



## Scientific Abstract

### SU2C Colorectal Cancer Health Equity Breakthrough Team:

## “Community Collaboration to Advance Racial/Ethnic in Colorectal Cancer Screening”



*[This abstract was provided by the scientists when their application was accepted.]*

**Background:** At over 50,000 deaths per year, colorectal cancer (CRC) is the second most common cause of cancer deaths in the US and disproportionately impacts medically underserved racial/ethnic minority communities. Screening for CRC reduces both incidence and mortality, yet racial/ethnic minority and economically disadvantaged populations often do not receive recommended screening and are under-represented in research that advances precision prevention approaches using novel non-invasive tests for CRC and its precursors.

**Objective:** To leverage expertise in health disparities, community engagement, health delivery systems, and precision prevention to increase CRC screening rates, representation in precision prevention research, and training of early-career researchers in three SU2C Equity Zones (Greater Boston, Los Angeles, and Tribal Nations in South Dakota).

**Hypothesis:** Population-based outreach with stool-based screening strategies will be feasible, acceptable, and effective in diverse settings with medically underserved populations, as will patient navigation for diagnostic evaluation. Through community engagement, there will be an increased understanding of facilitators and barriers to patient participation in biorepositories and higher rates of participation than in prior studies.

### **Aims:**

**Aim 1:** Develop and conduct a 2-arm, multi-level, multi-component pragmatic trial randomized at the level of the community health center to compare two population outreach approaches: (Cologuard or Fecal Immunochemical Test (FIT)) to increase CRC screening.

**Aim 2:** Patient follow-up after an abnormal Cologuard or FIT screening test result

**Aim 2a:** Increase completion of colonoscopy after abnormal Cologuard or FIT by offering a virtual patient navigation program to address barriers to follow-up;

**Aim 2b:** Recruit individuals with an abnormal Cologuard or FIT result to contribute to a biorepository (blood and stool) to allow future genomic, circulating tumor marker, and microbiome analysis.

**Aim 3:** Mentor a new generation of under-represented in medicine (URM) and under-represented in public health (URPH) researchers focused on CRC prevention and control.

**Aim 4:** Design and deploy a community-based campaign to increase CRC screening rates in a demographically diverse impact zone within Los Angeles County.

**Aim 4a:** Use community-based participatory design to convene and support Community Health Action Teams (CHATs) to design and execute a tailored community campaign for increasing CRC screening and support those who need care beyond screening,

**Aim 4b:** Design and execute a prospective, comparative longitudinal outcomes study to assess the impact of the CHAT-led community-based campaigns on community-level CRC screening rates, disparities in screening rates, and other key outcomes using a fully integrated mixed methods approach.

**Aim 4c:** Design and execute a mixed-methods implementation study to identify key mediating and





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moderating factors in the CHAT effect pathway, catalogue optimal strategies and lessons learned, and produce a toolkit for helping other communities build upon the CHAT approach within their local context.

**Clinical impact/ Significance:** Our Dream Team is committed to increasing CRC screening rates in the three designated SU2C Zones within two years with sustained, exportable and scalable improvements through robust health system and community engagement. The creation of the biorepository will strengthen research in non-invasive test development and performance that may be used to refine risk assessment for patient populations traditionally under-represented in precision medicine research.

Through active and engaged partnership between (1) community leaders and health centers, (2) senior investigators who are leaders in CRC screening, disparities and translational research, (3) a diverse team of early and mid-career investigators and trainees, and (4) advocacy groups, we will mentor and produce the next generation of URM/URPH investigators who are critical to the continued progress in reducing disparities in CRC screening, incidence and mortality.

