

COVID-19 dogs could be sniffing out cases in months

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University of Adelaide researchers are working with international partners to train sniffer dogs to detect COVID-19 infection.

It is hoped the first COVID-19 detection dogs could be working within



months, and would complement existing methods by providing low cost, instantaneous and reliable screening.

Dogs could be deployed in airports and also be used to screen staff in hospitals and travelers in quarantine.

Previous research has shown dogs can detect the presence of specific Volatile Olfactory Compounds (VOCs) caused by a viral infection in people.

Dr. Anne-Lise Chaber and Dr. Susan Hazel from the University of Adelaide's School of Animal and Veterinary Sciences are coordinating the Australian arm of this international alliance, with local dogs being made available through organizations in various States. This includes Detector Dogs Australia, based in Melbourne.

They said the study would test the sensitivity and specificity of canine olfactory detection of VOCs induced by COVID-19 in comparison to those of standard diagnostic laboratory testing.

The international team, led out of the National Veterinary School in Alfort, France, has preliminary results showing specialized working dogs can detect COVID-19 VOCs in patients, with some recording a 100% success rate.

Promising indications also show dogs trained in this way are able to identify infected individuals prior to development of symptoms, or in those who are otherwise asymptomatic. This would be a powerful tool for effective control of COVID-19 in Australia.

"Dogs are trained in the same way as dogs that detect explosives. If results from our local study are positive we will be able to move to the clinical screening phase," Dr. Chaber said.



"According to recent studies, <u>dogs</u> are not susceptible to SARS-CoV2 and the virus cannot replicate in them. COVID-19 dog detectors will be a reliable, repeatable, cheap, easy and fast way to screen or pre-screen potential cases. This tool will become crucial when borders reopen or if we face another wave."

Provided by University of Adelaide

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