muss HB, Choi SK, Dixon S, Wheless A, Carey LA, Shachar SS (2017). Weight changes in postmenopausal breast cancer survivors over 2 years of endocrine therapy: a retrospective chart review. *Breast Cancer Research and Treatment*. 162(2):375-388. PMID 28155053
45. Nishijima TF, Shachar SS, **Nyrop KA**, Muss HB (2017). Safety and tolerability of PD-1/PD-L1 inhibitors compared with chemotherapy in patients with advanced cancer: a meta-analysis. *Oncologist*. 22(4):470-479. PMID: 28275115
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47. Shachar SS, Deal AM, Weinberg M, Williams GR, **Nyrop KA**, Popuri K, Choi SK, Muss H (2017). Body composition as a predictor of toxicity in patients receiving anthracycline and taxane based chemotherapy for early stage breast cancer. *Clinical Cancer Research*. 23(14):3537-3543. PMID: 28143874
48. Shachar SS, Deal AM, Weinberg M, **Nyrop KA**, Williams GR, Nishijima TF, Benbow JM, Muss HB (2017). Skeletal muscle measures as predictors of toxicity, hospitalization, and survival in patients with metastatic breast cancer receiving taxane based chemotherapy. *Clinical Cancer Research*. 23(3):658-665. PMID: 27489287
49. Zimmerman S, Greene A, Sloane PD, Mitchell M, Giuliani C, **Nyrop K**, Walsh E (2017). Preventing falls in assisted living: results of a quality improvement initiative. *Geriatric Nursing*. 38(3):185-191. PMID:27776786
50. **Nyrop KA**, Williams, GR, Muss HB, Shachar SS (2016). Weight gain during adjuvant endocrine treatment for early stage breast cancer: what is the evidence? *Breast Cancer Res Treat*. 158(2):203-217. PMID: 27342454
51. **Nyrop KA**, Deal AM, Williams GR, Guerard EJ, Pergolotti M, Muss HB (2016). Physical activity communication between oncology providers and patients with early stage breast, colon or prostate cancer. *Cancer*. 122(3):470-6. PMID:26566177
52. **Nyrop KA**, Callahan LF, Rini C, Altpeter M, Hackney B, DePue A, Wilson A, Schechter A, Muss HB (2016). Aromatase inhibitor associated arthralgia: the importance of oncology provider-patient communication about side effects and potential management through physical activity. *Supportive Care in Cancer*. 24(6):2643-50. PMID: 26757739
53. Jolly TA, Williams GR, Bushan S, Pergolotti M, **Nyrop KA**, Jones EL, Muss HB (2016). Adjuvant treatment for older women with invasive breast cancer. *Future Medicine: Women's Health*. 12(1):129-46. PMID: 2676315
54. Broughman JR, Williams GR, **Nyrop KA**, Yu H, Deal AM, Alston S, Belle-Gordon B, Sanoff H, Muss HB (2015). Prevalence of sarcopenia in older patients with colorectal cancer. *Journal of Geriatric Oncology* 6(6):442-445. PMID:26365898
55. Guerard EJ, Deal AM, Williams GR, Jolly TA, **Nyrop KA**, Muss HB (2015). Falls in older adults with cancer: evaluation by oncology providers. *Journal of Oncology Practice*. 11(6):470-4. PMID:26175532
56. **Nyrop KA**, Callahan LF, Rini C, Altpeter M, Hackney B, Schechter A, Wilson A, Muss HB (2015). Adaptation of an evidence-based arthritis program for breast cancer survivors on aromatase inhibitor therapy who are experiencing joint pain. *Preventing Chronic Disease*. June 2015. PMID:26068412
57. Golightly Y, Allen KD, Nelson AE, **Nyrop KA**, Callahan LF, Jordan JM (2015). Patient-reported outcomes to initiate a provider-patient dialog for the management of hip and knee osteoarthritis. *Seminars in Arthritis and Rheumatism*. 45(2):123-131. PMID:25979178
58. Williams GR, **Nyrop KA**, Deal AM, Muss HB, Sanoff HK (2015). Self-directed physical activity intervention in older adults undergoing adjuvant chemotherapy for colorectal cancer: design of a randomized controlled trial. *Contemporary Clinical Trials*. 42:90-97. PMID:25827253
59. Jolly TA, Deal AM, **Nyrop KA**, William GR, Pergolotti M, Wood WA, Alston SM, Gordon B-BE, Dixon SA, Moore SG, Taylor WC, Messino M, Muss HB (2015). Geriatric assessment-identified deficits in older cancer patients with normal performance status. *The Oncologist*. 20(4):379-385. PMID:25765876
60. Williams GR, Deal AM, **Nyrop KA**, Pergolotti M, Guerard EJ, Jolly TA, Muss HB (2015). Geriatric assessment as an aide to understanding falls in older adults with cancer. *Support Care Cancer*. 23(8):2273-2280. PMID:25576434

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62. **Nyrop KA**, Muss HB, Hackney B, Cleveland R, Altpeter M, Callahan LF (2014). Feasibility and promise of a 6-week program to encourage physical activity and reduce joint symptoms among elderly breast cancer survivors on aromatase inhibitor therapy. *Journal of Geriatric Oncology* 5(2): 148-155. PMID:24495696
63. **Nyrop KA**, Cleveland R, Callahan LF (2014). Achievement of exercise objectives and satisfaction with the Walk With Ease program – group and self-directed participants. *American Journal of Health Promotion*. 28(4):228-230. PMID:23875982
64. Luong MN, Cleveland RJ, **Nyrop KA**, Callahan LF (2012). Social determinants and osteoarthritis outcomes. *Aging Health*. 8(4):413-37. PMID:23243459
65. **Nyrop KA**, Charnock BL, Martin KR, Lias J, Altpeter M, Callahan LF (2011). Effect of a 6-week walking program on workplace activity limitations on adults with arthritis. *Arthritis Care & Research* (Hoboken). 63(12):1773-6. PMID:22127968
66. **Nyrop KA**, Zimmerman S, Sloane PD (2011). Physician perspectives on fall prevention and monitoring in assisted living: a pilot study. *Journal of the American Medical Directors Association*. 12(6):445-50. PMID:21450213
67. **Nyrop KA**, Zimmerman S, Sloane PD, Bangdiwala K (2011). Fall prevention and monitoring of assisted living patients: an exploratory study of physician perspectives. *Journal of the American Medical Directors Association*. 13(5):429-33. PMID:21889416
68. **Nyrop KA**, Grover M, Palsson OS, Heymen S, Palmer MH, Whitehead WE, Busby-Whitehead (2011). Likelihood of nursing home referral for fecally incontinent elderly patients is influenced by physician views on nursing home care and outpatient management of fecal incontinence. *Journal of the American Medical Directors Association*. 13(4):350-4. PMID:21450249
69. **Nyrop KA**, Palsson OS, Levy RL, Von Korff M, Feld AD, Turner MJ, Whitehead WE (2007). Costs of health care for irritable bowel syndrome, chronic constipation, functional diarrhea and functional abdominal pain. *Alimentary Pharmacology & Therapeutics*, 26:237-48. PMID:17593069
70. **Nyrop K** 1986). Business incubators as real estate ventures. *Urban Land*. 45(12)6-10.

Abstracts and Posters

1. Lee JT et al. Breast cancer survivor compliance and satisfaction with a community based exercise program: implications for future design (2020). *Medicine and Science in Sports & Exercise*. 52.7S:482-483. [poster]
2. Amatuli D et al. Balance and functionality in breast cancer survivors: does improvement in balance after exercise intervention improve functional test outcomes (2020). *Medicine and Science in Sports & Exercise*. 52.7S:979.
3. MacDoanld GA et al. The effects of 16-weeks of exercise training on neutrophil functions in breast cancer survivors (2020). *Medicine and Science in Sports & Exercise*. 52.7S:15.
4. Lee JT et al. Physiological Fitness Efficiency of Breast Cancer Survivors Improves Despite Maintenance of Aerobic Capacity: Preliminary Analysis (2019). *Medicine and Science in Sports & Exercise*. 51.6:243. [poster]
5. Wagoner CW et al. (ACSM) Community-Based Exercise Improves Cancer-Related Fatigue and Physical Fitness in Breast Cancer Survivors: A Preliminary Analysis (2019). 51.6:880. [poster]
6. **Nyrop KA**, Deal AM, Shachar SS, Basch EM, Reeve BB, Lee JT, Choi SK, Wood WA, Anders C, Carey LA, Jolly TA, Reeder-Hayes KE, Kimmick GG, Karuturi MS, Reinbolt RE, Specia JC, Muss HB. Patient-reported toxicities by chemotherapy regimen for early breast cancer (LCCC1334,1440). 2018 ASCO Annual Meeting [poster].
7. Wagoner CW et al. Self-reported physical activity at breast cancer diagnosis is associated with greater physical activity during chemotherapy (2018). *Medicine and Science in Sports & Exercise*. 50.5S:707-708.
8. Shachar SS, Deal AM, Choi SK, Muss HB, Williams GR, **Nyrop KA**. "Home-based physical activity intervention to improve quality of life and physical function in metastatic breast cancer: a feasibility study." 17th Annual Congress, 2018 ISCORT, Eilat. [poster]
9. Shachar SS, Deal AM, Muss HB, Weinberg MS, Sanoff HK, Guerard EJ, **Nyrop KA**, Pergolotti M., and Williams GR. "Frailty and Skeletal Muscle in Older Adults with Cancer." 17th Annual Congress, 2018 ISCORT, Eilat. [poster]
10. **Nyrop KA**, Deal AM, Shachar SS, Basch EM, Reeve BB, Lee JT, Choi SK, Wood WA, Anders C, Carey LA, Jolly TA, Reeder-Hayes KE, Kimmick GG, Karuturi MS, Reinbolt RE, Specia JC, Muss HB. Patient-reported toxicities during breast cancer chemotherapy: associations with pre-treatment measures of quality of life and treatment discontinuation. 2018 ASCO Annual Meeting [poster]
11. Nishijima TF, Deal AM, Lund JL, **Nyrop K**, Muss HB, Sanoff HK. The value of inflammatory markers in predicting overall survival in older adults with cancer. 2018 ASCO Annual Meeting [poster].
12. Randolph AM, Deal AM, **Nyrop KA**, Choi SK, Williams GR. Weight trajectories in adults with early stage colon cancer: a comparison of younger and older patients. 2018 Annual Meeting of the American Geriatrics Society. [poster]
13. Wagoner CW et al. (ACSM) Self-reported physical activity at breast cancer diagnosis is associated with greater physical activity during chemotherapy.
14. Lee JT, Wagoner CW, Stoner L, Nyrop KA, Muss HB, Hanson ED, Piepmeier A, Battaglini CL. Preliminary results of vascular function and aerobic capacity profile of breast cancer survivors. 2018 ACSM. [poster]
15. Lee JT et al. Preliminary results of vascular function and aerobic capacity profile of breast cancer survivors (n=8) who are within one year of completing primary therapy. 2018 SEACSM. [poster]

16. **Nyrop KA**, Deal AM, Lee JT, Muss HB, Choi SK, Wheless A, Carey LA, Shachar SS. Weight trajectories during first two years of endocrine treatment: premenopausal compared to postmenopausal early breast cancer survivors. 2017 ASCO Annual Meeting [publication only]. DOI: 10.1200/JCO.2017.35.15_suppl.e12069 *Journal of Clinical Oncology* 35, no. 15_suppl
17. Shachar SS, Deal AM, Weinberg M, **Nyrop KA**, Williams GR, Nishijima TF, Benbow JM, Muss HB. Skeletal muscle area and density as predictors of chemotherapy toxicity and outcomes in metastatic breast cancer, 16th Annual Congress, 2017 ISCORT, Eilat. [poster]
18. Nishijima TF, Deal AM, Williams GR, Sanoff HK, **Nyrop KA**, Muss HB. Chemotherapy toxicity risk score (CTRS) for treatment decision in older patients with advanced solid tumors. 2017 ASCO Annual Meeting [poster].
19. Shachar SS, Deal AM, Mitin N, **Nyrop KA**, ... Muss HB. Changes in p16INK4a (p16) expression, a biomarker of aging, in peripheral blood T-cells (PBTC) in patients receiving anthracycline (A) vs non-anthracycline (NoA) chemotherapy (CRx) for early-stage breast cancer (EBC). 2017 ASCO Annual Meeting [poster].
20. Shachar SS, Deal AM, Weinberg M, Williams GR, **Nyrop KA**, ... Muss HB. Differences in body composition between patients with early or metastatic breast cancer (BC). 2017 ASCO Annual Meeting [publication only].
21. Jones F, Perlmutter M, **Nyrop KA**, Muss HB, Jolly TA. Geriatric assessment reporting in real time (GARRT): study design and recruitment. 2017 Annual Meeting of the American Geriatric Society. [poster]
22. Wagoner et al. (ACSM) Self-reported physical activity at breast cancer diagnosis is associated with greater physical activity during chemotherapy.
23. **Nyrop KA**, Deal AM, Muss HB, Lee JT, Dixon S, Shachar SS. Weight change in postmenopausal breast cancer survivors: independent effects of adjuvant tamoxifen and aromatase inhibitors. 2016 ASCO Annual Meeting [publication only]. DOI: 10.1200/JCO.2016.34.15_suppl.e21581 *Journal of Clinical Oncology* 34, no.15_suppl.
24. Williams GR, Deal AM, Sanoff HK, Pergolotti M, **Nyrop K**, Shachar SS, Reeve BB, Guerard EJ, Benson JT, Choi SK, Muss HB. Frailty and health-related quality of life (HRQOL) in older women with breast cancer (BC). 2016 ASCO Annual Meeting [poster].
25. Shachar SS, Deal AM, Weinberg M, **Nyrop KA**, Williams GR, Nishijima TF, Benbow JM, Muss HB. Skeletal muscle area and density as predictors of chemotherapy toxicity and outcomes in metastatic breast cancer. 2016 ASCO Annual Meeting [poster].
26. Nishijima TF, Deal AM, Williams GR, Guerard EJ, **Nyrop KA**, Muss HB. Frailty and inflammatory markers in older adults with cancer. 2016 ASCO Annual Meeting [poster].
27. **Nyrop KA**, Deal AM, Alston S, Dixon S, Muss HB. Feasibility of a home-based walking program in female breast cancer patients age 60+ during chemotherapy. 2015 ASCO Annual Meeting [poster].
28. Weinberg MS, Shachar SS, Deal AM, Williams GR, **Nyrop KA**, Alston SM, Muss HB. Characterization of skeletal muscle and body mass indices in older and younger women with Stage II and III breast cancer. 2015 Annual Meeting of the American Geriatrics Society [poster]
29. **Nyrop KA**, Muss HB, Hackney B, Cleveland R, Callahan LF (2014). Joint pain and physical activity among breast cancer survivors on aromatase inhibitor therapy. 2014 ASCO Annual Meeting. *Journal of Clinical Oncology*. 32(15) (May Suppl):e11564.
30. **Nyrop KA**, Muss HB, Hackney BS, Altpeter M, Callahan LF. Feasibility and promise of a self-directed walking program to reduce joint pain among older breast cancer patients on adjuvant aromatase inhibitors. 2013 CTRC-AACR San Antonio Breast Cancer Symposium. [poster]
31. **Nyrop KA**, Hackney BS, Altpeter M, Muss HB, Callahan LF. Adaptation and preliminary testing of an arthritis walking program to reduce joint pain for elderly breast cancer survivors on aromatase inhibitor therapy. 2013 ACR/ARHP Annual Meeting, San Diego, CA. [poster]
32. **Nyrop KA**, Hackney BS, Altpeter M, Muss HB, Callahan LF. Feasibility of a walking program to reduce joint pain among breast cancer survivors age 65 and older on aromatase inhibitor therapy. 2013 Annual Scientific Meeting of the American Geriatric Society, Dallas TX. [poster]
33. **Nyrop KA**, Muss HB, Hackney BS, Altpeter M, Callahan LF. Feasibility and promise of a self-directed walking program to reduce joint pain among older breast cancer patients on adjuvant aromatase inhibitors. 2013 LCCC Postdoc-Faculty Day (3rd place award). [poster]
34. **Nyrop KA**, Muss HB, Hackney BS, Altpeter M, Callahan LF. Feasibility of a self-directed walking program to reduce joint pain among older breast cancer patients on adjuvant aromatase inhibitors. 2013 Aging Exchange, UNC Institute on Aging. [poster]
35. **Nyrop KA**, Schoster BL, Altpeter M, Hackney B, Callahan LF (2011). How do self-directed participants follow the Arthritis Foundation's Walk With Ease Program? *Arthritis & Rheumatology*. Suppl 10: 1583.
36. **Nyrop KA**, Reeve BB, DeVellis RF, Dewalt D, Cleveland RJ, Callahan LF (2011). Construct validity of three PROMIS instruments in an arthritis sample. *Arthritis & Rheumatology*. 63 Suppl 10:2418.
37. **Nyrop KA**, Zimmerman S, Sloane PD. Physician Perspectives on Fall Prevention and Monitoring in Assisted Living Communities. 2010 University Research Day, University of North Carolina at Chapel Hill. [poster]
38. **Nyrop KA**, Grover M, Busby-Whitehead J, Palsson OS, Heymen S, Palmer MH, Goode PS, Turner M, Whitehead WE (2009). Physician Attributes that Influence the Decision to Refer a Patient with Fecal Incontinence to a Nursing Home. *Journal of the American Geriatrics Society*, 57(S1):S48. 2009 Annual Scientific Meeting of the American Geriatrics Society, Chicago, IL.

39. **Nyrop KA**, Grover M, Busby-Whitehead J, Palsson OS, Heymen S, Palmer MH, Goode PS, Turner M, Whitehead WE. Physician Attributes that Influence the Decision to Refer a Patient with Fecal Incontinence to a Nursing Home. 2009 University Research Day, University of North Carolina at Chapel Hill. [poster]
40. **Nyrop KA**, Zimmerman S, Sloane PD. Physician Perspectives on Fall Prevention and Monitoring in Assisted Living Communities. 2009 Gerontological Society of America's 62nd Annual Scientific Meeting, Atlanta GA. [poster]

TEACHING ACTIVITIES

Adjunct Instructor (2008-2009) -- **UNC School of Social Work, University of North Carolina at Chapel Hill**, Chapel Hill, NC

- *Foundations of Social Welfare Policy* (SOWO 510)
- *Evaluation of Social Interventions* (SOWO 810)

GRANTS

Active Grants

The Breast Cancer Research Foundation (Muss, PI)

0/1/2010-9/30/2022

Type: Non-profit

Grant number 5114748

Source: 49200

The effect of chemotherapy on older women with breast cancer on p16^{INK4a} RNA expression and chemotherapy toxicity

The goal is to determine if p16^{INK4a} gene expression is predictive of myelosuppression and other chemotherapy toxicities in women with early stage breast cancer, age 21 to 64.

Role: Co-Principal Investigator

American Cancer Society/Pfizer Quality Improvement Grant Agreement

01/01/2020-12/30/2020

Type: Industry

Grant number 5116197

Source: 49300

Clinic-Based "Patient-Centered Communication About Healthy Weight" (PCC_HW) in a Diverse Sample of Women with Early Breast Cancer

The overall goal of our research is the collection of essential input – through focus groups with women with early breast cancer and obesity and interviews with breast oncologists -- for the future development of a quality improvement intervention trial to foster "Patient-Centered Communication about Healthy Weight" (PCC-HW) in clinical practice.

Role: Principal Investigator

University Cancer Research Fund

No end date

Type: Non-sponsored funds

Grant number (n/a)

Source: 46514

Funds allocated to Hyman B. Muss, MD as Director of the UNC Lineberger Geriatric Oncology Program

Role: Deputy Director/Research – Geriatric Oncology Program

Completed Grants

The Kay Yow Jimmy V Foundation (Muss, PI)

7/1/2014-6/31/2018

Impact of physical activity on biomarkers of aging and body composition among breast cancer survivors age 65 and older

The overall goal is to determine if a home-based physical activity program can attenuate p16^{INK4a} gene expression among breast cancer patients age 65+ receiving chemotherapy (UNC researchers have previously shown that p16^{INK4a} increases dramatically during chemotherapy).

Role: Project Manager/Research Director

National Cancer Institute (Callahan, PI)

7/16/2013-7/16/2015

1R21CA169492-01A1

Physical activity to reduce joint pain during aromatase inhibitor therapy

This is a randomized wait-list controlled trial to evaluate the effect of a home-based, self-directed walking program on joint pain/stiffness/achiness experienced by breast cancer patients on aromatase inhibitor therapy.

Role: Project Manager

NIH/NIAMS (Callahan, PI)

04/01/08-03/31/13

RO1-AR-053-989-01(NIH/NIAMS)

Individual and community social determinants of osteoarthritis outcomes

The long-term goal of this project is to clarify the role of both individual and community social determinants with health outcomes in 4337 non-Hispanic African-Americans and non-Hispanic Caucasians with OA.

Role: Data analysis and manuscript development

Mid-Atlantic Arthritis Foundation (Altpeter, PI)

09/1/11-08/31/13

Bringing the Arthritis Foundation Walk with Ease Program to the Workplace

Formative evaluation and a pre-post pilot intervention study of WWE in four small business locations in NC.

Role: Data management and analysis

UNC Institute on Aging (Nyrop, PI)

3/9/12-12/31/12

Adaptation of an evidence-based self-directed moderate-intensity physical activity program to the needs of female breast cancer patients age 65 and beyond: a proof of concept pilot study

The primary purpose of this pilot study is to evaluate the feasibility of adapting and testing the Walk with Ease program among female breast cancer patients age 65+ with self-reported arthritis or joint pain.

Role: Principal Investigator

No number assigned

University of North Carolina at Chapel Hill (Zimmerman, PI)

2010-2012

Assisted Living Comparison Experts

Development of a university-affiliated website for searching assisted living communities in the United States.

Role: Develop website and assist with marketing strategy

Agency for Healthcare Research and Quality contract (Zimmerman, PI)

2007-2010

Implementing a Program to Prevent Injurious Falls in Assisted Living

Role: Research Associate (dissertation research was an unfunded adjunct to the parent study)

MM-0975-07/07(CDC/AAMC) (Callahan, PI)

10/01/06-9/30/10

Evaluation of Walk with Ease in Arthritis

The long-term goal of this project is to determine whether the Walk with Ease program in its two versions (group-assisted and self-directed) can increase physical activity and fitness levels among individuals with arthritis over the long term.

Role: Data analysis and manuscript writing

R24 DK067674 (Whitehead, PI)

2004-2009

National Institute of Diabetes and Digestive and Kidney Diseases

Gastrointestinal Biopsychosocial Research Program

Role: Administrator

REFLECTIVE STATEMENT. My research interest is intervention, dissemination/implementation and patient-reported outcomes research pertaining to clinic-based interventions focused on quality of life, physical function and symptom management during cancer treatment and survivorship, with particular interest in the care of older patients with cancer.