## Ming Wang Publishes Textbook to Address LASIK Complications

Irregular

## By SHARON H. FITZGERALD

When patients elect to have LASIK eye surgery, they anticipate a future free of glasses or contacts. What they don't anticipate is irregular astigmatism, caused by the surgery and resulting in symptoms such as blurred or double vision, halos, starbursts, glare and decreased night vision.

"In the LASIK-surgery complication field, irregular astigmatism is the problem most difficult to treat. Yet, it's the most common cause for post-LASIK, visualquality problems," said Ming Wang, MD, PhD, Nashville eye surgeon and founding director of the Wang Vision Institute. Recognizing that the ophthalmology field lacked a comprehensive textbook on the confounding complication, Wang set out to remedy that lapse. In April, he published a first-of-its-kind textbook, "Irregular Astigmatism: Diagnosis and Treatment." The 31 chapters, edited by Wang and collaborator Tracy Schroeder Swartz, OD, cover the physiology of the irregular cornea and "the second wave of technology focusing on treating the complications that the first wave of technology causes," he said.

Wang pulled together an impressive collection of experts worldwide to author portions of the book that he and Swartz didn't write themselves. "In today's technology, it's not one researcher's effort," he said. "Someone needs to play a leadership role to lead the research effort in the field,

but also put a team together to take advantage of the top experts to share their knowledge and experience."

The audience for the textbook ranges from medical students to practicing ophthalmologists, optometrists and LASIK surgeons. "They need a place they can go for a comprehensive, authoritative, all-inclusive presentation of the scientific principles and the guidelines for clini-

cal treatment for these type of complications," Wang said. "We think this textbook will go a long way in terms of helping surgeons and doctors so we will be able to truly live up to the expectations and fulfill the responsibility that we have to our patients — that is, do no harm."

More than 10 million LASIK

procedures have been performed, with a complication rate of 1 to 2 percent, since the surgery gained popularity in the 1990s. Wang said irregular astigmatism is the result of an equipment or surgical problem (including the surgeon's lack of experience), or a healing variation. "Not everyone heals the same from the same treatment," he said. "If you and I take the same medication, we won't have the same reaction because you and I are made differently."

Corrections for irregular astigmatism are all laser-based and "all take into account the specific imaging of the cornea after LASIK surgery," Wang noted. "Every irregularity is different." He added, "No one can guarantee that a surgery will be 100 percent successful, but certainly, if I put myself in the shoes of patients, I want to say, 'Doc, do the best you can, but I want you to have the expertise and knowledge to be able to fix a complication or problem if it should occur."

Six years ago, Wang was the first eye surgeon in Tennessee to introduce bladeless LASIK surgery, and today he's leading efforts to bring iVIS technology, already in use in Europe, to the United States. Described in the new textbook, high-resolution iVIS surgery is driven by the cornea's topography and was designed specifically to treat post-LASIK complications. Earlier this year, Wang traveled to Norway and studied iVIS from Dr. Aleksandar Stojanovic, the world's No. 1 expert on this technology. Thus, Wang hopes to lead a future FDA *Continued on page 22* 





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clinical trial on the road to iVIS approval in the States.

Wang has an impressive perspective on laser surgery, considering that he earned a doctorate in laser physics from the Massachusetts Institute of Technology prior to earning his medical degree from Harvard University. "I feel very fortunate to be in a position to combine the two, so we can devise individualized, customized treatment for each individual patient after LASIK surgery. That gives our patients a particular edge. I'm able to understand both sides of the story, not just the medicine part, but also the laser that we use to shape the vision," he explained.

The Wang Vision Institute is "one of the most active post-LASIK complication consultation clinics in the country. There are others, but we are among the most active, and we see patients *every day* from other parts of the United States or other countries," Wang said. In fact, he has treated patients from more than 40 states and 55 countries.

Wang's textbook is published by the professional book division of SLACK Inc., known as the leading ophthalmic textbook publishing house in the United States. Wang's first textbook, "Corneal Topography in the Wavefront Era," is SLACK's No. 2 bestseller.