

New Study Shows Intraocular Lens Centration and Stability May Be Improved When ZEPTO Capsulotomy Platform is Used with Purkinje Reflections

CARLSBAD, Calif. – June 15, 2022 – [Centricity Vision Inc.](#), a global ophthalmic technology company and developer of the ZEPTO® Precision Cataract Surgery Platform, today announced the publication of a clinical study describing how to use Purkinje reflections at patient fixation for capsulotomy centration and 360-degree capsular overlap with the ZEPTO Platform to help achieve improved visual outcomes.

Published in the [Journal of Cataract & Refractive Surgery](#) (JCRS), the study was authored by industry leaders Dr. Vance Thompson, Dr. Jack Holladay, and Dr. David Sretavan. It explains how surgeons may use the relationship between P1 and P4 Purkinje reflections to identify reliable markers for capsulotomy centration, and then create an automated capsulotomy using ZEPTO's precision pulse capsulotomy (PPC) technology.

The study underscores the importance of centering the Intraocular Lens (IOL) on the patient's visual axis, in conjunction with creating a 360-degree capsular overlap during surgery to maintain optimal lens positioning and stability.

"The changing landscape in cataract surgery has increased the demand for precision," said Dr. Thompson. "By improving IOL centration and creating a 360-degree capsular overlap, we can achieve and maintain better long-term visual outcomes for patients."

Using P1 and P4 Purkinje Images as Guides

Purkinje images are light reflections off the cornea and the lens that are often used for improving IOL centration. There are four Purkinje reflections, labeled P1 through P4, and they can determine the patient's point of fixation to assist with optimal capsulotomy centration. The authors discuss the benefits of using Purkinje reflections as a surrogate sign for intraoperative patient fixation.

Cataracts cause the crystalline lens in the eye to harden and stiffen, clouding patients' vision. Cataract surgery is required to remove and replace the lens. Before the lens can be extracted, surgeons perform a capsulotomy to remove the top of the capsular bag, which holds the lens in place. Although there are several steps in a cataract procedure, a well-formed capsulotomy is a foundational step to ensuring optimal outcomes for patients.

“The precision of the ZEPTO technology is unique in the cataract surgery space. Surgeons are recognizing the advantages and utilizing the platform to achieve improved outcomes for their patients and practices,” said Centricity President and CEO Rob Thornhill.

About ZEPTO

ZEPTO is a novel ophthalmic device that perfectly automates capsulotomies – in just 4 milliseconds -- for enhanced, effective IOL positioning. Clinical studies demonstrate ZEPTO is proven to create precise, strong, and centered capsulotomies with 360-degree IOL overlap, achieving improved visual outcomes while creating efficiencies in the operating room.¹⁻⁴

About Centricity Vision Inc.

Based in Carlsbad, California, [Centricity Vision](#) is a global ophthalmic technology company and developer of the U.S. and internationally approved ZEPTO Precision Cataract Surgery Platform. Centricity Vision’s expert team is dedicated to providing advanced surgical solutions to improve long-term visual outcomes and deliver the best vision care to patients. For more information, visit [Zeptozone.com](#), or follow Centricity Vision on [LinkedIn](#), [Facebook](#), and [Twitter](#).

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