

University of Kentucky (UK) Sustainability Challenge Grant Program

The UK Sustainability Challenge Grant Program was collaboratively designed to engage multidisciplinary teams from the University community in the creation and implementation of ideas that will promote sustainability by simultaneously advancing economic vitality, ecological integrity, and social equity, now and into the future. Project teams were encouraged to include multiple departments/units on campus and consist of faculty, staff, and students. Students and staff could lead proposals, as long as they had a sponsoring faculty member identified. In the first five years of the program 33 projects have been awarded a total of \$900,000 to pursue transformational, sustainability-driven projects on our campus and beyond.

University of Kentucky (UK) Centers and Institutes with Institutional Support (AC 9 and AC 10)

UK has many organizations that contribute to the goals of sustainability. Most are housed under the Office of Research. These centers, institutes, etc. are multidisciplinary in scope and receive on-going institutional support for sustainability-related research initiatives.

Center for Clinical and Translational Science (CCTS)

The CCTS brings together clinicians, researchers, and communities to accelerate the translation of basic science discoveries to tangible improvements in health. With support from a Clinical and Translational Science Award from NIH, the CCTS fosters innovative team science across multiple campuses and states. The center provides infrastructure, funding and research support services, and trains the next generation of clinical and translational researchers. The CCTS focuses on addressing chronic health disparities in rural and underserved populations throughout the Central Appalachian region. Currently this area is the epicenter of the national opioid epidemic with deaths in 2017 reaching record levels. As part of the NIH HEAL initiative CCTS is seeking to speed scientific solutions to the national opioid health crisis.

<https://www.ccts.uky.edu>

Center for Applied Energy Research (CAER)

With more than 100 chemists, geologists and engineers, CAER is internationally recognized for research in fields including algae for carbon dioxide removal, ash management, automotive catalysis, biodiesel, biomass, carbon materials (including nanotube synthesis and applications), catalysis (including Fischer-Tropsch), coal cleaning, concrete and cement (low energy), emissions control in utilities, energy policy, fuels research, hydrogen, materials characterization, petroleum processing and plant optimization. The center is funded by state, industry and federal agencies.

<https://caer.uky.edu/>

Center for Research on Violence Against Women

The center advances research into the clinical, legal, cultural and other complexities presented by intimate partner violence, rape, stalking and related crimes against women. The center fosters a sustainable, more socially just society by preparing students to address violence against women as academicians, scholars and providers, as well as conducting research that can be translated into the practice of criminal justice, health and mental health and other professions.

<https://www.uky.edu/crvaw/>

Center of Membrane Sciences

The center fosters research on biological and synthetic membranes and their interface, provides scientific and technological leadership and facilities to develop basic research and to promote partnerships fundamental to knowledge and technology transfer related to the treatment of pollutants in waste streams from industries. Projects within the center have great impact on the development of ongoing and emerging technologies with ecological, medical and agricultural applications including low-pressure reverse osmosis membranes, pollution control, biosensors, separations, enzyme-based reactive membranes, membrane-based synthesis of radiopharmaceuticals and specialty chemicals, microspheres, liposomes, drug-delivery systems, polymer chain interactions, polymer-substrate interactions, protein absorption to polymeric surfaces, food preservation, farm animal reproduction, renal physiology, and neurochemical basis of behavior.

<http://www.uky.edu/membrane/>

Human Development Institute (HDI)

With federal and state funding, HDI is the University of Kentucky Center for Excellence in Disabilities and serves to advance human welfare and inclusivity providing a more socially just and sustainable society. It focuses on interdisciplinary education, research and development, information sharing, advocacy and outreach. HDI conducts research, development, and model demonstration efforts to continually improve state-of-the-art best practices. HDI staff provide outreach services and consultation to agency staff to identify and resolve the challenges involved in promoting and achieving independence, productivity and inclusion of persons with disabilities throughout life.

<https://www.hdi.uky.edu/>

Kentucky Geological Survey (KGS)

As the official geologic research organization for the Commonwealth of Kentucky, KGS is focused on research in earth resources and processes, public service, and the dissemination of data, knowledge, and experience to stakeholders in industry, government, educational institutions, and the public. KGS is increasing knowledge and understanding of the mineral, energy and water resources, geologic hazards, and environmental health, as well as communicating science for the benefit of citizens of the Commonwealth of Kentucky and the nation.

<https://www.uky.edu/KGS/>

Kentucky Water Resources Research Institute (KWRRRI)

The institute's vision is healthy and sustainable water for Kentucky's communities. It conducts water resources research and water-related environmental issues important to the state of Kentucky. In keeping with its statewide mission, the KWRRRI works to foster research collaborations between faculty and research staff at UK, as well as faculty and research staff affiliated with the various regional universities across the state. With a mission that encompasses research, education, training and technology transfer, the institute works with federal and state agencies.

<https://www.research.uky.edu/kentucky-water-resources-research-institute>

Markey Cancer Center

Markey Cancer Center was designated by the National Cancer Institute (NCI) which designates it as one of the nation's best cancer centers. Consequently, Markey continues its standing as a leader in the fight against cancer and in the sustainable development goals of improving human health and well-being. The faculty and staff within the center strive to address the cancer disparities that exist within Kentucky and target communities of vulnerability using multidisciplinary approaches. From a basic science perspective, the center is organized into four thematic research programs (Cancer Cell Biology and Signaling; Cancer Prevention and Control; Drug Discovery, Delivery and Translational Therapeutics; and Redox Injury and Repair) and has five established shared resource facilities (Biospecimen and Tissue Procurement; Biostatistics and Bioinformatics; Cancer Research Informatics; Flow Cytometry and Cell Sorting; and Free Radical Biology in Cancer). Social science and community engaged approaches are also keenly important because clinical studies and patient care are essential.

<https://ukhealthcare.uky.edu/markey-cancer-center>

Survey Research Center (SRC)

The center conducts socially significant research with public policy implications, as well as research of theoretical or academic interest. SRC's client base includes local and state government agencies, private and non-profit groups, and university researchers. Many public clients rely on SRC data collection to advance their own missions that individually contribute sustainability goals of social justice and human welfare. This center provides support for state agencies that rely on data to provide services to communities throughout the commonwealth of Kentucky, including: Kentucky Department of Fish and Wildlife Resources; Kentucky Department for Public Health, Lexington-Fayette Urban County Housing Authority; Mayor's Alliance on Substance Abuse, Lexington, KY. Additionally, SRC provides expertise in survey and questionnaire design, sampling, computer technology and advance statistical methods. SRC offers Computer-Assisted Self Interviewing (CASI) to ensure data quality by reducing interviewer effects particularly for field projects involving at-risk populations or surveys with extremely sensitive personal questions helping to reach and represent marginalized and stigmatized populations.

<https://www.research.uky.edu/survey-research-center>

Tracy Farmer Institute for Sustainability and the Environment (TFISE)

The mission of the TFISE is to shape a sustainable future for Kentucky's environment through transdisciplinary research, stakeholder engagement and education. Consistent with the University of Kentucky (UK) 2015-2020 Strategic Plan to expand creative endeavors across the full-range of disciplines, TFISE is engaged with faculty, staff and students across the entire university. The Institute promotes integrated transdisciplinary programs of fundamental and applied research in the physical, life, economic and social sciences, and is supported by a group of over 100 faculty representing 55 University units and 15 community partners. The affiliated-facility collaborate on interdisciplinary research, teaching and outreach opportunities.

<https://www.research.uky.edu/tracy-farmer-institute-sustainability-and-environment>

Center for Health Equity Transformation

The mission of Center for Health Equity Transformation is to build and enhance innovative, transdisciplinary and impactful research and training aimed at improving the health of vulnerable Kentucky residents. CHET also aims to grow health equity research at UK by training and providing professional development guidance to those interested in studying and addressing health disparities. Through research and training, CHET will increase the number of researchers at UK conducting health-equity focused research.

<https://chet.med.uky.edu/>

Appalachian Center

The Appalachian Center is a cross disciplinary center which includes thinkers in the fields of Sociology, History, Gerontology, Environmental Chemistry, Nursing and Linguistics to name a few. The center is a leader in advancing social justice through serving and guiding study about people and culture of Appalachia. It is currently collaborating on several projects and events relating to race and the environment in the region including a student and faculty led group working to learn more about and address the water issues in Martin County and eastern Kentucky and the Corbin Racial Justice Initiative.

<https://appalachiancenter.as.uky.edu/>