



Dear Friends,

The University of Louisville creates and applies knowledge that improves lives. That is indeed a bold statement, but it is one that we reaffirm through UofL's designation as a Carnegie Foundation Research 1 (R1) and Community Engaged University.

The Carnegie Classification of Institutions of Higher Education is the nation's leading framework for categorizing colleges and universities. To be included among only a handful of institutions with both the R1 and Community Engaged designations is certainly a point of pride for UofL.

The R1 designation notes UofL's ability to award at least 20 doctoral degrees per year or at least 30 professional practice doctoral degrees, such as the JD and MD. Further, it reflects UofL's ongoing high volume of research activity.

As a research and innovation powerhouse, our university addresses and solves grand challenges that impact humanity, such as advancing human health, harnessing technological advancements, getting research breakthroughs to market quickly and so much more. A service mindset guides our work in the classroom, in the laboratory and in the community.

Further, UofL is a premier metropolitan university – one that shares strong connections with our local and global community. Through our community engagement initiatives with public and private sectors, we enrich scholarship, research and creative activity; enhance curriculum, teaching and learning; prepare educated, engaged citizens; strengthen democratic values and civic responsibility; address critical societal issues; and contribute to the public good.

The University of Louisville constantly strives to create thriving futures for not only our students, but for our community and society as well.

Kim Schatzel, PhD

President, University of Louisville

UofL gets \$16 million to increase supply of primary care doctors in underserved areas

The UofL School of Medicine has received \$16 million from the Health Resources and Services Administration to increase Kentuckians' access to health care, particularly in underserved rural and urban areas.

Kentucky has a severe shortage of health care providers, with at least some portion of 113 of the state's 120 counties designated as Health Professional Shortage Areas.

To attract and train medical students with an interest in practicing primary care in medically underserved communities, the School of Medicine will enhance existing programs that train students in the underserved rural environments, assist individuals from other careers who want to prepare for medical school, create a new program to train medical students in an urban environment and provide scholarships to support students financially in all of these programs.

The grant focuses on three programs: the Trover Rural Track, the

development of an urban training program and enhancement of the Postbaccalaureate Premedical Program. Students in each of the three programs will receive academic and financial support with coaching and scholarships to help ensure their success in applying to and completing medical school.



UofL medical students participate in a Compassion Clinic at Redeemer Lutheran Church in West Louisville.

UofL-led research shows immune response may come down to genetics

New research led by the University of Louisville, using recently acquired state-of-the-art sequencing technology, shows that differences in our DNA can drastically impact our bodies' immune response, revealing an underappreciated connection between genetics and our antibodies.

"For a long time, we've assumed vaccines could be designed using a one-size-fits-all approach," said Melissa Smith, director of the UofL Sequencing Technology Center

and lead author of the study. "This research shows that genetics predisposes us to qualitatively and quantitatively different antibody responses. If this information could be used to understand when individuals will or won't respond to a given vaccine or treatment, that could be hugely impactful."

The research also revealed that antibody differences could be linked to broader patterns of genetic diversity across human populations. This stresses the need to increase the sampling of understudied groups, which is one of the driving forces behind research being conducted by this team.



Melissa Smith, left, director of the UofL Sequencing Technology Center, was a lead author on research published in Nature Communications that reveals an underappreciated connection between genetics and our antibodies.



UofL Brandeis Law Professor Tony Arnold, fourth from left, will lead the project. Resilience Justice Project Fellows will assist. Pictured with Arnold are the fellows, from left to right, Laken Wadsworth, Rebecca Wells-Gonzalez, Ralph Banchstubs, Arnold, Carcyle Barrett, Irie Ewers, Jake Mace and Colin Sheehan.

Grant awarded to law professor will fund climate adaptation project

The Resilience Justice Project at UofL's Brandeis School of Law has been awarded a one-year multi-institutional grant to evaluate how climate adaptation planning can be more equitable for low-income communities in eight U.S. coastal areas. The \$75,000 award from the National Sea Grant Law Center, through NOAA's National Coastal Resilience Fund, will be used to examine coastal urban adaptation in Boston, Cleveland, Miami, New Orleans, San Diego, Savannah, Seattle and Tampa.

"We will assess plans, policies and laws affecting climate adaptation in these eight coastal urban areas with an eye toward addressing the vulnerabilities of low-income neighborhoods of color," said principal investigator Tony Arnold, chair in property and land use at Brandeis. "We'll then use our assessments to produce a guidebook of best practices and a series of webinars so that any city can use the information to make their climate adaptation planning equitable for all neighborhoods."

UofL, partners awarded \$12 million to advance biomedical innovation and entrepreneurship

The University of Louisville and partners have been awarded \$12 million to launch the Mid-South Research Evaluation and Commercialization Hub (REACH), aimed at accelerating real-world impact of biomedical innovations through education, mentorship and financial support for aspiring entrepreneurs. This latest hub under REACH spans a four-state network of Kentucky, Mississippi, Tennessee and Virginia, and is backed by a four-year grant from the National Institutes of Health.

The program focuses on bringing basic science discoveries to market by providing entrepreneurial training for innovators. UofL's role in the hub is to leverage already strong partnerships with regional institutions and transform academic discoveries into real-world products that advance human health by training personnel and funding new technologies.

"UofL is a top-tier, Carnegie Research 1 University," said Kevin Gardner, executive vice president for research and innovation, "and we are proud of our strong track record as a driver of health innovation and entrepreneurship."

28th-annual Research!Louisville showcases practical application and positive impact

The 28th-annual Research!Louisville (R!L) symposium, sponsored by UofL School of Medicine, the Office of the Executive Vice President for Research and Innovation and Norton Healthcare, took place the week of Oct. 2-6. The symposium helps research scholars improve presentation skills, gain experience, meet scholarship requirements for faculty ranking and promotion, build peer networks and receive feedback from scientists in a wide range of disciplines.

This year, R!L presented 365 abstracts. The event featured seminars, presentations and lectures on subjects including nursing research, environmental health sciences, anti-racism research, IRB protocol and more. Richard Woychik, director of the National Institute of Environmental Science and the National Toxicology Program, delivered the keynote address, "Looking to the Future of Environmental Health Sciences."

Also featured was a Q&A forum with renowned medical ethicist and author Harriett Washington; a panel discussion, "The Past is Present: Slavery & Medicine in Louisville History;" and a seminar at the Kentucky Science Center for seventh- through 12th-grade students with a biomedical focus.



Student Leshia Davis-Johnson presented her research to judges Faye Jones and Ryan Simpson.