



THE UNIVERSITY OF TEXAS AT EL PASO

UTEP Awarded \$6.1 Million Grant for Cancer Research and Detection

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UTEP Marketing and Communications

The University of Texas at El Paso is leading new research into Hispanic cancer disparities and early cancer detection with \$6.1 million in funding from the Cancer Prevention and Research Institute of Texas (CPRIT).



The Cancer Prevention and Research Institute of Texas (CPRIT) awarded Marc B. Cox, Ph.D., department chair of pharmaceutical sciences and professor of biological sciences, \$5.8 million to advance Hispanic cancer health disparities research at UTEP. Xiujun James Li, associate professor of chemistry, received approximately \$250,000 to develop early cancer diagnosis methods for ovarian cancer, which is the fifth leading cause of cancer deaths among women.

“As America’s leading Hispanic-serving university, UTEP is uniquely positioned to study why cancer disparities exist and how to detect cancer early so that it can be treated,” said Heather Wilson, UTEP President.

CPRIT awarded Dr. Marc B. Cox, Department Chair of Pharmaceutical Sciences and Professor of Biological Sciences at UTEP, a Texas Regional Excellence in Cancer Award for \$5,881,734 to advance Hispanic cancer health disparities research. Additionally, Xiujun James Li, Associate Professor of Chemistry, received \$249,999 to develop early cancer diagnosis methods for ovarian cancer, which is the fifth leading cause of cancer deaths among women.

"I am thrilled UTEP is earning statewide recognition for the work it has done to strengthen its science infrastructure," said Dee Margo, CPRIT Oversight Committee member and former presiding officer. "The UTEP/UTMDACC Partnership for Hispanic Cancer Disparities Research project will take advantage of UTEP's unique resources and opportunities and serve as a model for other universities building a focus in cancer research."

Cox's grant will build a pipeline for researchers investigating cancer-related health disparities in Hispanic populations. The grant will fund five faculty members at UTEP each year for five years to investigate cancer in Hispanics of Mexican origin in the Paso del Norte region, including southern New Mexico and Juárez, Mexico.

Cancer is the leading cause of death among Hispanics, yet Hispanic cancer patients are underrepresented in cancer research, Cox said.

"We have a majority Hispanic population in this region that is historically underserved when it comes to disease research in general," Cox said. "This grant will allow UTEP to address critical questions in cancer research that are relevant for our local population. It will also prepare a new generation of cancer researchers who are focused on reducing and eliminating Hispanic cancer health disparities."

UTEP faculty will partner with researchers from The University of Texas MD Anderson Cancer Center (UTMDACC), who will focus on research projects related to health disparities in pediatric brain cancer, breast cancer, colorectal cancer, gastric cancer and human papillomavirus-related cancers.

"This collaboration will pair junior faculty members at UTEP and senior faculty mentors at MD Anderson who have common interests in basic and translational cancer research across a wide range of disciplines," said MD Anderson site lead Joseph McCarty, Ph.D., Professor of Neurosurgery. "We're looking forward to supporting UTEP's burgeoning cancer research program and fostering long-term collaborative research efforts between UTEP and MD Anderson to benefit cancer patients in Texas."

A second CPRIT grant will support Li's research focusing on advancing methods for early detection of ovarian cancer.

Early-stage ovarian cancer can be challenging to detect because symptoms can be vague. As a result, the disease accounts for more deaths than any other cancer of the female reproductive system.

With support from his CPRIT grant, Li will collaborate with The University of Texas Southwestern Medical Center and MD Anderson to develop a low-cost method that can detect multiple cancer biomarkers using a common thermometer, which could lead to rapid diagnosis of ovarian cancer at its early stages.

"Ovarian cancer is a silent killer," Li said. "It usually can't be detected until it is at an advanced stage, so it has a very high mortality rate. Our aim is to develop early detection methods for ovarian cancer to prevent deaths and increase survival rates, especially in low-resource settings such as border lands, rural areas and developing nations."

Li's research also will provide multidisciplinary training opportunities for UTEP students in nanotechnology, biochip and biomedical research.

The UTEP/MD Anderson faculty pairs and projects are:

- UTEP Principal Investigator Taslim A Al-Hilal, Ph.D., Assistant Professor of Pharmaceutical Sciences and McCarty
Project title: Microfluidic-based isolation and enumeration of circulating brain cancer cells to identify new cancer mediators of Hispanic and non-Hispanic pediatric patients
- UTEP Principal Investigator Sourav Roy, Ph.D., Assistant Professor of Biological Sciences and MD Anderson mentor Eduardo Vilar-Sanchez, M.D., Ph.D., Associate Professor of Clinical Cancer Prevention
Project title: Identifying the components of oxidative-stress induced cellular survival pathways in colorectal cancer health disparities
- UTEP Principal Investigator Md Nurunnabi, Ph.D., Assistant Professor of Pharmaceutical Sciences and MD Anderson mentor Jaffer Ajani, M.D., Professor of Gastrointestinal Medical Oncology
Project title: Development of biosensor and bioimaging technology to diagnosis gastric cancer among Hispanic
- UTEP Principal Investigator Ahmed El-Gendy, Ph.D., Assistant Professor of Physics and MD Anderson mentor R. Jason Stafford, Ph.D., Professor of Imaging Physics
Project title: Plasmonic enhanced magnetic nanoparticles hyperthermia as an alternative cancer therapy
- UTEP Principal Investigator Gabriel Fietze, Ph.D., Assistant Professor of Pharmaceutical Sciences and MD Anderson mentor Surendranath Shastri, M.D., Professor of Health Disparities Research
Project title: Human Papillomavirus (HPV) Vaccine Acceptance: A Randomized Control Trial Examining Trustworthy Messengers of Vaccine Information in Hispanic Parents

About The University of Texas at El Paso

The University of Texas at El Paso is America's leading Hispanic-serving university. Located at the westernmost tip of Texas, where three states and two countries converge along the Rio Grande, 94% of our nearly 25,000 students are minorities, and half are the first in their families to go to college. UTEP offers 168 bachelor's, master's and doctoral degree programs at the only open-access, top tier research university in America.

MEDIA CONTACTS:

Victor H. Arreola
Assistant Director of Media Relations
915-747-6437
news@utep.edu
(mailto:news@utep.edu)

Victor R. Martinez
Media Relations Specialist
915-747-7503
news@utep.edu (mailto:news@utep.edu)

500 West University Avenue | El Paso, TX 79968 | 915-747-5000