

# KAER Unveils Soft-Mist Inhaler Designed for Respiratory Critical Care and Industrial Use

*A Disruptive Breakthrough in Inhaled Respiratory Therapeutics and Soft-Mist Inhalers*

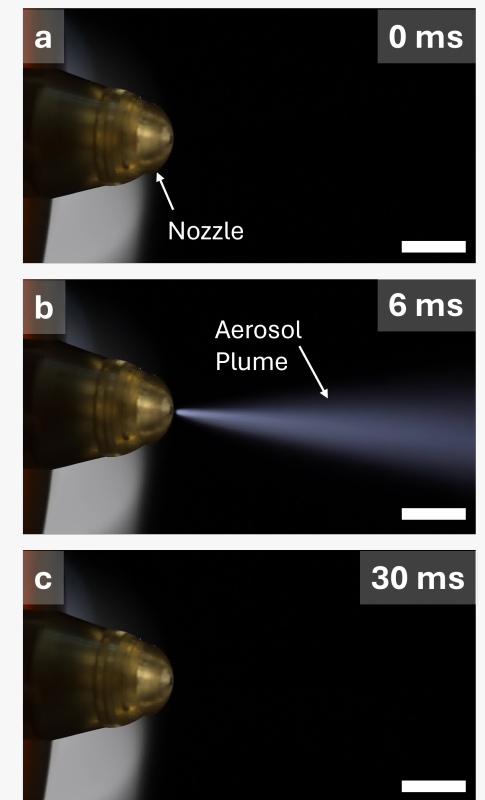
ESCONDIDO, CA, UNITED STATES, August 1, 2025

/EINPresswire.com/ -- KAER Biotherapeutics Corporation, a biotechnology company based in Escondido, California, recently presented its novel aerosol delivery technologies at the Drug Delivery Summit (San Diego, February 2025) and the International Society of Aerosol in Medicine (ISAM) Congress (Washington, July 2025). The company showcased its soft-mist inhaler platforms, AeroPulsR™ and SUPRAER™, designed for high-dose aerosol delivery in both clinical and industrial applications.

AeroPulsR™ generates aqueous aerosols for respiratory drug delivery, while SUPRAER™ delivers dry respirable aerosols. Both devices are engineered to address limitations of traditional nebulizers and atomizers, with the goal of improving therapeutic aerosol delivery in critical care settings.

A key component of KAER's platform is its proprietary aerosolizing nozzle, which has been patented in six countries. This nozzle is capable of aerosolizing a wide range of formulations, including biologics, small molecules, genetic payloads, antibiotics, and high-viscosity hydrogels (up to 80 cP). Aerosol particles are consistently delivered in the 2–4 µm range, with adjustable flow rates between 0.5–4 mL/min, optimum for deep lung deposition.

Notably, research studies demonstrated that aerosolized pulmonary surfactant retained its biophysical activity following delivery with KAER's nozzle technology. These pioneering results using [air](#) and [heliox](#) were published in the Journal of Aerosol Science and Technology. These findings support the potential of the technology in preserving the integrity of fragile compounds during delivery.



A montage of images a – c showing the precise activation and deactivation capability of KAER's proprietary aerosolization nozzle. (Scale Bar 5 mm)

The AeroPulsR™ system is equipped with integrated hardware and software that allows for breath-synchronized delivery, dose customization, and user-friendly programming. Designed for both pediatric and adult patients, it offers continuous, periodic, or spontaneous aerosol generation modes.

During the 2025 scientific meetings, KAER's CEO Dr. Yeates reported strong interest from aerosol science experts, who noted the device's potential for delivering controlled doses with minimal waste and high lung deposition efficiency.

Beyond healthcare, KAER is exploring broader applications for its aerosol generation technology, including:

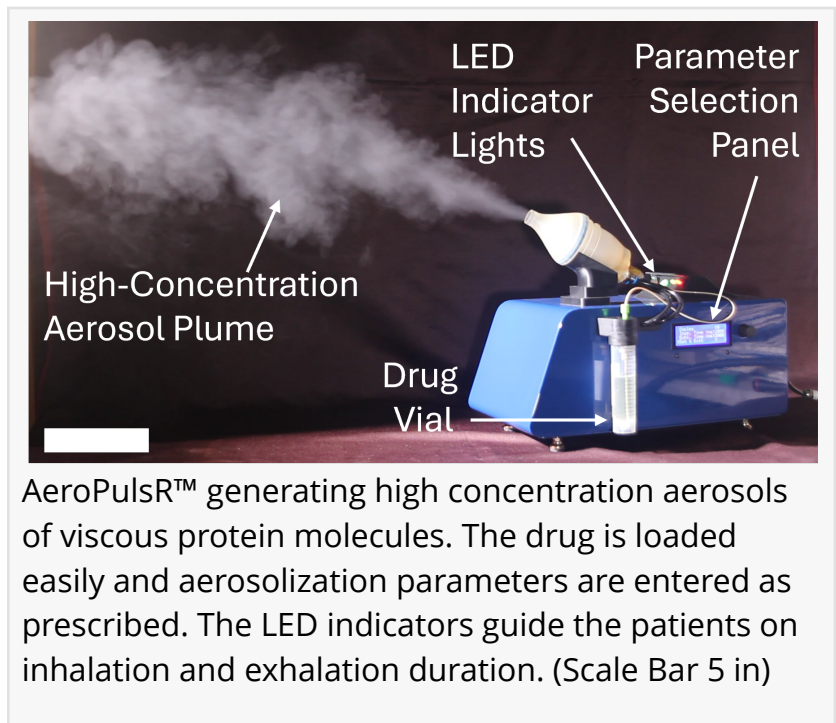


KAER's breakthrough products deliver high doses of aerosolized APIs, while preserving their functionality. This marked leap now enables major pipeline drugs to be introduced in respiratory healthcare."

*Donovan B Yeates, Ph.D.*

1. Animal health and livestock vaccination
2. Agricultural delivery of fertilizers and herbicides
3. Paints, coatings, and adhesive deposition in manufacturing
4. Cosmetic formulations
5. Robotic or drone-based aerosol dispersal

KAER continues to invite collaborations and inquiries from healthcare and industrial partners. For more information, please visit KAER's website.



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