



CANCER PREVENTION & RESEARCH INSTITUTE OF TEXAS

Award ID:
RP160732

Project Title:
UTHSCSA Cancer Genome Sequencing and Computation Core

Award Mechanism:
Core Facility Support Awards

Principal Investigator:
Chen, Yidong

Entity:
The University of Texas Health Science Center at San Antonio

Lay Summary:

San Antonio, a Hispanic majority city and the catchment basin for all of South Texas, contains several premier biomedical research institutions, such as UT Health Science Center at San Antonio (UTHSCSA), with regional campuses in the Rio Grande Valley; the Texas Biomedical Research Institute; the Brooke Army Medical Center; and the University of Texas at San Antonio, a minority-serving institution. In this major cancer research city, the UTHSCSA Cancer Therapy and Research Center is dedicated to research and treatment of many types of cancers. In addition to common cancers in the region such as breast and prostate cancers, we are especially dedicated to better treatments for leukemia, liver, stomach, and cervical cancers, which are disproportionately high among the local population in South Texas. In the San Antonio area, genetic and genomic needs in cancer research are met by our Core facility, the only publicly accessible high-throughput genome sequencing (state-of-the-art) research resource in the region. Established in 2011, to date our Core has worked with over 50 scientists from all the major research institutes around San Antonio. Despite our successes, we now face major challenges because our equipment is aging, it is inadequate for the greater needs of this complex research, and we lack sufficient staff to keep up with demand. The slower turnaround times and higher cost, and lack of research support that result from this situation create barriers to progress in genetic research concerning cancer. Thus, to address these issues, we request funds to update and expand the existing infrastructure and establish the UTHSCSA Cancer Genome Sequencing and Computation Core. The establishment of this Core will make possible new scientific achievements and novel biological discoveries, allow more scientists (especially new and early-stage faculty) to access these sophisticated tools, and ultimately benefit the health of those in the South Texas region.