

UNIVERSITY OF KENTUCKY BOARD OF TRUSTEES

Lisa A. Cassis, Vice President for Research



Board of Trustees Retreat – October 20, 2022

Agenda included:

- Overview of Federal Research Funding Landscape (EPSCoR, TIPS NSF New Directorate, CHIPS+ Act, increase in National Science Foundation and other STEM federal agency budgets authorized, not appropriated)
- Update on Research Priority Area program and roundtable, focus on Diversity Research Programs and the new Research Leadership Academy
- Overview of Internal Programs and External Funding that strengthen the research infrastructure for discovery research
- UK Innovate Platforms
- NIH KYNETIC (REACH grant) for biomedical inventions
- NSF EPSCoR to leverage strategic hiring of talent
- Research ideation session and training
- Poster session with participants from various programs across campus

Board of Trustees CR 1

President is directed to advance Kentucky to grow, develop and expand research enterprise by:

- Aligning resource commitments to facilitate strategic cross-campus hiring of talent to build research teams of international standing that address national priorities in science, technology and societal impact.
- Building upon existing areas of Science, Technology, Engineering, Mathematics and Health (STEM+H) excellence to retain world-class scholars and research teams while mentoring future researcher leaders.
- Utilizing finite resources in the most efficient and effective manner possible to maximize the impact and reach of research.
- Focusing on growth around infrastructure – that already exists and that may need to be added for new capacity – for STEM+H research to meet national priorities and Kentucky workforce and economic development needs.
- Leveraging the talent and intellect that exists across the campus in a transdisciplinary manner to maximize the potential and capacity of our students and our people.

Ongoing Efforts in Support of CR 1

- Building upon existing areas of Science, Technology, Engineering, Mathematics and Health (STEM+H) excellence to retain world-class scholars and research teams while mentoring future researcher leaders.
 - Inventorying our strengths, coalescing them within the Materials Science domain.
 - Creation of new Research Priority Areas that coalesce researchers under a Materials Science umbrella, help recruit and retain world-class talent, work towards complex grants including those that train the next generation of researchers.

Ongoing Efforts in Support of CR 1

- Aligning resource commitments to facilitate strategic cross-campus hiring of talent to build research teams of international standing that address national priorities in science, technology and societal impact.
- Utilizing finite resources in the most efficient and effective manner possible to maximize the impact and reach of research.
 - Asking leaders to identify how faculty recruits relate to institutional research priorities
 - Use of faculty cluster hiring to catapult areas (e.g., materials science)
 - Seeking ways to inform other leaders across campus of recruitments in targeted areas with the intent of leveraging funds across units

Ongoing Efforts in Support of CR 1

- Focusing on growth around infrastructure – that already exists and that may need to be added for new capacity – for STEM+H research to meet national priorities and Kentucky workforce and economic development needs.
- Leveraging the talent and intellect that exists across the campus in a transdisciplinary manner to maximize the potential and capacity of our students and our people.
 - Use of Research Challenge Trust Fund (RCTF) funds to grow strategically
 - Use of Emerging Themes of Research within the Research Leadership Academy to promote transdisciplinary research

WE SUPPORT AND CELEBRATE ALL TYPES OF RESEARCH AT UK

A brief tour of research by faculty in the humanities, social sciences, fine arts, business and economics, law, design and education

Mechanisms and Structures that Support all Research Across Campus

- Financial support for faculty salaries dedicated to the research mission
- Financial support for start-up costs for hiring faculty
- Assignment of faculty from each college to the role of associate dean for research. These faculty represent unit research within the institutional research infrastructure.
- University Research Professors designated to each college
- Allocation of funds to support undergraduate research in every college
- Dedicated financial support for faculty summer effort and/or research (e.g., travel, students) for the colleges of Arts and Sciences, Business and Economics, Communication and Information, Design, Education, Fine Arts, the Graduate School, Law, Lewis Honors, Libraries and Social Work (colleges with < \$10 million in external research funding)
- A standing committee, that advises the vice president for research, composed of faculty researchers across these colleges, with the goals of inventorying research outputs; monitoring and quantifying progress towards research outputs; and highlighting and communicating research outputs both internally and externally
 - As an example, you are welcome to attend our Research Advisory Group Reception that will take place on January 19 that will showcase research by faculty in several of these colleges

Now, let's take a brief tour....

Lala Ma, Associate Professor of Economics

- Published “The Fracking Concern With Water Quality” in the prestigious journal *Science*
- Examines social inequality in environmental pollution, where populations in lower socioeconomic areas experience significantly higher levels of pollution
- Public policy implications can guide meaningful improvement of the living conditions for society’s most vulnerable



Danelle Stevens-Watkins, Professor, College of Education



REFOCUS – Research Examining Factors Associated with the Opioid Crisis among Underserved African Americans

- Funded by the National Institutes of Health (\$3.2M)
- Examines gender and generational differences in social, cultural and structural risk and protective factors affecting opioid use and drug treatment among 860 Black adults in Louisville and Lexington

ProSisters – A Multi-level Community-based Approach to PrEP Uptake for African American Women

- Funded by NIH (\$1.2M)
- UK and Morehouse School of Medicine-led trial is testing the effectiveness of a culturally tailored HIV prevention intervention to increase PrEP (medicine to reduce risk of contracting HIV) uptake among 216 Black women at high risk for HIV in Louisville and Atlanta

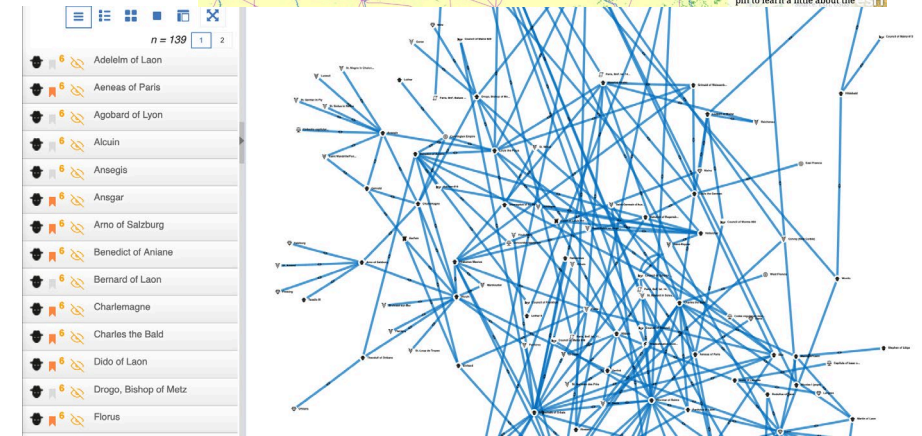
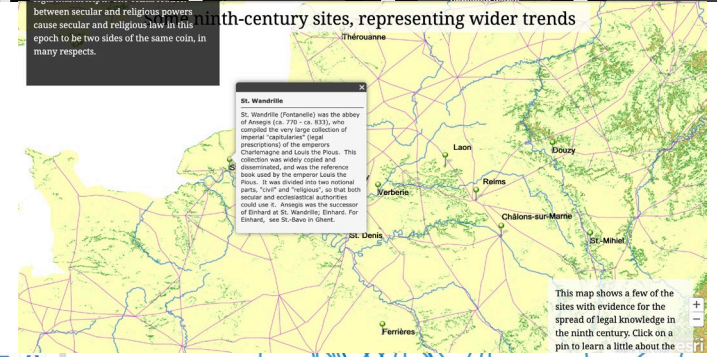
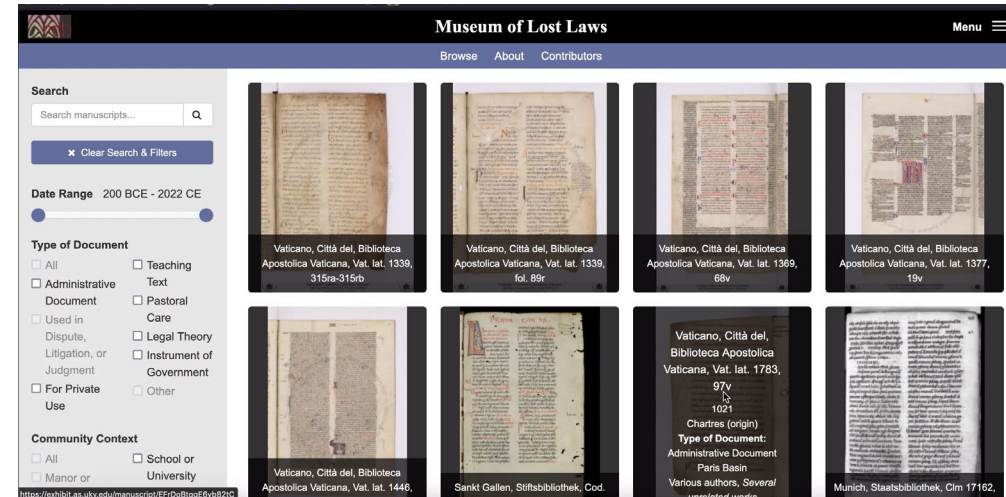
Claire Renzetti, Professor, Sociology

- National Institute of Justice-funded evaluation of the therapeutic horticulture (TH) program at the local domestic violence shelter, GreenHouse17.
- Investigating whether residents who participate in the TH program have better outcomes (psychological, physical, social and financial) than women who receive standard programming.
- Therapeutic horticulture has not been used at a women's shelter before. It is primarily used with traumatized veterans, the elderly and juveniles involved in the correctional system.



The Museum of Lost Laws

- A new narrative of the long, deep history of legal thinking and conflict resolution in western culture.
- Covers 600 years of the formation of legal culture
- Available to a wider audience
- Three integrated, interactive digital projects: interactive exploration of medieval legal manuscripts, interactive maps and interactive network graphs.
- A collaborative project: Professors Abigail Firey (UK Department of History) and Melodie Eichbauer (Florida Gulf Coast University)
- Museum has been published: Story Map and Network Graphs to be integrated December 2022



GRADUATE SCHOOL

Forthcoming books

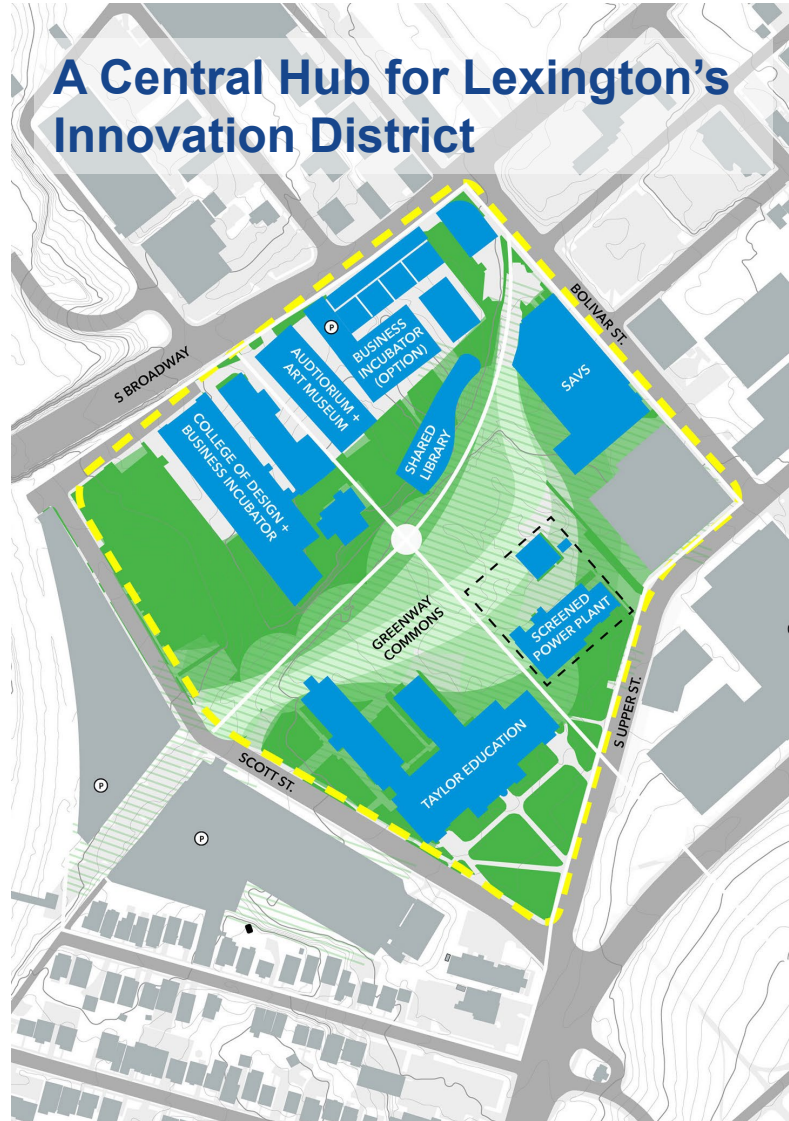
- Gregg Hall (Patterson School): *Examining US-China-Russia Foreign Relations: Power Relations in a Post-Obama Era*, explores the changing nature and function of the US-China-Russia strategic triangle from the Cold War to the present.
- Hope Harvey (Martin School): *Complex Households: How Doubling Up Shapes Family Life*, highlights the experiences of families with children and the consequences of policy decisions that leave families reliant on the private safety net.

Policy engagement

- Rajeev Darolia (Martin School): appointed the first ever Advisor for Economic Analysis for the U.S. Department of Education's negotiated rulemaking on higher education regulation.
- Gregg Hall (Patterson School): appointed to the U.S. Department of State's International Security Advisory Board, which provides counsel on arms control, outer space, infrastructure, cybersecurity and national and international security.
- Taha Hameduddin (Martin School): participated in the roundtable on the President's Management Agenda, to advance research collaborations addressing how the federal government can strengthen its workforce; deliver programs and services effectively; and advance equity and support underserved communities.
- Yujia He (Patterson School): recently spearheaded the agreement of a multi-year partnership with the United Nations University International Institute for Software Technology in Macau, a prestigious think tank. This collaboration will include research projects, professional consultation and funding proposals.

COLLEGE OF DESIGN

Gray Design Building: Fostering a Cross-campus Culture of Inclusive Research Excellence



- Unite faculty, staff and programs in a single location
- Provide nexus between UK's campus and the larger community
- Serve as a symbol of inextricable links at the core of the Innovation District
- Encourage cross-disciplinary research and collaboration, facilitate research career development and augment the importance of UK's research mission

UK LIBRARIES

Reinette Jones (Special Collections)

- “African American Women Veterans in and from Kentucky”
- Ongoing research project to identify Kentucky African American women veterans who served in the armed forces



Doug Boyd (Nunn Center), Janice Fernheimer and JWells (Writing, Rhetoric and Digital Studies)

- Black Women in Bourbon Oral History Project
- Documenting past and ensuring future contributions by Black women to Kentucky’s signature industry



Taylor Leigh, Yanira Paz and Ruth Brown (Hispanic Studies)

- Kentucky Hispanic Heritage Project
- Written, visual, audio sources (academic research, press coverage, oral history interviews, original creative works, cultural events and public/private initiatives)



COLLEGE OF FINE ARTS

Department of Theatre and Dance | School of Music | Department of Arts Administration
School of Art and Visual Studies | UK Art Museum | Singletary Center for the Arts



Richards



Gregory



Wells

- Professor Allan Richards is presenting *Society in Turmoil: The Intersectionality of Power, Conflict, Art Education and Building Sustainable Cultures* at World Summit of Arts Education in Portugal
- Associate Professor Crystal Gregory created a site-specific project for the grand stairwell of the Credit Human building in San Antonio
- Associate Professor Jaleesa R. Wells was awarded Igniting Research Collaborations funding for stimulating higher education leadership progression - an institutional framework for Black, Indigenous and people of color

Confederate Monuments in Public Spaces

Zachary Bray

- Published *Monuments of Folly: How Local Governments Can Challenge Confederate "Statue Statutes,"* 91 *Temple Law Review*. 1 (2018)

Melynda Price and Zachary Bray

- Presented *Written in Stone: American Monuments and Monument-Protection Law*, Kentucky Law Journal Symposium (November 2019)
- Explored diverse perspectives on controversial American monuments and statues

COLLEGE OF SOCIAL WORK

Jay Miller (Social Work Dean), Lauren Lynch (ASK program coordinator)

- Through Adoption Support for Kentucky (ASK), the College of Social Work is expanding its Oculus virtual reality (VR) program to support teens in foster care.
- 2 ASK Teens VR support groups for teens ages 14-17 who are currently in foster care, one group is designed specifically to support LGBTQ+ teens.
- A collaboration between the university's esports program and the Office of Technology Commercialization (OTC).



Allison Gibson (Social Work Associate Professor)

- Support for people with mild cognitive impairment using a group-based model that includes individuals with mild cognitive impairment plus a family member or friend as a study partner.
- Four study groups in 2020 and 2021 on topics including how to plan for the future, how to make the most of medical appointments and memory strategy workshops to help people feel more prepared to run errands or go to an event.
- Collaborative pilot grant from the Center for Clinical and Translational Science and Sanders-Brown Center on Aging.



RESEARCH CHALLENGE TRUST FUND (RCTF)

Partnership between UK Research, UK Philanthropy
and State Government

Research Challenge Trust Fund

- \$20M from the Commonwealth, 6th round.
- Kentucky general assembly legislated the criteria for eligibility towards STEM+H, to stimulate business development, increase externally sponsored research, create better jobs and facilitate transition to a knowledge-based economy.
- Applications should relate to:
 - Existing UK Research Priority Areas (STEM+H)
 - Other STEM+H areas that align with national research funding opportunities, stimulate KY economy, promote strong college research growth in STEM+H
- Funds can be used for chairs, professorships, research scholars and staff, graduate fellowships, research infrastructure and mission support.
- 2:1 match requirement with donor gifts.
- Initial deadline was November 23, 2022.

Since 1998, UK has used the Endowment Match Program for:

- 575 endowed funds created through the Endowment Match Program
 - 98 endowed chairs
 - 217 endowed professorships
 - 260 fellowships, enrichments and mission support projects to support research and the William T. Young Library
- 575 positions and projects supported
- Market value of endowed funds as of 6/30/2021: \$678.9 million
- Spending distribution for FY 2020-21: \$16.9 million

Source: <https://www.research.uky.edu/news/rctf-endowment-match-program-2020-2021-annual-report>

Endowed Professors/Chair Performance

- The FY 2020-21 endowed professors/chairs are productive educators and researchers. Together, during FY 2020-21 they were awarded:
 - \$83.4 million in grants and contracts as the Principal Investigator
 - (18% of UK's total FY 2020-21 awarded projects)
 - Are Co-Investigators on a total of \$313 million in awarded projects
 - (67% of UK's total FY 2020-21 awarded projects)

Source: <https://www.research.uky.edu/news/rctf-endowment-match-program-2020-2021-annual-report>

QUESTIONS

