

Smart pill bottle gets second patent

July 1 2014, by Jim Steele

AdhereTech and The University of Alabama in Huntsville (UAH) have been awarded a second U.S. patent for the smart pill bottle that was invented at the university and is being commercialized by the company.

Already in use by patients, AdhereTech's smart [pill bottle](#) automatically measures if patients have taken their medication. Data is wirelessly sent from the bottles to AdhereTech servers, where it is analyzed in real-time. If a dose is missed, AdhereTech reminds the patient via automated phone call or text message - as well as on-bottle lights and chimes.

Additionally, if the system notices prolonged non-adherence, it can solicit feedback from a patient via text or phone call, asking why the dose was missed. Patient responses can either be stored or routed to live case managers for immediate intervention. For example, if a patient is not taking medication due to intense side effects, AdhereTech can gather this information within the first few days of treatment, as opposed to the patient's next appointment.

AdhereTech's Generation 1 bottle is currently in use, and an improved, smaller and less expensive Generation 2 bottle will be released in 2015.

The new patent involves the bottle's adherence notification and transmission system and further secures the intellectual property of the product, according to inventor Dr. Emil Jovanov, associate professor in UAH's Electrical and Computer Engineering Dept. Joining Jovanov as inventors named in the patent are Josh Stein, CEO of AdhereTech; John Langhauser, the company's [chief technology officer](#); and Michael

Morena, its chief operations officer.

"This recently granted patent allows AdhereTech to continue developing innovative solutions to improve the health and wellbeing of patients, especially within the area of [medication adherence](#)," Stein says. "This is AdhereTech's second patent, and it helps to define the company's scope and vision, as a growing connected medical device firm. In fact, we have more demand for our product than we can accommodate at the moment, so we are scaling up."

That's good news to UAH, which licensed its rights to the technology to AdhereTech.

"UAH's goal was, and always has been, to see the fruits of our research be available for public consumption at the earliest possible time," says Kannan Grant, director of the university's Office of Technology Commercialization. "From the beginning, UAH's and AdhereTech's goals were aligned. This made it possible for us to come to an appropriate agreement that was forward leaning and in the best interest of UAH, AdhereTech and its shareholders, and most importantly, consumers."

AdhereTech works with [pharmaceutical companies](#), pill bottle manufacturers and pharmacies to distribute high-cost specialty medication in its bottles. AdhereTech improves patient adherence in taking these expensive medications, which then results in increased revenue for pharmaceutical companies. AdhereTech charges pharmaceutical manufacturers for this service, so the smart pill bottle system is free for patients.

"Additionally, AdhereTech is a valuable tool for clinical trials," says Stein. "The devices can be used to both monitor patient activity and to increase adherence in trials. AdhereTech is ideal for specialty

medication, clinical trials, and areas where adherence is crucial."

The product is currently in a pilot study with The Walter Reed National Military Medical Center. This summer, AdhereTech will begin working with a top-five pharmaceutical company, a top-15 pharmaceutical firm, a top-10 pill bottle manufacturer and a leading research university to be used with medications designed to treat cancer, HIV and stroke.

Provided by University of Alabama in Huntsville

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