

## Hound Labs, Inc. Announces Initial Results of Clinical Trials and Data from Pioneering Research Using the Hound® Marijuana Breathalyzer

Groundbreaking Results Presented at Leading Scientific Conferences

OAKLAND, Calif. – March 19, 2018 – Hound Labs, Inc. has been rigorously testing the Hound® marijuana and alcohol breathalyzer for more than three years in the laboratory, in the field and in clinical trials. Initial findings from clinical trials with the University of California, San Francisco (UCSF), confirmed that the measurement capabilities of the Hound breathalyzer meet or exceed the ultra-sensitivity required to measure THC<sup>1</sup> in breath. In addition, the company has conducted hundreds of tests with marijuana users that provide a new understanding of how the presence of THC in breath correlates with the peak impairment window of 2–3 hours after smoking established previously by global researchers.<sup>2</sup> The company's research team presented data supporting these findings at Pittcon 2018, the world's leading annual conference and exposition on laboratory science.

The Hound breathalyzer is the world's first breathalyzer to measure alcohol levels and THC from recent marijuana use in breath. It delivers better information than results from oral fluid, blood or urine tests, which measure residual THC for days or even weeks – long after impairment subsides. The ability to measure ultra-low levels of THC in breath with the Hound breathalyzer opens new frontiers of research to better understand recent marijuana use.

In collaboration with leading scientists and researchers, Hound Labs and [Triple Ring Technologies](#) (the engineering firm partnering with Hound Labs to develop the Hound breathalyzer) have conducted hundreds of tests with human subjects who have used marijuana both indoors and outdoors. In March 2018, the team presented [findings](#) at Pittcon, including confirmation that THC can be measurable in breath for 2–3 hours before it dissipates. This timeframe applies to both frequent and occasional marijuana smokers.

"Pittcon is the premier laboratory science conference," said Kevin Limtao, bioengineer at Triple Ring Technologies. "Presenting at the conference validates the rigorous research methodologies utilized by our team and acknowledges the importance of the data from our first phase of research."

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<sup>1</sup> THC (tetrahydrocannabinol) is the primary psychoactive ingredient in marijuana.

<sup>2</sup> Couper, Fiona J. and Barry K. Logan, "Drugs and Human Performance Fact Sheets," NHTSA, 2017. See also Grotenhermen, F. et al., "Developing science-based per se limits for driving under the influence of cannabis (DUIC). Findings and recommendations by an expert panel," Nova-Institut, Hurth, DE, 2006.

Hound Labs developed a proprietary scientific method to not only detect THC in breath but also to measure it in parts per trillion (picograms). In January 2018, at the Mass Spectrometry: Applications to the Clinical Lab (MSACL) 10th Annual Conference, UCSF Clinical Chemistry Fellow, Y. Ruben Yo, PhD, presented data confirming the sensitivity of the Hound marijuana and alcohol breathalyzer and the need to measure THC in breath below 5 pg/L.

“Clinical trials with the Hound Labs device underscored the importance of incredibly sensitive tools to measure THC in breath,” commented Mr. Yo. “What was surprising was that the portable Hound Labs device initially had lower levels of detection than what we normally see with our mass spectrometer, so we had to develop new calibration methods to ensure our equipment measured the same low levels as the Hound breathalyzer.”

“In partnership with Triple Ring Technologies, we developed portable technology that meets or exceeds the gold standard used by forensic laboratories throughout the world,” said Dr. Mike Lynn, CEO and co-founder of Hound Labs. “We offer a solution that not only extends the boundaries of clinical research but also provides better information about recent marijuana use for employers, law enforcement and legislators who are trying to balance public safety with the fair treatment of responsible cannabis users.”

Hound Labs continues to conduct research with Triple Ring Technologies using the Hound marijuana and alcohol breathalyzer. Clinical trials with UCSF are ongoing. The company will release research results throughout the year.

#### **About Hound Labs, Inc.**

Hound Labs is a scientific research and device company that has developed ultra-sensitive technology for non-invasive breath measurement. Utilizing this groundbreaking technology, the Hound® marijuana breathalyzer is the world’s first breathalyzer to rapidly, accurately and inexpensively measure recent marijuana and alcohol use in a person’s breath. Founded in 2014, the Oakland-based company was created by Dr. Mike Lynn, an ER physician, reserve deputy sheriff and former venture capitalist, co-founder Mr. Kuni Oh, a patent attorney with a deep background in engineering and science, and co-founder Ms. Jenny Lynn, a business executive with 20 years of experience launching new ventures. Hound Labs is funded by Benchmark ([www.benchmark.com](http://www.benchmark.com)) as well as individual investors.

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