



Sylvester and Fox Chase Cancer Center Collaborate with Pfizer's Institute of Translational Equitable Medicine to Identify Novel Genetic Drivers of Cancer Disparities in African Ancestry Populations

Sylvester Comprehensive Cancer Center and Fox Chase Cancer Center announced a collaboration today with Pfizer's Institute of Translational Equitable Medicine (ITEM) to launch a cancer genomics study to characterize novel genetic, molecular, and social determinants of cancer across populations of African ancestry.





Sophia George, Ph.D. (left), and Camille Ragin, Ph.D., M.P.H. (Photo courtesy of Fox Chase Cancer Center.)

“People of African ancestry disproportionately develop aggressive, high-grade cancers, particularly in breast and prostate tissues, and the underlying driving factors are not well understood,” said Sophia H.L. George, Ph.D., associate director of diversity, equity, and inclusion at Sylvester Comprehensive Cancer Center, part of UHealth – University of Miami Health System, and co-leader of the African Caribbean Cancer Consortium (AC3) Women’s Cancer Working Group. Despite a high unmet need, there are a limited number of research studies statistically powered to investigate cancer risk and outcomes in people of African ancestry.

In order to address these knowledge gaps, this collaboration will build a clinical genomic registry of biological specimens accompanied by epidemiological, behavioral, and clinical data from African ancestry patients diagnosed with breast and prostate cancer. Leveraging the AC3 network’s global reach, the team will recruit patients from ethnically, geographically, and socioeconomically diverse subpopulations across the African diaspora: U.S. born and immigrant Black patients residing in the United States, patients from moderate and low-income countries in the Caribbean islands, and patients from western, eastern, and southern countries in the African subcontinent.



Sophia George, Ph.D.

Scientific objectives of this study include 1) identifying somatic and rare pathogenic germline genetic drivers of cancer using paired tumor-normal whole exome sequencing, 2) determining inherited cancer risk using gene panel testing in known cancer drivers, 3) characterizing hormone receptor status using immunohistochemistry, and 4) denoting key socioeconomic and lifestyle factors influencing cancer outcomes in African ancestry patients.

“We established the Institute of Translational Equitable Medicine to achieve health equity by preventing, treating, and identifying disease drivers that disproportionately impact underserved and minority populations nationally and globally. Our goal is to use data to help better understand the drivers of health inequities,” said Aida Habtezion, M.D., M.Sc., FRCPC, AGAF, chief medical officer and head of worldwide medical and safety at Pfizer. “We are thrilled to be collaborating with Fox Chase Cancer Center, Sylvester



Comprehensive Cancer Center, and the African Caribbean Cancer Consortium to begin closing gaps in applying scientific knowledge to disparities in disease incidence, prevalence, and outcomes for African ancestry cancer patients.”



Aida Habtezion, M.D.,
M.Sc., FRCPC, AGAF

“This registry will allow us to conduct studies that will add to the limited available data for Blacks, including genetics, genomics and gene-environment interaction studies that will help to fill specific knowledge gaps in the literature addressing aggressive disease in African ancestry cancer patients,” said Camille Ragin, Ph.D., M.P.H., associate director of diversity, equity, and inclusion at Fox Chase and co-leader and founder of AC3.

The study will include cancer patients from Fox Chase Cancer Center, Sylvester Comprehensive Cancer Center, the University of Alabama, Augusta University in collaboration with Morgan State University, as well as nine international AC3 research



sites in the Bahamas, Barbados, Benin, Burkina Faso, Haiti, Jamaica, Kenya, Namibia, and Trinidad and Tobago.

“This is a very big effort and is possible only because of our long-standing working relationships with AC3 site leaders like Valerie Odero-Marah, Ph.D., of historically black Morgan State University, who is co-leader of the AC3 prostate cancer working group, and Ann Korir, of the Kenya Medical Research Institute, who is co-leader of the AC3 women’s cancer working group. The only way we could pull off this kind of coordinated effort is because everyone in the AC3 network is playing and leading their part of it,” said Dr. Ragin.



Camille Ragin, Ph.D., M.P.H.

“We want to enable African and Caribbean researchers ask questions collaboratively across the U.S, Africa, and the Caribbean so that we can lead projects that affect our populations,” said Dr. George. “This is exciting because the way the collaboration has been designed, there is equity in who is participating, who is leading, and who is at the center



of the project.”

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