

[Home](#) > [3D-enabled Leica Microsystems microscope performs ophthalmic surgery](#)

3D-enabled Leica Microsystems microscope performs ophthalmic surgery

04/03/2014

Posted by [Lee Dubay](#)

Associate Editor, BioOptics World

A surgical microscope from Leica Microsystems (Wetzlar, Germany) with integrated TrueVision 3D (Santa Barbara, CA) technology has been used for the first time in ophthalmic surgery. The operation took place on March 15, 2014, at the Klinikum Frankfurt Höchst in Germany, and was broadcast live at the Frankfurt Retina Meeting (Mainz, Germany), a congress on the surgical treatment of vitreoretinal diseases. The surgery was performed by Prof. Dr. med. Claus Eckardt, director of the Eye Clinic of the Klinikum Frankfurt Höchst.

Related: [TrueVision system earns 510\(k\) clearance for image-guided ophthalmic surgery](#)

Leica M844 and M822 surgical microscopes equipped with TrueVision 3D technology enable insertion of tiny light probes into the eye when performing cataract and retinal surgery. Besides being less invasive, the microscopes allows observation of the operating field on a monitor rather than viewing through eyepieces—and gives assistants and the operating team see the same field of view as the surgeon. Also, digital amplification of the camera signal on the screen enables intraocular structures to be visualized with low-intensity light, lowering the risk of light-induced retinal damage (“light toxicity”).

The microscopes feature a modular design and the company’s OpenArchitecture to allow integration into digital imaging and data systems. TrueVision 3D technology can also be adapted to future surgical guidance applications.