Additional Funding Awarded for Adherence Breathalyzer

September 1, 2009

Xhale, a Gainesville, Florida-based technology company, has received a $1.7 million follow-up grant from the National Institute of Mental Health (NIMH) of the National Institutes of Health to continue developing its breath-based medication adherence system for HIV treatments. Using a small handheld device—similar to an alcohol breathalyzer—the Self-Monitoring and Reporting Therapeutics (SMART) system monitors the levels of breath-detectable versions of antiretrovirals.

The small business innovation research (SBIR) grant will allow the company to develop and further test the functionality, accuracy and usability of the SMART system. Successful completion of the research, Xhale said in a press release published by Medical News Today, will result in a commercial version of the test.

“Medication adherence has tremendous impact on patient health,” Richard Melker, MD, Xhale’s chief technology officer, said in the press release. “This is particularly true with HIV/AIDS patients where just a 10 percent change in adherence is associated with doubling of viral load and a 21 percent increase in the risk of developing full-blown AIDS. NIMH was particularly interested since non-adherence to antibiotic or antiviral regimens also poses a serious threat to public health through the emergence of resistant organisms.”

“Building on our Phase I achievements, we will design and deploy a handheld, breath-based medication adherence device,” said Donn Dennis, MD, Xhale’s chief scientific officer. “The system will first remind the patients to take their medication. After ingesting their medication, the patients will blow into the device, which will detect and document that the appropriate medication was taken at the proper time. This technology should improve adherence rates, especially in high-risk populations, and provide pharmaceutical companies and the FDA with a higher quality data set for evaluating drug safety and efficacy in clinical trials.”

This is the third time in two years that Xhale has been awarded an SBIR grant. Previous awards were SBIR Phase I awards from the NIMH and the National Institute on Alcohol Abuse and Alcoholism.

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