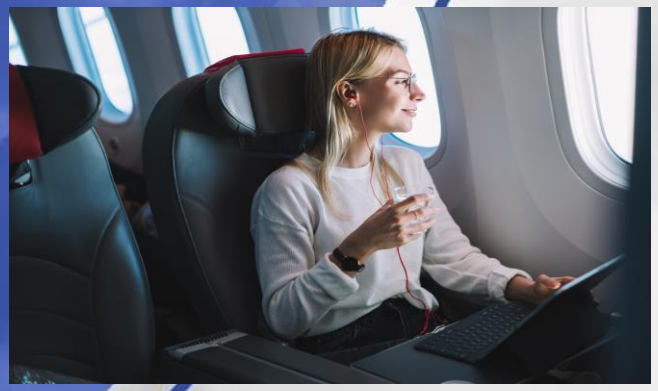
AeroClenz™

Clean for Takeoff™



Continuous Disinfection of Cabin Air Using Safe and Controlled Levels of Ultraviolet Light

Making Indoor Air as clean as the Outdoors

UV is the Disinfecting portion of Sunlight

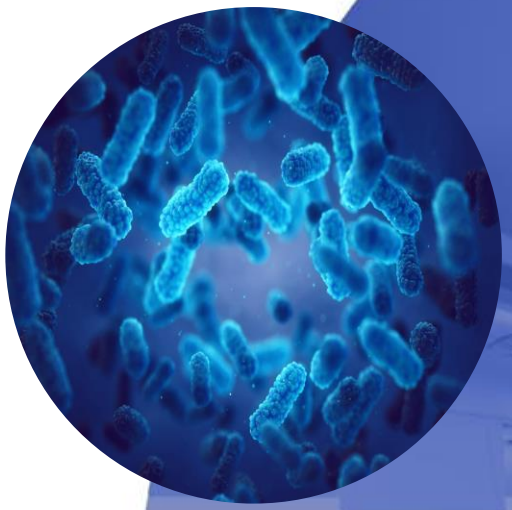
“Sunlight is the best Disinfectant”

Our Indoor Air lacks UV exposure

and is not disinfected

We’re 18x more likely to be infected by SARS-CoV-2 indoors vs. outdoors

AeroClenz
Clean for Takeoff™



The Significance of In-Flight Disinfection Amplified by the Global Pandemic

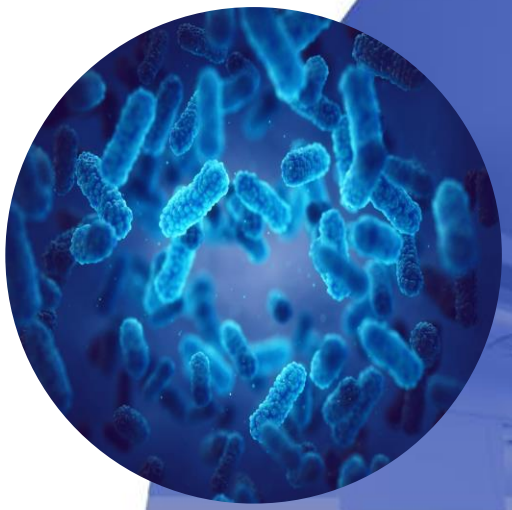
- Insightful statistics revealing the transmission of Covid-19 during air travel
- The profound impact of Covid-19 on both passengers and crew members
- The urgent requirement for efficient and reliable in-flight disinfection solutions

AeroClenz
Clean for Takeoff

“The Dirty Secret”

Unfortunately, maintaining clean cabin air once it enters the cabin is not being achieved.

- HEPA effectively purifies the air within ducts, but becomes contaminated once it combines with pollutants.
- The presence of UV C within ducts encounters similar problems.
- Ozone poses its own set of health and comfort concerns.



Covid-19
+ FLU A
= 1-2 PUNCH

About 10,000 Deaths per year due to Covid and Influenza A aboard aircraft.

Up to 8,000 Deaths could be avoided with UVC air cleansing

Aircraft cabins are one of the highest-risk settings

AeroClenz
Clean for Takeoff

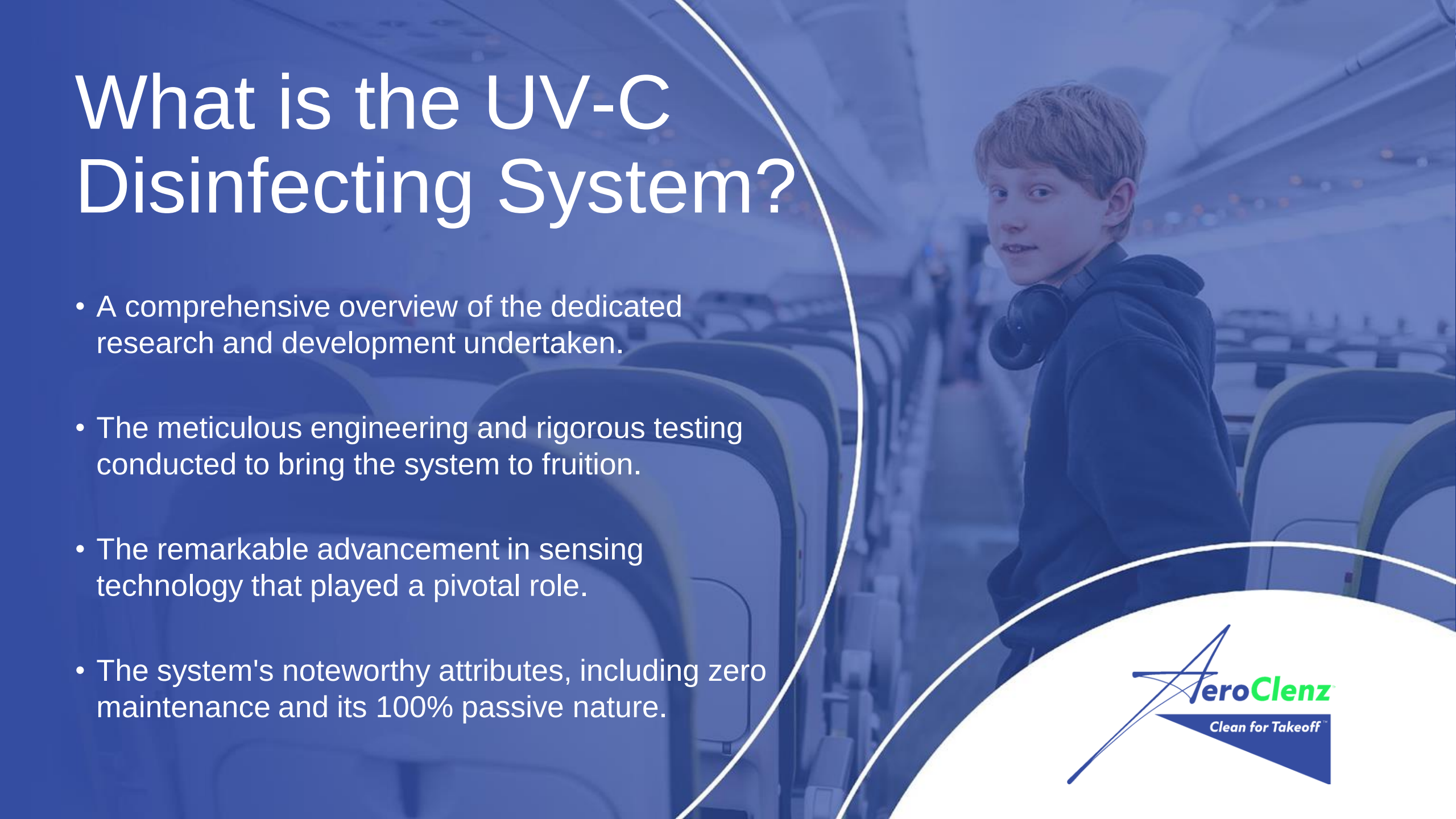
INTRODUCING
The UV-C Disinfecting System

Years of research and development have gone into creating a solution that works

- Overview of the research and development process
- Hours of engineering and testing that went into creating the system
- The development of sensing technology
- The zero maintenance, 100% passive solution

What is the UV-C Disinfecting System?

- A comprehensive overview of the dedicated research and development undertaken.
- The meticulous engineering and rigorous testing conducted to bring the system to fruition.
- The remarkable advancement in sensing technology that played a pivotal role.
- The system's noteworthy attributes, including zero maintenance and its 100% passive nature.



AeroClenz
Clean for Takeoff™

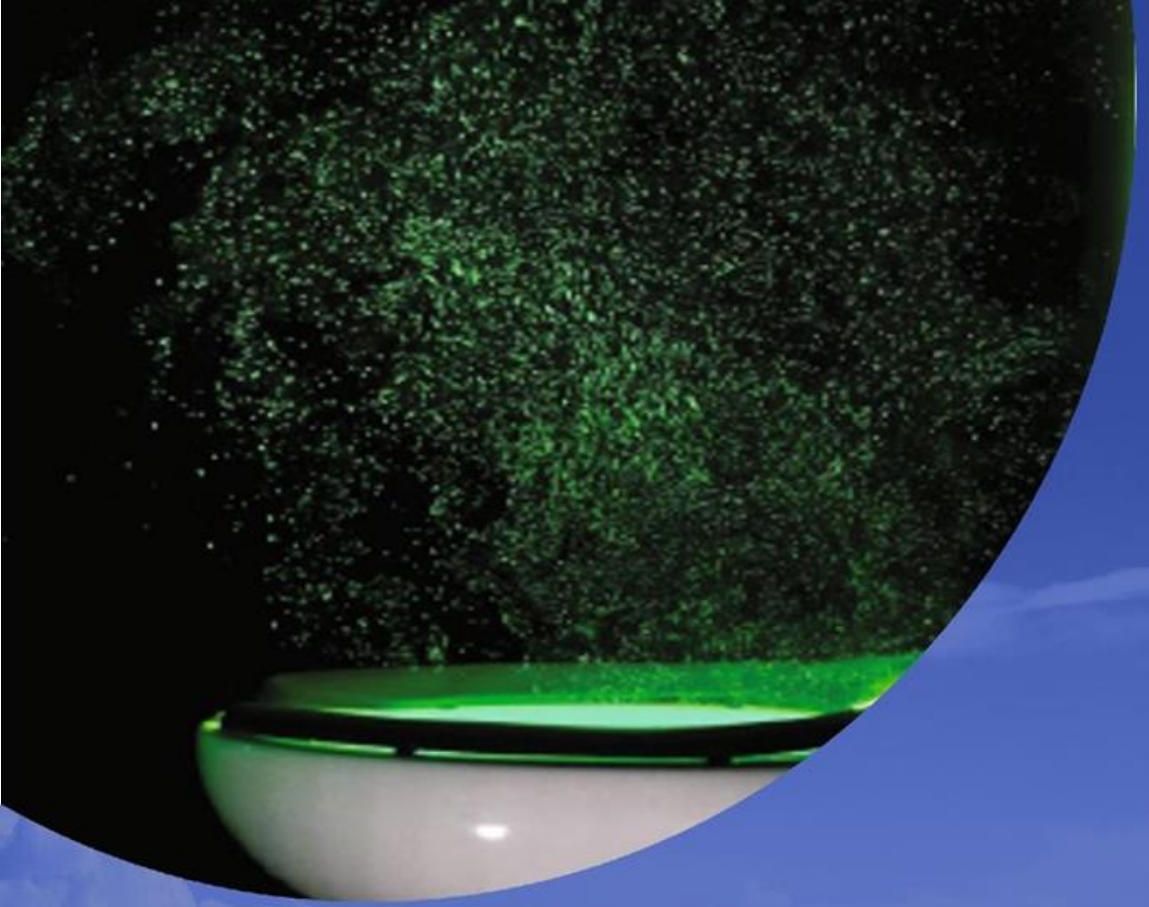
By employing controlled and safe levels of Ultraviolet C (UV-C) light, the AeroClenz UV-C Disinfection System ensures the continuous disinfection of cabin air.

UVC = Natures Way to Clean

The Impact

- Improved air quality for passengers and crew
- Reduced risk of disease transmission
- Increased passenger confidence and satisfaction
- Cost savings for airlines

AeroClenz
Clean for Takeoff™



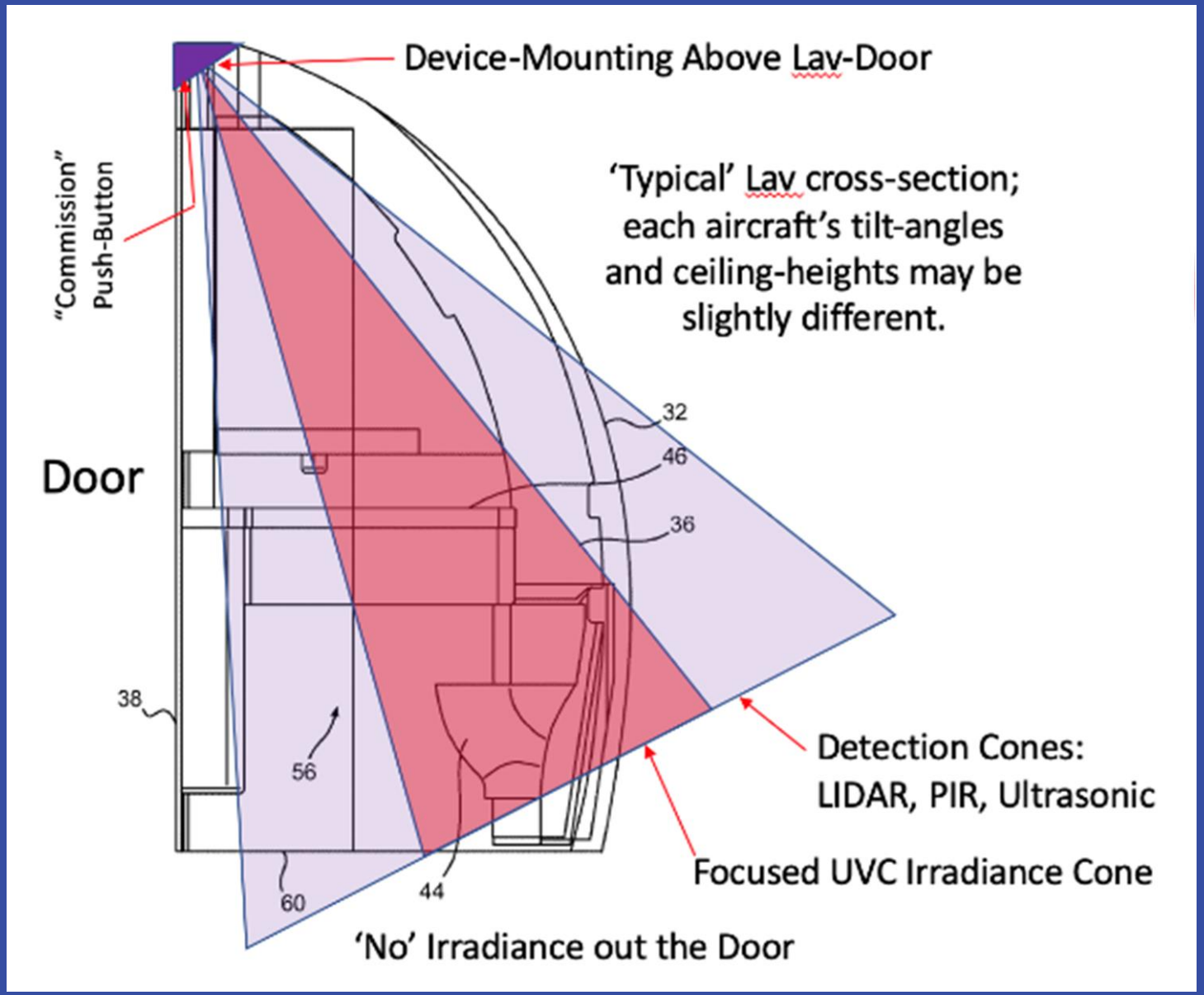
Airplane toilets are a surprisingly good place to track COVID outbreaks

81% CDC researchers found the virus in 81 percent of wastewater samples from long-haul flights last year

BY LAURA BAISAS | PUBLISHED FEB 24, 2023 11:00 AM EST

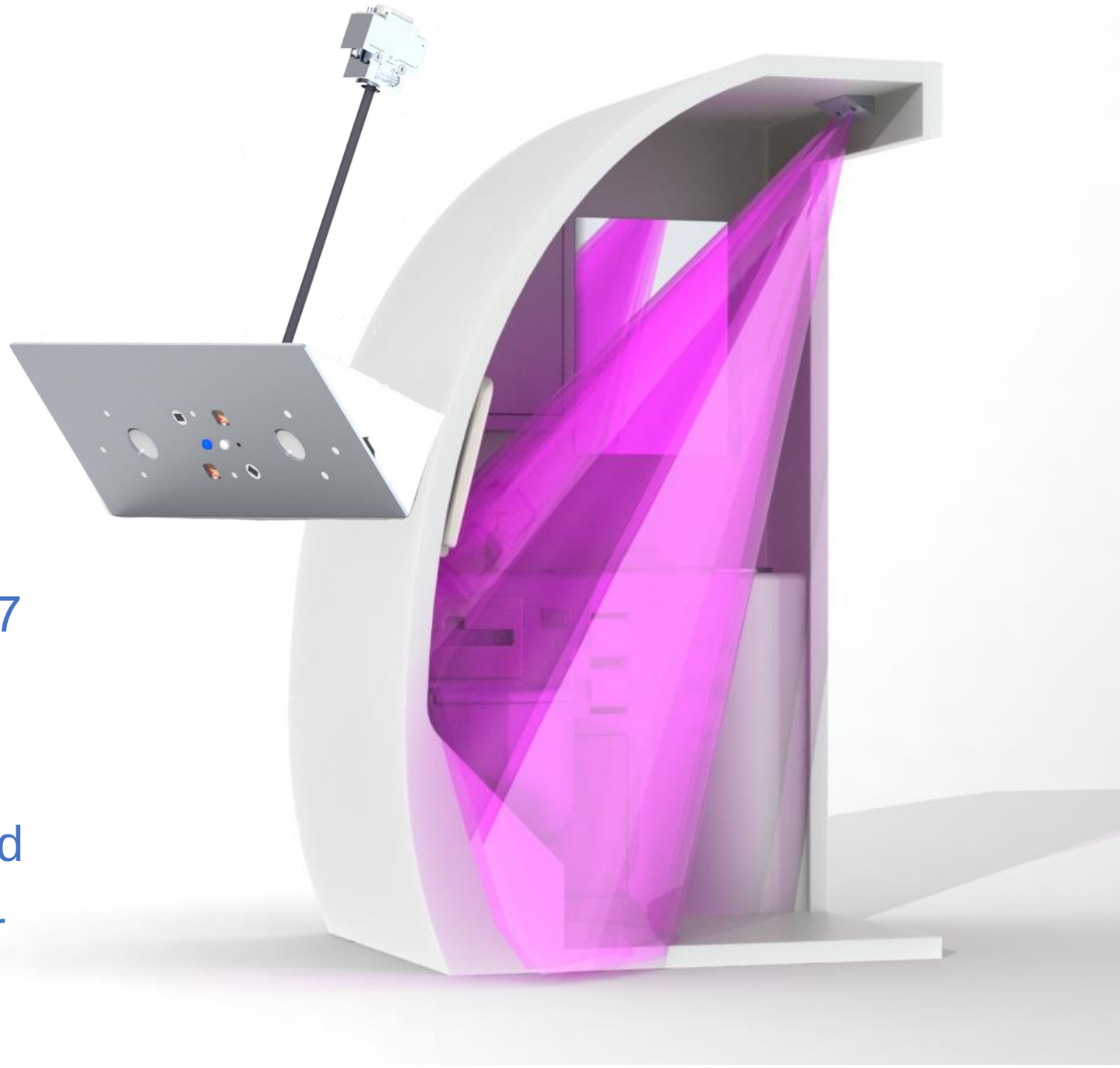
https://www.popsci.com/health/cdc-covid-19-travel-airplane-waste/?utm_term=PopSci%20Newsletter&utm_campaign=&utm_source=Sailthru&utm_medium=email

Our Indoor Air lacks UV exposure



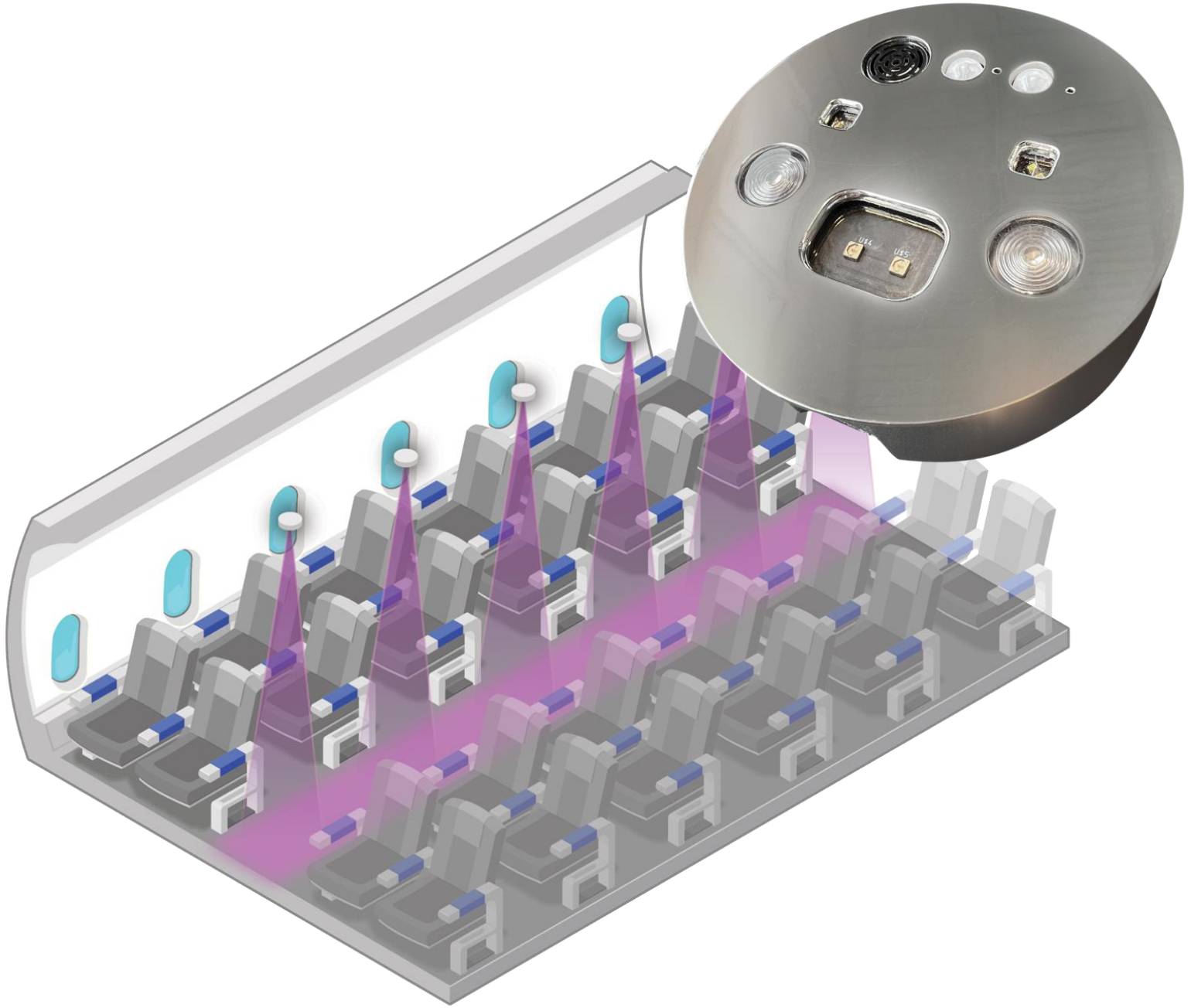
JP265LB

- Inactivates 90% of SARS-CoV-2 in less than 30 seconds
- Inactivates 90% of E.coli in less than 2 min. & C.diff in less than 17 min. on surfaces
- Silent, passive, safe operation
- Switches off when Lav is occupied
- Aesthetic match to aircraft interior



JP265C

- Inactivates 90% of SARS-CoV-2 in less than 3 minutes
- Includes safe, low-intensity UV-C directly into the air between passengers.
- Silent, passive, safe operation
- Switches off when the aisle is occupied or the passenger stands up

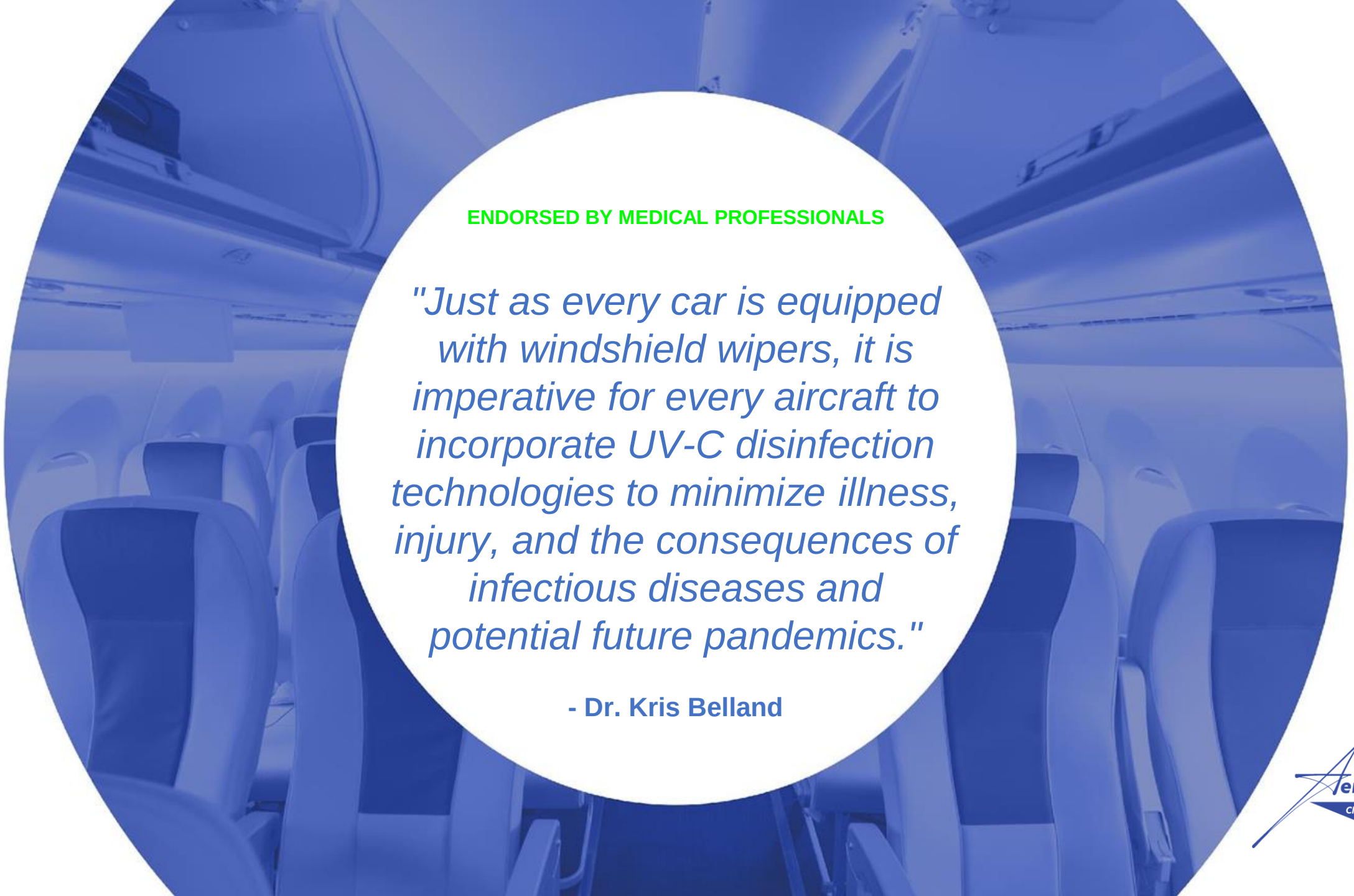


ENDORSED BY MEDICAL PROFESSIONALS

"The ongoing implementation of UV-C below exposure limits on aircraft serves as an additional, synergistic, safe, and effective measure to mitigate the risks associated with disease transmission and translocation."

- Dr. Charles DeJohn

AeroClenz
Clean for Takeoff



ENDORSED BY MEDICAL PROFESSIONALS

"Just as every car is equipped with windshield wipers, it is imperative for every aircraft to incorporate UV-C disinfection technologies to minimize illness, injury, and the consequences of infectious diseases and potential future pandemics."

- Dr. Kris Belland

AeroClenz
Clean for Takeoff

Statistics

UV-C dose maintained below Exposure Levels (EL) is no more hazardous than visible light.

Any dose of light (visible, infrared, UV) exceeding the allowed Exposure Limit (EL) has potential risks for humans.

AeroClenz
Clean for Takeoff™

Statistics

Daily exposure to UV-C below EL is equivalent to 5 minutes or less of direct sunlight.

Accidental overexposure is prevented through technological engineering, optical design, and adherence to protocols.

AeroClenz
Clean for Takeoff™

Statistics

Lifetime exposure to 254 nm radiation at the ACGIH®/ICNIRP threshold limit value (TLV®, or EL), received over 8 hours for 5 days a week and over 20 years, would increase the risk of non-melanoma skin cancer by approximately 0.37%. (CIE 187:2010 [47])

No passenger nor crew member can conceivably get this much exposure.

AeroClenz
Clean for Takeoff™

Statistics

Transient corneal photo-keratoconjunctivitis (itchy eyes) and skin erythema (reddening, but not sunburn) may occur only with extreme overexposure but typically resolve within 24 to 48 hours. System incorporates triple redundant sensors and controls for utmost safety.

Germicidal effectiveness against both known and emerging diseases, including COVID-19.

AeroClenz
Clean for Takeoff™

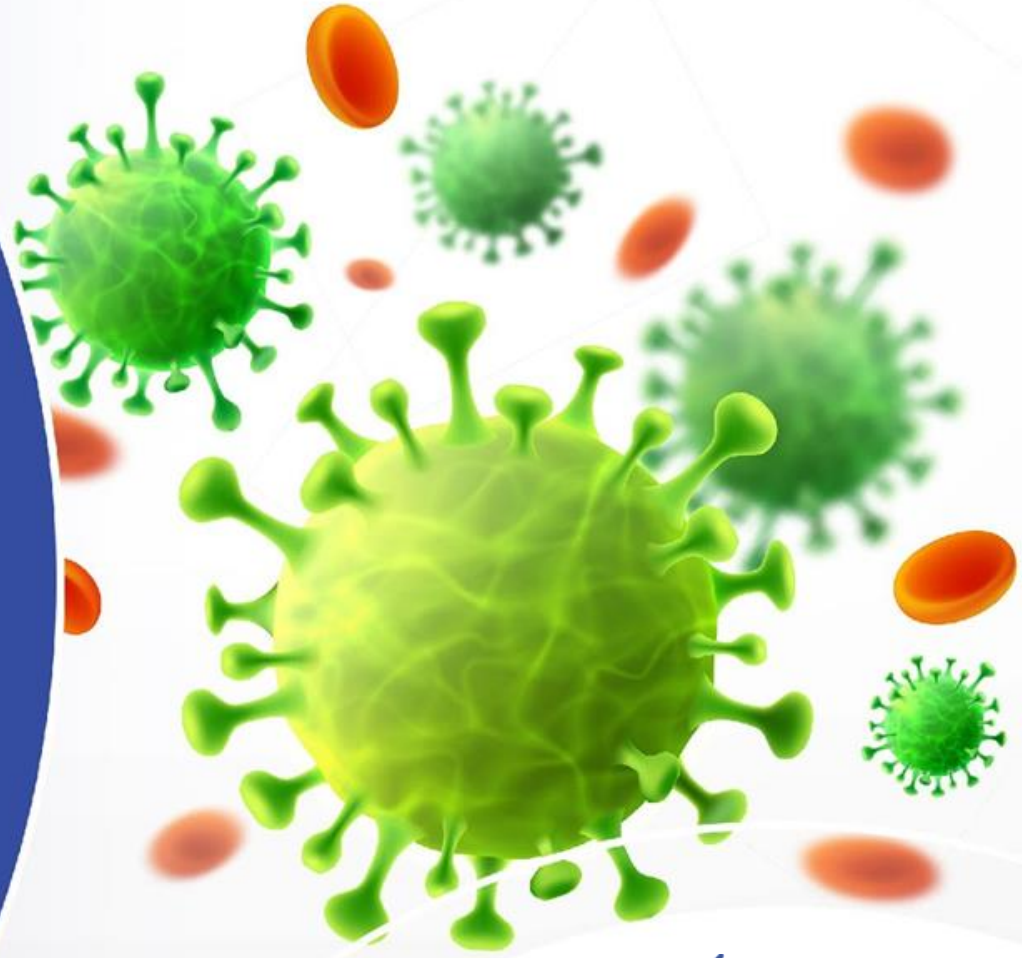
The AeroClenz Story

Matt Saberton, a former Air Ambulance Pilot for Riley's Children's Hospital in Indianapolis, had a firsthand experience of the crucial role of cabin cleanliness and disinfection during the H1N1 Flu outbreak. Contracting swine flu from a sick patient aboard an air ambulance flight he was piloting emphasized the need for improved cabin disinfection methods. As his career progressed, Matt became Chief Pilot for one of the largest worldwide charter airlines, where he prioritized safety for both crew and passengers.

AeroClenz
Clean for Takeoff™

Passion for Aviation and Safety

With the onset of the Covid-19 pandemic, the urgency to protect the aviation industry from airborne pathogens grew. This led to the development of the AeroClenz UV-C system. A team of dedicated scientists, engineers, and medical professionals collaborated to bring this innovative solution to fruition, ensuring the industry's ongoing and future protection against airborne pathogen threats.



AeroClenz
Clean for Takeoff

A Timely Invention

Gary Allen, PhD, co-inventor of UV-C technologies

This UV-C technology was not possible prior to the 2020 COVID outbreak.

UV-C LEDs weren't available with:

- Emission below 270 nm for safety & efficacy
- High efficiency, low cost, long life
- Enough output to disinfect in a few minutes

Our inventions are novel

Our products are First to Market

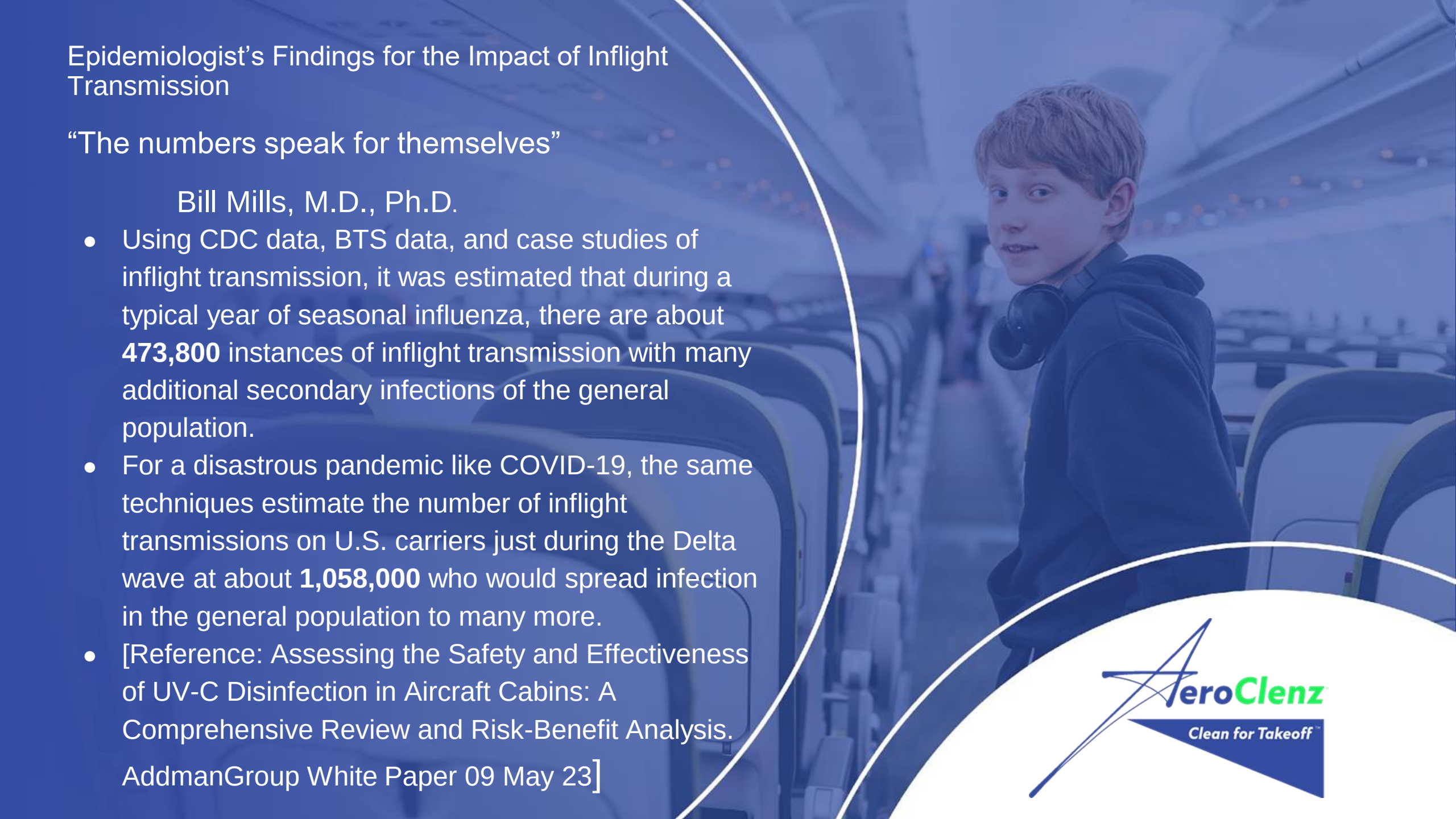
AeroClenz
Clean for Takeoff™

Epidemiologist's Findings for the Impact of Inflight Transmission

"The numbers speak for themselves"

Bill Mills, M.D., Ph.D.

- Using CDC data, BTS data, and case studies of inflight transmission, it was estimated that during a typical year of seasonal influenza, there are about **473,800** instances of inflight transmission with many additional secondary infections of the general population.
- For a disastrous pandemic like COVID-19, the same techniques estimate the number of inflight transmissions on U.S. carriers just during the Delta wave at about **1,058,000** who would spread infection in the general population to many more.
- [Reference: Assessing the Safety and Effectiveness of UV-C Disinfection in Aircraft Cabins: A Comprehensive Review and Risk-Benefit Analysis. AddmanGroup White Paper 09 May 23]



AeroClenz
Clean for Takeoff™