



March 15-16, 2019

La Fonda, Hotel, Santa Fe, New Mexico, USA
PRELIMINARY PROGRAM

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| FRIDAY, MARCH 15, 2019 | |
| SESSION I | OPTICAL AND NEURAL CONTRIBUTION TO VISION I Moderator, Raymond Applegate, OD, PhD, Geunyoung Yoon, PhD |
| 9:00 - 9:15 AM | From Wavefronts to Vision: Can optical measurements predict the perceived appearance of single points of light? Larry Thibos, PhD |
| 9:15 - 9:30 AM | Binocular Vision TBD |
| 9:30 - 9:45 AM | Free paper TBD |
| 9:45 - 10:00 AM | Coordinate System for Wavefront Sensing and Wavefront Correction Ray Applegate, OD, PhD |
| 10:00 - 10:15 AM | Open Discussion |
| 10:15 - 10:35 AM | Coffee Break |
| SESSION II | BINOCULAR VISION AND VIRTUAL (AUGMENTED) REALITY Moderator: Geunyoung Yoon, PhD |
| 10:35 - 10:50 AM | |
| 10:50 - 11:05 AM | |
| 11:05 - 11:15 AM | |
| 11:15 - 11:30 AM | Open Discussion |
| SESSION III | EVOLUTION OF WAVEFRONT TECHNOLOGY: PAST, PRESENT AND FUTURE |
| 11:30 - 11:45 AM | Ocular Wavefront Sensing Dan Neal, PhD |
| 11:45 - 12:00 PM | Ocular Imaging TBD |
| 12:00 - 12:15 PM | Ophthalmic Laser Technology & Refractive Surgery Ronald Krueger, MD |
| 12:15 - 12:30 PM | Corneal Biomechanics TBD |



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| 12:30 – 12:45 PM | Panel Discussion |
| 12:45 – 2:00 PM | Luncheon |
| SESSION IV | ADVANCES IN EXTENDED DEPTH OF TECHNOLOGY Moderator: Geunyoung Yoon, PhD |
| 2:00 – 2:15 PM | EDOF Bifocal vs Varifocal vs Multifocal vs Small Pupil TBD |
| 2:15 – 2:30 PM | Pseudophakic Dysphotopsia Scott MacRae, MD |
| 2:30 – 2:45 PM | Subjective Quality of a Multifocal IOL in the Eye of a Scientist James Schwiegerling, PhD |
| 2:45 – 3:00 PM | Free Paper TBD |
| 3:00 – 3:15 PM | Open Discussion |
| SESSION V | CORNEAL BIOMECHANICS Moderator: William Dupps, PhD |
| 3:15 – 3:30 PM | Cornea Physiology - Mechanics |
| 3:30 – 3:45 PM | Imaging Ultrastructure of Cornea |
| 3:45 – 4:00 PM | Advanced Biomechanical Corneal Models Geunyoung Yoon, PhD |
| 4:00 – 4:15 PM | Free paper TBD |
| 4:15 – 4:30 PM | Open Discussion |
| 6:30 PM | 20 th Wavefront Congress Reception and Dinner |

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| SATURDAY, MARCH 16, 2019 | |
| SESSION VI | ADAPTIVE OPTICS IN VISION AND OPHTHALMOLOGY Moderator: TBD |
| 8:30 – 8:45 AM | AO Retinal Imaging TBD |
| 8:45 - 9:00 AM | Intraocular Light Scattering or AO Microscopy TBD |



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| 9:00 – 9:15 AM | Invited Paper TBD |
| 9:15 – 9:30 AM | Free Paper TBD |
| 9:30 – 9:40 AM | Free Paper |
| 9:40 – 9:50 AM | Open Discussion |
| 9:50 – 10:10 AM | Coffee Break |
| SESSION VII | OPTICAL AND NEURAL CONTRIBUTION TO VISION II Moderator: Jason Marsack, PhD |
| 10:10 - 10:25 AM | Optical and Neural Contribution to Visual Performance Susana Marcos, PhD |
| 10:25 - 10:40 AM | Optical and Neural Contribution to Visual Performance Geunyoung Yoon, PhD |
| 10:40 - 10:55 AM | Free Paper TBD |
| 10:55 - 11:10 AM | Free Paper TBD |
| 11:10 - 11:15 AM | Open Discussion |
| SESSION VIII | NOVEL APPLICATIONS OF CONTACT LENSES Moderator: Jason Marsack, PhD |
| 11:15 – 11:30 AM | New Findings in Myopia Development / Control TBD |
| 11:30 – 11:45 AM | Wavefront-guided Contact Lenses TBD |
| 11:45 – 12:00 PM | Light Transmission Control with Contact Lenses TBD |
| 12:00 – 12:15 PM | Sports Vision – A Primer in Visual Performance Enhancement Fred Edmunds, PhD |
| 12:15 – 12:30 PM | Open Discussion |
| 12:30 – 1:45 PM | Luncheon |
| SESSION IX | NEW WAVES FOR ADVANCED VISION CORRECTION Moderator: Ronald Krueger, MD |
| 1:45 - 2:00 PM | fs Laser Induced Refractive Index Change Len Zheleznyak, PhD |



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| 2:00 - 2:15 PM | Accommodative IOLs Adrian Glasser, PhD |
| 2:15 - 2:30 PM | Human Tissue Onlays and Inlays Michael Mrochen, PhD |
| 2:30 - 2:45 PM | Light Adjustable IOLs Pablo Artal, PhD |
| 2:45 - 3:00 PM | Free Paper TBD |
| 3:00 – 3:15 PM | Open Discussion |
| SESSION X | BIG DATA AND ARTIFICIAL INTELLIGENCE FOR OPTHALMOLOGY Moderator: Ray Applegate, OD PhD |
| 3:15 – 3:30 PM | Refractive Surgery (SMILE) TBD |
| 3:30 – 3:45 PM | IOL Power Calculation: Barrett Universal, Hill-RBF or Ladas Super Formula TBD |
| 3:45 – 4:00 PM | Eye Models Based on Large Population Data Jos Rozema, PhD |
| SESSION XII | FREE PAPERS Moderator: Ron Krueger, MD |
| 4:00 – 4:15 PM | Vision Behavior Monitoring – Why do patient questionnaires fail for presbyopia patient evaluations? Michael Mrochen, PhD |
| 4:15 – 4:30 PM | Free Paper |
| 4:30 – 4:45 PM | Voting and Awards |
| 5:00 PM | END |
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