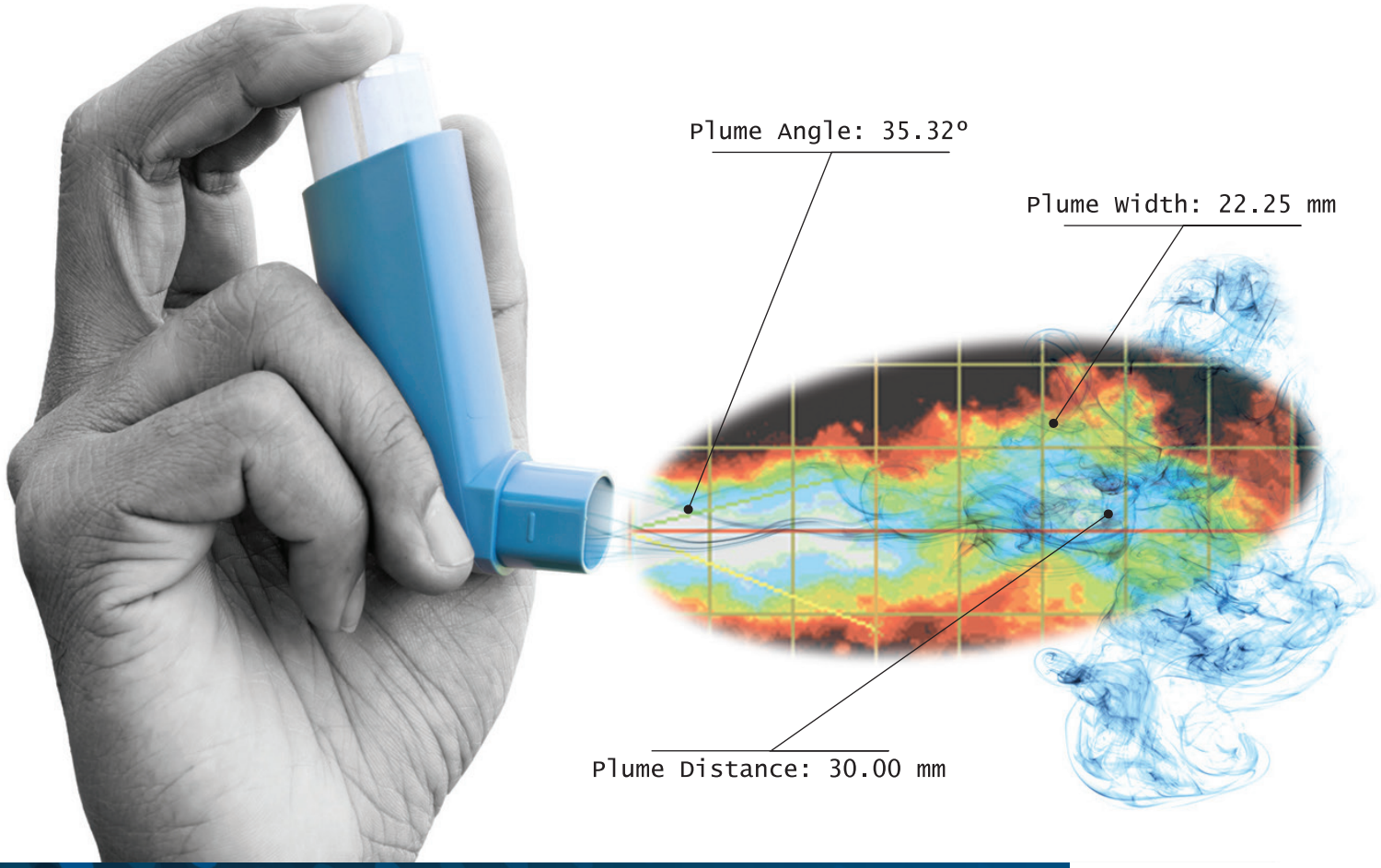
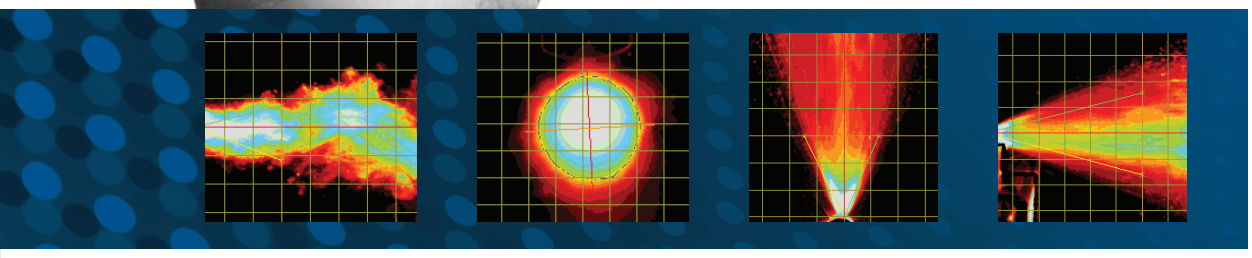
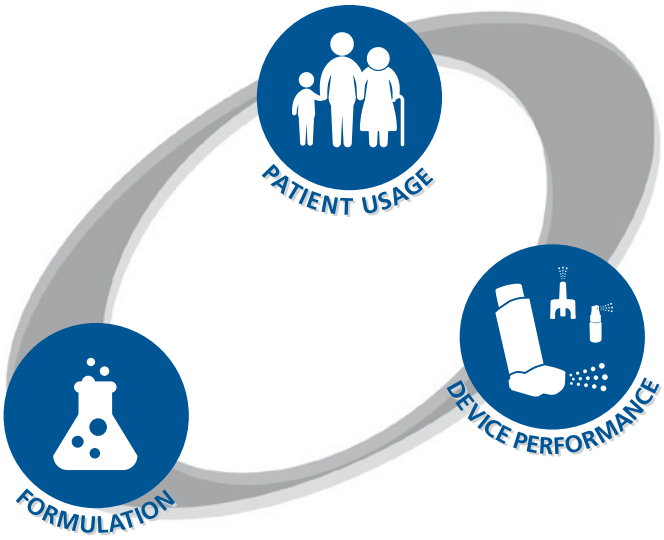
proveris SCIENTIFIC

Advancing the Science of Nasal and Inhaled Drug Delivery





Accelerated Product Development



Proveris by Design™ Lab Studies bring a better product to market more quickly by bridging the gap between patient usage, formulation, and device performance through a number of essential studies:

Patient Usage Ergonometric Study

Provide critical, quantitative information on how patients in the product's target age and gender group operate the product

Reference Product Characterization

Determine the Product's operating profile through a series of screening experiments to define the critical actuation parameters and develop methods for spray performance tests

Device Component Optimization

Compare the Test Product's formulation-device component combination(s) to the patient usage and spray performance of the Reference Product

Method Development

Utilize a Patient Usage Study to screen the critical actuation parameters and develop spray pattern and plume geometry methods on the SprayVIEW® Measurement System

Method Verification and Transfer

Ensures rapid implementation and use of method(s) on new or existing systems

Leading Technology in Spray Performance Measurement

SprayVIEW® Measurement Systems produce essential information to accelerate development for successful spray drug products. Spray Pattern and Plume Geometry measurements provide a rapid and sensitive screening tool for device design and formulation pairing.

SprayVIEW Features and Benefits:

- Single system for both Development and QC ensures seamless method transfer after regulatory approval
- Accurately captures the true shape of a spray pattern using a unique algorithm
- Provides required regulatory information about spray data that is easily generated into a clear report format for submission
- System control and calibration, data acquisition, analysis, and storage all driven by powerful Viota® software application

Unrivaled Accuracy in Automated Actuation

Vereo Actuator NSx

Vereo Actuator SFMDx

Vereo Actuator DSx

Vereo Actuator SSx

Vereo® Automated Actuators are designed to replicate human usage of devices through automated actuation. Accurate control of actuation by force or position allows spray devices to be actuated precisely and consistently.

Vereo actuators provide robust, automated actuation and are the preferred systems for completing the following required regulatory tests:

Nasal and Oral Sprays

- Priming/repriming
- Droplet/particle size distribution through laser diffraction or cascade impaction
- Single actuation content through container life
- Pump delivery
- Spray Pattern and Plume Geometry

pMDI

- Priming/repriming
- Aerodynamic particle size distribution (APSD)
- Dose Content Uniformity (DCU)
- Valve delivery
- Spray Pattern and Plume Geometry

Automation from R&D through Production

Indizo® Automated Nasal Spray Collection System:

For R&D: Flexible programming streamlines method development to achieve desired target pump delivery and dose content uniformity.

For Production: Unattended automation eliminates manual processes for robust release testing and reproducible results.

- Fully automates dose content uniformity collection and pump delivery (shot weight) testing for vertically and side-actuated nasal sprays
- Performs repeated tests across multiple product samples without operator intervention
- Capable of both delivered and metered shot weights
- Performs required release testing through life, beginning and end of life (BoL, EoL)

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