



THE UNIVERSITY
of ADELAIDE

Committee Secretary
Parliamentary Joint Committee on Law Enforcement
PO Box 6100
Parliament House
Canberra ACT 2600

Monday October 12, 2020

Dear Committee Secretary,

We thank you for the opportunity to make a submission regarding 'An Australian Standard for the training and use of private contracted security and detection dogs'.

Canine detection dogs have potential as a scalable, inexpensive, efficient and reliable COVID-19 screening tool. This letter highlights the urgent need to establish an accreditation system to ensure that dogs that will be used to detect and screen people for COVID-19 in Australia are accurate.

Human bodies emit odorous and non-odorous volatile organic compounds (VOCs) which reflect the metabolic condition of individuals. Acquisition of infection or metabolic disease results in changes in body odour as a result of disease-specific VOCs. These can be used as diagnostic olfactory markers. Canines can detect pathogen or disease-specific VOCs and are therefore able to identify both infectious and non-infectious diseases in humans. Research around the world proved that patients suffering from COVID-19 emit specific VOCs that can be detected by specifically trained dogs.

The University of Adelaide, in collaboration with Australian Border Force (ABF) and the Department of Agriculture (Biosecurity) is training dogs to screen and detect persons infected by SARS-CoV2 (COVID 19). The detection dogs trained by UoA/ABF/Biosecurity will be able to accurately discriminate between the axillary sweat samples from individuals with SARS-CoV-2 infection and negative controls. At this stage we are waiting for positive and negative samples to begin the training, and expect to have more than 10 trained dogs by early 2021. Dogs will be trained in multiple states (South Australia, Victoria, Queensland) and plans are to deploy them at airports and other borders, and in health care settings where staff require daily testing to ensure they remain COVID-19 negative. Only dogs that have a sensitivity of detection superior or equal to 95% would be considered fit for deployment. All tests will be double-blinded. As a screening tool, detector dogs have the potential to rapidly and effectively detect asymptomatic carriers and to enable a more rapid restarting of the economy.

In Australia, private companies are likely to get involved in training as high demand means the potential to make a lot of money. Thus private companies may offer their services to private and governmental entities.

A dog's capacity to screen for COVID depends on the quality of the training they receive, the diversity of positive sweat samples used during the training process and the evidence based training protocols. However, there is currently no accreditation system in place to control and regulate the dogs that will be used for COVID-19 detection. Using underqualified dogs that fail to detect persons infected by COVID-19 will lead to disease introduction or transmission and thus have important disease control and economic consequences for Australia.

We would therefore encourage the Committee to consider recommending that the Federal Government implement an accreditation system for dogs that will be used to detect and screen people for COVID-19 in Australia. While this is important in dealing with the current pandemic, a longer term policy is needed to deal with accrediting dogs that can be used in areas important for public health and environmental safety.

We would be pleased to discuss matters raised in our submission further.

Yours sincerely

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