Contents

SECTION 1 : LENS HISTORY, PRELIMINARY CONSIDERATIONS AND IOL POWER CALCULATIONS

1. **History of Phakic IOLs** 3
   António A Marinho, Ramiro Salgado (Portugal)
2. **Patient Preoperative Evaluation and Selection** 6
   António Marinho, Ramiro Salgado (Portugal)
3. **Informed Consent for Phakic Implant Surgery : ICL™** 23
   M Shaju Asokan (India)
4. **AC-OCT Preoperative Evaluation of the Anterior Chamber for Phakic IOLs** 33
   Georges Baikoff (France)
5. **Comparing Methods of IOL Power Calculations** 44
   JT Lin (USA), Ashok Garg (India)
6. **Optics Gaussian Formulas for Phakic and Piggyback IOLs** 66
   JT Lin (USA)
7. **Error Factors in IOL Power Calculations** 79
   JT Lin (USA)
8. **Key Factors Determining the Estimated IOL Position** 88
   JT Lin (USA)
9. **IOL Power Calculations for Children after Cataract Surgery** 98
   JT Lin (USA)
10. **The Mathematical Handbook for IOLs** 109
    JT Lin (USA)

SECTION 2 : PRESBYOPIA (ACCOMMODATING AND ASPHERIC) LENSES : TYPES AND SURGICAL TECHNIQUES

11. **Pearls of Presbyopic Lens Surgery** 129
    Ashok Garg (India)
12. **The Principles of Accommodative IOLs** 134
    JT Lin (USA)

13. **Analysis of Intraocular Behavior of Accommodative Intraocular Lenses 150**
Oliver Stachs (Germany)

14. **Accommodative IOLs: Efficiency and Optimal Designs 165**
JT Lin (USA)

15. **Ray-tracing Analysis of Accommodating IOLs 181**
Yoshiaki Nawa (Japan)

16. **Dual Optics Accommodating IOLs 189**
GU Auffarth (Germany)

17. **High Efficiency Dual Optics Accommodating IOLs 195**
JT Lin (USA)

18. **Presbyopia Correction with "Newlife" Multifocal Phakic Implant 206**
Georges Baikoff (France)

19. **Presbyopia Corrections: Laser vs Nonlaser 218**
JT Lin (USA)

20. **Customized Aspherical IOLs 235**
JT Lin (USA)

21. **Aberration Free IOLs (Aspheric IOLs) 242**
Sanjay Chaudhary (India)

22. **Capsular Bag Refilling Using Capsulotomy: Capturing Intraocular Lens 253**
Okihiro Nishi, Kayo Nishi, Yutaro Nishi, Shiao Chang (Japan)

SECTION 3: PHAKIC IOLs: TYPES AND SURGICAL TECHNIQUES

23. **Evaluation of Phakic Lenses 265**
Jairo Hoyos-Chacon, Melania Cigales, Jairo E Hoyos (Spain)

24. **Custom ICLs 282**
Carlo Francesco Lovisolo (Italy)

25. **Phakic Refractive Lens (PRL™) for Myopia and Hyperopia Correction 306**
Dimitrii Dementiev (Italy)

26. **Anterior Chamber Phakic IOL with Angle Fixation 334**
Juan C Rocco (Argentina)

27. **Artisan, Toric Artisan and Artiflex Phakic Intraocular Lenses 347**
Johan A de Lange (South Africa)

28. **Phakic IOLs** 374
Emanuel Rosen, Mark Wevill, Christa Gore, Elizabeth Kowaleski (UK)

29. **Phakic IOLs: Personal Experience with the Verisyse-Artisan, Veriflex-Artiflex Lens** 390
Frank Jozef Goes (Belgium)

30. **Diffractive Multifocal Intraocular Lenses** 419
Gerald Schmedinger (Austria)

31. **Multifocal Intraocular Lenses** 434
Ulrich M Klemen (Austria), Elbland Klinik Radebeul (Germany)

32. **Customized IOLs: Possibilities and Limitations** 448
Paul Rolf Preussner (Germany)

33. **Clinical Analysis of ICL™-STAAR Posterior Chamber Intraocular Lenses** 461
Birgit Lackner (Austria)

34. **Pearls of Multifocal Refractive Lenses** 468
Ashok Garg (India)

SECTION 4 : COMPLICATIONS AND THEIR MANAGEMENT

35. **Phakic Refractive Lens (PRL™): Precautions and Complications** 479
Maria I Kalyvianaki, Ioannis G Pallikaris (Greece)

36. **Complications of Iris-supported Phakic IOLs** 488
Antonio A Marinho (Portugal)

37. **Pitfalls of Phakic IOLs: How to Avoid Them ?** 504
Claes Feinbaum (Poland)

38. **Retinal Complications of Intraocular Phakic Anterior Chamber Lenses** 519
José M Ruiz-Moreno, Javier A Montero (Spain)

SECTION 5 : RECENT ADVANCES AND FUTURE PROSPECTS IN PRESBYOPIC AND PHAKIC LENSES

39. **Implantation of Phakic Refractive Lenses (PRL) in Pediatric-myopic Eyes Associated with Scleral Reinforcement Surgery** 533
Dimitrii Dementiev (Italy)

40. **Multifocal IOLs in Children: A Long-term Analysis** 546
Keiki R Mehta, Cyres K Mehta (India)

41. Clinical Trial of the Implantable Collamer Lens (ICL) for Moderate to High Myopia 564
Donald R Sanders (USA)

42. Toric Implantable Collamer Lens (ICL™) for Moderate to High Myopic Astigmatism 586
Donald R Sanders, David Schneider, Robert Martin, David Brown, David Dulaney, John Vukich, Stephen Slade, Steven Schallhorn (USA)

43. Clinical Profile of Blue Light Filtering Intraocular Lenses . 604
Swati Phuljhele, Lalit Alok, Anand Aggarwal, Tanuj Dada (India)

44. IOL with Gradient Refractive Index Optics 611
K Takhchidi, Boris Malyugin, T Morozova, O Kravchuk, V Cherednik (Russia)

45. Refractive Lens Exchange: Current Perspective 635
I Howard Fine, Mark Packer, Richard S Hoffman (USA)

46. Orthokeratology 650
Antonio Calossi, Carlo F Lovisolo (Italy)

47. Update on IOL Technologies 666
Tanuj Dada, Harinder S Sethi, Swati Phuljhele, Manoj Gupta (India)

48. Recent Advances in IOL Materials 715
Rishi Mohan (India)

49. Analysis of New Optic Designs to Reduce PCO 726
Wolf Buehl, Oliver Findl (Austria)

Index 737