



## **Technology to Eradicate COVID-19 and other Viruses on PPE, Surfaces and in Air**

The COVID-19 pandemic has killed many people worldwide, caused widespread PPE shortages and crippled the global economy in 2020. While universal testing, therapeutics and vaccines are going to greatly reduce the crisis, the virus will mutate and other viruses will most certainly create future pandemics. A strategy must be employed to quickly, safely and effectively kill viruses circulating in the air or living on surfaces. Such a technology will allow the economy to re-open and restore the public's confidence in the safety of office buildings, public indoor spaces and air travel.

Dr. Alfred Wong, UCLA Emeritus Professor of Physics, and his team at PECS, Inc. (Plasma Electron Cleaning System), in collaboration with scientists at UCLA's California Nanosystems Institute (CNSI) have developed and tested a unique and proprietary portable, tabletop-size prototype device to kill bacteria and virus on N95 surgical masks as well as other PPE and medical equipment. The team is in the process of applying for an Emergency Use Authorization (EUA) from the FDA.

### **Basics of Plasma Cleaning**

Plasma, known as the "Fourth State of Matter", can generate electrons to disassociate the DNA and RNA bonds reducing viruses and bacteria into harmless basic elements. While plasma cleaning is not new, Dr. Wong's deep expertise in plasma physics has allow him to develop a platform of plasma cleaning that can be widely used to combat COVID-19 and any future viruses.

### **Plasma Electron Cleaning Advantages Over Current PPE Cleaning Modalities:**

- Safe – No caustic chemicals or dangerous radiation ensures safety for device operator and users of cleaned products.
- Low Temperature – Cleaning at room temperature preserves the integrity of delicate equipment which allows for the reuse of such items as N95 masks or other previously single-use PPE.
- Fast – cleans up to 15 N95 respirators in 90 seconds.
- Thorough – Unlike UV which only cleans the surface, PECS can clean in 3 dimensions targeting virus deep in the mesh of masks.
- Low Energy – PECS efficiently deploys and controls the electrons achieving comprehensive cleaning at low energy. Ability to run on batteries allows for system mobility.

### **Plasma Electron Cleaning of Circulating Air**

Studies show increasing evidence that the COVID-19 virus is airborne and spreads at an even greater distance than previously believed, significantly more than the conventional "6 feet". Therefore, a means of cleaning circulating air is critical to re-opening the economy. Dr. Wong's team has proprietary designs for retrofitting HVAC systems in commercial buildings that will allow viruses and other hazardous airborne particles to be efficiently and effectively removed from the air entering and circulating in a building. The designs offer a low energy, low maintenance system.

For More Information Regarding Technology and Investment Opportunity

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