EBONEÉ NICOLE BUTLER, PhD, MPH

Assistant Professor University of North Carolina at Chapel Hill ebonee@unc.edu

Education

08/17/2017-	PhD Epidemiology
08/20/2012	University of North Carolina at Chapel Hill, Chapel Hill, NC "Smoking and variation in breast tumor biomarker expression" Melissa A Troester, PhD (Dissertation Chair)
05/15/2007- 08/15/2005	MPH Epidemiology Emory University, Atlanta, GA "High prevalence of triple negative breast tumors in an urban cancer center" Mary Jo B Lund, PhD (Thesis Advisor)
05/14/2005-	BA Biochemistry
08/20/2000	Rice University Houston TX

Research & Teaching	
06/1/2021- 01/11/2021	The George Washington University, Washington, DC Department of Epidemiology Professorial Lecturer
Present- 08/18/2017	National Cancer Institute, Bethesda, MD Division of Cancer Epidemiology and Genetics Postdoctoral Research Fellow
08/17/2017- 06/12/2017	National Cancer Institute, Bethesda, MD Cancer Prevention Fellowship Program Summer Curriculum
06/11/2017- 08/15/2012	University of North Carolina at Chapel Hill, Chapel Hill, NC Lineberger Comprehensive Cancer Center & Department of Epidemiology Graduate Research Assistant
08/14/2012- 08/15/2009	National Cancer Institute, Bethesda, MD Division of Cancer Control and Population Sciences, Applied Research Program Research Associate
08/14/2009- 08/15/2007	Centers for Disease Control and Prevention, Atlanta, GA National Center for Immunization and Respiratory Diseases, Influenza Division Oakridge Institue for Science and Education, Fellow
08/14/2007- 06/15/2007	Emory University, Atlanta, GA Department of Epidemiology Graduate Research Assistant

06/14/2007- Centers for Disease Control and Prevention, Atlanta, GA

08/15/2005 National Center for Infectious Diseases, Division of Parasitic Diseases

Laboratory Technician

8/14/2004- Rice University, Houston, TX

8/15/2003 Department of Biochemistry and Cell Biology

Research Assistant

Funding | Grants & Research Awards

NIH/NCI F31 (Butler) | Grant #5F31CA200336-02 | 09/15/2015 to 9/14/2017 (\$73,729)

"Smoking as a proxy for nicotine exposure and risk of EGFR positive breast cancer". The goal of this project was to gain training in the integration of epidemiology and molecular biology to evaluate risk factor associations with breast tumor biomarkers.

Role: Principal Investigator

Bibliography | Journal Articles

- Butler EN, Umar A, Heckman-Stoddard BM, Kundrod KA, Signorello LB, Castle PE. Redefining precision cancer prevention to promote health equity. Trends Cancer 2022;8(4):295-302 doi: 10.1016/j.trecan.2022.01.009 [published Online First: 20220216].
- 2. Abubakar M, Mullooly M, Nyante S, et al. Mammographic Density Decline, Tamoxifen Response, and Prognosis by Molecular Characteristics of Estrogen Receptor-Positive Breast Cancer. JNCI Cancer Spectr 2022;6(3) doi: 10.1093/jncics/pkac028.
- 3. Spees LP, Roberts MC, Freedman AN, et al. Involving patients and their families in deciding to use next generation sequencing: Results from a nationally representative survey of U.S. oncologists. Patient Educ Couns 2021;104(1):33-39 doi: 10.1016/j.pec.2020.03.001 [published Online First: 20200303].
- Roberts MC, Spees LP, Freedman AN, et al. Oncologist-Reported Reasons for Not Ordering Multimarker Tumor Panels: Results From a Nationally Representative Survey. JCO Precis Oncol 2021;5 doi: 10.1200/po.20.00431 [published Online First: 20210422].
- M Cook, LM Hurwitz, Geczik AM, and EN Butler. "An up-to-date assessment of US prostate cancer incidence rates by stage and race: A novel approach combining multiple imputation with age- and delayadjustment". Accepted (2020) by European Urology.
- 6. **EN Butler**, MG Hall, MS Chen, JK Pepper, H Blanton, and NT Brewer. "The prototypes of tobacco users scale (POTUS) for cigarette smoking and e-cigarette use: Development and validation". Accepted (2020) by *International Journal of Environmental Research and Public Health*.
- DR Withrow, SJ Scholfeld, RE Curtis, LM Morton, MB Cook, EN Butler, and A Berrington de González. "Racial and ethnic differences in risk of second primary cancers among prostate cancer survivors". Accepted (2020) by Cancer Causes & Control.
- 8. **EN Butler**, S Kelly, V Coupland, P Rosenberg, and M Cook. Fatal prostate cancer incidence trends in the United States and England by race, stage, and treatment. *British Journal of Cancer*, 123:487–494, 2020
- LM Hurwitz, ED Yeboah, Biritwum RB, Tettey Y, Adjei AA, Mensah JE, Tay E, Okyne V, Truelove A, Kelly SP, Zhou CK, Hoover RN EN Butler, and, Hsing AW, and M Cook. Overall and abdominal obesity and prostate cancer risk in a West African population: An analysis of the Ghana Prostate Study. *International Journal* of Cancer, In Press, 2020
- 10. LP Spees, MC Roberts, AN Freedman, EN Butler, WMP Klein, I Prabhu Das, and JS de Moor. Involving patients and their families in deciding to use next generation sequencing: Results from a nationally representative survey of US oncologists. *Patient Education and Counseling*, 104(1):33–39, 2020
- 11. LA Williams, EN Butler, X Sun, EH Allott, SM Cohen, AM Fuller, KA Hoadley, CM Perou, J Geradts, F Olshan, et al. TP53 protein levels, RNA-based pathway assessment, and race among invasive breast cancer cases. NPJ Breast Cancer, 4(1):13, 2018

12. HD Couture, LA Williams, J Geradts, SJ Nyante, **EN Butler**, JS Marron, CM Perou, MA Troester, and M Niethammer. Image analysis with deep learning to predict breast cancer grade, ER status, histologic subtype, and intrinsic subtype. *NPJ Breast Cancer*, 4(1):30, 2018

- 13. EN Butler, JT Bensen, M Chen, K Conway, DB Richardson, X Sun, J Geradts, AF Olshan, and MA Troester. Prediagnostic smoking is associated with binary and quantitative measures of ER protein and ESR1 mRNA expression in breast tumors. Cancer Epidemiology Biomarkers Prev, 27(1):67–74, 2018
- EN Butler, C Tse, ME Bell, K Conway, AF Olshan, and MA Troester. Active smoking and risk of Luminal and Basal-Like breast cancer subtypes in the Carolina Breast Cancer Study. Cancer Causes & Control, 27(6):775–786, 2016
- 15. K Brodar, M Hall, **E Butler**, H Parada, A Stein-Seroussi, S Hanley, and N Brewer. Recruiting diverse smokers: enrollment yields and cost. *International Journal of Environmental Research and Public Health*, 13(12):1251, 2016
- JL Warren, EN Butler, J Stevens, CS Lathan, A Noone, KC Ward, and LC Harlan. Receipt of chemotherapy among medicare patients with cancer by type of supplemental insurance. *Journal of Clinical Oncology*, 33(4):312, 2015
- 17. KR Evenson, **EN Butler**, and WD Rosamond. United states prevalence of physical activity and sedentary behavior among adults with cardiovascular disease. *Journal of Cardiopulmonary Rehabilitation and Prevention*, 34(6):406, 2014
- EN Butler and KR Evenson. Prevalence of physical activity and sedentary behavior among stroke survivors in the united states. Topics in Stroke Rehabilitation, 21(3):246–255, 2014
- SI Kirkpatrick, J Reedy, EN Butler, KW Dodd, AF Subar, FE Thompson, and RA McKinnon. Dietary assessment in food environment research: a systematic review. American Journal of Preventive Medicine, 46(1):94–102, 2014
- 20. **EN Butler**, N Chawla, J Lund, LC Harlan, JL Warren, and KR Yabroff. Patterns of colorectal cancer care in the United States and Canada: a systematic review. *Journal of the National Cancer Institute Monographs*, 2013(46):13–35, 2013
- N Chawla, EN Butler, J Lund, JL Warren, LC Harlan, and KR Yabroff. Patterns of colorectal cancer care in Europe, Australia, and New Zealand. *Journal of the National Cancer Institute Monographs*, 2013(46):36–61, 2013
- 22. **EN Butler**, AMH Ambs, J Reedy, and HR Bowles. Identifying GIS measures of the physical activity built environment through a review of the literature. *Journal of Physical Activity and Health*, 8(s1):S91–S97, 2011
- 23. JM Milush, KD Mir, V Sundaravaradan, SN Gordon, J Engram, CA Cano, JD Reeves, E Anton, E O'Neill, E Butler, K Hancock, KS Cole, JM Brenchley, JG Else, G Silvestri, and DL Sodora. Lack of clinical AIDS in SIV-infected sooty mangabeys with significant CD4+ T cell loss is associated with double-negative T cells. The Journal of Clinical Investigation, 121(3):1102–1110, 2011
- MJ Lund, EN Butler, BY Hair, KC Ward, JH Andrews, G Oprea-Ilies, AR Bayakly, RM O'Regan, PM Vertino, and JW Eley. Age/race differences in HER2 testing and in incidence rates for breast cancer triple subtypes. Cancer, 116(11):2549–2559, 2010
- 25. WA Brooks, ASM Alamgir, R Sultana, MS Islam, M Rahman, AM Fry, B Shu, S Lindstrom, Kn Nahar, D Goswami, MS Haider, S Nahar, **EN Butler**, K Hancock, RO Donis, CT Davis, RU Zaman, SP Luby, TM Uyeki, and M Rahman. Avian influenza virus a (H5N1), detected through routine surveillance, in child, bangladesh. *Emerging Infectious Diseases*, 15(8):1311, 2009
- K Hancock, V Veguilla, X Lu, W Zhong, EN Butler, H Sun, F Liu, L Dong, JR DeVos, PM Gargiullo, et al. Cross-reactive antibody responses to the 2009 pandemic H1N1 influenza virus. New England Journal of Medicine, 361(20):1945–1952, 2009
- J Katz, K Hancock, V Veguilla, W Zhong, XH Lu, H Sun, E Butler, L Dong, F Liu, ZN Li, et al. Serum crossreactive antibody response to a novel influenza A (H1N1) virus after vaccination with seasonal influenza vaccine. Morbidity and Mortality Weekly Report, 58(19):521–524, 2009

 W Wang, EN Butler, V Veguilla, R Vassell, JT Thomas, Z Moos Jr, Mand Ye, K Hancock, and CD Weiss. Establishment of retroviral pseudotypes with influenza hemagglutinins from H1, H3, and H5 subtypes for sensitive and specific detection of neutralizing antibodies. *Journal of Virological Methods*, 153(2):111– 119, 2008

- TG Sheu, VM Deyde, M Okomo-Adhiambo, RJ Garten, X Xu, RA Bright, EN Butler, TR Wallis, Al Klimov, and LV Gubareva. Surveillance for neuraminidase inhibitor resistance among human influenza A and B viruses circulating worldwide from 2004 to 2008. Antimicrobial Agents and Chemotherapy, 52(9):3284– 3292, 2008
- MJ Lund, EN Butler, HL Bumpers, J Okoli, M Rizzo, N Hatchett, VL Green, OW Brawley, GM Oprea-Ilies, and S Gabram. High prevalence of triple-negative tumors in an urban cancer center. Cancer, 113(3):608–615, 2008

Presentations | Posters

- (2020) AACR Advances in Prostate Cancer Research (Denver, CO). "Testosterone therapy in relation to cancer risks among men in the SEER-Medicare database". (Postponed)
- (2019) 12th AACR Conference on The Science of Cancer Health Disparities in Racial/Ethnic Minorities and the Medically Underserved (San Francisco, CA). "The interplay between rurality-urbanicity and race in prostate cancer risk, treatment, and survival in the United States".
- (2019) Society for Epidemiologic Research 52nd Annual Meeting (Minneapolis, MN). "Male reproductive factors and prostate cancer risk in the United Kingdom".
- (2018) 11th AACR Conference on The Science of Cancer Health Disparities in Racial/Ethnic Minorities
 and the Medically Underserved (New Orleans, LA). "Racial differences in the incidence of fatal prostate
 cancer in two countries: An ecological comparison of the United States and England".
- (2017) AACR Annual Meeting (Washington, DC). "Smoking Exposure and Quantitative Levels of Estrogen-Receptor Expression in ER+ Breast Tumors".

Teaching

Principles and Practice of Epidemiology, PUBH 6003 (Spring I & II, 2021) The George Washington University, Washington, DC

Clinical Measurement and Evaluation, EPID 711 (Fall, 2014) University of North Carolina at Chapel Hill, Chapel Hill, NC

Training | Workshops & Research Training Awards

- (2016) AACR Integrative Molecular Epidemiology Workshop | Boston, MA
- (2015) Society for Epidemiologic Research | Dissertation Workshop Award | Denver, CO
- (2007) Oak Ridge Institute for Science and Education Fellowship (CDC 2007-2009) | Atlanta, GA
- (2004) Welch Foundation Student Research Grant (Rice University) | Houston, TX

Honors

- (2020) 2021 NIH Fellows Award in Research Excellence (FARE) (\$1,500)
- (2018) AACR Scholar-in-Training Award (\$1,000)
- (2015) NIH National Research Service Award | Predoctoral Fellowship
- (2013) University Cancer Research Fund Award | UNC (\$20,000)

- (2012) Gillings Merit Scholarship (Awarded \$20,000 for First-Year PhD Studies)
- (2012) NIH Merit Award for Advancing the Field of Physical Activity Surveillance
- (2012) Distinguished Performance Award from Kelly Government Solutions
- (2011) Distinguished Performance Award from Kelly Government Solutions
- (2009) CDC NCIRD award for Outstanding Service in Response to the 2009 Swine Flu Epidemic
- (2000) Rice University Barbara Jordan Scholar (Awarded one-half the cost of undergraduate tuition)
- (2000) Salutatorian, Beaumont Central Senior High School Class of 2000

Professional Memberships & Service

Memberships

- American Association for Cancer Research (2016-Present)
- · Society for Epidemiologic Research (2015-Present)
- CDC Softball League (2008 Catcher)

Service & Activities

- Organizing Committee | National Cancer Institute's 3rd Symposium on Cancer Health Disparities (2020)
- Admissions Committee | Cancer Prevention Fellowship Program (2020)
- UNC Minority Student Caucus Executive Board (2013-2016)
- Cancer Epidemiology Seminar and Journal Club Organizer (2013-2015)
- Montgomery County Coalition for the Homeless | Meal Preparation (2010)