

## **1. Project Title**

Spatially Informed Strategies for Cancer Intervention

## **2. List of Internal PI/Co-PI**

F. Benjamin Zhan (PI); Larry Price (co-PI); Yijuan Lu (co-PI)

## **3. List of External Partners**

Hui Zhao (co-PI), The University of Texas MD Anderson Cancer Center

## **4. Project Abstract with Results (Please limit to 250 words)**

With more than 10 million new cases every year worldwide, cancer poses an enormous burden on society and affects almost all families. The burden can be disproportionately higher in certain underserved population groups and communities. This disproportionate burden is called cancer disparity and must be addressed. The consensus among researchers and health professionals is that cancer disparity can be significantly reduced through targeted intervention. The challenge is that targeted intervention requires highly effective strategies to identify individuals in these population groups and communities, develop intervention programs that are tailored to the individual needs of people who require the most assistance, and then deliver the intervention programs to individuals using personalized messages. To address this challenge, researchers of this project launched an initiative to develop spatially informed cancer intervention strategies aimed at reducing cancer disparities. The interdisciplinary research team completed preliminary development of a Spatially Informed Cancer Intervention Enhancement System (SICIES) and tested some functions of SICIES using data from Texas. Members of the research team have been collaborating with researchers in several institutions in Texas to implement the concept of spatially-informed cancer prevention and control. In addition, the team submitted grant applications valued at more than 10 million dollars during 2017 and 2018.

## **5. List external grants submitted related to the MIRG grant (include agency name, program name, proposal title, amount requested and date submitted.)**

**Agency name:** CPRIT

**Proposal title:** Texas State Geospatial and Cancer Communication Technology Core

**Amount requested:** \$5,176,321

**Date submitted:** 1/31/2017

**Note:** Zhan was lead collaborator of the proposed project.

**Agency name:** CPRIT

**Proposal title:** Spatial Data Science and Health Geographics Core for Cancer Research and Prevention

**Amount requested:** \$5,969,288

**Date submitted:** 1/31/2018

**Note:** Zhan was PI of the proposed project with 8 collaborators at TxState and 2 external collaborators.

**Agency name:** LIVESTRONG Cancer Institutes, UT-Austin Dell Medical School

**Proposal title:** A Spatially Enhanced Multi-Faceted Intervention to Increase Colorectal Cancer Screening Rates in Vulnerable Populations in Travis County

**Amount requested:** \$25,000

**Date submitted:** 6/15/2018

**List of PI/Co-PIs:** PI: Zhan (TxState); Co-PIs: Michael Pignone (UT-Austin Dell Medical School), Anjum Khurshid (UT-Austin Dell Medical School), Bretta Candelaria (UT-Austin Dell Medical School), Nicole Kluz (UT-Austin Dell Medical School)

**6. List of external grants awarded related to the MIRG grant (include awarded amount)**

**Agency name:** LIVESTRONG Cancer Institutes, UT-Austin Dell Medical School

**Proposal title:** A Spatially Enhanced Multi-Faceted Intervention to Increase Colorectal Cancer Screening Rates in Vulnerable Populations in Travis County

**Amount awarded:** \$25,000 (09/01/2018 – 04/30/2019)

**List of PI/Co-PIs:** PI: Zhan (TxState); Co-PIs: Michael Pignone (UT-Austin Dell Medical School), Anjum Khurshid (UT-Austin Dell Medical School), Bretta Candelaria (UT-Austin Dell Medical School), Nicole Kluz (UT-Austin Dell Medical School)

**7. List any planned external grant submissions related to the MIRG grant**

Zhan plans to develop a grant application based on the preliminary results from the pilot project supported by LIVESTRONG Cancer Institutes at the UT-Austin Dell Medical School. He will submit the application either to CPRIT or NCI in the future.

**8. List any problems encountered that prevented you from fully accomplishing the outcomes of the MIRG grant.**

None.

**9. Any additional comments about what the MIRG grant enabled/empowered you to accomplish.**

None.