



College of Veterinary Medicine and Biomedical Sciences  
Department of Biomedical Sciences

1683 Campus Delivery  
Fort Collins, Colorado 80523-1683  
(970) 491-3456  
FAX: (970) 491-3557

August 6, 2020

Jeff Mullen  
Chief Executive Officer  
Dynamics Inc  
493 Nixon Road  
Cheswick PA 15116  
Email: jeff@dynamicsinc.com

RE: SARS-COV-2 INACTIVATION TESTING WITH DYNAMICS NANOWAVE TECHNOLOGY

Dear Mr. Mullen:

My laboratory works in the Regional Biocontainment Laboratory at Colorado State University, a facility originally constructed with funds from the National Institute of Health, National Institute of Allergy and Infection Disease.

On July 27, 2020, we tested the Nanowave device developed by Dynamics Inc. to measure inactivation of aerosolized SARS-CoV-2. SARS-CoV-2 (WA-01 isolate) was aerosolized from a Sprint nebulizer and moved through the Nanowave device at the maximum airflow capability of our laboratory. Virus was inactivated to the detection limits of the test. Details of the SARS-CoV-2 inactivation test are attached hereto as Appendix A.

Sincerely,

A handwritten signature in black ink that reads "RA Bowen".

Richard A. Bowen DVM PhD  
Professor, Department of Biomedical Sciences  
Colorado State University  
Fort Collins, CO 80523

## APPENDIX A

### SARS-CoV-2 Inactivation With Dynamics Inc. Nanowave Technology

Test	Test Duration	PFU/ml duplicate 1	PFU/ml duplicate 2
Nanowave device when ON	10 seconds	<10	<10
Nanowave device when ON	100 seconds	<10	<10
Nanowave device when OFF	10 seconds	1.30E+02	1.40E+02
Nanowave device when OFF	100 seconds	2.50E+02	2.80E+02
Stock virus that was nebulized		2.40E+05	2.90E+05

#### Test Notes

- SARS-CoV-2 virus utilized was WA01 Strain (3/12/20 CSU Passage 3).
- Nebulaizer was a Sprint Nebulizer capable of utilizing 5ml in 15 minutes for droplet sizes of approximately 3 microns.
- Humidity was 75% (+/- 25%).
- Aerosolized output collected by bubbling into 10ml of DME medium for 10 seconds vs. 100 seconds (i.e., similar to an inspirator)
- Assayed stock and collected virus in duplicate.
- Values provided as plaque forming units / ml (PFU/ml)
- Output was collected both with the UV-C nanowave device turned ON and OFF.