

Research Notes

Prevention, Treatment Could Curb Meth Problem

A two-year, comprehensive report commissioned by UK President Lee T. Todd concludes the popular perception of a “meth epidemic” tends to overstate the role of methamphetamine in the overall picture of substance abuse in Kentucky. Alcohol, marijuana and prescription opiates are the state’s biggest and most costly drug problems. More attention to treatment and research could lead to saving tax dollars.

Sharon Turner, dean of the College of Dentistry, and Robert Walker, assistant professor in Behavioral Science, formed a group of researchers, clinicians, and other experts to examine Kentucky’s emerging substance use problems. The report suggests the state could save millions of dollars in law-enforcement, health care, child welfare and prison costs by investing in research and improving drug-abuse awareness, prevention and treatment.

E.ON Awards Grant To UK Energy Center

Energy storage may very well hold a key to expanding renewable energy and managing peak demand. Kentucky just proved that it has one of the world’s leading research centers on the topic as the UK Center for Applied Energy Research (CAER) was among 10 international universities and institutes that won a total of 6 million euros (approximately \$9.4 million) in the 2007 E.ON International Research Initiative competition conducted by E.ON AG’s of Dusseldorf, Germany.

CAER netted nearly \$1.2 million to further research how to store energy using asymmetric carbon-based electrochemical capacitors instead of batteries, as has been done previously. Capacitors can handle very rapid charging and discharging over hundreds of thousands of cycles.

Storing energy could make renewable energy more accessible in areas like Kentucky, where the wind doesn’t always blow and the sun doesn’t always shine. Additionally, energy storage could help energy companies manage peak demand more effectively.



Compiled from news reports about research at UK.

For more information about research taking place at UK, visit www.research.uky.edu

Literacy Program Shows Success

A recent report issued by the U.S. Department of Education, Institute of Education Sciences stated that the Reading First national literacy program was not having a statistically significant impact on student reading achievement. However, the Collaborative Center for Literacy Development (CCLD), which is housed in the UK College of Education, reports that the opposite is true in Kentucky.

Research conducted by the CCLD shows that in the 72 schools across the Commonwealth of Kentucky that are participating in the Reading First program, reading growth has been seen across the board. In the first four years of the five-year program, the percentage of students in kindergarten through third grades proficient in reading has increased 30.1 percent to 71.7 percent (from 2004 to 2007). Also, in these schools, the achievement gap between white students and other racial groups is narrowing. For example, Caucasian students have improved 14.7 percent while African-American students have improved 28.8 percent.

“Rather than using one standard package of materials statewide, Kentucky’s proposal for the Reading First grant is based on meeting the needs of individual schools and students,” says Susan Cantrell, CCLD executive director. “The Kentucky program is grounded more in professional development and teacher learning than in just implementing scripted packaged programs.”

Reading First was established by the national No Child Left Behind Act of 2001 to help all children read at or above grade level by the end of third grade. In 2009, a final report will be issued.

UK Wins \$10 Million NIH Superfund Grant

UK has received a grant of more than \$10 million for a multi-pronged effort to study the relationships among environmental pollutants, nutrition and disease. Funded by the National Institutes of Health (NIH), the grant will support the efforts of more than 50 scientists and students representing more than 15 academic departments in the colleges of Agriculture, Arts and Sciences, Engineering, Medicine and Pharmacy.

UK’s program, “Nutrition and Superfund Chemical Toxicity,” was one of only two proposals selected for funding from among 18 competing grants submitted nationally to the NIH’s National Institute of Environmental Health Sciences under its Superfund Basic Research Program. Superfund sites are defined by the U.S. Environmental Protection Agency as uncontrolled or abandoned places where hazardous waste is located. There are more than 500 such sites in Kentucky, a state in which rates of such chronic diseases as cardiovascular disease, cancer, diabetes and hypertension are well above national averages.

The grant will support five projects that address ongoing Superfund-related issues in the Commonwealth. Three of these projects focus specifically on biomedical issues while two nonbiomedical projects tackle chemical detection and clean-up.