

KENTUCKY

Medical researchers funded by the National Institutes of Health (NIH) are working every day to improve health, discover cures and provide hope to people the world-over affected by disease. This work, however, has a secondary benefit: it supports employment and economic activity across the United States, including in Kentucky.



ADDING TO KENTUCKY'S ECONOMY

In FY2017, 24 institutions in Kentucky received



436 research awards



totaling more than \$188 million

While the bulk of the research awards went to the University of Kentucky and University of Louisville, many others supported a range of institutions and businesses across the state. This research funding, when cycled through the economy, generated nearly **\$440 million in total sales** for Kentucky businesses:



Supporting **more than 2,900 jobs** in Kentucky; and



Generating approximately **\$38 million in tax and fee revenues** for state, county and municipal governments statewide.

BOOSTING THE LABOR FORCE IN KENTUCKY

Jobs in the scientific R&D sector in Kentucky pay on average 2.3 times more than those in other sectors. In 2017, this was \$84,500 vs. \$37,500. for young workers (under 25), the difference was also significant — nearly 2 times the average pay in other fields, \$25,400 vs. \$13,000. This wage difference, coupled with 19% job growth for young workers in the scientific R&D sector since 2014 (compared to just 8% across all sectors), helps position Kentucky for future growth.



REDUCING PUBLIC HEALTH COSTS

In Kentucky, **43% of the population** is enrolled in Medicare and Medicaid, far exceeding the national average of 35%, and spending on these programs amounts to **9% of Kentucky's total GDP**, also above the national average of 6%. Contributing to this burden is the prevalence of chronic disease in Kentucky, which is much higher than in other states.ⁱⁱ

COMPARED TO OTHER STATES, KENTUCKY RANKS:

1st for rate of deaths from **cancer**

3rd for rate of **cardiovascular disease**

5th for rate of **diabetes**

8th for rate of **obesity**

10th for rate of deaths from **opioid overdose**

19th for rate of deaths from **Alzheimer's disease**



MEDICAL RESEARCH AT WORK IN KENTUCKY

Aging Research

Kentucky has been at the forefront of research on Alzheimer's disease and healthy brain aging for nearly 40 years. The University of Kentucky's (UK) Sanders-Brown Center on Aging (SBCoA) was founded in 1979 and was one of 10 original Alzheimer's Disease Centers funded by the NIH. The center has seen significant growth in NIH funding: SBCoA received \$5.7 million in NIH awards in FY14 and \$10.4 million in FY18. The center serves as a focal point for all Alzheimer's disease-related activity at UK and in Kentucky, and feeds into national and international efforts to understand and treat this debilitating condition.

The overall goal of SBCoA is to generate and disseminate new knowledge about the aging process and age-related brain diseases through cutting-edge research, clinical programs, education and outreach. It has particularly distinguished itself in two areas: its autopsy program, which provides important information and research material; and its unique, continuously replenished study group of about 500 cognitively intact subjects. This group, along with another group transitioning from normal health to mild cognitive impairment or Alzheimer's disease, are followed over time and have committed to brain donation upon death.

"There is real hope on the horizon in our fight against age-related brain disorders. But we can't stop now," says Linda Van Eldik, SBCoA director. "Continued work to understand the development of this disease, as well as to translate discoveries into beneficial interventions, is urgently needed. We are hopeful that additional funding to the NIH for Alzheimer's research will allow investigators in Kentucky to expand the breadth of our approach."

Investing in Health Disparities Research

In September 2018, the University of Kentucky opened a research facility expressly devoted to addressing and eradicating the state's most significant health disparities. This 300,000-square-foot, \$265 million facility was paid for through a combination of state funds and private philanthropy. This facility will enable multidisciplinary research teams in basic biomedical research, health services, public health, behavioral sciences, bioinformatics and big data, economics and engineering. Ultimately, some 500 scientists, principal investigators, graduate and undergraduate students will work in the unique facility, which brings together experts across disciplines around the idea of more quickly developing solutions and getting them into communities where they can make a difference. Much of their research will be funded by the NIH.

¹ According to the most recent statistics available from the Centers for Medicare and Medicaid Services

² Diabetes and Obesity: "The State of Obesity: Better Policies for a Healthier America 2018"

Cardiovascular Disease: Kaiser J Family Foundation State Health Facts

Cancer Deaths: National Cancer Institute State Cancer Profiles

Alzheimer's Disease Deaths: Alzheimer's Association "2018 Alzheimer's Disease Facts and Figures"

Opioid Overdose Deaths: Kaiser J Family Foundation State Health Facts



Images: University of Kentucky



NEW STATE-OF-THE-ART RESEARCH FACILITY



United for Medical Research is a coalition of leading scientific research institutions and industries, and patient and health advocates that have joined together to seek steady increases in funding for the National Institutes of Health. Learn more at www.unitedformedicalresearch.com. For examples of the amazing things that NIH research is making possible, visit www.amazingthingspodcast.com.