

BIOGRAPHICAL SKETCH

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NAME Roger F. Steinert, MD	POSITION TITLE Professor of Ophthalmology, Professor of Biomedical Engineering, Vice Chair of Clinical Ophthalmology Department of Ophthalmology, UC Irvine		
eRA COMMONS USER NAME			
EDUCATION/TRAINING <i>(Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)</i>			
INSTITUTION AND LOCATION	DEGREE <i>(if applicable)</i>	YEAR(s)	FIELD OF STUDY
Harvard College, Cambridge, MA	AB	1973	Medicine and Surgery Ophthalmology
Harvard Medical School, Boston, MA	MD	1977	
Tufts-Newton Wellesley Hospital, MA	Internship	1977-1978	
MA Eye & Ear Infirmary, Boston, MA	Residency	1978-1981	

A. Positions and Honors

Employment

2004- Professor of Ophthalmology, University of California, Irvine
2004- Vice Chair of Clinical Ophthalmology, University of California, Irvine
2005- Professor of Biomedical Engineering, University of California, Irvine

Selected Honors and Awards

1970 Phi Beta Kappa
1973 A.B. Awarded Summa cum Laude
1977 Alpha Omega Alpha
1998 Senior Honor Award, American Academy of Ophthalmology
2001 American Board of Ophthalmology Recognition Award
2003 AAO, Secretariat Award from the Ophthalmology Editor for "special and distinct contributions to the Academy and to the profession of Ophthalmology."
2008-2009 Academic Senate, University of California, Irvine, Distinguished Faculty Award for Teaching

Selected Patents

US Patent No. 5, 215, 104: "Method for Corneal Modification", issued June 1, 1993
US Patent No. 5, 451, 230: "Cataract Disassembly", issued September 19, 1995
US Patent No. 5, 505, 724: "Epithelium Removal", issued April 9, 1996
US Patent No. 5, 521, 210: "Ophthalmic use of Muscarinic Agonists Having Increased Duration of Activity", issued May 28, 1996
Australia Patent No. 697127: "Epithelium Removal", issued September 24, 1998
US Patent No. 6, 019, 755: "Epithelium Removal", issued February 1, 2000
US Patent No. 6, 293, 939 B1: "Epithelium Removal", issued March 25, 2002
US Patent No. 6, 537, 317 B1. Roger Steinert and Alan Lang: "Binocular Lens Systems", issued March 25, 2003
European Patent No. 0901344: "Epithelium Removal", issued November 26, 2003
German Patent No. 695322117: "Epithelium Removal", issued November 26, 2003
European Patent No. 0901344: "Epithelium Removal", issued May 24, 2004
Japan Patent No. 3759608: "Epithelium Removal", issued January 13, 2006

Recent Memberships and Offices in Professional Societies

2005 – 2006 President, American Society of Cataract and Refractive Surgery
2005 – Annual Meeting Chair, American Society of Cataract and Refractive Surgery
2005 - Orange County Ophthalmological Society
2007 - Orange County Medical Association

Recent Major Committee Assignments: National and Regional

2001 – 2003 Basic and Clinical Science Course Sec. 13, Member Subcommittee, American Academy of Ophthalmology

- 2002 – 2005 Founding Chair, Eye Surgery Education Council
- 2004 – Co-Chair, Annual Meeting Program, American Society of Cataract and Refractive Surgery
- 2004 – Subcommittee Member – Basic and Clinical Science Course, Section 14, American Academy of Ophthalmology
- 2005 – 2006 Preferred Practice Pattern Panel Member on Cataract Surgery, American Academy of Ophthalmology

B. Selected peer-reviewed publications (in chronological order; published or accepted only).

10. Puliafito CA and **Steinert RF**. Laser surgery of the lens. Experimental Studies. Ophthalmology 1983; 90 (8): 1007-1012.
11. **Steinert RF**, Puliafito CA and Kittrell C. Plasma shielding by Q-switched and mode-locked Nd-YAG lasers", Ophthalmology 1983; 90(8): 1003-1006.
12. **Steinert RF**, Puliafito CA and Trokel S. Plasma formation and shielding by three ophthalmic Neodymium-YAG lasers. Am J Ophthalmol 1983; 96 (4): 427-434.
16. **Steinert RF**, Minkowski J, Boruchoff SA. "Pre-keratoplasty potential acuity evaluation: Laser interferometer and potential acuity meter" Ophthalmol 1984; 91 (10): 127-1221.
19. **Steinert RF**, Puliafito CA. New applications of the Nd-YAG laser. J Am Intra-Ocular Implant Soc 1984; 10 (3):372-376.
20. **Steinert RF**, Puliafito CA. Directions in ophthalmic laser development. J Am Intra-Ocular Implant Soc 1984; 10 (4):488-490.
21. Puliafito CA, **Steinert RF**. Short-pulsed Nd-YAG laser microsurgery of the eye: Biophysical considerations. IEEE J Quantum Electron QE 1984; 20:1442-48.
23. Puliafito CA, **Steinert RF**, Deutsch TF, Hillenkamp F, Dehm E, Adler C. Excimer laser surgery of the cornea and lens. Ophthalmol 1985; 92(6):741-748.
25. Fujimoto JG, Lin WZ, Ippen EP, Puliafito CA, **Steinert RF**. Time-resolved studied of Nd-YAG laser induced breakdown: plasma formation, acoustic wave generation, and cavitation. Invest Ophthalmol Vis Sci 1985; 26 (12):1771-1777.
31. Dehm EJ, Puliafito CA, Adler C, **Steinert RF**. Corneal endothelial injury in rabbits following excimer laser ablation at 193 and 248 nm. Arch Ophthalmol 1986; 104 (9):1364-1368.
32. Krauss JM, Puliafito CA, **Steinert RF**. Laser Interactions with the cornea. Survey of Ophthalmology July-August, 1986; 31 (1):37-53.
34. **Steinert RF** et al. Surgical vitrectomy for pseudophakic malignant glaucoma. Am J Ophthalmol 1986; 102 (6) 803-804.
35. Puliafito CA, Wong K, **Steinert RF**. Quantitative and ultrastructural studies of excimer laser ablation of the cornea at 193 and 248 nanometers. Lasers in Surgery and Medicine 1987; Volume 7, Number 2, 155-159.
38. Wagoner MD, **Steinert RF**. Temporary tarsorrhaphy enhances reepithelialization after epikeratoplasty. Arch Ophthalmol 1988; 106 (1):13-14.
39. Frangieh GT, Kenyon KR, Wagoner MD, Hanninen L, John T, **Steinert RF**. Epithelial abnormalities and sterile ulceration of epikeratoplasty grafts. Ophthalmology 1988; 95 (2):213-227.
41. **Steinert RF**, Wagoner MD. Long-term Comparison of Epikeratoplasty and Penetrating Keratoplasty for Keratoconus. Arch Ophthalmol 1988; 106 (4) 493-496.
45. Wagoner MD, **Steinert RF** et al. Epikeratoplasty for adult and pediatric aphakia, myopia and keratoconus: the Massachusetts Eye and Ear Infirmary experience. Acta Ophthalmol Suppl. 1989; 192: 38-46.
48. Kornmehl EW, **Steinert RF**, Odrich MG, Stevens JB. Penetrating keratoplasty for pseudophakic bullous keratopathy edema associated with closed-loop anterior chamber intraocular lenses. Ophthalmology 1990; 97 (4): 407-414.
51. Malley DS, **Steinert RF**, Puliafito CA, Dobi ET. Immunofluorescence study of corneal wound healing after excimer laser anterior keratectomy in the monkey eye. Arch Ophthalmol 1990 108 (9):1316-1322.
52. **Steinert RF**, Puliafito CA. Excimer laser phototherapeutic keratectomy for a corneal nodule. Refract Corneal Surgery 1990 6 (5): 352.ui
53. Talamo JH, **Steinert RF** et al. Update on laser corneal surgery. Int Ophthalmol Clin. 1991 Winter; 31 (1): 13-23.
56. Kornmehl EW, **Steinert RF**, Puliafito CA. A comparative study of masking fluids for excimer laser phototherapeutic keratectomy. Archives of Ophthalmol 1991 109 (6): 860-863.
64. Filatov V, **Steinert RF**, Talamo JH. Postkeratoplasty Astigmatism with Single Running Suture or Interrupted Sutures. Am J Ophth 1993: 115 (6):715-721.

71. Waller SG, **Steinert RF** et al. Long-term results of epikeratoplasty for keratoconus. *Cornea* 1995 Jan; 14 (1):84-88.
79. **Steinert RF**, Storie B, Smith P, McDonald MD, Van Rij G, Bores LD, Colin JP, Durrie DS, Kelley C, Price F Jr., Rostron C, Waring GO, Nordan LT. Hydrogel intracorneal lenses in aphakic eyes. *Arch Ophthalmol* 1996; 114 (2):135-141.
80. Filatov V, Alexandrakis GF, Talamo JH, **Steinert RF**. Comparison of Suture-in and Suture-out Postkeratoplasty Astigmatism with Single Running Suture or Combined Running and Interrupted Sutures. *Am J Ophthalmol* 1996; 122 (5):696-700.
102. Ashfari NA, Mullaly JE, Ashfari, MA, **Steinert RF**, Adamis AP, Azar DT, Talamo JH, Dohlman CH, Dryja TP: Survey of Patients with Granular, Lattice, Avellino, and Reis-Bucklers Corneal Dystrophies for Mutations in the BIGH3 and Gelsolin Genes. *Arch Ophthalmol* 2001; 119:16-22.
107. Demers PE, **Steinert RF**, Gould EM. Topographic analysis of corneal regularity after penetrating keratoplasty. *Cornea* 2002; 21: 140-147.
108. Mendes F, Schaumberg DA, Navon S, **Steinert RF**, Sugar J, Holland EJ, Dana MR. Assessment of visual function after corneal transplantation: the quality of life and psychometric assessment after corneal transplantation (Q-PACT) study. *Am J Ophthalmol* 2003; 135: 785-793.
115. **Steinert RF**, Schafer ME. Ultrasonic-generated fluid velocity with Sovereign WhiteStar micropulse and continuous phacoemulsification. *J Cataract Refract Surg* 2006; 32: 284-287
118. Ashrafzadeh A, **Steinert RF**. Results of phototherapeutic keratectomy in the management of flap striae after LASIK before and after developing a standardized protocol: long term follow-up in an expanded patient population. *Ophthalmol* 2007; 114:1118-1123.
119. **Steinert RF**, Ignacio TS, Sarayba MS. Top hat shaped penetrating keratoplasty using the femtosecond laser. *Am J Ophthalmol* 2007; 143:698-691.
120. Farid M, Kim M, **Steinert, RF**. Results of penetrating Keratoplasty performed with femtosecond laser zig-zag shaped incisions. *Ophthalmol* 2007; 114:2208-2212.
121. Braun EB, Lee J, **Steinert RF**. Monovision in laser In-situ keratomileusis. *Ophthalmology* 2008 (accepted for publication)
122. **Steinert RF**, Fynn-Thompson N. Relationship of preoperative aberrations to postoperative refractive error in enhancements of laser in situ keratomileusis eyes with the Alcon LADARVision system *J Cat Refract Surg* 2008 (accepted for publication)

C. Research Support

Report of Current Research Activities:

1. Applications of femtosecond laser technology for therapeutic anterior and posterior lamellar keratoplasty
2. Shaped penetrating keratoplasty incisions with the femtosecond laser
3. Investigations of materials and techniques for microincision cataract surgery.
4. Use of wavefront technology in therapeutic laser ablations of severely distorted corneas.
5. Pharmacologic modulation of corneal wound healing
6. Pharmacologic and biomechanical therapy of presbyopia
7. Keratoprosthesis development

Funding Information:

IntraLase Corp (\$60,000 / year)