

Small Incision Lenticule Extraction (SMILE)

Principles, Techniques,
Complication Management,
and Future Concepts

Walter Sekundo
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Author Biographies



Mark Bischoff is Director, Research and Development for Refractive Lasers, at Carl Zeiss Meditec AG. He joined ZEISS in 2002, where he has worked on the development project for the femtosecond laser system VisuMax and the SMILE procedure. In 2004, he became manager of this project and in 2006 head of the systems engineering team. Since 2008, he has been the director of R&D for refractive lasers. Mark Bischoff received his doctorate in physics in 2000 from the Friedrich Schiller University Jena. He then joined the manufacturer of femtosecond fiber lasers, IMRA America, Inc. in Ann Arbor, MI (USA), before he went to the University of Jena as postdoc and leader of an industry project.



Jodhbir S. Mehta is Head of the Tissue Engineering and Stem Cell Group at the Singapore Eye Research Institute and Head of the Corneal Service and Senior Consultant in the Refractive Service of the Singapore National Eye Center (SNEC). He has academic affiliations with DUKE-NUS GMS.

He has won 25 national and international awards including those at AAO and ARVO. His interests lie in corneal transplantation—penetrating keratoplasty, lamellar keratoplasty, endothelial keratoplasty, femtosecond laser technology, corneal imaging, corneal infections, corneal refractive surgery, keratoprosthesis surgery, ocular drug delivery systems, and corneal genetics. He has authored over 210 peer-reviewed publications and 9 book chapters and given over 210 oral and poster presentations. His research work has developed nine patents, two of which have been commercialized and licensed to companies.



Leonardo Mastropasqua is Full Professor, Diseases of the Visual System, Faculty of Medicine and Surgery, “G. d’Annunzio” University of Chieti-Pescara. Currently, he is Head of the National High-Technology Center in Ophthalmology and the Center of Excellence in Ophthalmology, National President of the Ophthalmology Society of Italian Universities (SOU), President of the Italian Council of University Professors of Ophthalmology, Scientific Advisor of the Directive Council of the Italian section of IAPB (International Agency for the Prevention of Blindness), and Board Member of the EUCORNEA Society.

He has authored over 240 original scientific articles, book chapters, and monographs in ophthalmology, 125 of which are published in peer-reviewed journals included in the *Journal Citation Reports*.

His principal fields of interest include refractive surgery, corneal pathologies and surgery, cataract surgery, glaucoma, and advanced ophthalmic imaging. He does more than 4,000 surgical procedures per year (anterior and posterior segment) and approximately 2,000 refractive procedures.



Marcus Blum was born 1 August 1960 in Kassel and grew up in Karlsruhe, Germany. After military service, he started his medical education at the University of Heidelberg and was trained in the Department of Ophthalmology at Heidelberg (by Prof. H.E. Völcker). In 1994, he took the board exam and moved to Jena as a fellow (under Prof. J. Strobel). He was appointed Associate Professor at the University of Jena in 1999. Dr. Blum was involved in building up a technology network focusing on new technologies for ophthalmology in Jena. In 2001, he became head of the Ophthalmology Department at the HELIOS Klinikum Erfurt. He is clinical investigator for Carl Zeiss Meditec.



Ekket Chansue, MD is the Medical Director of TRSC International LASIK Center in Bangkok, Thailand. After finishing his Cornea, External Disease and Refractive Surgery fellowship in St. Louis, MO, in 1993, he taught at the Ramathibodi Hospital Faculty of Medicine, Mahidol University, Bangkok, for several years. Dr. Chansue performed the first LASIK in Thailand (and probably in South East Asia) in 1994 and has since performed more than 30,000 LASIKs. Dr. Chansue also performed the first ReLEx[®] SMILE in Thailand in 2010. He designed the Chansue ReLEx[®] Dissector, an instrument to aid in the separation and freeing of the lenticule during the ReLEx[®] procedure.



Sri Ganesh is Chairman and Managing Director, Nethradhama Hospital Pvt. Ltd, Bangalore

He received his basic medical education from Bangalore University and completed his postgraduate training at Regional Institute of Ophthalmology, Bangalore. He did observership in Phacoemulsification and Lasik at Sheppard Eye Centre, LV, Nevada, USA.

He is recognized for his expertise in cataract and refractive surgery and has performed over 50 live surgeries at various national and international conferences. He has a special interest in latest technology such as the femtosecond laser-assisted cataract surgery and all femtosecond laser refractive correction (ReLEx SMILE).

He was conferred Honorary Doctorate “*Doctor of Science*” by the Rajiv Gandhi University of Health Sciences (RGUHS) for his contribution to society in the field of ophthalmology during the 16th Annual Convocation of RGUHS in March 2014.

He has also received many awards at various academic conferences and has publications in national and international peer-reviewed journals.



Kimiya Shimizu received an M.D. in ophthalmology from Kitasato University School of Medicine in 1976 and a Ph.D. in ophthalmology from Tokyo University in 1984. From 1985 to 1998, he worked as a director of Musashino Red Cross Hospital. He is currently a professor and chairman of ophthalmology at Kitasato University School of Medicine, where he specializes in cataract and refractive surgery.



Anders Ivarsen is consultant and assistant professor within the cornea and refractive section in the Department of Ophthalmology in Aarhus, Denmark.

He received his Ph.D. on refractive surgery in 2004. He has been working actively in the field of refractive surgery since 2000 and started performing SMILE procedures as early as 2011.

Anders Ivarsen has participated in several studies on SMILE and has contributed to more than 10 papers on refractive lenticule extraction.