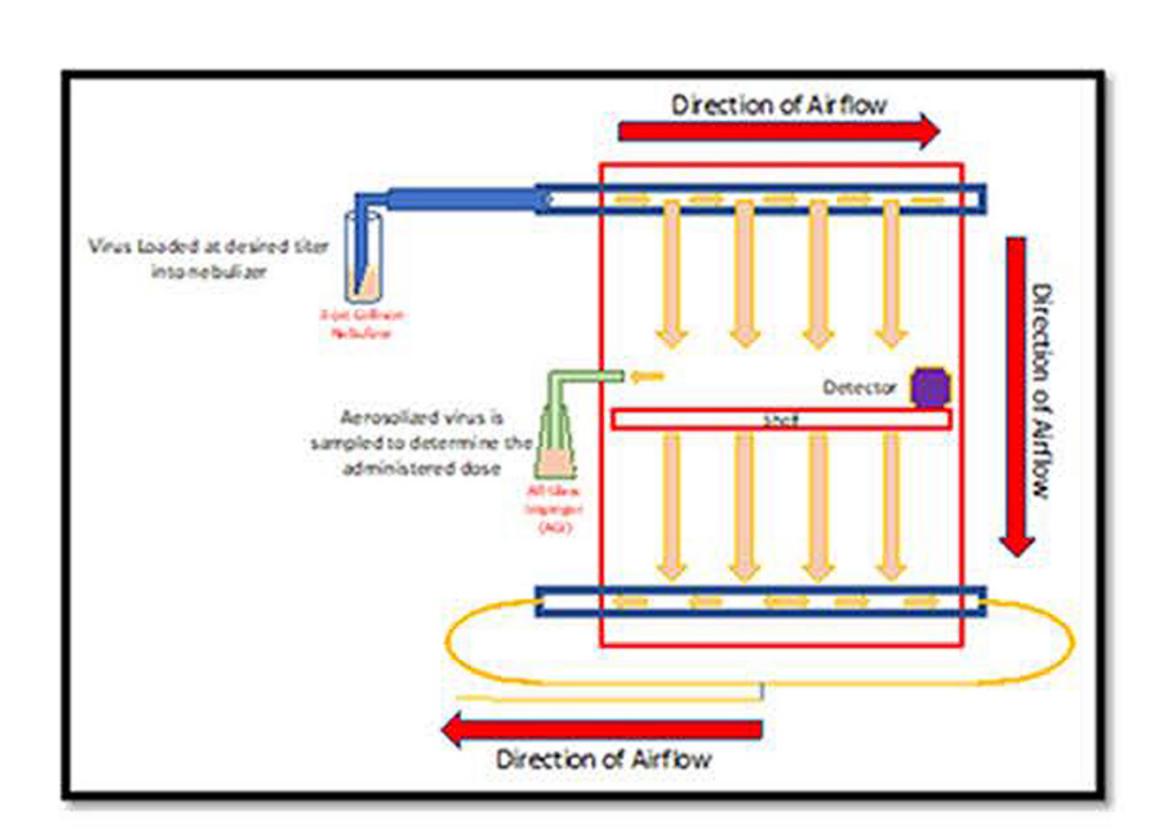
Independent Biosafety Laboratory in Fairfax, Virginia performed aero-solized SARS-CoV-2 exposures in a BSL3 facility to test the viral detection capabilities of Opteev Technologies ViraWarn Device. Three different aerosolized concentrations of SARS-CoV-2 were tested in replicate to determine the sensitivity of the device in detecting SARS-CoV-2 in the air. The diagram below shows the experimental setup of the exposure chamber. During the exposure samples from the air were collected into an All Glass Impinger (AGI) for downstream analysis to determine viral concentration per liter of air. Samples from the ViraWarn device were also collected for viral titer analysis. All collected and analyzed data was provided to Opteev Technologies for further analysis.



Please see analysis on next page

The results of the experiment clearly demonstrated that the ViraWarn device detects SARS-CoV-2 particles in a controlled environment [Fig2]. Figures (2a) and (2b) below show artifacts of conductivity signal recorded by the ViraWarn device in no-virus and virus conditions (during and post-nebulization period). In all the cases where aerosolized SARS-COV-2 was present, the ViraWarn signal was above the threshold of viral detection. The ViraWarn device instantly detected the presence of SARS-CoV-2 100% of the time. Evidence from RT-PCR quantification of SARS-CoV-2 trapped in the ViraWarn fluid proves that ViraWarn can detect as low as 500 viral particles instantaneously as soon as SARS-CoV-2 particles enter the device.

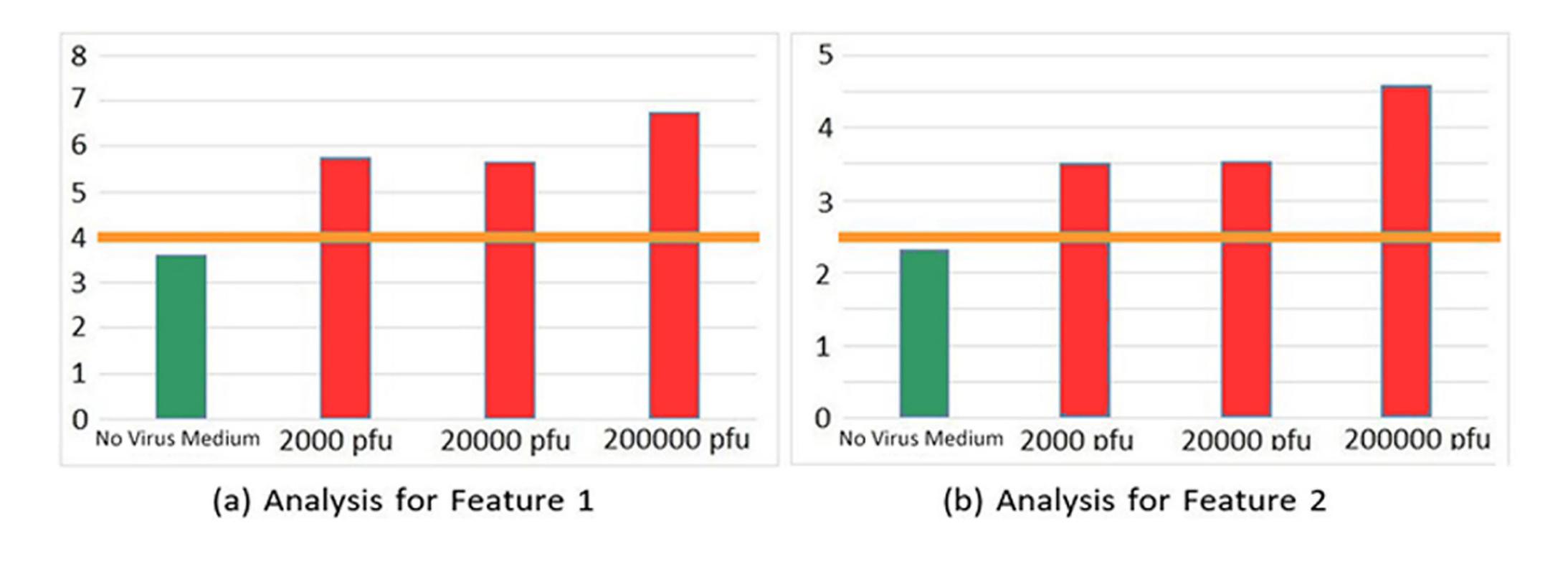


Fig-2: The distinction of the No-Virus (Media) and Virus cases with two different features where data is collected during and post-aerosolization. The green line depicts the threshold demarcating the virus and no-virus conditions.

Biplab Pal Ph.D.

Opteev Technologies, Inc. bpal@opteev.com