GREYSCAN

Setting the Global Standard in Trace Detection while Converting our Technology to Fight COVID-19

March 2020

First Class Pedigree Behind GreyScan

More than 10 years in the making with in excess of A$10m of R&D spend.

Initial research grant of A$4.3m from US Department of Homeland Security and the Australian Office of Prime Minister and Cabinet

Australian Government
Department of the Prime Minister and Cabinet

Australian Government
Australian Research Council

Australian Government
Department of Infrastructure, Transport, Regional Development and Local Government

Australian
CUSTOMS AND
BORDER PROTECTION

Government of South Australia
Forensic Science SA

Background: Applying the ETD 100 to Virus Scans

- GreyScan detection's ETD 100 was a $25M investment created to find trace substances to prevent all types of terrorist explosive attacks – partnered with other ETD methods.
- To GreyScan, this virus is another threat that can be detected, addressed, and prevented during a major crisis.
- Our Product, the ETD-100, is already deployed for the detection of components of explosives mixtures on swabs taken from surfaces. The same can be applied to the environmental screening for the presence of Corona and other viruses by creating a new product, the TVD-1.
- The capabilities of this device would empower first responders to detect and prevent the virus while keeping them out of harm's way, and eventually sweeping areas to prove safety and decontamination when the virus subsides globally.

Science Behind the Solution

- The GreyScan ETD-100 is based on technology developed by the University of Tasmania. The current ETD-100 system is designed in such a way that it could be used for virus detection after simple modifications such as capillary fluid changes, laser induced fluorescence detection, and different extraction swabs.
- The ETD 100 is based on capillary electrophoresis – a technique previously used for the analysis and characterization of human viruses such as common cold virus (human rhinovirus serotype 2 (HRV2).
- Sensitive virus analysis requires staining the virus to make it fluorescent. Kremser have demonstrated this using RiboGreen to stain the RNA inside the capsid with a 5-6 hour incubation time.

COVID-19 Creates a New Threat

- Unlike traditional terrorist threats, COVID-19 and other viruses know no boundaries, race, religion, or borders. They do not differentiate between humans. They attack and destroy everything in their biological path.

- Past Virus Outbreaks in the Last 20 years
  - 2020 COVID 19 – over 8,000 deaths and rising – the virus is detectable in aerosols for up to three hours, up to four hours on copper, up to 24 hours on cardboard and up to two to three days on plastic and stainless steel.
  - 2009 H1N1 – the CDC estimated that 151,700-575,400 people worldwide died from (H1N1)– Studies have shown that the virus can survive on environmental surfaces and can infect a person for 2 to 8 hours after being deposited on the surface.
  - 2003 SARS – the World Health Organization estimates 813 deaths– can survive up to 2 days on plastic surfaces

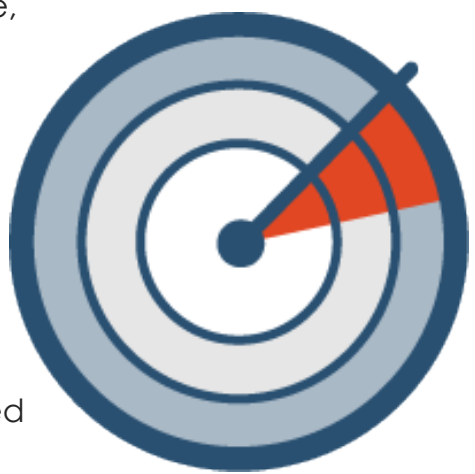
- A 6-month program has been developed to repurpose Greyscan's CZE technology to detect deadly, contagious viruses that live on surfaces, creating opportunities for health care officials and first responders to eradicate and prevent faster spread worldwide. While COVID-19 will be first major enemy, the TVD-1 will be capable of detection future strain.

Proposed Use of our CZE Technology

- COVID-19 can survive on surfaces long after any deposition through coughing or sneezing from a COVID-19 confirmed carrier. To enable the public to feel safe and able to return to their normal routines it is critical to be able to demonstrate that cleaning or decontamination protocols have been followed and to encourage trust back into society.
- The ETD-100 is already deployed for the detection of the presence of explosives mixtures on swabs taken from surfaces. The same concept can be applied for the screening of COVID-19 and other viruses. The fast, mobile, cheap and accurate technique can be used by a non-expert to screen areas globally.

Critical Capabilities to Fight the Pandemic

- There is a critical need to detect these viruses accurately and dispose of them via service detection. Our explosive trace device is already simple to operate, fieldable, reliable and accurate with the following characteristics deployed worldwide starting in 2020:



- highly sensitive (threshold <10ng)
- <5% false alarm rate
- suitable for field deployment (not lab based)
- simple to operate with a red and green indication system
- capable of true alarm resolution with a higher degree of accuracy and speed
- able to detect viruses via revolutionary CZE technology

Where is COVID-19 likely to live Today?

Commercial Buildings

- Shopping Malls
- Businesses
- Grocery Stores

Sports/Entertainment/ Educational Venues

- Schools/Universities
- Concert Venues
- Theme Parks
- Sports Venues/Events

Travel and Leisure

- Hotels
- Cruise ships
- Restaurants
- Rental Cars

Transportation

- Aviation
- Rail
- Bus

Government

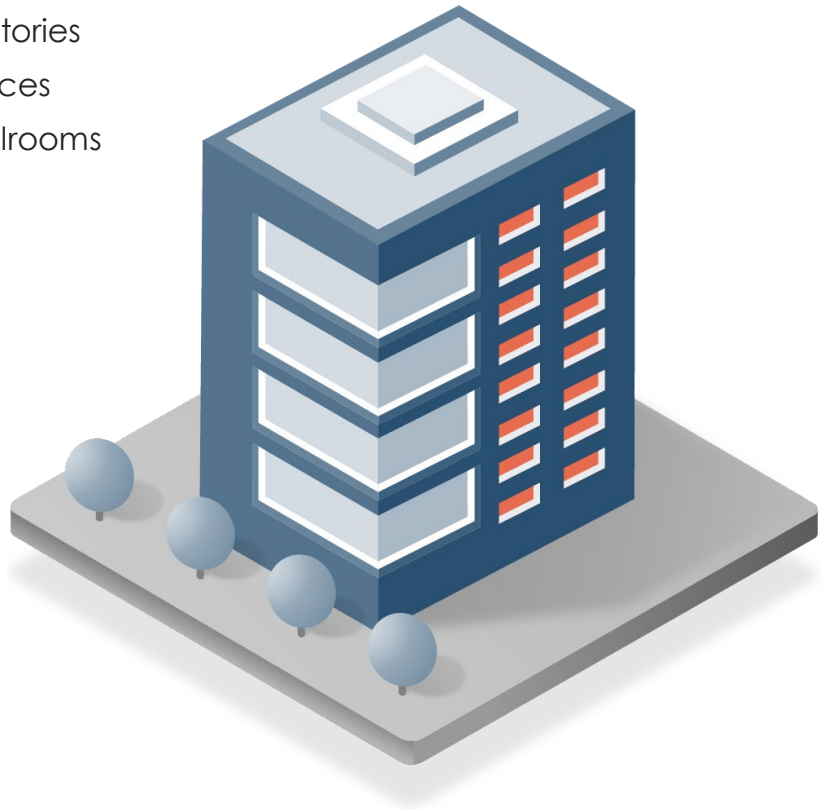
- Schools
- Military Facilities
- Federal Buildings
- Courthouses
- Prisons
- Police Cars

Medical Centers

- Hospitals
- Doctor's Office
- Medical Evacuation

Workplace

- Factories
- Offices
- Mailrooms

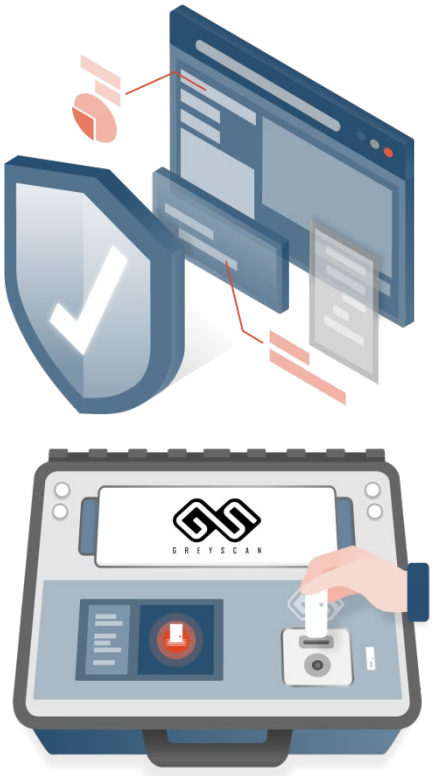


What is the Measure of Success Fighting Corona

- Ability to sweep and clean venues as global health community looks for a solution
- Accurate and consistent results quickly in the field
- Providing peace of mind & reduction of risk for first responders
- Effective and workable training to be deployed nationally
- Help Americans someday to confidently return to work and restore economic stability while being ready for future viruses

Product & Technology – Apply the benefits of our ETD

- ETD-100 Device
- Consumables
- Accessories



- Apply the benefits of the ETD-100 to detect and fight the spread of this and future virus
- Fast, accurate detection 30x faster than testing in the lab
- Enables fast in field decision making to save lives
- Mobile system, small footprint can be transported from one location to another with no downtime
- Easy to use red screen/green screen interface