

TEXAS SOUTHERN UNIVERSITY Division of Research & Innovation



Institute/Center Name: TSU SHAPE Initiative

Name(s) of Director(s): Dr. Grace Loudd & Dr. Dominique Guinn

Date Established: September 2014

Office Phone: 713-313-1194

Website: http://www.tsu.edu/academics/colleges-and-schools/colabs/social-work/social-work-shape/contact-us.html

Institute/Center Description: The TSU S.H.A.P.E. Initiative (TSI) is a Texas Southern University and communitybased partnership established by the Department of Social Work in 2014 and annually funded through SAMHSA (Substance Abuse and Mental Health Services Administration). S.H.A.P.E. is an acronym representing core targets to include Substance Use, Mental Health, HIV/AIDS, and Prevention Education. The program focuses on addressing health disparities through the provision of easily accessible and culturally sensitive service delivery. TSI offers students and community members free and confidential in-person and virtual health screenings, community-based referrals, educational and volunteer opportunities, and service linkage consistent with its motto: Awareness, Action, and Empowerment. TSI is a single initiative comprised of three primary programs: CHANGE (Change Through Healing Awareness Networks and Gateways to Empowerment), YES (Youth and Young Adult Empowerment Services), and the #Bruthas Project that collectively serve individuals 13+ years of age on the Texas Southern University campus, in Greater 3rd and 5th Ward communities, and throughout Greater Houston.

Internal interdisciplinary collaboration for FY 2022: University Counseling Center, Student Health Center, Campus Organizations, Department of Social Work, Center for Emotional Health & Wellness

External interdisciplinary collaboration for FY 2022: Avenue 360 Health & Wellness, City of Houston Health Department, KEW Learning Academy, Shape Community Center, Center for Recovery & Wellness Resources, AIDS Foundation Houston

Institute/Center Name: Forensic Science Learning Lab

Name(s) of Director(s): Ashraf Mozayani (Executive Director); Jasmine Drake (Laboratory Coordinator)

Date Established: 2012

Office Phone: 713-313-7332

Website:http://www.tsu.edu/academics/colleges-and-schools/bjml-school-public-affairs/departments/administration-of-justice/degrees/forensic-science-learning-lab.htm

Institute/Center Description: The mission of the Forensic Science Learning Lab (FSLL) is to provide specialized forensic science education and training for any Texas Southern University students interested in pursuing careers in the field of forensic science and to provide training opportunities for current practitioners in the field aspiring to expand and update their knowledge and skills.

Internal interdisciplinary collaboration for FY 2022: TSU Leadership, Education, & Advancement in Undergraduate Research Pathways (TSU-LEAP) Trainees, TSU Bioscholars Summer Program (Youth Camp), TSU Parent-Child Learning Center STEM Demos, TSU Tier Two Faculty Member, Student Academic Support Services

External interdisciplinary collaboration for FY 2022: Support of the 13th Annual Community Drug Awareness Conference, Houston ISD Fall Initiative: Career Readiness initiative Professionals.

Innovative Transportation Research Institute

Name(s) of Director(s): Director: Dr. Lei Yu; Co-director: Dr. Fengxiang Qiao

Date Established: 2000

Office Phone: 713-313-1915 / **Fax Phone:** 713-313-1856

Website: https://coset.tsu.edu/itri/

Institute/Center Description: The Innovative Transportation Research Institute (ITRI) at TSU was developed in the fall of 2006 by expanding the former Urban Traffic and Air Quality Lab (UTAQL), which was first established in 2000. The goals are to develop, evaluate, optimize, and recommend comprehensive strategies for traffic congestion mitigation, mobile source emission reduction, fuel consumption saving, urban transportation planning, and ITS development, through the smart utilization of advanced technologies, large-scale computer simulation methods, complex modeling systems, and state-of-the-art lab equipment. The missions are to conduct innovative research and development to seek optimal solutions to various transportation problems, and to develop and deliver high-quality education and training programs to traffic engineers, transportation planners, transportation managers, air quality specialists, etc. ITRI receives funding support from various federal and state level agencies, including the newly awarded National Center for Sustainable Transportation (NCST), where ITRI is a member of the seven-institution consortium, a national University Transportation Center (UTC) funded by the U.S. Department of Transportation, which also includes the University of California at Davis, University of Southern California, the California State University at Long Beach, the University of California at Riverside, Georgia Institute of Technology, and the University of Vermont.

Internal interdisciplinary collaboration for FY 2022: While based in the Department of Transportation Studies, ITRI was actively working with other programs and research centers, such as the Department of Environmental and Interdisciplinary Sciences and the Department of Urban Planning and Environmental Policy, on joint educational and research collaborations.

External interdisciplinary collaboration for FY 2022: Conducted research on "Synthesis of Best Applications and Verification Practices for Long-Life Pavement Markings" under the direction and support from the Texas Department of Transportation. The research report (R1) and project summary report (PSR) have been accepted for printing and distribution.

Institute/Center Name: High Performance Computing Center

Name(s) of Director(s): Daniel Vrinceanu

Date Established: 09/01/2010

Office Phone: 713-313-4482

Website: https://coset.tsu.edu/hpcc/

Institute/Center Description: The Texas Southern University High Performance Computing Center (TSU-HPCC) promotes research and teaching by integrating leading edge, high-performance computing and visualization for the faculty, staff, and students of Texas Southern University, as well as advance disciplinary diversity, partnerships, and excellence. Additionally, our secondary mission is to partner with and promote research at underrepresented Universities across the state of Texas.

The HPCC will facilitate research and aid in educational advancement by integrating leading edge, high-performance computing and visualization to individual administrative units, as well as multidisciplinary units across campus. The Center will embrace this disciplinary diversity by creating partnerships across the department and colleges of Texas Southern University and additionally with underrepresented universities across the state of Texas. The center will ensure that Texas Southern University obtains and retains superior computing and visualization facilities for the present and future of the University.

Internal interdisciplinary collaboration for FY 2022: Dr. Bruce Prince (Chemistry), Dr. Y. Wang (Mathematics)

External interdisciplinary collaboration for FY 2022: Dr. L. Huang (PVAMU), Dr. M. Jensense (BNL)

Institute/Center Name: TSU Aggressive Prostate Cancer Study

Name(s) of Director(s): Dr Veronica Ajewole (Director)

Date Established: September 2020

Office Phone: 713-313-1233

Website: https://linktr.ee/tsuapcastudy

Institute/Center Description: Aggressive prostate cancer among African American men to increase prostate cancer education, awareness and screening among African American males.

Internal interdisciplinary collaboration for FY 2022: College of Pharmacy and Health Sciences, Division of Research and Innovation,, TSU Advance Health Equity Program, TSU Institute for Health Equity Advancement, Research and Training, TSU Advance Health Equity Program, Community Engagement Core of Center for Biomedical and Minority Health Research, TSU Breast Cancer Screening and Prevention Center

External interdisciplinary collaboration for FY 2022: Houston Methodist Hospital, Sankofi Research Institute

Institute/Center Name: TSU Breast Cancer Screening and Prevention Center

Name(s) of Director(s): Dr Veronica Ajewole (Director)

Date Established: September 2021

Office Phone: 713-313-4424

Website: https://linktr.ee/TSUBreastcareclinic

Institute/Center Description: TSU BCSPC provide breast cancer screening mammogram and diagnostic workup for uninsured and underinsured women at no cost. We also provide patient navigation and barrier reduction services. Our services are provided at Harris, Grimes, Walker, Matagorda, and Wharton for eligible women.

Internal interdisciplinary collaboration for FY 2022: College of Pharmacy and Health Sciences, Division of Research and Innovation,, TSU Advance Health Equity Program, TSU Institute for Health Equity Advancement, Research and Training, TSU Aggressive Prostate Cancer Study, Community Engagement Core of Center for Biomedical and Minority Health Research

External interdisciplinary collaboration for FY 2022: Trinity Church, Lilly Grove Baptist Church, Good Hope Baptist Church, Houston Canterbury, Dominion International Center, Willing Workers Baptist Church, MT. Rose City of Refuge, The Fountain of Praise, San Mateo Iglesia Episcopal, PowerHouse Church, Emancipation Park, Texan YMCA, City of Houston Northeast Multi-service center, Buckner Family Hope Center, Precinct 2, SurviveHer, Christopher Pichon Foundation, Gulfton National group

Realtors Helping Realtors, Breast of Us, Susan G Komen, Cancer Alliance of Texas, AKA/Alpha Alpha Eta Omega Chapter, Navasota Public Library, Houston Police Department, Houston Housing Authority, Avenue 360, BeeBusy Wellness Center, Lonestar Circle of Care, Houston Methodist Hospital, The Rose

Institute/Center Name: Community Engagement Core of Center for

Biomedical and Minority Health Research

Name(s) of Director(s): Dr Veronica Ajewole (Director); Dr Grace Loudd (Associate Director)

Date Established: October 2020

Office Phone: 713-313-1233

Website: https://linktr.ee/cectxsouthernu

Institute/Center Description: The Research Centers in Minority Institutions (RCMI) is a program under the National Institute of Health (NIH)'s National Institute on Minority Health and Health Disparity (NIMHD). The RCMI program develops and strengthens the research infrastructure necessary to conduct state-of-the-art biomedical research and foster the next generation of researchers from underrepresented populations. Texas Southern University (TSU), one of the nation's largest HBCUs, recently received a \$8.63 million RCMI award for the Center for Biomedical and Minority Health Research (CBMHR) which consists of 4 major components: Research Infrastructure Core; Community Engagement Core and Investigator Development Core and a research project on prostate cancer.

The Community Engagement Core (CEC) works directly with the Greater Houston Community to identify and address health related concerns. The CEC provides health-related resources to the community through partnerships with healthcare systems, Federally Qualified Health Centers, as well as community and faith-based organizations. The CEC hosts health education events across the Greater Houston Community to increase clinical trials awareness and reduce health disparities related to communities of color. For more information, visit us on Facebook, Twitter and Instagram @CECTxSouthernU

Internal interdisciplinary collaboration for FY 2022: College of Pharmacy and Health Sciences, Division of Research and Innovation, TSU Breast Cancer Screening and Prevention Center, TSU Advance Health Equity Program, TSU Institute for Health Equity Advancement, Research and Training, TSU Aggressive Prostate Cancer Study

External interdisciplinary collaboration for FY 2022: Trinity Church, Lilly Grove Baptist Church, Good Hope Baptist Church, Houston Canterbury, Dominion International Center, St. Luke's Episcopal Church , Wheeler Avenue Baptist Church, Holman Street Baptist Church, The Fountain of Praise Church, Jordan Grove Missionary Baptist Church, Saint Peter Claver Catholic Church, Progressive New Hope Church, Saint Monica's Catholic Church, Mt. Horeb Missionary Baptist Church, Loyal Missionary Baptist Church, Our Mother of Mercy, Wheeler Avenue Baptist Church, Holman Baptist Church, Shape Community Center, TSU Aging and Intergenerational Resources, DAWN Center, Leukemia & Lymphoma Society, Third Ward Community Cloth, American Heart Association, CenterWell, NRCDC Go neighborhoods, Research Match, Friends of Riverside Park Houston, Hester House Houston, 50 Hoops legend, Collaborative, Baker Ripley, Care Connection, 5th Ward NRCDC, KEW Learning Center, Law Harrington Center, Santa Maria Hostel, Cuney Homes, Sisters Network , AWARE for All, Lupus foundation, Emancipation Park, Avenue 360 Health and Wellness, Legacy Community, Bee Busy Wellness Center, Baylor College of Medicine, Houston Methodist Hospital, University of Texas Medical Center Galveston, Genentech, Janssen, GSK, Merck

Institute/Center Name: TSU Advance Health Equity Program

Name(s) of Director(s): Dr Veronica Ajewole (Director), Dr Ivy Poon (Associate Director)

Date Established: September 2022

Office Phone: 713-313-1233

Website: https://linktr.ee/cectxsouthernu

Institute/Center Description: The goal of Advance Health Equity Program is to advance health equity in Priority Tier 1 and 2 communities through COVID-19 related and health equity promotional activities conducted by Community Health Workers (CHWs). This aligns with the Center for Disease Control (CDC)'s mission to reduce COVID-19 related health disparities and promote health equity among racial/ethnic minority populations. It also aligns with Houston Health Department (HHD)'s goal to build community infrastructure in health promotion to minority communities through CHWs.

Internal interdisciplinary collaboration for FY 2022: College of Pharmacy and Health Sciences, Division of Research and Innovation, TSU Advance Health Equity Program, TSU Institute for Health Equity Advancement, Research and Training, TSU Aggressive Prostate Cancer Study, Community Engagement Core of Center for Biomedical and Minority Health Research, TSU Breast Cancer Screening and Prevention Center

External interdisciplinary collaboration for FY 2022: San Jose Clinic

Institute/Center Name: Center of Excellence for Housing and Community Development Policy Research (CEHCDPR)

Name(s) of Director(s): Jeffrey S. Lowe, Ph.D., Director; Laura Solitare, Ph.D, Associate Director

Date Established: May 2022 **Office Phone:** 713-313-4826 / **Fax Phone:** 713-313-4896

Institute/Center Description: CEHCDPR advances research and debate on affordable housing and community development policy for racial equity benefiting low-income communities of color in the six major Texas cities: Austin, Dallas, El Paso, Fort Worth, Houston, and San Antonio. Investigators assume research projects under the following two thematic and interconnected areas: 1) individual and community wealth building and housing security and stability; and 3) planning and infrastructure inequity affecting underserved communities.

TSU is the only HBCU with both an accredited professional urban planning program (in the Barbara Jordan-Mickey Leland School of Public Affairs) and an accredited (Thurgood Marshall) School of Law. A joint center of the two schools, CEHCDPR aims to expand the ability to conduct academic and empirical research in housing and community development at TSU. As a US Department of Housing and Urban Development Center of Excellence (one of two at an HBCU), CEHCDPR intends to become a destination point for supporting the innovative research projects of seasoned and emerging scholars within and outside of TSU that help foster collaboration and stimulate policy debate. In partnership with Alabama A&M University's Department of Community and Regional Planning (the only HBCU with an accredited undergraduate planning program), and the University of Texas at Austin's Department of Community and Regional Planning Department and Law School, CEHCDPR investigators conduct research with assistance from graduate and undergraduate students and, thereby, extend the pipeline for conveying future housing and community development researchers and scholars of color.

Internal interdisciplinary collaboration for FY 2022: Department of Urban Planning and Environmental Policy, Barbara Jordan-Mickey Leland School of Public Affairs; Department of Journalism, School of Communication; and Thurgood Marshall School of Law

External interdisciplinary collaboration for FY 2022: Department of Community and Regional Planning, Alabama A&M University; Department of Urban and Regional Planning, University of Illinois at Urbana-Champaign; Department of Community and Regional Planning and Law School, University of Texas at Austin; and School of Science and Engineering, University of Missouri-Kansas City

CPRIT GCC Center for Comprehensive PK/PD & Formulation (CCPF)

Director: Dr. Dong Liang, Principal Investigator

Date Established: 09/2018

Office Phone: 713-313-1986

Website: https://www.gcc-ccpf.com

Institute/Center Description: Preclinical drug development usually takes several years from the identification of a new chemical entity (NCE) to advance to clinical testing. Most of these pharmacokinetics (PK)/pharmacodynamics (PD) and formulation evaluations are required for Investigational New Drug (IND) applications. Two aspects are generally involved for an NCE at this stage: 1) in vitro PK characterizations (physiochemical properties, metabolism, stability, and cellular and gastrointestinal permeability); and 2) in vivo PK and PD evaluations in animal models. In addition, most NCEs are either unstable or unsuitable for conventional routes of drug administration. Thus, developing an optimal dosage formulation is critical for further NCE candidate development.

Gulf Coast Consortia (GCC) Center for Comprehensive PK/PD & Formulation (CCPF), funded by Cancer Prevention & Research Institute of Texas (CPRIT) in 2018 with \$5.1M., is a state-of-the-art drug development core facility with experienced faculty from Texas Southern University College of Pharmacy and Health Science (TSU COPHS), University of Houston College of Pharmacy (UHCOP), and the GCC for Quantitative Biomedical Science. Our primary focus is on preclinical drug development to facilitate rapid advancement of novel cancer drug candidates to clinical trials. We are proud to provide critically needed PK/PD and formulation services to streamline drug development of potential anti-cancer drug candidates identified in existing drug discovery cores, individual labs, and small companies throughout Texas.

Internal/External interdisciplinary collaboration for FY 2022:

- 1) Dr. Cara Gonzales, UT San Antonio, "Pharmacokinetic studies of a novel anticancer agent CIDD150228
- Dr. Shiaw-Yin Lin, MD Anderson Cancer Center, "Pharmacokinetics and metabolic evaluations of a novel anticancer agent R14"
- 3) Dr. Ming Hu, UH, "PK/PD evaluations of a novel anticancer agent"
- 4) Dr. Marc Cox, UT El Paso, "Novel formulation and structural development of agents for the treatment of prostate cancer"
- 5) Dr. Jangsoon Lee, MD Anderson Cancer Center, "LC-MS/MS quantification of three anticancer agents in plasma samples"

Center for Transportation Training and Research (CTTR)

Director: Dr. Gwendolyn Goodwin

Date Established: 1983

Office Phone: 713-313-1925 / Fax: 713-313-4821

Institute/Center Description: The Center for Transportation Training and Research (CTTR) is a research arm of Texas Southern University and a companion to the Masters of Science program in Transportation Planning and Management. CTTR began in 1983 under the leadership of Dr. Naomi Lede, with a grant from the Federal Transit Administration (FTA). Currently, CTTR staff has amassed more than 150 years of direct transportation experience. The center's focus was on public transit, however, over the last 30 years the research has expanded to include highways, land use, evacuation planning, automated and connected vehicle technologies and other transportation components. Still, public transportation research remains strong and relevant to industry needs. Also, with the University's role as a special institution of higher education for urban programming in mind, CTTR's research continues to expand. In keeping with key aspects of smart growth, public engagement and inclusion of low income and minority persons in the mainstream of transportation planning and decision making will be an integral part of that growth.

Internal interdisciplinary collaboration for FY 2022: CTTR is collaborating with the School of Pharmacy on several grants and proposals.

External interdisciplinary collaboration for FY 2022: CTTR is current collaborating with Harris County, Houston-Galveston Area Council (HGAC), North Central Texas Council of Governments (NCTCOGs), Houston METRO, and Federal Highway Administration (FHWA's) University Transportation Center (UTC) program.

Institute/Center Name: Institute of Drug Discovery and Development (iD3)

Name(s) of Director(s): Dr. Huan Xie: Founding Director,

Dr. Dong Liang; Dr. Omonike Olaleye: Co-Directors

Date Established: 10/24/2022-10/24/2027

Office Phone: 713-313-4340

Institute/Center Description: Texas Southern University (TSU) has been selected to participate in the Chemical Biology Consortium (CBC), the discovery engine of the National Cancer Institute (NCI) Experimental Therapeutics (NExT) Program, administered through the Frederick National Laboratory for Cancer Research (FNLCR), a federal national laboratory sponsored by the NCI, part of the National Institutes of Health, and currently operated by Leidos Biomedical Research, Inc.

For the next 5 years (2022-2027), TSU will participate in the CBC, which conducts oncology drug discovery in the NExT Program. Dr. Huan Xie, Principal Investigator, a Professor of Pharmaceutics and Director of the Graduate Program in Pharmaceutical Sciences at the College of Pharmacy and Health Sciences, leads a team of TSU faculty for this highly competitive, comprehensive, and nationally renowned research engagement. A one-of-a-kind Institute of Drug Discovery and Development (iD3) is built to provide unique, highly translational, and specialized research services to accelerate novel drug discovery and development. The vision of iD3 is to grow to be an independent self-sufficient research entity leading TSU from an R2 Research University to an R1 Research University further increasing cutting-edge research and opportunities at TSU.

The mission of the NExT Program is to advance clinical practice and bring improved therapies to patients with cancer by supporting the most promising new drug discovery and development projects. The CBC within NExT is a highly collaborative drug discovery consortium funded by the NCI that is designed to integrate all aspects of early-stage drug discovery from target validation through candidate selection, leading to the discovery of new molecular entities suitable for entry into clinical development. The participating centers will provide project teams with the technical expertise and the scientific personnel that are needed to navigate scientific roadblocks and advance projects through the NExT pipeline. Centers on multidisciplinary CBC drug discovery teams will enable the translation of basic research findings for the benefit of cancer patients.

Among the 18 selected institutions, 7 are universities, which include Texas Southern University. TSU is the only consortium representative from Texas and the only Historically Black College and University (HBCU) in the nation selected for this award.

The TSU iD3 will be built upon two currently funded large centers: the GCC Center for Comprehensive PK/PD and Formulation (CCPF), supported by the Cancer Prevention and Research Institute of Texas (CPRIT), and the Center for Biomedical and Minority Health Research (CBMHR), supported by the National Institute on Minority Health and Health Disparities (NIMHD), MPI: Drs. Omonike Olaleye and Huan Xie). The iD3 team includes Dr. Huan Xie, as Founding Director, Drs. Dong Liang and Omonike Olaleye, as Co-Founding Directors, Drs. Song Gao, Yun Zhang, Kehinde Idowu, Anuoluwapo Egebejimi, Alamenu Sundaresan and Daniel Vrinceanu, as faculty experts. The iD3 team will work closely with Intellectual Concepts, LLC (IC) to perform program and contract management.

Dr. Xie and Dr. Olaleye will also participate in CBC Steering Committee Meetings for the next 5 years. TSU will provide highly qualified staffing, technical expertise, and scientific leadership to advance projects that begin as highly ranked concepts and advance through the milestones established by the project teams. Scientific leaders from CBC Centers will participate on the CBC Steering Committee to assist NCI: 1) to evaluate the merits of project proposals and concepts, and 2) to develop the critical milestones, experiments, and resources required to formulate project plans. The CBC centers will respond to Requests for Proposals that define project sobjectives resulting from Concept Reviews. In addition to conducting reviews and the development of project plans, the CBC Steering Committee Meetings will provide a forum for feedback and guidance to project teams, discussions of emerging drug discovery technologies, and feedback to NCI regarding operational inefficiencies.

Institute/Center Name: RCMI Center for Biomedical and Minority Health Research (CBMHR)

Name(s) of Director(s): Omonike Arike Olaleye, Ph.D., MPH: PI for RCMI Center of Biomedical and Minority Health Reserach (CBMHR); Dr. Huan Xie: PI of RCMI Center for Biomedical and Minority Health Research (CBMHR) – NIH/NIMHD; Dr. Dong Liang: Program Director

Date Established: 06/01/2020 to 05/31/2025

Office Phone: 713-313-1986

Website: http://www.tsu.edu/academics/colleges-and-schools/college-of-pharmacy-and-health-sciences/research/cbmhr/index.html

Institute/Center Description: Texas Southern University (TSU), one of the nation's largest HBCU, on September 25, 2020 received a 5-year \$8.63 million grant award from the National Institute of Health's National Institute on Minority Health and Health Disparities, to establish a Center for Biomedical and Minority Health Research (CBMHR). TSU has a long history dating back to the 1986 when the University was awarded its first NIH-supported Research Centers for Minority Institutions (RCMI) grant and this is the 27th year that TSU received RCMI's generous support. Under the new U54 mechanism and with the purpose of supporting basic biomedical research for diseases that disproportionately impact underrepresented minority (URM) populations (e.g. cancer, infectious diseases), CBMHR will focus on enhancing research infrastructure and fostering scientific advances for early stage investigators. The unique and collective strengths of CBMHR cores, innovative research projects, excellent resources and structured career enhancement program will make it a novel synergistic and first-of-its-kind resource (at TSU and in the Texas Medical Center (TMC)) that will provide comprehensive, integrated and centralized infrastructure and high quality capabilities for advanced biomedical research innovation. With over 709 ethnically diverse faculty members, TSU has gained tremendous momentum under new leadership, and recruited and retained a large talented and diverse pool of faculty, including URMs focused on addressing health disparity concerns within its geographical location. Through this award, TSU will continue to play a key role in using a multi-prong approach in addressing diseases that disproportionately impact racial/ethnic minorities and other health disparity populations.."

Internal interdisciplinary collaboration for FY 2022: The CBMHR has successfully facilitated collaboration with a diverse group of internal investigators at TSU in Year 3. We served 16 internal users, including 5 pilot awardees, and developed strong relationships with 13 of these users who utilized our center regularly. The users, representing a range of disciplines, are from the College of Pharmacy and Health Sciences (COPHS) and the College of Science, Engineering and Technology (COSET). This interdisciplinary approach reflects the center's commitment to fostering collaboration within the institution and leveraging diverse perspectives to advance research. In addition to serving a diverse group of users, the center has also prioritized collaboration with underrepresented minority (URM) users as five of these internal users belonged to URM user groups.

To facilitate successful collaboration, the center developed 7 standard operating procedures (SOPs) tailored to the needs of our internal users. Additionally, we also provided 11 trainings to our users in Year 3. These trainings covered a range of topics, including laboratory techniques, data analysis, and animal skills. By providing users with access to training and development opportunities, we have not only facilitated collaboration but also supported the professional growth of our users.

Overall, the CBMHR has done a good job in fostering internal collaboration in Year 3. By serving a diverse group of users, prioritizing collaboration with URM users, developing SOPs tailored to users' needs, and providing training opportunities, we have created a collaborative and supportive environment for researchers within the institution.

External interdisciplinary collaboration for FY 2022: In Year 3, the CBMHR successfully collaborated with 27 external users from 15 different institutions, including 2 from the industry. The institutions were located both within and beyond Texas, reflecting the center's commitment to collaboration with a diverse range of partners. The center has demonstrated its willingness to work with interdisciplinary users from academia and industry, and has done a good job in facilitating collaboration in Year 3.

Through these collaborations, we have submitted 23 grant proposals to different agencies, including the NIH, NSF, and NASA. These proposals had a combined budget request of over \$72 million for Texas Southern University (TSU). This impressive portfolio of grant proposals reflects the strength of the collaborations facilitated by the center and the commitment of these collaborations to advancing biomedical research in TSU.

In Y3, we received 10 external grants with a total of \$2.7 million. These grants were awarded in recognition of the high-quality research being conducted in collaboration with these external users. These awarded grants have enabled us to further strengthen our research goals and make important contributions to the field. Furthermore, we published 15 peer-reviewed papers in collaboration with external investigators in Year 3. These publications showcase the impact of our collaborations and highlight the quality of the research being conducted.

Overall, the CBMHR has demonstrated our ability to successfully collaborate with a diverse range of external users in Year 3. By submitting grant proposals, receiving external funding, and publishing high-quality research papers, the CBMHR has shown that it is committed to advancing biomedical research at TSU and making significant contributions to the field. Looking ahead to future years, the center is well-positioned to continue this work and achieve even greater success in collaboration with our external collaborators.

Earl Carl Institute for Legal & Social Policy, Inc.

Director: Dr. Sarah R. Guidry

Date Established: 1992

Office Phone: 713-313-1139 / Fax: 713-313-1153

Website: http://www.tsulaw.edu/centers/ECI/index.html

Institute/Center Description: The Earl Carl Institute for Legal and Social Policy at the Thurgood Marshall School of Law was established in 1992, as an independent 501(c)(3) organization, to serve as a research and writing think tank to assist Thurgood Marshall School of Law students with their research and writing skills. The Institute was named in honor of Professor Earl Carl, a founding faculty member of the law school.

The Institute seeks to empower underserved and disenfranchised populations by addressing systemic social issues through legal representation, research, education, and advocacy.

The vision of the Institute is to serve as one of the nation's preeminent think tanks for research and advocacy on legal and social issues affecting underserved communities. We will serve as a leading voice in promoting social justice and be recognized for excellence in our programs and the quality of our community engagement.

Current Legal Services Programs:

- 1) The Opal Mitchell Lee Property Preservation Project maintaining housing stability and growing generational wealth
- 2) Thurgood Marshall School of Law Innocence Project exonerating the wrongfully convicted
- 3) ECI Juvenile Justice Project juvenile criminal defense and representation in school disciplinary actions
- 4) ECI Clean Slate Cooperative creating a pathway to a better life by clearing criminal records

Policy related Initiatives & Research projects:

- 1) Safe & Supportive Schools Collaboration- reducing disproportionate discipline and criminalization of Black students
- 2) Black Girls Initiative- examining, through a race-gender equity lens, a slate of issues that disproportionately impact Black girls, including overrepresentation in adjudication for juvenile status offenses, exclusionary discipline actions, human trafficking, foster care involvement, education attainment disparities and homelessness
- 1) Race, Gender, and Social Justice Transformation-providing resources and education to support change
- 2) Modal Law Project for non-justice involvement solutions for schools to address drug use or possession sentence cases in K-12.
- 3) ECI Journal The Bridge: Interdisciplinary Perspectives on Legal & Social Policy
- 4) Student Research & Writing Projects which currently includes articles on Mandatory Implicit Bias Training for Law Enforcement, Qualified Immunity and police misconduct, School-to Prison Pipeline, and topics related to the Black Girls Initiative

Internal interdisciplinary collaboration for FY 2022: TSU Center for Justice Research and Thurgood Marshall School of Law Student Bar Association.

External interdisciplinary collaboration for FY 2022: The Institute has collaborated with the PVAMU Texas Juvenile Crime Prevention Center, Texas Criminal defense Lawyers Association, the NAACP Houston Branch, Lone Star Legal Aid, South Texas College of Law, University of Houston Law Center, Houston Volunteer Lawyers, City of Houston Department of Neighborhoods, ONE Houston, Texas Appleseed, Disability Rights Texas, Children's Defense Fund Texas, Texas Civil Rights Project, Center for Civic & Public Policy Improvement, Harris County Juvenile Probation Department, Houston Housing Authority, Texas Women's Foundation and the Legislative Analysis and Public Policy Association.

Biomolecular Research and Advanced Computing Centre (BioRACC)

Director: Dr. Kehinde Ademola Idowu

Date Established: 2022

Office Phone: 713-313-5643

Institute/Center Description: Biomolecular Research and Advanced Computing Centre (BioRACC) is a computational science laboratory center that employs high-performance computing, applied mathematics, and domain sciences work together to develop, adapt, and optimize advanced scalable algorithms to solve problems in the field of biological research. At the Centre, we employ combinatory computational tools and experimental techniques in the evaluation of the molecular interactions between biological targets (microorganism or human's macromolecules) and drugs/small molecules. For example, computational evaluation of the molecular interactions between SARS-CoV-2 proteins and human pro-viral proteins (such as receptors) and the effects of mutations on these interactions. In addition, the Centre conducts basic multidisciplinary fundamental research in artificial intelligence (AI) driven computer-aided drug discovery and development. The Centre provides molecular dynamics simulations packages, such as AMBER, GROMACS and VMD that include molecular visualization facilities for drug discovery.

Center for Justice Research

Director: Dr. Howard Henderson

Date Established: 01/2018

Office Phone: 713-313-6843

Website: www.tsu.edu/justiceresearch

Institute/Center Description: The Center for Justice Research at Texas Southern University is a premier interdisciplinary research think tank dedicated to addressing pressing issues within the criminal justice system through innovative research and collaboration. In our ongoing mission to create evidence-based solutions and policy reform, we are excited to present our latest initiatives during University Research Week. These initiatives include trauma-informed gun violence research, prosecutor decision-making, researcher development, and crime-based need assessments in Houston and Chicago:

Trauma-informed gun violence research: Recognizing the profound impact of trauma on individuals and communities affected by gun violence, CJR conducts research that incorporates a trauma-informed lens. This approach helps identify the root causes of gun violence, understand its consequences, and develop effective prevention strategies that address the needs of survivors and affected communities.

Prosecutor decision-making: Prosecutorial discretion plays a critical role in determining case outcomes and contributes to disparities within the criminal justice system. CJR investigates the factors that influence prosecutor decision-making, exploring ways to enhance transparency, fairness, and consistency in prosecutorial practices. Our research informs policy recommendations aimed at reducing biases and promoting equitable outcomes in the justice system.

Researcher development: At CJR, we are dedicated to fostering the growth of the next generation of criminal justice researchers. Our researcher development program provides students and early-career professionals with opportunities for mentorship, training, and hands-on research experience. This initiative helps cultivate a diverse group of researchers who are equipped to address the complex challenges facing the criminal justice system today and in the future.

Chicago Needs Assessment: In collaboration with local stakeholders, CJR conducts a comprehensive needs assessment to identify the most pressing issues related to criminal justice, public safety, and community wellbeing in Chicago. This initiative aims to better understand the underlying factors contributing to crime and violence and develop targeted interventions to address the specific needs of Chicago residents.

Criminal Justice Research Hub: The Criminal Justice Research Hub is a collaborative platform designed to connect researchers, practitioners, policymakers, and community organizations working to address critical issues in the criminal justice system. As part of its mission, the Research Hub focuses on conducting a comprehensive violent crime needs assessment in Houston, aiming to identify the most pressing issues related to criminal justice, public safety, and community well-being in the city.

Join us for University Research Week as we present our innovative projects, engage in stimulating discussions, and collaborate towards a more just and effective criminal justice system. Together, we can make a significant impact on the lives of individuals and communities affected by the justice system. Be sure to look for these exciting initiatives on our website by signing up for our newsletter at www.tsu.edu/justiceresearch.

Internal interdisciplinary collaboration for FY 2022:

- Researcher Development Institute with Jasmine Drake, PhD
- An Examination of First Amendment Rights Infringements through the Utilization of Hip Hop Lyrics in RICO Act Prosecutions: A Collaborative Analysis with Morgan Kirby, PhD from the School of Communication

External interdisciplinary collaboration for FY 2022:

- Cost-benefit Analysis of Prosecutor Diversion Study with Claremont Graduate School, Justice System Partners, and Mental Health Colorado
- Gun Possession Project with Jackson State University, Coppin State University and Delaware State University
- Trauma Informed Approach to understanding Firearm Decision making among Black Adolescents Research with Texas A&M and the University of Missouri
- Chicago Neighborhood Needs Assessment Project with the Black Public Defender Association
- Criminal Justice Research Hub