UW Invention Targets Terrorist Weapons

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University of Wyoming researchers have developed and patented a technology that can rapidly detect explosives such as the liquid compounds that were part of a recently-thwarted plot to detonate bombs on as many as 10 U.S.-bound airliners.

Pat Sullivan, a professor in the UW Department of Chemistry, is one of three scientists who received a patent for sensors that can be made to rapidly detect volatile chemical targets.

"We have developed a portable, lightweight system that can detect explosives used in bombs, accelerants used in arsons, biological species used in biological weapons, if fact, it can be used to detect any compound for which an antibody can be made," says Sullivan, who holds the patent along with Lew Noe, UW professor emeritus of chemistry, and former UW Professor John Bowen, now on the faculty at the University of Central Oklahoma. "Even more important, this technology can detect specific compounds in liquids and in air and could be applied to prevent terrorist acts."

Tony Nevshemal, director of UW's Research Products Center (RPC), says the technology, called surface plasmon resonance spectroscopy, offers substantial commercial opportunities.

"This system makes it possible to develop low-cost devices capable of detecting explosives in airports, land mines, or other security situations and detecting airborne biological agents such as those used in biological weapons," he says. "The possibilities are endless and the market for such

a device is worldwide."

"In this day and age, terrorist activities are an extreme threat to our national security and are the source of danger and intimidation worldwide," Nevshemal says. "Technology that can be applied to prevent terrorist acts is of immeasurable importance in the United States and around the world."

Source: University of Wyoming