

Azalea Vision Announces First On-Eye test of ALMA, its Revolutionary Smart Contact Lens

Promises New Hope for Patients with Vision Disorders



Ghent, Belgium (December 4th, 2023) In a significant milestone, Azalea Vision, a pioneering start-up on a mission to revolutionize the treatment of ocular disorders, announces the successful demonstration of ALMA Lens, the first functional prototype of the Azalea smart contact lens' platform.

The ALMA proprietary device is designed to offer a non-surgical solution for patients suffering from keratoconus, corneal irregularities, photophobia, and presbyopia.

"This test marks a pivotal moment in the pursuit of non-invasive treatment options for challenging ophthalmological conditions," commented Andrés Vásquez Quintero, co-founder and CTO of Azalea vision, who wore the device.

Azalea Vision's smart contact lens: a new solution for vision disorders

Azalea's ALMA Lens includes an embedded diaphragm, the aperture of which can be modulated to filter the amount of light which enters the eye. The innovative design is a groundbreaking solution integrating liquid-crystal technology, a microchip, an RF antenna, a medical grade micro-battery, and a configurable light control. This smart lens is designed to be easy to use and program, by patients and physicians, allowing for personalized therapy and it is designed to significantly enhance visual acuity without necessitating intraocular surgery.

Azalea's first application will focus on helping patients with irregular astigmatism due to keratoconus (the thinning and bulging of the cornea into a conical shape) and other corneal irregularities. By filtering out peripheral light, the smart lens is designed to allow only focused light to reach the retina.

This first application could offer treatment for nearly half a million patients in the EU and USA alone, representing a total addressable market of more than 2 billion euros per year*, as it is a renewable market. Neither glasses nor contact lenses currently available on the market can fully resolve the severe visual distortions that Azalea Vision's ALMA Lens is designed to address.

Pr. Dr. Rudy Nuijts, Professor of Medicine and Ophthalmology at University Eye Clinic Maastricht: *"In our hospital we treat a lot of patients with severe irregular astigmatism. Patients with corneal irregularities could profit from a non-surgical solution that is designed to filter the aberrated light to recuperate their visual acuity and visual quality."*

Additional applications could help millions of patients

Patients with presbyopia (difficulty in focusing on nearby objects) could also benefit from Azalea Vision's ALMA Lens, as the small aperture optics principle could increase patients' depth of focus and correct refractive errors. The technology could also aid patients with iris disorders, severe light sensitivity due to chronic migraine or dry eye syndrome, as it is designed to diminish the amount of light reaching their eyes.

"The ALMA Lens prototype's success showcases our cutting-edge technology and reflects our team's innovative spirit. Azalea stands at the forefront, ready to secure a dominant role in the field of smart contact lens. We're not just developing a new product category in the medical device sector; we're pioneering a platform with diverse and groundbreaking applications. The future is clear, and Azalea Vision is leading the way", stated Enrique Vega, CEO of Azalea Vision.

[Watch the first on-eye demonstration](#) of the smart lens by our CTO Andrés Vasquez Quintero.

About Azalea Vision

Azalea Vision operates at the forefront of MedTech innovation creating smart, user-friendly solutions for eye care. Founded in July 2021, Azalea Vision is a spin-off from imec and Ghent University and has received support from VLAIO, as well as from MedTech and DeepTech investors like imec.xpand, Elaia Partners, Sensinnovat, and Shigeru. The company is led by a seasoned team with experience across start-ups, R&D, and clinical research.

*Research conducted by an independent market research company for Azalea Vision, data on file.