

## TOP

NEW  
TECH

Several new IOL technologies aimed at improving optical quality and extending the range of vision were debuted to the European ophthalmic market at the ESCRS meeting in October 2017. Here is a roundup of some of the lenses launched at the conference.

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## AUTONOME DELIVERY SYSTEM AND CLAREON IOL

Alcon introduced an IOL delivery system, AutonoMe, that is preloaded with the company's latest hydrophobic acrylic IOL, the Clareon (Figure 1).

AutonoMe is the first automated, disposable, preloaded IOL delivery system that enables precise delivery of the IOL into the capsular bag, according to Alcon. Its CO<sub>2</sub>-powered delivery mechanism and intuitive, ergonomic design allow precise and simplified one-handed control of IOL placement, the company news release stated.

"[AutonoMe] was specifically designed for Clareon and really has the features of a preloaded device that's disposable and automated," Stephen S. Lane, MD, Alcon's Chief Medical Officer (CMO) and Global Head Franchise, Clinical Strategy, said in an interview with *CRST Europe*.

"There's not another injection system on the planet that can do what AutonoMe does. It's easy to use, it's

intuitive, and it will optimize patient safety and results going forward."

The Clareon hydrophobic acrylic IOL, which received the CE Mark in May 2017, features a new biomaterial with an advanced design, enabling crisp vision, low edge glare, and optical clarity, according to Alcon.

"The combination of the new material and new manufacturing process leads to a lens with greater optical clarity than we have previously seen in the AcrySof line of lenses, maintaining all the positive attributes that AcrySof has had," Dr. Lane said.

Both the AutonoMe delivery system and Clareon IOL will be commercially available in Europe early this year.

## AT LARA

Also at the ESCRS meeting, Carl Zeiss Meditec announced the launch of its AT LARA extended depth of focus (EDOF) IOL (Figure 2). The AT LARA offers the widest range of focus within the EDOF segment and causes fewer visual side effects than multifocal IOLs, according to the manufacturer.

As explained in company literature, the diffractive optical design of the AT LARA creates an optical bridge effect to continuously extend the range of focus. The IOL allows physicians to increase spectacle independence for a broader group of patients, specifically addressing the growing need for improved intermediate vision performance, according to the company.

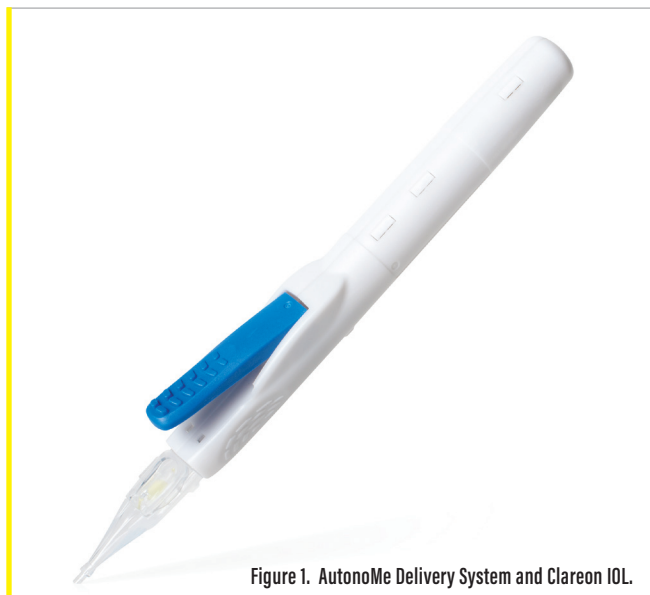


Figure 1. AutonoMe Delivery System and Clareon IOL.

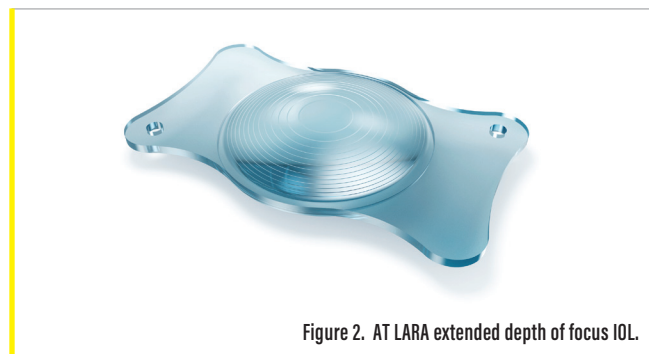


Figure 2. AT LARA extended depth of focus IOL.

The AT LARA is preloaded and has a 360° sharp edge to minimize posterior capsular opacification.

"The [AT LARA] has an expanded depth of focus to give patients better distance, better intermediate, and really functional near vision," Steven Schallhorn, MD, Chief Medical Officer for Global Ophthalmic Devices at Carl Zeiss Meditec, told *CRST Europe*. "It has unique optics representing the best of Zeiss optics. It's aspheric. It has special chromatic aberration corrections. All of these things combined represent why I consider it to be the next generation of [EDOF] IOLs."

The CE-Marked AT LARA is commercially available in Europe.

## RAYONE TRIFOCAL/RAYONE

## HYDROPHOBIC PRELOADED

Rayner announced the launch of its RayOne Trifocal and RayOne Hydrophobic preloaded IOLs (Figure 3) at the ESCRS meeting.

The RayOne Trifocal haptic design is based on the Rayner closed-loop platform. The diffractive technology of the RayOne Trifocal's optic reduces light loss to 11% and provides a smooth transition for the patient from near to intermediate to distance vision, according to Rayner. The IOL comes in a preloaded injector with a 1.65-mm nozzle.

Following CE Mark approval in 2017, Rayner conducted a multicenter evaluation study of the trifocal IOL in four European markets.

"The early results from the RayOne Trifocal's first implantations have demonstrated the exceptional light availability from the optic. The first-month feedback demonstrates excellent intermediate visual acuity, enabling patients to feel more comfortable transitioning from near to distance activities while also reducing patients' reliance on glasses," Warwick Strand, Rayner Marketing Director, said in a news release from the company.

The RayOne Hydrophobic IOL is made with a glistening-free material and features Rayner's Cornerstone

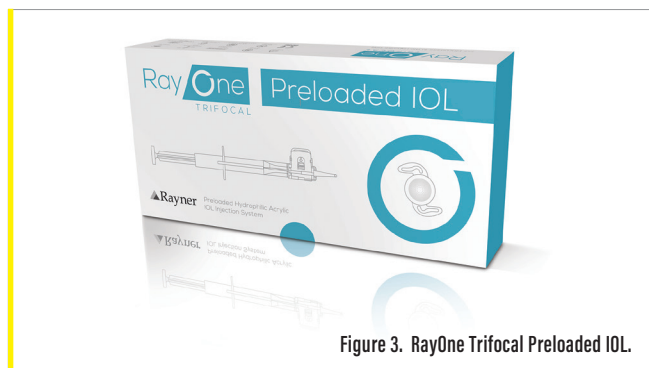


Figure 3. RayOne Trifocal Preloaded IOL.

**EDITOR'S NOTE:** A REVIEW OF THE PRODUCTS LAUNCHED AT THE ESCRS MEETING CAN BE FOUND IN THE OCTOBER 11, 2017, EPISODE OF EYEWIRE TV.

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design, which the company says provides excellent balance and stability.

The RayOne Trifocal is available in Europe, Brazil, and Australia. The RayOne Hydrophobic IOL has not yet received the CE Mark; Rayner anticipates European approval early this year.

## ACRIVA TRINOVA TRIFOCAL

VSY Biotechnology announced the launch of its Acriva Trinova Trifocal IOL (Figure 4) at the meeting. The Acriva Trinova is manufactured with VSY's Seamless Vision Technology, a patent-pending technique that produces an optical surface with no sharp edges. The concept provides a continuous range of vision and helps to reduce halos and scattered light, according to VSY.

The Acriva Trinova IOL's stepless zones do not use an overlapping diffractive pattern, Fatih Ergin, PhD, product manager at VSY, told *CRST Europe*. Twelve ridges facilitate high light transmission and optimum light distribution through all diameters of the optic, he said, resulting in better contrast sensitivity and visual performance at all distances.

The IOL is available with adds of +3.00 and +1.50 D. The Acriva Trinova IOL has the CE Mark and is commercially available in Europe. ■

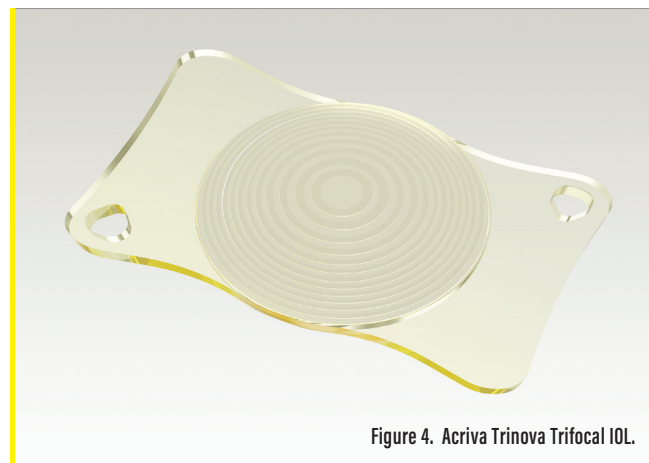


Figure 4. Acriva Trinova Trifocal IOL.