



CANCER PREVENTION & RESEARCH
INSTITUTE OF TEXAS

Geographic Diversity Advisory Committee Annual Report 2024

Sarah Williams-Blangero, Ph.D., Chair
Min Kang, Pharm.D., Co-Chair



Geographic Diversity Advisory Committee

The Geographic Diversity Advisory Committee advises the Oversight Committee and staff on universities' special needs and challenges in ***developing cancer research capacity*** in locations far away from the cancer research centers in the major metropolitan areas. The members represent universities that are located 100 miles or more from a National Cancer Institute Designated Center in Houston, Dallas, or San Antonio.



Geographic Diversity Advisory Committee

Member	University
Joseph Heppert, Ph.D.	Texas Tech University
Min Kang, Pharm.D.	Texas Tech University Health Science Center
Robert Kirken, Ph.D.	The University of Texas El Paso
Raj Lakshmanaswamy, Ph.D.	Texas Tech University Health Science Center, El Paso
Ken Ramos, M.D., Ph.D.	Texas A&M University
Daniel Romo, Ph.D.	Baylor University
Sarah Williams-Blangero, Ph.D.	The University of Texas Rio Grande Valley



TREC-ELIGIBLE INSTITUTIONS

- Addressing cancer health disparities.
- Conducting research with underserved populations.
- Diversifying the scientific workforce.



DIVERSITY AND INCLUSION IN RESEARCH

- Minority populations are understudied in NIH funded research even for diseases that disproportionately affect those populations.
- Minority populations are underrepresented in clinical trials.



The University of Texas Rio Grande Valley

- Predominantly Hispanic population
- High prevalence of risk factors for cancer
- Significant cancer health disparities for liver cancer and cervical cancer
- One of the most economically disadvantaged areas in the country



Texas Tech University Health Science Center, El Paso

- Only health science center located on the US-Mexico border
- Cancer is a leading cause of death among Hispanics in the region
- Significant disparities in outcomes for breast cancer, liver cancer, pancreatic cancer, and leukemia



Success at Awarded TRECs:

Texas Regional Excellence in Cancer Developmental Therapeutics Center at TTUHSC

Overall goal is to develop a center with significant expertise in cancer developmental therapeutics (DT) in West Texas and to provide a resource for all of Texas.

Key elements:

- Senior faculty with active grant-funded DT projects
- Core resources necessary for DT research
- Steady pipeline of trainees (PhD and MD PhD) trained in DT
- Recruitment of outstanding DT junior faculty



Progress to Date

Texas Regional Excellence in Cancer Developmental Therapeutics Center at TTUHSC

- Established and have functioning admin, biobanking, pharmacology, and regulatory sciences cores. Bioinformatics/Biostat core in progress.
- Monthly meetings of junior faculty presenting and discussing projects and plans for grant funding.
- Four initial TREC junior faculty carrying out TREC-funded research.
- Mentoring of TREC-funded (and potential future TREC-funded) junior faculty.
- Recruitment of bioinformatics core leader and new junior faculty in progress.



TTUHSC TREC Progress to Date

- Since TREC funding began, TREC senior faculty have received 3 new grant awards in developmental therapeutics, 1 NCI R01, 1 NCI U01, 1 CPRIT IIRA. Junior faculty have submitted CPRIT grants (under review).
- TREC faculty are participating in the conduct of ongoing phase I and Phase III clinical trials.
- Preclinical data from TREC investigators are being used to support development of multiple national Phase I, Phase II, and Phase III clinical trials.



Success at Awarded TRECs:

UTEP/UTMDACC Partnership for Hispanic Cancer Disparities Research

- *Support translational research by junior faculty and develop mentoring program in collaboration with MD Anderson*



Recommended Funding Mechanisms

Mechanism	Recommended Funding	Award Project Terms
Pilot Study Grant	\$100K per year	2 Years
Institutional Postdoctoral Training Program	\$200K-\$500K per year	4 Years
Infrastructure/Major Instrumentation Grant	\$2M per year	1 Year
Clinical Trials Infrastructure Grant	\$500K per year	2 Years



Recommended Funding Mechanisms

Mechanism	Recommended Funding	Award Project Terms
Meeting Support	\$50K per year	1 Year
Individual Postdoctoral Training Grant	\$100K per year	3 Years
Program Project Grant	\$875K per year	4 Years
Partnerships with Cancer Research Centers	\$600K per year	3 Years



Changing the Application Process

Check box to indicate application is from a TREC-Eligible institution.

Improve guidance to applicants for developing institutional letter of support

- Overall vision

- Faculty release time

- Commitment of space

- Commitment of technical staff support

- Maintenance contract support



GDAC Recommendations: *Modify the Review Process*

- Group applications from TREC-Eligible institutions together for review.
- Develop materials for reviewers that describe the characteristics of TREC-Eligible institutions.
- Improve balance on review committees by recruiting cancer researchers from IDeA Centers and RCMIs to review panels.



Sustainability of TREC Programs

- One renewal of a TREC-Award allowed.
- Ten years to develop a self-sustaining cancer research program
- Maximize number of TREC Awards so that high quality cancer research and cancer care is available across all of Texas.



Goals for Fiscal Years 2024-2025

- Identifying resources and opportunities at TREC-Eligible institutions
- Fostering collaborations between TREC-Eligible Institutions
- Tracking progress/impact of TRECs; emphasis on underserved populations
- Meeting of investigators from TREC-Eligible institutions together with current TREC-funded institutions.





THE UNIVERSITY OF TEXAS AT EL PASO

Cancer Prevention Institute of Texas

Oversight Committee Meeting

February 21, 2024

Robert A. Kirken, Ph.D.

Dean of Science

BEGINNINGS OF UTEP

Mining In El Paso and Chihuahua

- Crossroads for US & Mexico mining centers
- Four transcontinental railroads
- Metal, coal, and oil deposits
- 1920 – ASARCO smelter was the second largest in the world

Texas School of Mines and Metallurgy



- Founded in 1913
- Opened September 1914





UTEP is a comprehensive public research university that is increasing **access** to **excellent** higher education. We advance discovery of public value and positively **impact** the health, culture, education, and economy of the community we serve.



UTEP AT A GLANCE



24,300 Students

95% Minority

49% First-gen students

#1 For social mobility (TX)



172

Degree Programs

75 Bachelor's

71 Master's

26 Doctoral



\$146M

Annual Research

\$1.4B

Annual contribution to region's economy

HISPANICS ARE...

63 MILLION PEOPLE

of the total U.S. population in 2020



EL PASO, TEXAS

83%
Hispanic

96%
Mexican Origin

UTEP

>84%

Hispanic Students

DEFINED BY



Health Disparities



Health Care Inequalities



Cancer Disparities



29%

of the total U.S.
population in 2050



40%

of the total Texas
population in 2020

LARGEST U.S. ETHNIC MINORITY



19.1%
Hispanic



African American



Asian American



American Indian

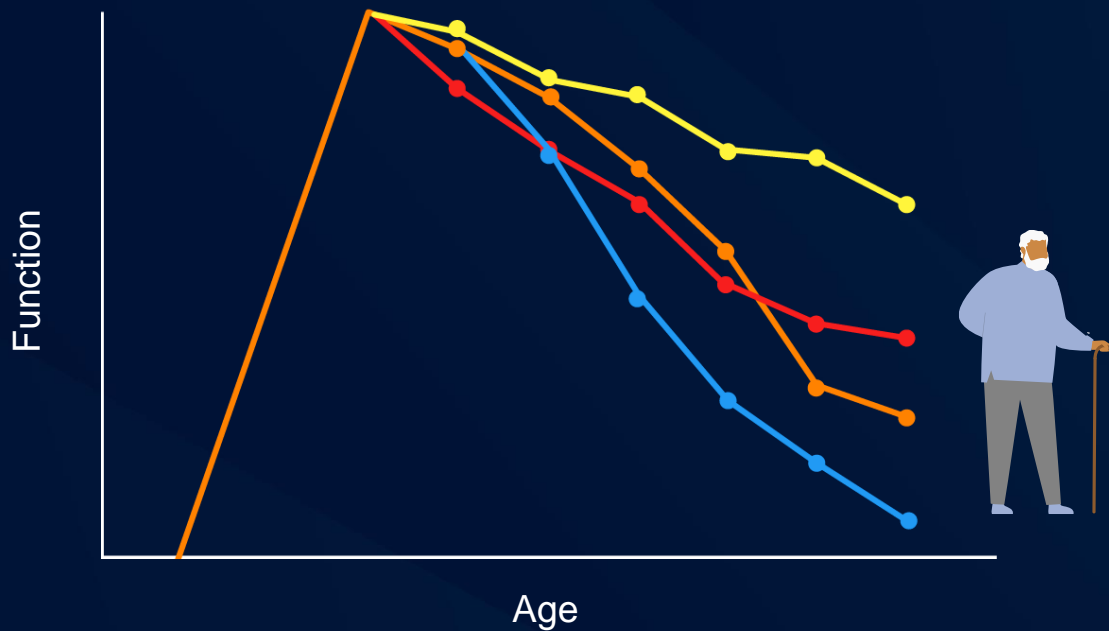


Native Hawaiian

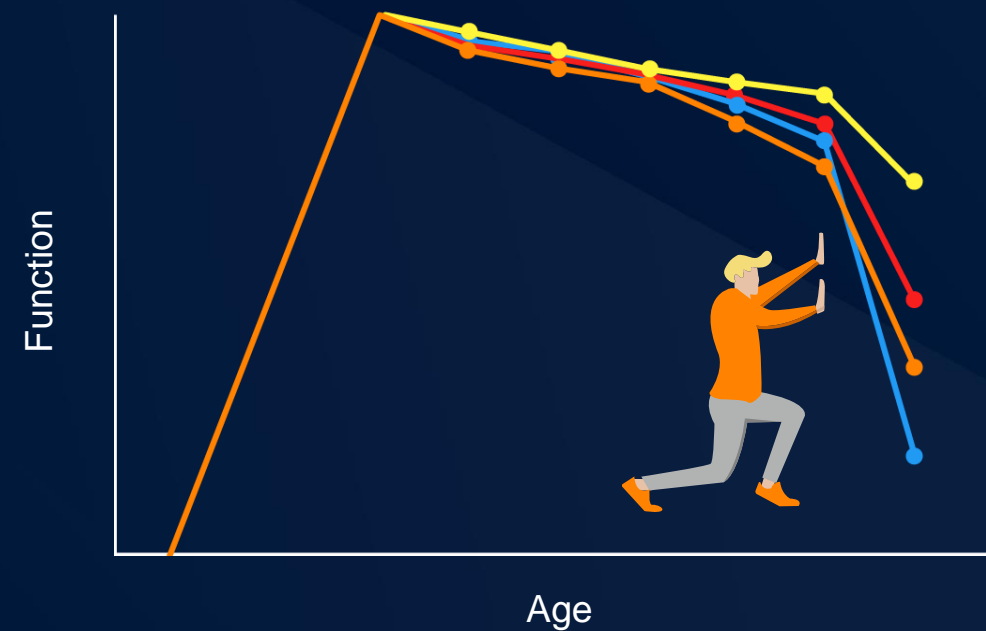
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ADDRESS CANCER HEALTH DISPARITIES AND INCREASE HEALTH SPAN

HISPANIC HEALTH SPAN



ALL RACES



 Disease A  Disease B  Disease C  Disease D

CANCER DISPARITIES AND RESEARCH INTERESTS

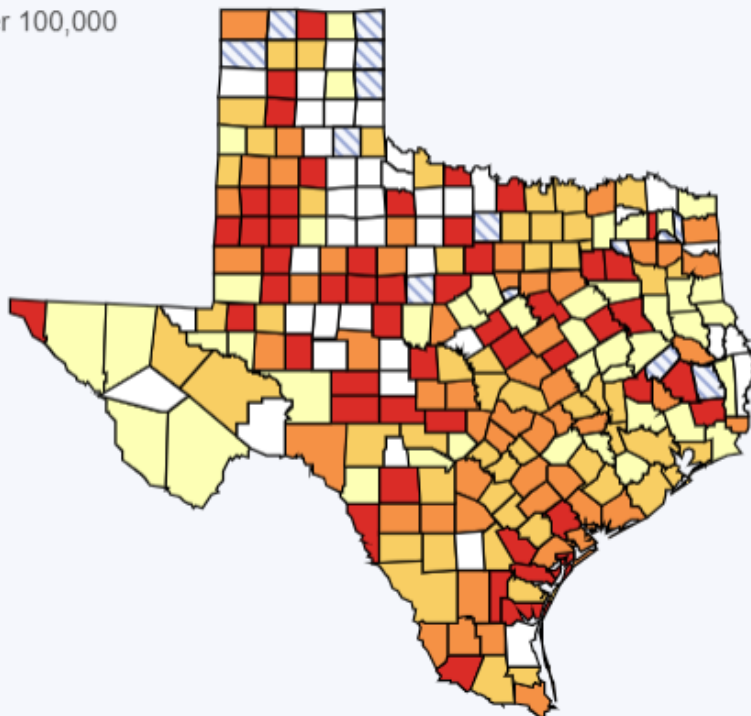
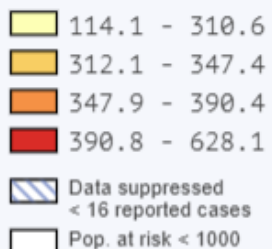
Invasive Cancer Incidence Rates in Texas

All Sites, Hispanic, 2016 - 2020

By County

Age-Adjusted to the 2000 U.S. Standard Population

Texas Rate: 346.2 / per 100,000



All rates per 100,000. Cancer Incidence File, Feb 2023. Retrieved Jan 10, 2024.

ⓘ Data suppressed if < 16 cases were reported in the specified dataset.

Cancer Incidence in El Paso County

	Age-adjusted Incidence Rate per 100,000 (95% CI)	Average Annual Count	Recent Trend (Last 5 years)	Recent Trend Incidence Rate (95%CI)
Texas	346.2 (344.3, 348.1)	28,204	Stable	0.1 (-0.2,0.9)
El Paso County	395 (388.4, 402.3)	2,590	Rising	1.1 (0.3, 2.9)

Source: Statecancerprofiles.cancer.gov



STRATEGIC ADVANTAGE: LEVERAGE OUR PLACE

The El Paso/Juarez Borderplex is one of the most dynamic international borders in the world.

- Approximately 2.5 million residents.

More than 82% of El Paso County residents are Hispanic.

- 96% of Mexican origin.
- Up to 5 generations of Hispanics.

>70% speak another language at home (2011- 2015).

Hispanics suffer from multiple health disparities (e.g., cardiovascular disease, hypertension, metabolic disease, cancer).



Approaches for Addressing Cancer Health Disparities at UTEP

Infrastructure

Strategic Hires

UTEP
Collaborations

Collaborations
with Hospitals

Community
Engagement

Core
Laboratories

Biostatistics/
Data Analytics

Interdisciplinary
Research

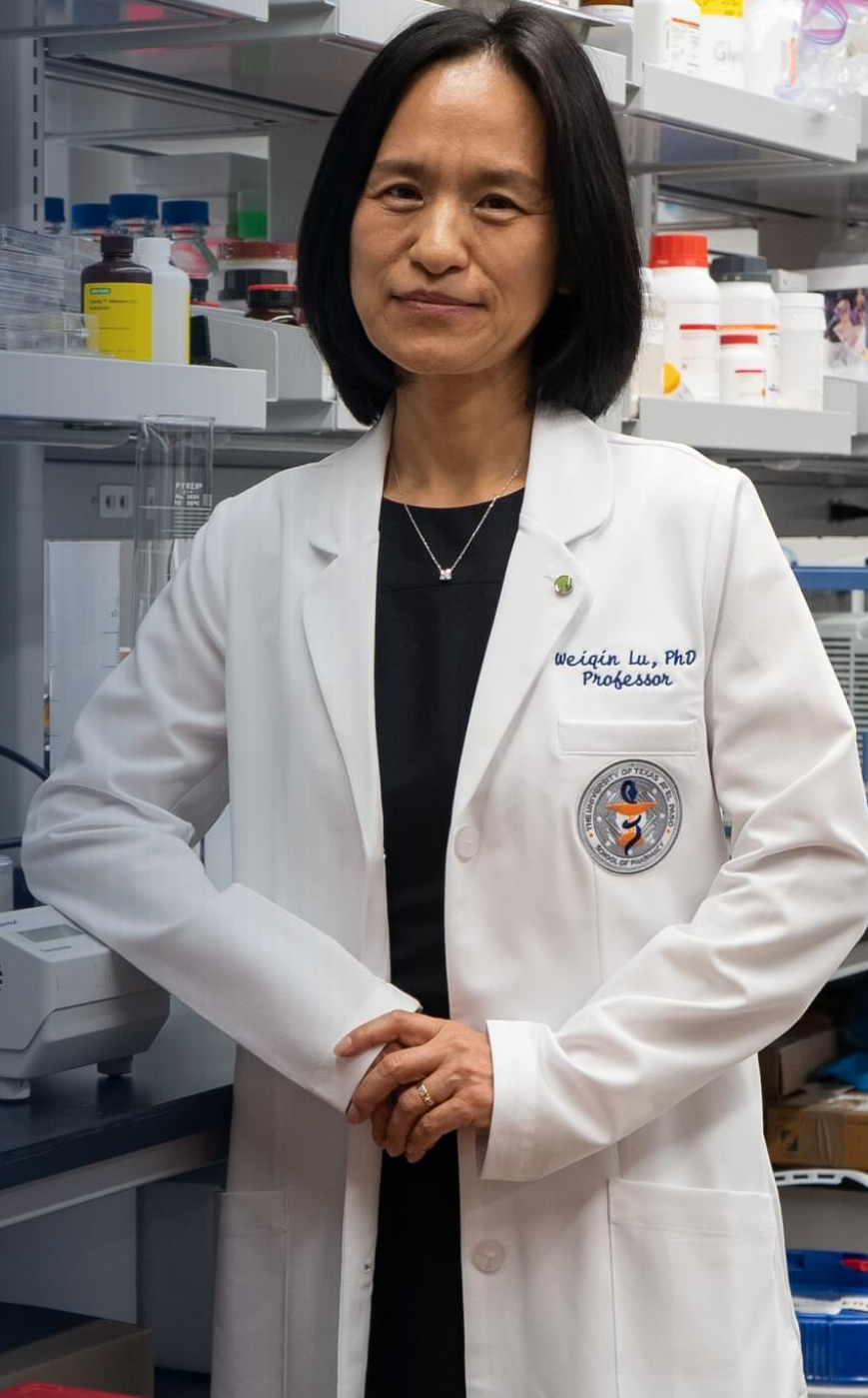
Local Systems,
MD Anderson

CHWs
(Promotores)



UTEP CANCER RESEARCH AREAS OF FOCUS

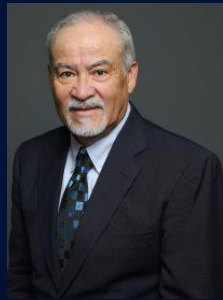
- Acute lymphocytic leukemia
- Breast
- Gallbladder
- Liver and intrahepatic bile duct
- Ovary
- Prostate



CPRIT HELPED BUILD OUR CANCER EXPERTISE

TENURED/TENURE TRACK CANCER RESEARCHERS AT UTEP

Cancer Biology/Treatment



**Renato
Aguilera**



**Taslim
Al-Hilal**



**Marc
Cox**



**Ahmed
El-Gendy**



**Giulio
Francia**



**Robert
Kirken**



**Weiqin
Lu**



**Sylvia
Natividad-
Diaz**

Public Health



**Md
Nurunnabi**



**Sourav
Roy**



**Charlotte
Vines**



**Jianying
Zhang**



**Gabriel
Frieze**



**Eva
Moya**



**Jacob
Martinez**



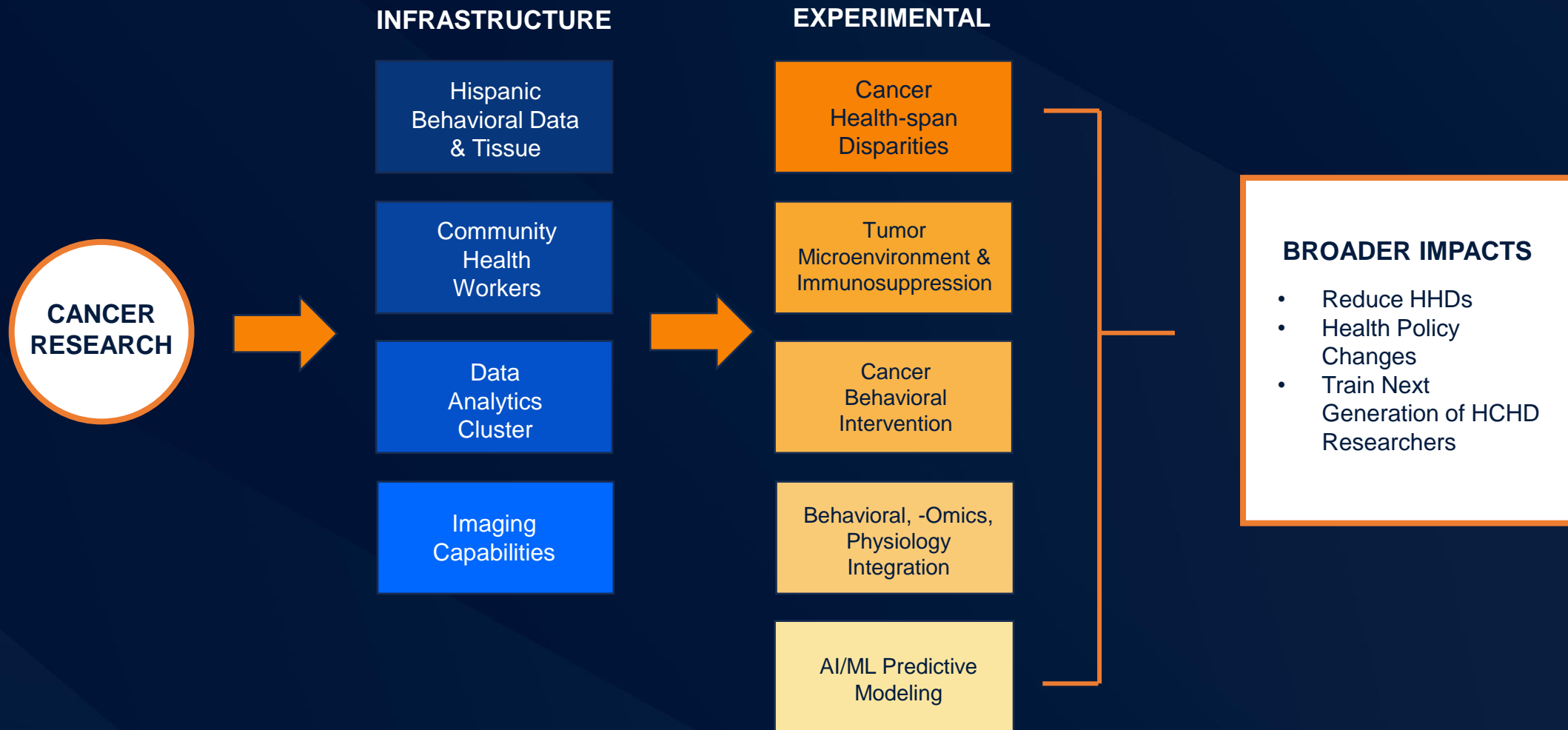
**James
Li**



**Wen-Yee
Lee**

Diagnostics

UTEP'S HISPANIC CANCER HEALTH DISPARITIES STRATEGY



UTEP BIOREPOSITORY WORKS CLOSELY WITH LOCAL PARTNERS



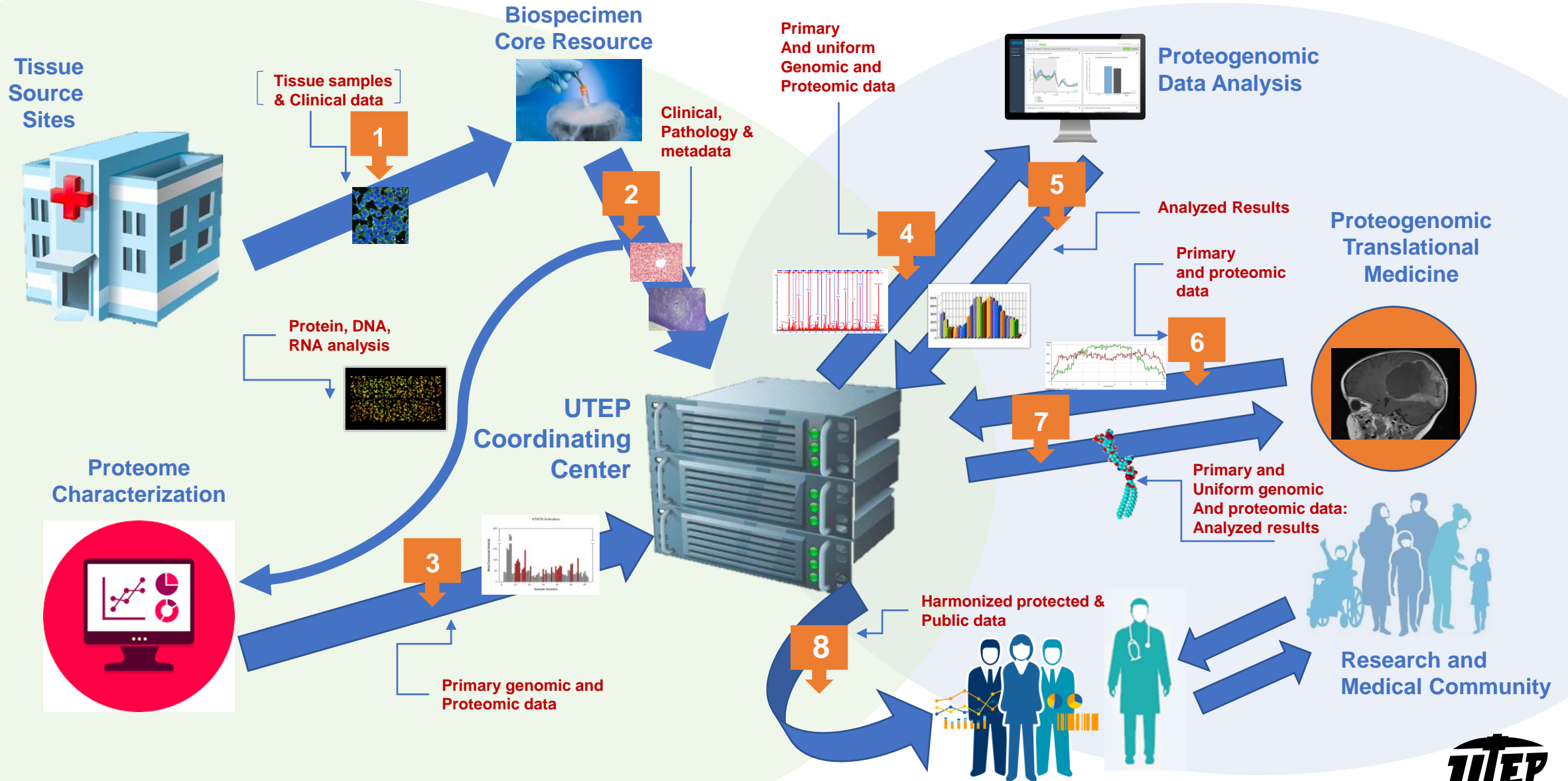
México Hospitals



BIOREPOSITORY

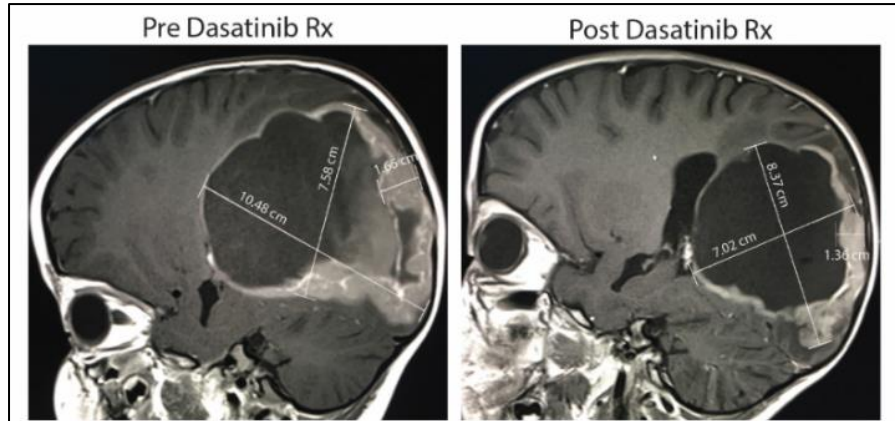


BIOREPOSITORY & CENTER FOR TRANSLATIONAL MEDICINE

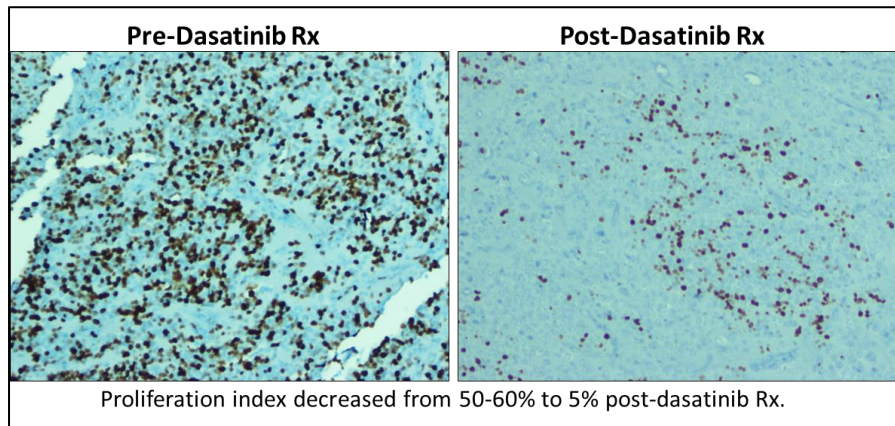
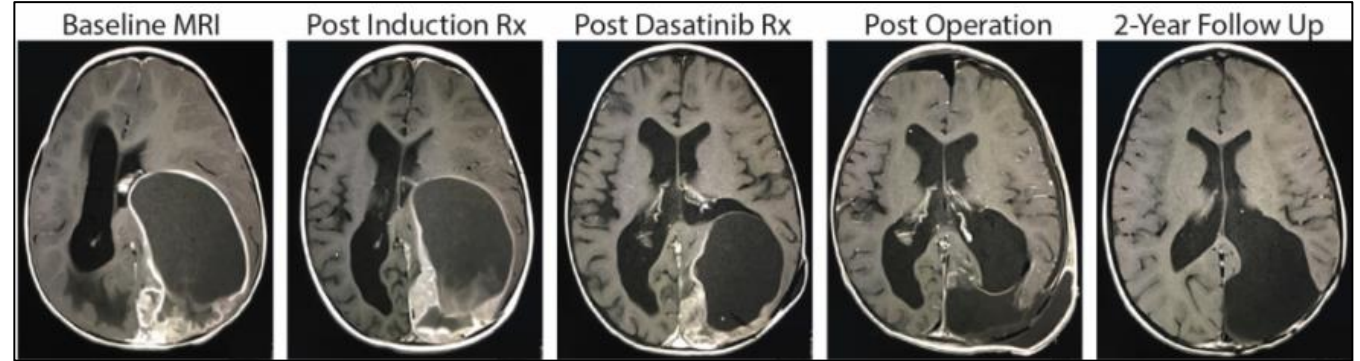


WE TACKLE CANCER IN OUR REGION

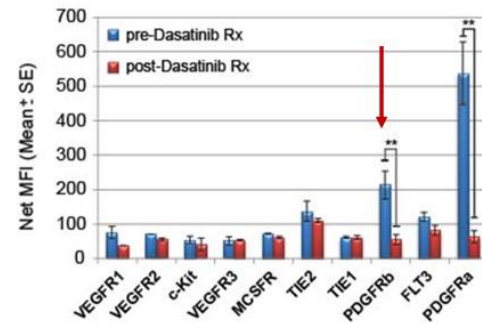
CASE STUDY: EMBRYONAL TUMOR WITH MULTILAYERED ROSETTES



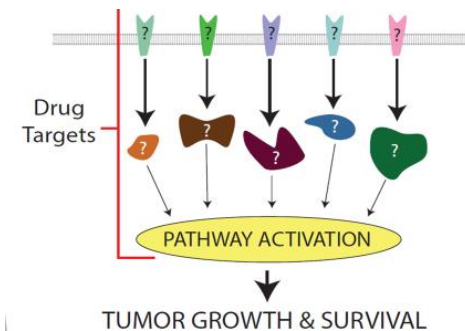
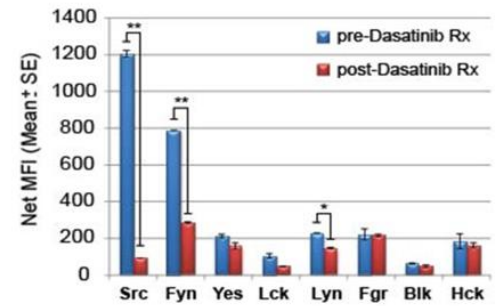
32-month-old	Pre Dasatinib	Post Dasatinib
AP Cystic Component	10.48 cm	7.02 cm
SI Cystic Component	7.58 cm	8.37 cm
Tumor Component*	1.66 cm	1.36 cm



A

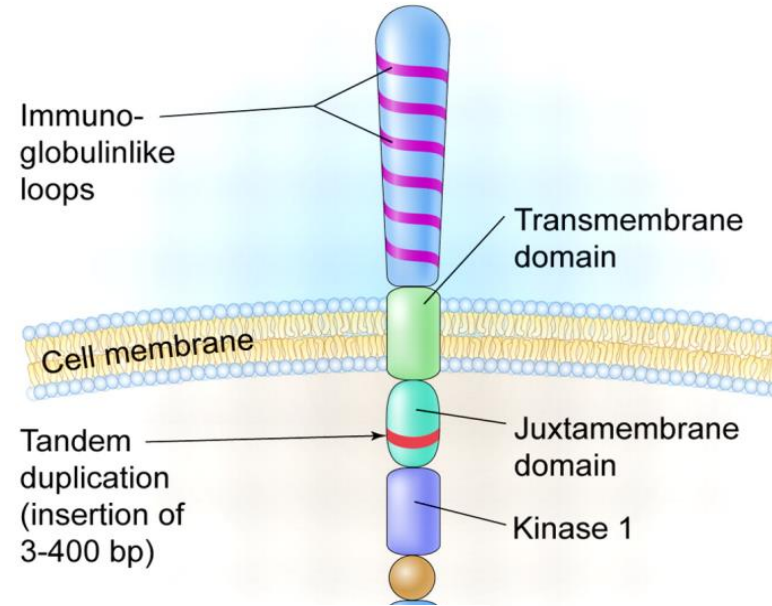
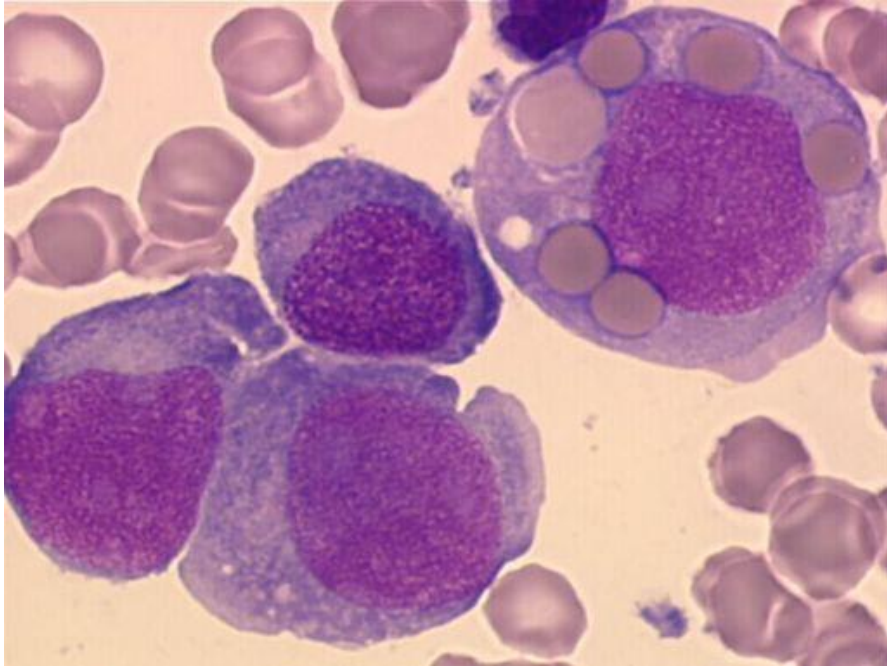


B



WE TACKLE CANCER IN OUR REGION

CASE STUDY: ACUTE MYELOID LEUKEMIA (AML) WITH FLT3-ITD



Point -
mutatio
D836
I836

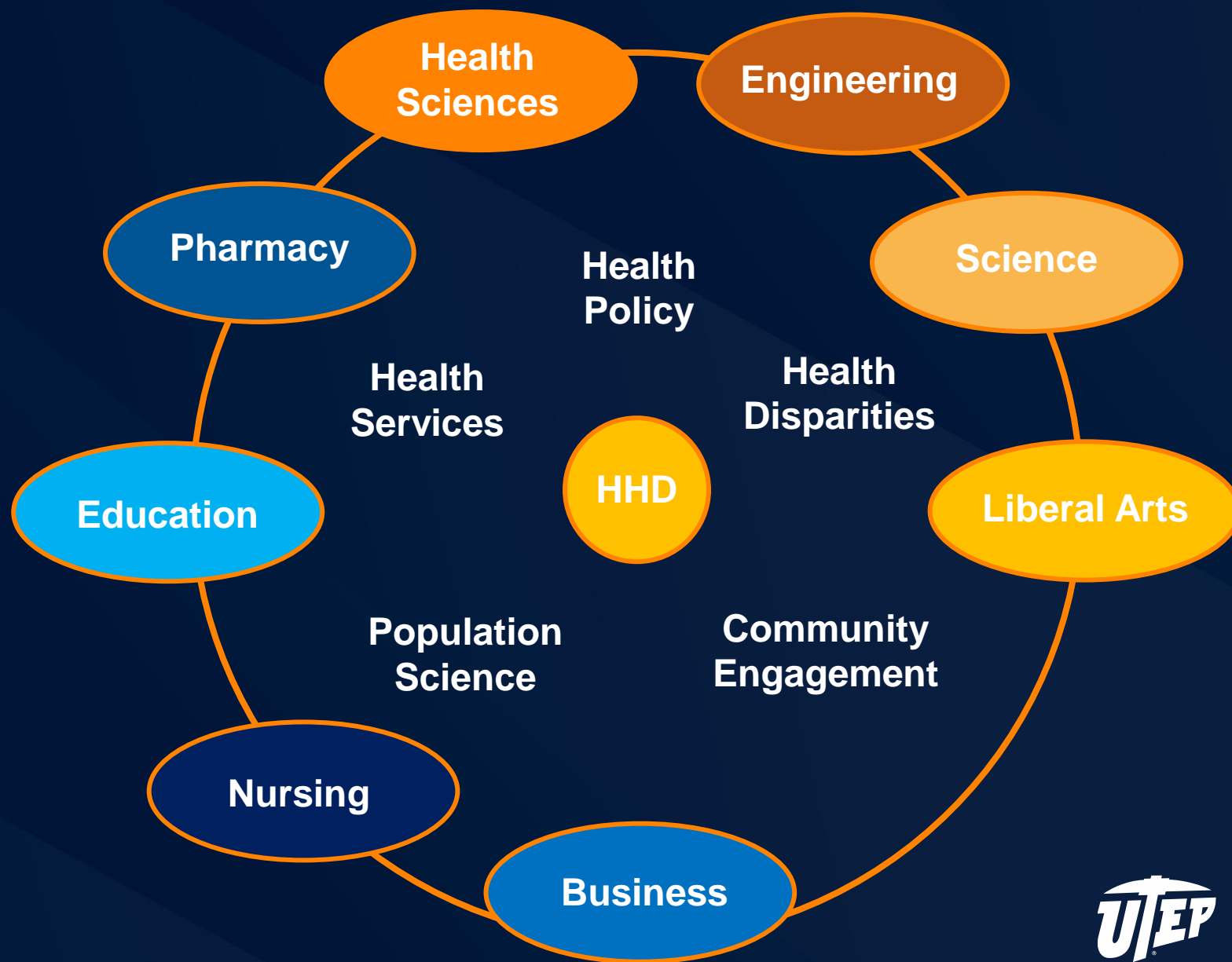
- Kinase 2
- C-terminus



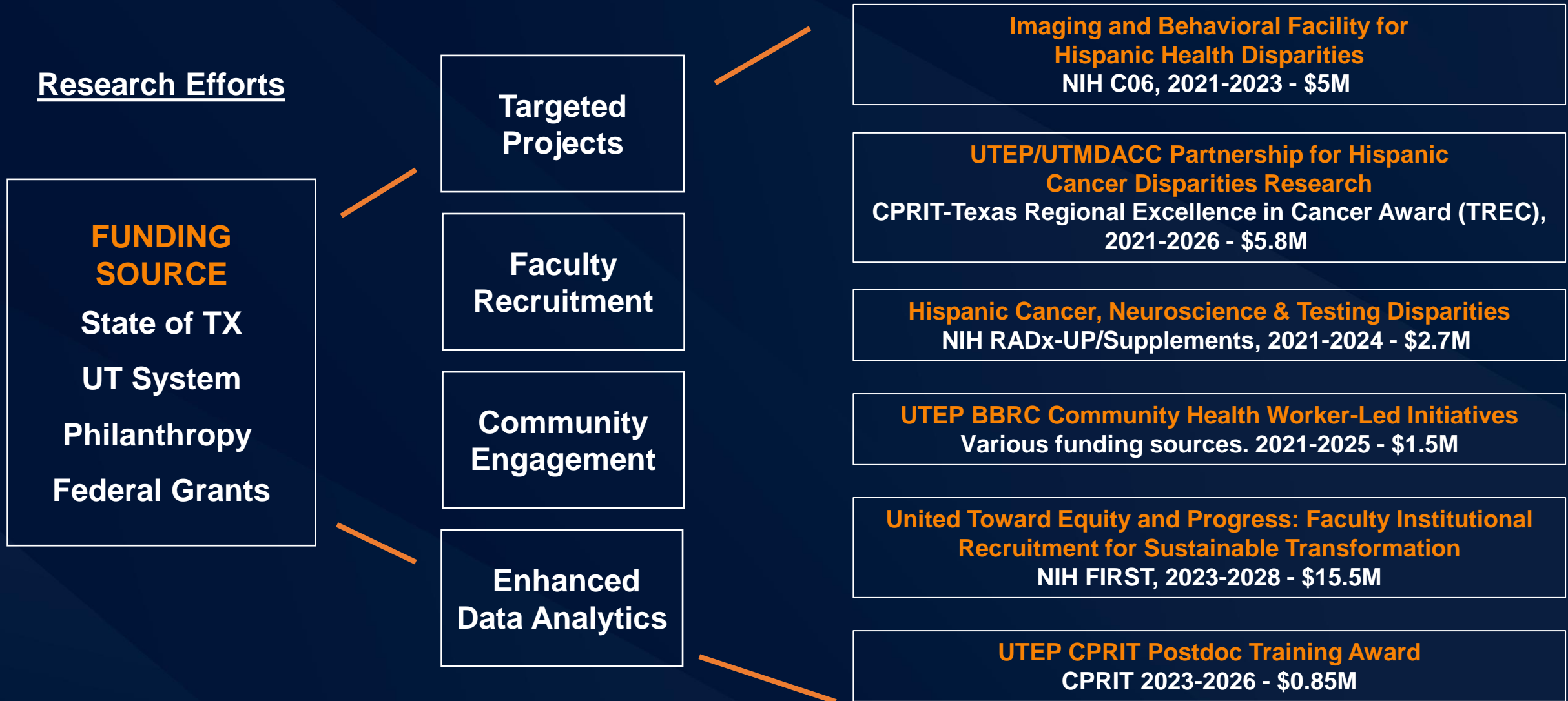
UTEP'S HISPANIC CANCER HEALTH DISPARITIES STRATEGY

Health disparities will not be eliminated by individual investigators, or individual groups of investigators.

The problems are too multifaceted, complex and integrated.



RECENT HISPANIC HEALTH DISPARITIES FUNDING INITIATIVES



EARLY-STAGE CPRIT INVESTIGATOR PRODUCTS AND GRANTSMANSHIP

We reported 24 publications, 26 presentations, and four provisional patents across years 1 and 2.

GRANT SUBMISSIONS BY CPRIT ESIs					
Grant Year	NIH-PI	NIH- CO-PI	*Other - PI	*Other – Co-PI	Total
2021-2022	11	7	12	8	38
2022-2023	8	3	20	10	41

*Includes local, state, foundation, NIH subcontract funding, CPRIT, and other federal agencies.

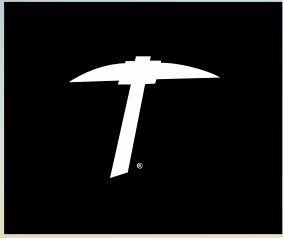
TOTAL AWARDED TO CPRIT ESIs*			
Grant Year	NIH	*Other	Total
2021-2022	\$3,463,097	\$238,827	\$3,701,924
2022-2023	\$403,018	\$680,672	\$1,083,590

*Includes local, state, foundation, NIH subcontract funding, CPRIT, and other federal agencies.



UTEP is addressing and making significant progress in improving health equity in our region's population.





Thank You