Researchers Smoke Out Weed Users With Mobile Device

BY RICK ARMON

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AKRON, Ohio — Two University of Akron students are developing a mobile device similar to a Breathalyzer that will test the level of marijuana in one's system.

Called the Cannibuster, it could be a significant roadside tool for law enforcement as more states allow the medical and recreational use of the drug.

"Marijuana is considered to be the fastest-growing industry in the United States today," said UA biomedical engineering student Kathy Stitzlein, who came up with the idea. "We want to be on the cutting edge."

If authorities now suspect marijuana impairment in motorists, they have to rely on blood or urine tests that can take weeks for confirmation. But the Cannibuster, using saliva, will provide a reading for the level of tetrahydro≠cannabinol (THC) in a few minutes on a device that's about the size of a smartphone.

The potential market for the technology is huge. Twenty-three states, including California, Colorado and Washington, permit medical or recreational marijuana use. Proponents also have been trying to get an issue on the ballot in Ohio to legalize the drug.

States have allowed marijuana use and then have no way of knowing — other than using drug recognition techniques or picking up an odor — whether someone is actually impaired at the scene, Stitzlein said.

"That's a little disturbing when you think about safety on the roads," she said. The effect led by Stitulein

The effort, led by Stitzlein, 54, of Millersburg, and Mariam



PHIL MASTURZO/AKRON BEACON JOURNAL/TNS University of Akron researcher Kathy Stitzlein talks about being awarded a \$100,000 grant to develop a cannibuster, a device used to detect the level of marijuana in your system in April in Akron, Ohio.

Crow, 23, of Akron, already is attracting plenty of attention — both comical and financial. The invention was mentioned

on the "Conan" show last week, with TV host Conan O'Brien goofing on the possibility of a device detecting marijuana use.

The Ohio Third Frontier has provided \$50,000 in funding, with UA matching that amount. Stitzlein and Crow also won the LaunchTown Entrepreneurship competition last month, earning \$10,000 from the Burton D. Morgan Foundation.

"A lot of big inventions were actually invented by students who are younger than us," Crow said. "The point of our team is to encourage students to create medical devices that can possibly make the market."

They hooked up through UA's Biomedical Engineering Design Team. Stitzlein is focusing on the technology, while Crow is working on the marketing side and developing relationships with law enforcement.

They still have plenty of work to do before the Cannibuster hits the road for field testing. They are conducting lab tests involving blood, urine and saliva to ensure reliable readings and will even do a controlled study with people in the future.

They hope to have a prototype device developed by December and then have law enforcement test it in the field.

"Initially, we plan on this being a screening device to help them decide if they are going to do further testing," said Stitzlein, who had returned to school after working as a mechanical engineer. "But the ultimate goal would be that we validate oral fluid as a method of testing."

Although the product is designed for law enforcement, it also could be useful for marijuana users who want to check on their condition — or even schools, hospitals and employers.

Stitzlein anticipated the Cannibuster costing about \$300, with a \$15 microchip needed for each test.

