
BIOGRAPHICAL SKETCH

NAME: Chemtai Irene Mungo

eRA COMMONS USER NAME: cmungo

POSITION TITLE: Assistant Professor

EDUCATION/TRAINING

INSTITUTION AND LOCATION	DEGREE	Completion Date	FIELD OF STUDY
University of California, Berkeley, CA	BA (Honors)	08/2007	Chemistry
University of California, San Francisco, CA	MD (Honors)	06/2013	Medicine
Johns Hopkins School of PH, Baltimore, MD	MPH	06/2014	Epidemiology
Kaiser Foundation Hospital, San Francisco, CA	Residency	06/2018	Obstetrics and Gynecology
University of California San Francisco, CA	Fellowship	08/2021	Center for AIDS Prevention Studies

A. Personal Statement

I am an Assistant Professor of Obstetrics and Gynecology and an early career investigator in the Global Women's Health Division at the University of North Carolina (UNC). My research is focused on increasing access to effective, evidence-based secondary prevention of cervical cancer among women living with HIV in Sub-Saharan Africa (SSA). My long-term career goal is to be an independent physician-researcher focused on cervical cancer prevention among women in low-resource settings globally. I have led several studies, primarily in Kenya, investigating evidence-based methods for secondary prevention of cervical cancer among women living with HIV. This research includes the use of community-based Human Papillomavirus (HPV) screening and treatment and evaluating and strengthening access to diagnostic services following referral to tertiary centers for cervical precancer or cancer. As a global health fellow, I designed, conceptualized, and led a 400-person clinical trial evaluating the safety and efficacy of thermal ablation among women living with HIV in low-resource settings (ClinicalTrials.gov identifier NCT04191967). This clinical trial was one of the first to report the efficacy of thermal ablation for treating biopsy-proven high-grade cervical precancer among HIV-positive women in low-resource countries. I have published seventeen peer-reviewed manuscripts from my work, presented more than thirty abstracts in national and international meetings, and have successfully competed for independent research funding to support my work. In 2019, I was the recipient of the Global Cancer Award at the University of California, San Francisco. In 2020, I received an American Society of Clinical Oncology (ASCO) Young Investigator Award, and in 2022 I was awarded a global cancer career development award from the American Association of Cancer Research (AACR). At UNC, funded by a K12 career development award from the NICHD, my research is focused on investigating the feasibility of using topical, self-administered therapies as primary or adjuvant HPV and cervical precancer treatment to improve secondary prevention of cervical cancer in low-income countries. I am the Principal Investigator of an ongoing Phase I clinical trial investigating the safety and acceptability of intravaginal, self-administered fluorouracil (5FU) as adjuvant therapy following high-grade cervical precancer treatment among women living with HIV in Kenya to reduce treatment failure (NCT05362955). I am developing clinical protocols to study feasibility of other topical therapies in low-resource contexts, including a NIH funded R34 pilot randomized trial. My goal is to increase access to evidence-based, feasible, and resource-appropriate tools for HPV and cervical precancer treatment for marginalized communities globally. Given my extensive experience in global cancer prevention, I believe that I would be a strong addition as a Co-Investigator for the proposed project entitled "Rapid Point of Care Molecular Diagnostics for HPV."

Ongoing projects that I would like to highlight include:

R34CA284983

Mungo (PI)

08/01/2022-07/31/2024

AACR: Feasibility and acceptability of self-administered Fluorouracil (5-FU) following thermal ablation to improve HPV treatment outcomes among HIV+ women in sub-Saharan Africa.

UG1CA275403

Smith/Chinula/Hudgens (MPIs), **Role: Co-Investigator**

07/01/2022-06/30/2027

NIH/NCI: UNC CASCADE Network Research Base. The overarching goal of our research is to develop, test, and implement effective, scalable, and cost-effective screening and treatment strategies to reduce invasive cervical cancer among HIV+ women.

Citations:

1. Murenzi G, **Mungo C**. Impact of the human papillomavirus vaccine in low-resource settings. *Lancet Glob Health*. 2023 Jul;11(7):e997-e998. Epub 2023 May 16. doi: 10.1016/S2214-109X(23)00203-6. PMID: 37207682.
2. **Mungo C**, Randa M, Shauri A, Serem D, Ndei SI, Kipkoech K, Ganda G. Characteristics, stage and presentation, and status of women with cervical cancer at a major referral center in western Kenya. *Int J Gynaecol Obstet*. Jul 2021. PMID: 34287848.
3. **Mungo C**, Barker E, Randa M, Ambaka J, Osongo CO. Integration of cervical cancer screening into HIV/AIDS care in low-income countries: a moral imperative. *Ecancermedalscience*. May 2021. PMID: 34221120.
4. **Mungo C**, Ibrahim S, Bukusi EA, Troung H, Cohen CR, Huchko M. Scaling up cervical cancer prevention in Western Kenya: Treatment access following a community-based HPV testing approach. *Int J Gynaecol Obstet*. Jan 2021. PMID: 32347550.

B. Positions, Scientific Appointments, and Honors

Positions and Scientific Appointments

2021-Present Assistant Professor, Obstetrics and Gynecology, University of North Carolina-Chapel Hill
2019-2021 Faculty, Women's Reproductive Health Equity Fellowship. Highland Hospital, Oakland, CA
2018-2021 Trainee in AIDS Prevention Studies, University of California, San Francisco
2018-2021 Staff Obstetrician and Gynecologist, Highland Hospital, Oakland, CA
2014-2018 Obstetrics and Gynecology resident, Kaiser Hospital, San Francisco, CA

Other Experience and Professional Memberships

2023-Present International Papillomavirus Society Affiliate Board Member
2021-Present Associate Member, UNC Lineberger Cancer Center, Chapel Hill, North Carolina
2021-Present Fellow, American College of Obstetrics and Gynecology
2021-Present Medical License, Malawi Medical Council
2021-Present North Carolina Medical License
2019-Present Member, Cervical Cancer Prevention Technical Working Group, Kisumu County, Kenya
2018-Present Member, American Congress of Obstetricians and Gynecologists (ACOG)
2018-Present Member, Kenya Obstetrics and Gynecology Society (KOGS)
2013-Present California Medical License
2012-2013 Obstetrics Student Clinical Skills Instructor, University of California, San Francisco
2008-2009 Advisory Panel Member: Women's Health Research Internship, UCSF
2008-2009 High school outreach coordinator: Student National Medical Association, UCSF
2008-2009 Organizing Panel member: Bay Area Annual Global Health Conference
2009 Co-Coordinator, REMEDY, University of California, San Francisco
2008-2010 Volunteer, UCSF Student Run Homeless Clinic
2011 Mentor, Pre-Health Undergraduate Program,
2006-2007 Co-President: UNICEF Club at University of California, Berkeley

Honors

2023 NCI-Division of Cancer Prevention (DCP) Early Career Scientist Selection
2023 Daniel Von Hoff Innovative Protocol Award, ASCO/AACR Methods in Clinical Research Workshop, July 2023
2023 Gilead HIV Research Scholars Award

2022	Victoria's Secret Global Fund for Women's Cancers Career Development Award
2022	Google Scholar Program Research Grant Awardee
2022	UNC-Malawi-South Africa Cancer Consortium Developmental Core Awardee
2022	UNC Center for AIDS Prevention (CFAR) Developmental Grant Awardee
2021	UNC Lineberger Cancer Center Pilot Grant Awardee
2021	Top Scoring Abstract Award: ASCO Conquer Cancer Scientific and Career Development Retreat. December 2021
2021	Union of International Cancer Control Young Cancer Leader
2021	Best Oral Abstract: Accessible Cancer Technologies Conference. October 2021
2021	National Cancer Institute AIDS Malignancy Consortium (AMC) Fellow
2020	Clinton Global Initiative Infectious Disease Cohort
2020	ASCO Conquer Cancer Young Investigator Awardee
2019	University of California Global Health Institute, GloCal Health Fellowship
2019	UCSF Global Cancer Grant Recipient
2017	Ted Adams Scholarship Recipient, Pacific Congress of Obstetrics and Gynecology
2013	Distinction in Clinical and Translational Research, University of California, San Francisco
2011-2012	Doris Duke International Clinical Research Fellow, University of California, San Francisco
2009	Dean's Summer Research Fellow, University of California, San Francisco School of Medicine
2008	Dean's Summer Research Fellow, University of California, San Francisco School of Medicine
2007-2008	Judith Lee Stronach Baccalaureate Prize recipient, University of California, Berkeley
2007	Bachelor of Arts in Chemistry, with Honors, University of California, Berkeley
2006	Summer Undergraduate Research Fellow, University of California, Berkeley
2005	National Science Foundation Undergraduate Research Fellow, Purdue University
2004	Summer Undergraduate Research Fellow, Caltech

C. Contributions to Science

1. My primary research is on the cervical cancer prevention cascade among women in low resource settings, focusing on HIV-positive women in Western Kenya. I focus on developing an evidence-base for resource appropriate methods for screening and treatment of precancerous lesions among HIV-positive women, and evaluating implementation and outcomes of the WHO-recommended 'screen-and-treat approach in Western Kenya. I work closely with the county government in Kisumu County to support scale of evidence-based approaches as well as designing studies to fill gaps in the evidence base within this population. In the publications below, I have reported on the prevalence of precancerous lesions among HIV-positive women, the role of a biomarker to increase specificity for cervical cancer screening, and access to diagnostic services for precancer in a tertiary referral center in Western Kenya.

- a. **Mungo C**, Randa M, Shauri A, Serem D, Ndei SI, Kipkoech K, Ganda G. Characteristics, stage and presentation, and status of women with cervical cancer at a major referral center in western Kenya. *Int J Gynaecol Obstet*. Jul 2021. PMID: 34287848.
- b. **Mungo C**, Barker E, Randa M, Ambaka J, Osongo CO. Integration of cervical cancer screening into HIV/AIDS care in low-income countries: a moral imperative. *Ecancermedicalscience*. May 2021. PMID 34221120; PMCID: PMC8225333.
- c. **Mungo C**, Omoto, J, Gwer S, Wameyo A, Kays Muruka, Ganda G. Towards Cervical Cancer Elimination: Access to Diagnostic Services After Referral to a Specialist Gynecologist Clinic at a Major Referral Hospital in Kisumu, Kenya. *JCO Global Oncology* 6 no. Supplement_1(2020) 35-35.
- d. **Mungo C**, Maloba M, Huchko M. Reproducibility of p16INK4a biomarker levels, as measured by ELISA, among HIV-positive women in Western Kenya with normal cervical exams during a 12-month follow-up. Federation of International Gynecologists and Obstetricians (FIGO) Meeting. October 2015. Vancouver, Canada. FCS39.3. *IJGO* 131, Suppl 5(2015) E-72-E313.

2. As part of my focus on the cervical cancer prevention cascade, I am working on generating the evidence base for resource appropriate treatment methods for cervical precancer among women living with HIV in low-resource settings. I was the Principal Investigator of a clinical trial, NCT04191967, the largest in Kenya to date to investigate the safety and efficacy of thermal ablation for treatment of precancerous lesions among HIV-positive women. Findings from this trial were among the first globally to provide data on the efficacy of thermal ablation for treatment of biopsy-confirmed high-grade dysplasia among HIV-positive women for which few data with

rigorous disease status verification at both baseline and follow-up area available. Our results demonstrated higher than previously reported treatment failure among HIV-positive women, calling for innovative strategies to improve the current 'screen & treat' method for secondary prevention of cervical cancer in LMICs, including use of adjuvant topical therapies which we propose in this study. In addition, together with my collaborators, I have investigated barrier and facilitators to precancer treatment access following community-based cervical cancer screening in Kenya. This work demonstrated the challenges of community-based precancer treatment for rural women, and inspires my research to investigate the feasibility of self-administered treatments that can be performed at home.

- a. **Mungo C**, Ogollah C, Ambaka J, Omoto J, Cohen C. Efficacy of thermal ablation for treatment of high-grade cervical dysplasia among HIV-positive women: Preliminary results from western Kenya. *JCO Global Oncology*. 2022.
- b. **Mungo C**, Osongco CO, Ambaka J, Randa M, Omoto J, Cohen CR, Huchko M. Safety and acceptability of thermal ablation for treatment of human papillomavirus among women living with HIV in Western Kenya. *Global Oncology July 2020*. PMID: 32634066; PMCID: PMC7392781.
- c. **Mungo C**, Ibrahim S, Bukusi EA, Troung HM, Cohen, CR, Huchko C. Scaling up cervical cancer prevention in Western Kenya: Treatment access following a community-based HPV testing approach. *IJGO*. 2021 Jan;152(1):60-67. PMID: 32347550; PMCID: PMC8906492.
- d. **Mungo C**, Cohen CR, Maloba M, Bukusi EA, Huchko MJ. Prevalence, characteristics and outcomes of HIV-positive women diagnosed with invasive cancer of the cervix in Kenya. *Int J Gynaecol Obstet*. 2013 Dec; 123(3):231-5. PMID: 24095308; PMCID: PMC4151462.

3. A secondary research interest of mine is in global health education within Obstetrics and Gynecology, and I have written publications on optimizing resident education in global health and considerations for ethical partnerships. I was involved in a global health curriculum development initiative funded and led by the Association of Professors in Obstetrics and Gynecology (APGO) in which we developed a web-based curriculum for obstetrics and gynecology residents participating in global health experiences. I have also published work on advancing equity in global health programs and North-South partnerships.

- a. **Mungo C**. A Comprehensive Evaluation of Obstetrics and Gynecology Residencies' Global Health Training Programs. *Obstet Gynecol*. 2019 Apr;133(4):826-827. PMID: 30913180.
- b. **Mungo C**. Bias in Obstetrics and Gynecology. *Obstet Gynecol*. 2019 Mar;133(3):585. PMID 30801461.
- c. **Mungo C**. Obstetrics and Gynecology Resident Interest and Participation in Global Health. *Obstet Gynecol*. 2017 Sept;130(3):649. PMID: 28832470.
- d. Emily Scibetta, A. Meg Autry, Felicia C. Lester, Sara Whetstone, Suha Patel, **Chemtai Mungo**. Clinical care in low-resource settings and the Empowur Curriculum: An online resource and experiential global and community curriculum. Association of Professors of Obstetrics and Gynecology (APGO CREOG).

Complete List of Published Work in My Bibliography:

<https://www.ncbi.nlm.nih.gov/myncbi/1T3Koz9zmukA6/bibliography/public/>