

# Performance tests of MistGo®

Conducted by EYE-GO 2023



EYEGO

## Background and purpose

- A microdosing delivery system for topical ophthalmic treatments can be used in combination with a variety of eye medicines to treat eye diseases in multiple segments.
- It is key that the device is performing optimally with each liquid allowing the users to have an ideal experience of a soothing mist.
- The delivery system must be able to micro-dose and avoid clogging even if the drug is “sticky” and/or has a high viscosity.

## MistGo® customizable to many drugs

- Parameters inside MistGo® can be customized to suit the needs of individual drugs – including those with high viscosity - enabling the delivery system to perform optimally for each liquid.



Micro-dosing: a high-precision pump consistently meters a dose of 6 µL, dispensing no excess liquid to irritate the skin or enter systemic circulation.



Delivery time: the dose is fully delivered before the eye can blink



Gentle: the internal geometry of the nozzle is optimized to vaporize the liquid into a fine mist of micro droplets, which feels comfortable and soothing in the eye compared to a single dense drop



Precision: the entire mist is delivered precisely within the target area: the cornea (11mm diameter when the eye is fully open)

## Methods

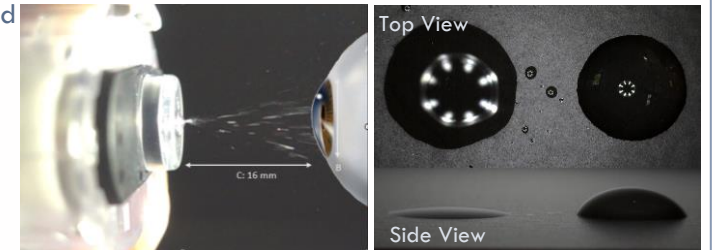
- **Purpose:** To test if the MistGo® delivery system can perform satisfyingly with the various liquid formulations.
- **Method:** EYE-GO has during 2023 received multiple eye medications for treatment of chronic eye diseases in several segments such as dry eye disease (DED), Glaucoma and presbyopia. Both Rx and OTC.

A performance test set-up has been designed customized to each liquid, including:

- Dosing in sequence,
- Dosing in “normal use” (e.g. 3 x 2 doses daily)
- Dosing, pausing x days, dosing
- Slow-motion video recording of mist instillation to conduct a visual analysis of the mist characteristics such as plume geometry, particle size/spread and mist homogeneity through instillation sequence. Delivery time is measured from the first drop at cornea until last drop at cornea.
- Evaluation of mist dose volume, ensuring compatibility with nozzle and pump system.

## Results and Conclusions

- The medicines have been both RX (prescription) and OTC (over-the-counter), both with and without preservatives.
- EYE-GO has been able to customize MistGo® to perform to satisfaction with stable dosing of the required number of µL in a soft mist delivered between 45 and 100 ms.
- Liquids have been with viscosities between 6 and +500CP.
- **It can be concluded that MistGo® has a large performance window being able to mist various liquids even with high viscosities**



Video frame of mist on cornea

6 µL MistGo® 30 µL dropper