

Hound Labs Announces Results from Second Clinical Trial with the University of California, San Francisco

Data confirms Hound Labs' ability to capture unprecedented low levels of THC in breath

OAKLAND, CA – February 27, 2019 – [Hound Labs, Inc.](#), a leader in the field of breath diagnostics, today announced results of its second clinical trial with the University of California, San Francisco (UCSF), in which researchers measured THC¹ in breath. Results from this landmark study confirm – for the first time in a clinical trial – THC is present in breath for two to three hours after smoking, which is the same duration as peak impairment according to government studies². The trial also concluded that detecting THC in breath for two to three hours requires the capability to measure complex molecules in breath at extraordinarily low levels – to one trillionth of a gram per liter of breath (pg/L). Using the Hound[®] marijuana and alcohol breathalyzer to collect breath samples, UCSF researchers confirmed that this ultra-sensitive technology is capable of capturing THC in breath in picograms (parts per trillion), demonstrating that a portable breathalyzer can capture such low concentrations.

This is the second clinical trial using Hound Labs' breath capture technology conducted at UCSF by Dr. Kara Lynch, co-director of the Clinical Chemistry and Toxicology Laboratory at San Francisco General Hospital and Associate Professor of Laboratory Medicine at UCSF. The latest trial measured the breath of 20 participants over the course of three hours, sampling each participant's breath a total of nine times. Participants included men and women who are frequent and infrequent marijuana smokers. Results from the second trial build on the findings of the first clinical trial conducted with UCSF by quantifying the ultra-low sensitivity needed to measure THC in breath at one pg/L in order to measure recent marijuana use throughout the peak impairment window of two to three hours after smoking.

"In our trials, we discovered that THC rapidly moves from blood into breath and consistently appears in breath in very low concentrations for two to three hours," said Dr. Lynch. "The ability to capture breath and measure such low concentrations of molecules represents a significant breakthrough and we hope to continue to collaborate with Hound Labs on clinical studies to advance the field of breath diagnostics."

¹ THC is the psychoactive ingredient in marijuana.

² April 2014 National Highway Traffic Safety Administration's "Drugs and Human Performance Fact Sheet".

Hound Labs created the world's first marijuana and alcohol breathalyzer for employer and law enforcement use. This marks the first time a handheld device has the sensitivity required to determine recent marijuana use. Existing methods for testing THC in blood, urine, and saliva do not differentiate recent marijuana use from past use because THC can remain long after impairment subsides. Breath, on the other hand, was shown in the UCSF clinical trial to contain THC only for two to three hours, which correlates with the window of peak impairment.

"In order to solve the challenge of determining recent marijuana use, we spent five years developing new technology that enables unparalleled low levels of detection in a portable device," said Dr. Mike Lynn, co-founder and CEO, Hound Labs. "We have been testing this technology in collaboration with one of the world's premier research universities. After years of research and development, we are excited to have validated the Hound science and technology that will advance our collective understanding of THC in breath."

Hound Labs has partnered with several companies to begin manufacturing its breathalyzers and anticipates providing commercial versions to charter customers later this year.

About Hound Labs

Hound Labs is a breath diagnostics company that has developed a proprietary scientific method to measure extraordinarily low levels of complex molecules in breath. Utilizing this groundbreaking ultra-sensitive and non-invasive technology, the Hound® breathalyzer is the world's first breathalyzer to rapidly, accurately, and inexpensively measure THC in breath in parts per trillion. The Hound device is intended for law enforcement, employer, and insurance purposes only. Founded in 2014, the Oakland-based company is backed by [Benchmark](#), [Icon Ventures](#), and individual investors.

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