

XXII Biennial Meeting of the International Society for Eye Research,
September 25 - 29,
Tokio, Japan

Scientific Programme

Sunday, 25 September 2016

Welcome Reception, Gala Dinner
19:00 - 21:00

Eminence Hall

Welcome Reception

Scientific Programme

Monday, 26 September 2016

Session: Ocular Pharmacology and Therapeutics
08:00 - 10:00

Hana A

OPT1, Translational studies in glaucoma-How do we make basic science studies in glaucoma more clinically relevant: development of a consensus

Chairs:

Carol Toris, Cleveland, OH, United States
Cheryl L. Rowe-Rendleman, United States

What Is the Role of the Basic Science Research Laboratory?	08:00
Carol Toris, Cleveland, OH, United States	
Animal Models of Glaucoma and their Translatability into the Clinic	08:24
Andy Whitlock, Andover, United States	
Clinical Investigations on Rho Kinase Inhibitors-1 Year after Approval	08:48
Hidenobu Tanihara, Japan	
Control of Glaucoma by the Brain - Translational Studies	09:12
William Eric Sponsel	
Neuroprotection and Neuroregeneration of Retinal Ganglion Cells from Basic Science to Clinic	09:36
Smedowski Adrian, Katowice, Poland	

Session: Retinal Cell Biology
08:00 - 10:00

Hana B

RCB1, New insights on the RPE/Bruchs membrane/choriocapillaris in AMD

Chairs:

Gerard Lutty, United States
Naoko Ogata, Japan

Choriocapillaris Dropout in Eyes with Early Age-related Macular Degeneration	08:00
Scott McLeod, United States	
Distribution and Quantification of Choroidal Macrophages in Aged Human Eyes and Eyes with Age-related Macular Degeneration	08:24
Gerard Lutty, United States	
Visualizing RPE Fate in AMD through Validated OCT and Autofluorescence Imaging	08:48
Christine Curcio, United States	
A Possible Role of Lipid Accumulation in Bruch's Membrane in the Pathogenesis of Age-related Macular Degeneration	09:12
Tsutomu Yasukawa, Japan	

Scientific Programme

Complement Injury to the Choriocapillaris: Lytic and Sublytic Changes **09:36**
Katie Chirco, United States

Session: Retinal Neuroscience and Development
08:00 - 10:00

Hana C

RND1, Transcription control of retinal cell identity

Chairs:

Michel Cayouette, Canada
Takahisa Furukawa, Japan

Vexin (Vxn) Is a Novel Conserved Protein that Functions in the Nucleus to Regulate Cell Cycle Exit and Neurogenesis **08:00**
Monica Vetter, United States

Sox2, Tlx, Gli3 and Her9 Converge on Rx2 to Define Retinal Stem Cells in vivo **08:24**
Jochen Wittbrodt, Germany

Toward Understanding Regulation of Middle Wavelength-sensitive Cones and the Opsins in Zebrafish **08:48**
Yoshitaka Fukada, Japan

Transcriptional Regulation of Photoreceptor Cell Development and Maturation **09:12**
Takahisa Furukawa, Japan

Regulation of Retinal Progenitor Cell Properties by Lhx2 and Vsx2 **09:36**
Edward Levine, Nashville, United States

Session: Ophthalmic Genomics
08:00 - 10:00

Hana D

OGM1, Genetics of multifactorial eye diseases

Chairs:

Anneke den Hollander, Netherlands
Eiko de Jong, Netherlands

Genetics of AMD **08:00**
Margaret DeAngelis, United States

Genetics of Diabetic Retinopathy **08:24**
Lucia Sobrin, United States

Genetic Aspects of Chronic Central Serous Chorioretinopathy **08:48**
Eiko K de Jong, Nijmegen, Netherlands

Molecular Genetics of Polypoidal Choroidal Vasculopathy **09:12**
Zhenglin Yang, Sichuan, Chengdu, China

Scientific Programme

Session: Glaucoma
08:00 - 10:00

Nishiki

GLA1, Cell Plasticity, Fibrogenic Mechanisms and Glaucoma

Chairs:

Vasantha Rao, Durham, North Carolina, United States

The Role of AP-2 β in Anterior Segment Dysgenesis/Fibrosis and Glaucoma 08:00
Judith West-Mays, Canada

Scleral and Lamina Cribrosa Remodeling in Response to Chronically Elevated IOP 08:20
J Crawford Downs, Birmingham, Alabama, United States

Fibrotic Mechanisms in Glaucoma; Lamina Cribrosa and Trabecular Meshwork 08:40
Colm O'Brien, Dublin, Ireland

Mechanical Homeostasis Mechanisms in Trabecular Meshwork Cells 09:00
Günther Schlunck, Germany

Effects of Cytokines on Aqueous Outflow and Fibrogenic Activity of Trabecular Meshwork Cells 09:20
Toshi Inoue, Japan

Trabecular Meshwork Cell Plasticity, Fibrogenic Activity and IOP 09:40
Vasantha Rao, Durham, North Carolina, United States

Session: Cornea and Ocular Surface
08:00 - 10:00

Ohgi

COS1, Corneal Infection

Chairs:

Donald Tan, Singapore
Yoshitsugu Inoue, Japan

New Antimicrobial Molecules against Ocular Pathogens - the SERI AMOP Project 08:00
Donald Tan, Singapore

Basic Approach to Viral Corneal Endotheliitis 08:24
Yoshitsugu Inoue, Japan

Bacterial Flora on the Ocular Surface 08:48
Chie Sotozono, Japan

Association of type III secretory system with pathogenesis and clinical features of Pseudomonas aeruginosa keratitis 09:12
Fung-Rong Hu, Taiwan, Province of China

Role of Inflammation on Corneal Nerve Regression Following HSV-1 Infection 09:36
Ana Chucair-Elliott, Oklahoma City, United States

Scientific Programme

Session: RPE Choroid Biology and Pathology
08:00 - 10:00

Natsume

RPE8, Exploring the intersection between inflammation and lipid metabolism in age-related macular degeneration (AMD)

Chairs:

Goldis Malek, United States
Rajendra Apte, United States

Impaired Cholesterol Efflux in Macrophages Promotes AMD	08:00
Rajendra Apte, United States	
Additive Effects of Advanced Age, High Fat Diet and Complement Factor H in Dry AMD	08:24
Catherine Bowes Rickman, United States	
Liver x Receptors (LXRs) as Regulators of Lipid Metabolism and Inflammation in Dry AMD	08:48
Goldis Malek, United States	
Functional Implications of Age Associated Alterations in Macrophage Lipids	09:12
Abdoulaye Sene, United States	
Cholesterol Crystals Induce Expression of Inflammatory Cytokines by Cells Vulnerable in AMD	09:36
Demetrios Vavvas, United States	

Session: Ocular Immunology
08:00 - 10:00

Katsura

JNT10(IMM+OPT), New molecular mechanisms and therapeutic approaches for uveitis

Chairs:

Masaaki Kageyama, Japan
James Rosenbaum, United States

Uveitis: Gaps in Therapy and Understanding	08:00
James Rosenbaum, United States	
The Effect of Intravitreal Triamcinolone at the Draining Lymph Nodes	08:24
Phoebe Lin, United States	
Local Corticosteroid Treatment of Uveitis	08:36
Glenn Jaffe, Durham, NC, United States	
Preclinical and Clinical Aspects of a Locally Injectable mTOR Inhibitor, DE-109, for the Long-term Management of Uveitis	09:00
Abu Abraham, Emeryville, United States	
PD Ligand Blockade Decreases IRBP-induced Uveitis in Mice	09:24
Lynn K Gordon, United States	
Ocular Autoimmunity - a Collusion of Development and Environment	09:36
Rachel Caspi, United States	

Scientific Programme

Session: Lens
08:00 - 10:00

Mizuki

LEN1, Lens Development

Chairs:

Xin Zhang, New York, United States
Jeff Gross, United States
Ichiro Masai, Japan

Mechanism of Ectopic Lens Fiber Differentiation in Response to Early Endosome Trafficking Defects Ichiro Masai, Japan	08:00
Neural Retina Identity Is Specified by Lens-derived BMP Signals Lena Gunhaga, Sweden	08:24
Lens Epithelium Loosing Control - New Mechanisms Underlying Fibrotic Cataract Adi Inbal, Israel	08:48
Systems Biology of Lens Development Salil A. Lachke, United States	09:12
Regulation of Lens Fiber Elongation by FGF Signaling Xin Zhang, New York, United States	09:36

Opening Ceremony, Plenary Lecture
10:30 - 12:00

Concord AB

Opening Ceremony & The Endre A. Balazs Prize

Introduction Patricia D'Amore, United States	10:30
Plenary Lecture: Regulation of Corneal and Ocular Surface Immunity Reza Dana	10:40
Award Ceremony	11:25

Session: Industry Sponsored Session
12:00 - 13:00

Nishiki

Risk factors and mechanisms of macular disorders (sponsored by Santen, Inc.)

Chairs:

Takeshi Iwata, Japan

Genetics of AMD: Modeling complex disease Neena B. Haider, Boston, United States	12:00
Subretinal drusenoid deposit in AMD - Histology and high-resolution imaging Christine Curcio, United States	12:15

Scientific Programme

Occult Macular Dystrophy (Miyake's disease); nationwide and international collaborative studies	12:30
Kaoru Fujimami, London, United Kingdom	
Questions & Answers	12:45

Session: Ocular Immunology
13:00 - 15:00

Hana A

JNT3 (IMM+RCB), Microglia and macrophages as therapy targets for retinal diseases

Chairs:

Thomas Langmann, Germany
Heping Xu, United Kingdom

Dynamics of Microglia and Monocytes in the Mouse Retina in vivo	13:00
Marie Burns, United States	
Metabolic Control of Microglial Activation	13:24
Heping Xu, United Kingdom	
Complement Factor H Inhibits Inflammation Resolution	13:48
Florian Sennlaub, France	
Microglial Phagocytosis of Living Photoreceptors Contributes to Inherited Retinal Degeneration	14:12
Wai Wong, Bethesda, Maryland, United States	
Interferon-beta Signaling in Retinal Mononuclear Phagocytes Attenuates Pathological Neovascularization	14:36
Thomas Langmann, Germany	
Effect of Diabetes on Repair of the Inner Blood Retinal Barrier, Microglia and Monocyte Dynamics Following Retinal Ischemia-reperfusion Injury	14:48
Steven F. Abcouwer, Ann Arbor, MI, United States	

Session: Ophthalmic Genomics
13:00 - 15:00

Hana B

OGM2, Molecular Genetics of Eye Disease

Chairs:

Qingjiong Zhang, China

Mutations in lens-specific genes: cataract and beyond	13:00
Qingjiong Zhang, China	
Retinal Degeneration (RD) due to the Involvement of hASRGL1: Mouse and Zebrafish Models with Mutant ASRGL1 Develop Retinal Degeneration	13:24
Pooja Biswas, La Jolla, United States	

Scientific Programme

- The role of ubiquitin pathway in maintaining calcium homeostasis and lens transparency** 13:48
Ke Liu, China
- Spatial and Temporal Dissection of Pathogenesis in a Model of Anterior Segment Dysgenesis and Glaucoma Caused by a Col4a1 Mutation** 14:12
Douglas Gould, San Francisco, CA, United States

Session: Ocular Pharmacology and Therapeutics
13:00 - 15:00

Hana C

OPT2, Translational ophthalmology: Novel targets and their development into the clinic

Chairs:

Claire Gelfman, Andover, United States
Hidenobu Tanihara, Japan

- Preclinical Path Forward for a Dry Eye Product that Inhibits Mitochondrial Oxidative Stress** 13:00
Claire Gelfman, Andover, United States
- A First-in-Class Oligonucleotide Based Ophthalmic Therapeutic for Vascular Leakage** 13:24
Jennifer R. Gamble, Australia
- Transplantation of Autologous iPS Cell-derived RPE Cell Sheets for Exudative AMD: A Pilot Clinical Study** 13:48
Yasuo Kurimoto, Japan
- The Translational Research to Qualify Cultured Human Corneal Endothelial Cells for Cell Infusion Therapy as Homogeneous Fully Differentiated Cells** 14:12
Junji Hamuro, Kyoto, Kyoto, Japan
- Gene and Drug Based Therapy Prevents Retinal Degeneration in a Mouse Model of Geographic Atrophy** 14:36
Manas R Biswal, Gainesville, FL, United States

Session: Retinal Neuroscience and Development
13:00 - 15:00

Hana D

RND10, Noncoding RNA in retinal development and disease

Chairs:

Brian Perkins, United States
Ruth Ashery-Padan, Israel

- The Role of miRNAs in the Development of the Retinal Pigmented Epithelium** 13:00
Ruth Ashery-Padan, Israel
- microRNAs in Retinal Progenitor Competence** 13:24
Anna La Torre, Davis, CALIFORNIA, United States

Scientific Programme

The miR-204/211: Two Micro-regulators of Eye Development and Disease Ivan Conte, Italy	13:48
The Role of the miR183/96/182 Cluster in Zebrafish Retinal Development Joseph Fogerty, United States	14:12
Identification and Characterization of Long Noncoding RNAs in Retinal Progenitor Cell Competence Brian Clark, United States	14:36

Session: Cornea and Ocular Surface
13:00 - 15:00

Nishiki

COS2, Emerging paradigms in stromal regenerative biology

Chairs:

Che John Connon, Newcastle-upon-Tyne, United Kingdom
Rajiv Mohan, Columbia, Missouri, United States

An Investigation in Three-dimensions of Cell-directed Matrix Deposition in the Developing Cornea Andrew James Quantock, Cardiff, United Kingdom	13:00
Extracellular Matrix Regulation of Corneal Fibroblast Patterning during Stromal Wound Healing Walter Petroll, Dallas, United States	13:24
Engineering Stromal Cell Alignment Che John Connon, Newcastle-upon-Tyne, United Kingdom	13:48
The Biology and Therapeutic Potential of Limbal Mesenchymal Stromal Cells Damien Harkin, Australia	14:12
Ocular Surface Cell-based Therapies: Opportunities and Challenges in Development and Adoption	14:36

Session: Glaucoma
13:00 - 15:00

Ohgi

GLA2, Major identified players in glaucoma - genes and signaling pathways

Chairs:

Stanislav I. Tomarev, United States
Takeshi Iwata, Japan

Autophagy in Ocular Hypertension and Glaucoma: More than Keeping the House Clean Paloma B. Liton, United States	13:00
Homeostatic Regulation of IOP by Nitric Oxide Darryl R. Overby, United States	13:24

Scientific Programme

The Role of Trabecular Meshwork Cadherins in Regulation of IOP Abbot Clark, United States	13:48
Neuroprotection and Optic Nerve Regeneration for Glaucoma Therapy: Contribution of Oxidative Stress in Animal Models of Normal Tension Glaucoma Takayuki Harada, Japan	14:12
Myocilin: Ocular and Extraocular Functions Stanislav I. Tomarev, United States	14:36

Session: Lens
13:00 - 15:00

Natsume

LEN2, Oxidative Stress

Chairs:

Julie Lim, New Zealand
Frank Giblin, United States

Oxidative Stress Regulation of Organelle Function by α-Crystallin Marc Kantorow, United States	13:00
The Effect of Low Dose Ionising Radiation on the Lens Epithelium Quinlan Roy, Durham, United Kingdom	13:24
A Structure-activity Study for the Inhibition of Matrix Metalloproteinase-9 Production by Polymethoxyflavones Yoshiki Miyata, Japan	13:48
Minimising Oxidative Stress in the Anterior Eye: The Role of the Cystine/Glutamate Antiporter in Mediating Extracellular Redox Balance Julie Lim, New Zealand	14:12
The Role of PARp-1 and PAR Polymers in DNA Repair and Cell Death in UVB-challenged Human Lens Epithelial Cells Frank Giblin, United States	14:24

Session: RPE Choroid Biology and Pathology
13:00 - 15:00

Katsura

RPE2, Lipid dynamics at the photoreceptor-RPE nexus

Chairs:

Silvia Finnemann, United States
Anant Menon, United States

Mechanism of Phosphatidylserine Phospholipid Externalization at Outer Segment Tips during Photoreceptor Outer Segment Renewal Silvia Finnemann, United States	13:00
Lipofuscin Fluorophores in Photoreceptors and the RPE Yiannis Koutalos, United States	13:24

Scientific Programme

Phospholipid Scrambling by Monomeric Rhodopsin	13:48
Anant Menon, New York, NY, United States	
Retinal degeneration B (RDGB) codes for a lipid transfer protein which maintains lipid homeostasis during PLC signalling in Drosophila photoreceptors	14:12
Shweta Yadav, Bangalore, India	
Light Mediated Regeneration of Visual Pigments in Rods and Cones: Evidence for a Photic Visual Cycle	14:36
Gabriel Travis, United States	

Session: Independent Session
13:00 - 15:00

Mizuki

IND1, Expanding the functions of ocular surface innervation: photophobia and photoallodynia

Chairs:

Juana Gallar, Spain
Takayoshi Masuoka, Japan

Photophobia and other Neuropathic Like Symptoms in Dry Eye	13:00
Anat Galor, United States	
A Potential Role for Melanopsin-expressing Trigeminal Neurons in Photoallodynia and Corneal Function	13:24
Anna Matynia, United States	
Possible contribution of glutamate receptors in ocular hyperalgesia	13:48
Takayoshi Masuoka, Japan	
Sensitization of Peripheral Ocular Nociceptors and Central Mechanisms Contributing to Photoallodynia	14:12
Juana Gallar, Spain	

Session: Cornea and Ocular Surface
15:30 - 17:30

Hana A

COS3, Corneal Endothelium: Pathophysiology and Treatment

Chairs:

Motokazu Tsujikawa, Japan
Sophie X. Deng, United States

Comparison in Mean Area between Pentagonal and Hexagonal Cells in Human Cornea Endothelium	15:30
Motokazu Tsujikawa, Japan	
Edothelial Keratoplasty in Asian Eyes	15:54
Akira Kobayashi, Kanazawa, Japan	

Scientific Programme

A Newly Developed Graft Inserter for Descemet's Stripping Automated Endothelial Keratoplasty	16:18
Takeshi Soma, Japan	
Understanding immune mechanism of corneal transplant rejection	16:42
Victor Perez, United States	

Session: Ocular Pharmacology and Therapeutics
15:30 - 17:30

Hana B

OPT11, Dry eye diagnosis

Chairs:

Christophe Baudouin, France
Mourad Amrane, France

Staining of Ocular Surface: Optimizing Diagnosis and Interpretation. Basis of Successful Surgery and Adaptive Therapy of Dry Eye	15:30
Gysbert Van Setten, Stockholm, Sweden	
Inflammation in the Diagnosis of Dry Eye Disease	15:54
Christophe Baudouin, France	
Biomarkers in Dry Eye Disease	16:18
Andrea Leonardi, Italy	
Tear Osmolarity in the Diagnosis of Dry Eye Disease - Recent Findings and the Future	16:42
Michael Lemp, United States	
Functional Visual Acuity in Dry Eye Disease	17:06
Elisabeth Messmer, Germany	

Session: RPE Choroid Biology and Pathology
15:30 - 17:30

Hana C

RPE4, VEGF and beyond

Chairs:

Antonia M. Jousen, Germany
Olaf Strauß, Germany

Therapeutic Targeting of LRG1 Reduces Pathogenic Neovascularisation and Normalises Vessels	15:30
John Greenwood, United Kingdom	
Neuron-derived Factors in Retinal Vascular Disease	15:54
Przemyslaw Sapięha, Montreal, Canada	
VEGF and Myeloid Cells in the Context of ROP	16:18
Antonia M. Jousen, Germany	

Scientific Programme

- Lipoprotein-associated Phospholipase A2 (Lp-PLA2) Is Associated with Breakdown of the Blood Retinal Barrier through a VEGF-independent Pathway** 16:42
Alan Stitt, United Kingdom
- Potential Androgen Receptor-mediated Gene Regulatory Pathways in a Mouse Model of Laser-induced Choroidal Neovascularization** 17:06
Kuniko Horie-Inoue, Saitama, Japan

Session: Retinal Neuroscience and Development
15:30 - 17:30

Hana D

RND2, Epigenetics in development and disease

Chairs:

Seth Blackshaw, Baltimore, United States
Sumiko Watanabe, Japan

- Retinal Cell Lineage Specific Modification of Histone H3 during Retinal Development** 15:30
Sumiko Watanabe, Japan
- The ATRX Chromatin Remodeling Protein Is Required in Bipolar Cells for the Non Cell-autonomous Survival of Amacrine and Horizontal Cells** 15:54
David Picketts, Canada
- Regulation of Temporal Identity in Mouse Retinal Progenitor Cells** 16:18
Michel Cayouette, Canada
- Ronin (Thap11) Regulates Retinal Progenitor Cell Proliferation and Is Implicated in a Novel Variant of Cobalamin Deficiency Syndrome** 16:42
Ross Poche, Houston, United States
- Integrated CHIP-Seq Analysis and Epigenomic Profiling of Early and Late-stage Retinal Progenitor Cells Identifies a Central Role for Lhx2 in Controlling Developmentally Regulated Modules of Coordinately Accessible Chromatin** 17:06
Cristina Zibetti, Baltimore, MD, United States
- Long Range Genomic Interactions Regulate Photoreceptor Gene Expression and Are Affected in Retinal Disease Models** 17:18
Philip Ruzycski, Saint Louis, MO, United States

Session: Ocular Pharmacology and Therapeutics
15:30 - 17:30

Nishiki

JNT8 (OPT+GLA), Sustained Glaucoma Therapy and Ocular Drug Delivery

Chairs:

Sri Mudumba
Morgan Fedorchak, United States

- Liposomes for Sustained Glaucoma Therapy** 15:30
Tina Wong, Singapore

Scientific Programme

Development of ENV515 Travoprost XR Therapy with Target Duration of Treatment Effect >6 Months	15:54
Ben Yerxa	
Semi-fluorinated Alkanes for Topical Ocular Delivery of Cyclosporine A	16:18
Priyanka Agarwal, Auckland, New Zealand	
A Nanoparticle Formulation Enhances the Corneal Permeability of Disulfiram and Reduces its Corneal Toxicity	16:42
Yoshimasa Ito, Higashi-Osaka, Osaka, Japan	
Maintaining IOP with the InnFocus MicroShunt® 3 Years and Beyond	17:06
Yasushi P. Kato, Miami, FL, United States	

Session: Ocular Imaging
15:30 - 17:30

Ohgi

IMA2, New advances in ocular imaging - part I

Chairs:

Ricky Wang, United States

Ophthalmic Surgical Guidance Using Intraoperative Optical Coherence Tomography	15:30
Yuankai Tao, Franklin, TN, United States	
Wide Field OCT: Technology and Clinical Application of Retinal Megahertz Imaging over up to 100° Field of View	15:54
Robert Huber, Germany	
Line Field Optical Coherence Tomography: High Speed Imaging and Digital Aberration Correction	16:18
Rainer Leitgeb, Vienna, Austria	
Function Retinal Imaging by Holographic OCT	16:42
Gereon Hüttmann, Lübeck, Germany	
Optical Coherence Tomography Using Visible Light in Human Subjects	17:06
Amani Fawzi, Chicago, Illinois, United States	

Session: Ophthalmic Genomics
15:30 - 17:30

Natsume

OGM3, Asian eye genetics

Chairs:

Takeshi Iwata, Japan

Sundaram Natarajan, Wadala, Mumbai, Maharashtra, India

Developing International Research Collaborations in Eye Diseases - Asian Eye Genetics Consortium	15:30
Gyan Prakash, United States	

Scientific Programme

Association of A69s Missense Polymorphism of Arms2 Gene with Age-related Macular Degeneration in Indian Population	15:36
Sundaram Natarajan, Wadala, Mumbai, Maharashtra, India	
Genetic Studies on Behcet's Disease and VKH Syndrome in Chinese Population	15:42
Peizeng Yang, China	
Genes Associated with Treatment Outcome of Age-related Macular Degeneration in Japanese	16:06
Kenji Yamashiro, Japan	
Mutation Spectrum in a Large Cohort of Inherited Retinal Dystrophy Patients Revealed by Next-generation Sequencing	16:30
Zi-Bing Jin, China	
Keratoconus: globally and in the Middle East; epidemiology, genetics and future research.	16:54
Ahmed Mousa, Saudi Arabia	
AMD Genetics in Indian sub continent: Trends and Gaps	17:18
Akshay Anand, Chandigarh, India	

Session: Retinal Cell Biology
15:30 - 17:30

Katsura

RCB2, Inflammation in AMD

Chairs:

Patricia D'Amore, United States
Yuichi Ogura, Japan

Degranulation of Choroidal Mast Cells: Possible Involvement in the Pathogenesis of Age-related Macular Degeneration	15:30
Imran Bhutto, United States	
DICER1 Deficiency Recapitulates Multiple AMD Phenotypes via Innate Immunity	15:54
Brad Gelfand, United States	
rLipids, Inflammasomes, and Age-related Macular Degeneration (AMD)	16:18
Patricia D'Amore, United States	
Role of Inflammation in Age-related Macular Degeneration	16:42
Miho Nozaki, Nagoya, Japan	
Defending Choroidal Endothelial Cells from Complement-Mediated Lysis in Age-related Macular Degeneration	17:06
Robert Mullins, United States	

Scientific Programme

Session: Lens
15:30 - 17:30

Mizuki

LEN3, Biomarkers in Cataractogenesis

Chairs:

Kevin Schey, United States
Xiaohua Gong, United States

Genetics Variances, Gap Junctions and Fiber Cell Morphogenesis in Cataract Formation	15:30
Xiaohua Gong, United States	
Lens Peptidomics Unravels Lens Aging and Cataract	15:54
Krishna Sharma, United States	
Protein Degradation in the Aging Human Lens	16:18
Friedrich Michael, Wollongong, Australia	
Novel Chemistries of Aging and Cataract	16:42
Kevin Schey, United States	
Mapping and Quantifying Metabolites in the Aging Human Lens Using MALDI Imaging	17:06
Angus Grey, New Zealand	
The Effect of Interaction between EPHA2 Gene and Environmental Risk Factors on Cataract Development	17:18
Shiwani Sharma, Australia	

Poster Session
17:30 - 19:00

Poster Area

Glaucoma

A Comparative Study of Intraocular Pressure Change in Different Dosages of Topical Steroid after Pterygium Excision	
Kosol Kampitak, Pathumthani, Thailand	
Evaluation of Auditory Nerve in Glaucoma Patients	
Jahangir Ayatollahi, Meybod, Yazd, Iran, Islamic Republic of	
Morphological Changes of Lateral Geniculate Bodies and Visual Cortex in Patients with Glaucoma and Alzheimer's Disease	
Valery Erichev, Moscow, Russian Federation	
Comparable Retinal Ganglion Cell Loss and Microglia Response in an Autoimmune Glaucoma Model Based on S100 or S100 plus HSP27	
Stephanie Joachim, Bochum, Germany	
Inositol Phosphatase Regulation of Lipid Composition in the Cilia of Trabecular Meshwork	
Yang Sun, Indianapolis, United States	
Overexpression of GLAST Protects Retinal Ganglion Cells Following Optic Nerve Injury	
Atsuko Kimura, Tokyo, Japan	

Scientific Programme

Blockade of Adenosine A2A Receptor Prevents Retinal Microglia Reactivity and Oxidative/Nitrosative Stress Triggered by Elevated Pressure

António Francisco Ambrósio, Coimbra, Portugal

Poster Session
17:30 - 19:00

Poster Area

Lens

Promoter Hypermethylation Mediated Down-Regulation of Antioxidant Genes in High Myopic Cataractous Eyes

Xiangjia Zhu, Shanghai, China

Is Near Infrared Radiation from Remote Controls and Sensing Systems Induced Lens Damage Cumulative?

Zhaohua Yu, Uppsala, Sweden

α B-crystallin: Possible Role in Signaling and Apoptosis in Ocular Melanoma

Gregory Konar, Baltimore, United States

Lifespan of mRNA in the Lens

Mikako Oka, Yokohama, Japan

The p110 α Catalytic Subunit of Phosphoinositide 3-Kinase Contributes to Normal Lens Growth

Caterina Sellitto, Stony Brook, United States

Tob1 and Tob2 Mark Distinct RNA Processing Granules in Differentiating Lens Fibre Cells

Robb de Jongh, Parkville, VIC, Australia

Immunolocation of Aquaporin 8 in Human Lenticular Epithelial Cells

Rijo Hayashi, Koshigaya, Saitama, Japan

Frequency of Visit to Eye Clinics by Diabetic Patients in the Kumba Urban Area, Cameroon

Enowntai Nkongho Ayukotang, Bafoussam, Cameroon

Poster Session
17:30 - 19:00

Poster Area

Cornea and Ocular Surface

Endothelial Keratoplasty Lenticules Prepared from Fresh Donated Whole Eyes: Role of Microkeratome Head and Pass Time

Mahnoush Rezaei Kanavi, Tehran, Iran, Islamic Republic of

Primary Conjunctival Malignant Melanoma with Intra Ocular Extention - A Case Report

Manjunath Kamath, Mangalore, Karnataka, India

Corneal Keratins Aggresome (CKAGG) Formation and Corneal Epithelial Cells Opacification

Fawzia Bardag-Gorce, Torrance, CALIFORNIA, United States

Scientific Programme

Recombinant Fibroin Containing the RGD Motif Enhances Limbal Mesenchymal Stromal Cell Adhesion and Proliferation

Elham Nili, South Brisbane, Queensland (QLD), Australia

The role of Mitogen-activated Protein Kinases Pathway in the Cellular Responses of Keratocytes to Cyclic Stretch

HsinYuan Tan, Taipei, Taiwan, Province of China

Creating an in vitro Model of the Cornea Stroma

Jie Zhang, Auckland, New Zealand

Regulation of Vascular Endothelial Growth Factor-C by Tumor Necrosis Factor- α in the Conjunctiva and Pterygium

Satoru Kase, Sapporo, Japan

A Quantification of Tear O-glycans by 2-CNA Method

Yoshiaki Tagawa, Sapporo, Hokkaido, Japan

Poster Session
17:30 - 19:00

Poster Area

Ocular Immunology

Disseminated Nontuberculous Mycobacterial Infection with Multifocal Retinochoroiditis in an Immunocompromised Patient with Anti-IFN- γ Autoantibodies

Tian Loon Lee, Singapore, Singapore

Spectrum of Ocular Inflammatory Disease at a Tertiary Referral Eye Care Institute in Singapore - Report 1

Elizabeth Jiahui Chen, Singapore, Singapore

Poster Session
17:30 - 19:00

Poster Area

Ocular Imaging

Choroidal Structure Determined by Binarization of Optical Coherence Tomographic Images in Children with Anisohypermetropic Amblyopia

Tomo Nishi, Kashihara, Nara, Japan

Evaluation of the Relationship between the Macular Retinal Thickness in Amblyopic Children and their Control

Zhale Rajavi, Tehran, Iran, Islamic Republic of

Haemodynamics in the Retinal Vasculature during the Progression of Diabetic Retinopathy

Francesco Caliva, Lincoln, United Kingdom

In vivo Molecular Imaging of the Retinal Hypoxia

Imam Uddin, Nashville, TN, United States

A Less Invasive Surgical Approach to the Superior Part of the Orbit. A Study of the Orbital Anatomy

Dag Krohn-Hansen, Oslo, Norway

Scientific Programme

Poster Session
17:30 - 19:00

Poster Area

RPE Choroid Biology and Pathology

mir-204/211 in Eye Development and Disease: An Intricate Relationship

Federica Naso, Pozzuoli, Italy

Compromised Phagosome Maturation Underlies Defective RPE Clearance in an in vitro Model of Smith-Lemli-Opitz Syndrome

Nestor Mas Gomez, Philadelphia, Pennsylvania, United States

Puerarin Protects Human Retinal Pigment Epithelial Cells from All-trans-retinal-induced Oxidative and Nitrosative Stresses

Xue Zhu, Wuxi, Jiangsu, China

Transplantation of Functional RPE Derived from Bone Marrow Stromal Stem Cells Could Survive and Improve the Retinal Function

Hamid Aboutaleb Kadkhodaeian, Tehran, Iran, Islamic Republic of

Poster Session
17:30 - 19:00

Poster Area

Retinal Cell Biology

Metformin Suppresses Inflammatory Responses in vitro and in the Vitreous of Diabetic Retinopathy Patients

Xiaoxi Qiao, Detroit, United States

Angiogenic Role of Netrin-4 in the Retina

Sergio Crespo-Garcia, Berlin, N/A, Germany

Galectin-1 Is Associated with Progression of Diabetic Retinopathy

Atsuhiko Kanda, Sapporo, Hokkaido, Japan

Preventing pathological Pre-retinal Neovascularization through Modulation of Retinal Metabolism

Liliana Paris, La Jolla, United States

Effects of NDRG1 Family Proteins on Photoreceptor Outer Segment Morphology in Zebrafish

Shimpei Takita, Suita, Japan

Downregulation of the Liver X Receptor α/β and Sirt1 Signaling Axis Promotes Diabetic Retinopathy Pathogenesis

Sandra Suarez, East Lansing, United States

Neuroprotective Effect of Tetramethylpyrazine on Glutamate-induced Cytotoxicity in Differentiated Y-79 Cells via Inhibition of ROS Generation and Ca²⁺ Influx

Ke Wang, Wuxi, China

Neuronal ROR α Regulates Neurovascular Coupling in Retinopathy via Semaphorin 3E

Chi-Hsiu Liu, Boston, Massachusetts, United States

The Joubert Syndrome Cilia Proteins ARL13B and AHI1 Differentially Modify the Severity of Retinal Degeneration Due to Loss of CEP290

Brian Perkins, United States

Scientific Programme

High Expression of Constitutively Monomeric Arrestin-1 Causes Degeneration of Rod Photoreceptors

Eugenia Gurevich, Nashville, Tennessee, United States

The Molecular Mechanisms Leading to Alternative Splicing of the NXNL1 Gene: The Origin of the RdCVF Metabolic Signaling

Najate Ait-Ali, Paris, France

Amelioration of Amyloid β Induced Retinal Inflammatory Responses by a LXR Agonist TO901317 Is Associated with Inactivation of the NF- κ B Signaling and NLRP3 Inflammasome

Bo Lei, Chongqing, China

Over-expression of Angiotensin-converting Enzyme 2 (ACE2) Ameliorates Amyloid β -induced Inflammation in Human Retinal Pigment Epithelium Cells

Xinyu Fu, Chongqing, China

The Effect of Epoxygenated Fatty Acids on Cytokine-induced Inflammation in Retinal Müller and Endothelial Cells

Capozzi Megan, Nashville, United States

Regulation of Astrocyte Migration and Retinal Angiogenesis by Cell Surface Proteoglycans

Chenqi Tao, New York, NY, United States

Poster Session
17:30 - 19:00

Poster Area

Retinal Neuroscience and Development

Selection of Human iPS-derived Photoreceptors by Targeting of a Cell Surface Antigen

Giuliana Gagliardi, Paris, France

Retinal HIF-1 α and VEGF Levels Correlate with Ocular Circulation Measured by the Laser Speckle-micro in an Oxygen-induced Retinopathy Rat Model

Tadashi Matsumoto, Ota-ku, Tokyo, Japan

From Progenitors to Neurogenesis: Multiple Roles for Semaphorin 3f Signaling

Rami Halabi, Calgary, Alberta, Canada

Cell Cycle Reentry and DNA Damage Response of Müller Glia after Retinal Injury

Kaori Nomura-Komoike, Shinjuku, Tokyo, Japan

Impaired Retinal Synaptic Transmission in Simvastatin Fed Mice

Amany Mohamed, Edmonton, Alberta, Canada

Amyloid β 1-42 Activates the Complement System and Induces Retinal Inflammatory Responses and Malfunction in Mouse

Ru Lin, Chongqing, China

Biocompatibility of a Novel Biopolymer Scaffold for Retinal Cell Transplantation in the Subretinal Space of Pigs

Elliott Sohn, Iowa City, United States

Immunohistochemical and Transcriptome Analyses of the Developing Human Fetal Retina

Akina Hoshino, Seattle, United States

Scientific Programme

A Novel Approach for the Determination of Retinal Temperature Based on ERG Photoresponses

Marja Pitkanen, Espoo, Finland

Poster Session
17:30 - 19:00

Poster Area

Ocular Pharmacology and Therapeutics

Vitrectomy with Simultaneous Intravitreal Triamcinolone Injection versus Vitrectomy with Simultaneous Dexamethasone Intravitreal Implant for the Treatment of Diabetic Macular Edema

KuiDong Kang, Incheon, Korea, Republic of

Perfluoro-n-octane Toxicity: A Sanitary Alert

Girish Kumar Srivastava, Valladolid, Spain

Clinically Compatible Human Embryonic Stem Cells-derived Retinal Pigment Epithelium Cells Grafted as an Epithelium Potentiates Vision Rescue in Dystrophic Rodent

Karim Ben M Barek, Corbeille Essonnes, France

Diverse IL-6 Signaling in Human Retinal Müller and Endothelial Cells under Hyperglycemic Conditions

Brandon Coughlin, East Lansing, Michigan, United States

Glycyrrhizic Acid Rescues Retinal Degeneration Induced by Blue Light-emitting Diode Exposure in Mice

In-Beom Kim, Seoul, Korea, Republic of

Effects of the Choroidal Blood Flow in Eyes with Macular Edema Secondary to Branch Retinal Vein Occlusion

Masahiro Okamoto, Kashihara, Nara, Japan

Evaluations of Eyes with Good Visual Acuity after Anti-VEGF Therapy for Neovascular Age-related Macular Degeneration

Masashi Kojima, Kashihara, Nara, Japan

Lutein/Zeaxanthin Isomers (L/ZI) May Enhance Exercise by Effective Utilization of Lipids and Decrease Oxidative Stress: In vivo model

Vijaya Juturu, Morristown, NJ, United States

Neuroprotective and Regenerative Approach for Diabetic Retinopathy (in vitro Study)

Guzel Bikbova, Chiba, Japan

Early Applications of Granulocyte Colony-stimulating Factor (G-CSF) Can Stabilize the Blood-optic Nerve Barrier and Further Ameliorate Optic Nerve Inflammation in a Rat Model of Anterior Ischemic Optic Neuropathy (rAION)

Rong-Kung Tsai, Hualien, Taiwan, Province of China

The Apstatin Analog, ST-115, Reduces Retinal Ganglion Cell Loss after Ischemia/Reperfusion Injury

Simon Kaja, Maywood, IL, United States

Animal Models for Safety and Function of IPS Cell-derived RPE Tissue

Vladimir Khristov, Bethesda, MD, United States

Scientific Programme

The Effects of Connexin43 Mimetic Peptide Loaded Nanoparticles on Reducing Acute Photo-damage of the Chorio-retinal Complex

Mohad Nasir Mat Nor, Auckland, New Zealand

Poster Session
17:30 - 19:00

Poster Area

Ophthalmic Genomics

Expressions of MyoD, IFG Binding Protein, Thioredoxin and p27 in Overacting Inferior Oblique Muscle

Yeon Woong Chung, Suwon, Korea, Republic of

Fine Genomic Analysis of Deletion Mutations in the Locus Control Region of OPN1LW/OPN1MW Genes in 2 Japanese Families with Blue Cone Monochromacy

Katsuhiko Hosono, Hamamatsu, Japan

Aggregate Effects of Type 2 Diabetes Genetic Variants on Diabetic Retinopathy in a Multi-ethnic Asian Population

Yong He Chong, Singapore, Singapore

Scientific Programme

Tuesday, 27 September 2016

Session: Glaucoma
08:00 - 10:00

Hana A

JNT1 (GLA+OMG), Genetics of glaucoma

Chairs:

Tin Aung, Singapore, Singapore
Michael Hauser, United States

Recent Advances in the Genetics of Angle Closure Glaucoma	08:00
Tin Aung, Singapore, Singapore	
Cacna2d1: A Novel Therapeutic Target for Lowering IOP	08:24
Monica Jablonski, Memphis, TN, United States	
Primary Open-angle Glaucoma: Hereditary and Ethnic Effects	08:48
Calvin C. P. Pang, Hong Kong, China	
A Large Scale International Genome-wide Association Study of Exfoliation Syndrome	09:12
Mineo Ozaki, Hyuga, Miyazaki, Japan	
Functional Analysis of the LOXL1 Locus Associated with Exfoliation Glaucoma	09:36
Michael Hauser, United States	

Session: Retinal Cell Biology
08:00 - 10:00

Hana B

RCB3, Retinopathy of Prematurity

Chairs:

Sylvain Chemtob, Montreal, Canada
Mary Elizabeth Hartnett, United States

The Role of Angiotensin in Modulating the Inner Retina during Retinopathy of Prematurity	08:00
Kirstan Anne Vessey, Australia	
Role of Extracellular Matrix in Retinal Vascular Patterning	08:24
William J Brunken, United States	
Synergistic Suppression of Retinal Angiogenesis and Oxidative and Inflammatory Damages by Caffeine and Ibuprofen in Neonatal Rats	08:48
Jacob V Aranda, United States	
Studying Effects of Intrauterine Growth Restriction on Retinopathy of Prematurity with Rodent Models	09:12
Mary Elizabeth Hartnett, United States	

Scientific Programme

Nuclear Localization of Platelet-activating Factor Receptor Controls Retinal Neovascularization in Model of Retinopathy of Prematurity 09:36
Sylvain Chemtob, Montreal, Canada

Session: Retinal Neuroscience and Development
08:00 - 10:00

Hana C

RND4, Establishment of retinal circuitry and synapses

Chairs:

Jeremy Kay, Durham, North Carolina, United States
Kirill Martemyanov, United States

Starburst Amacrine Cells Orchestrate Assembly of Retinal Direction-selective Circuitry 08:00
Jeremy Kay, Durham, North Carolina, United States

Bipolar Cell Dendritic Rearrangements Following Temporally and Spatially Controlled Cone Ablation 08:24
Felice Dunn, United States

Molecular Mechanisms of Photoreceptor Synaptogenesis 08:48
Yan Cao, United States

Molecular Mechanisms of Retinal Circuit Assembly 09:12
Daniel Kerschensteiner, Saint Louis, United States

LIM Code of Light-adaptive Retinal Circuitry 09:36
Jin Woo Kim, Daejeon, Korea, Republic of

Intrinsically-photosensitive Retinal Ganglion Cells Control Cone Photoreceptor Lamination during Retinal Development 09:48
Adele Tufford, Montreal, Québec, Canada

Session: Ocular Pharmacology and Therapeutics
08:00 - 10:00

Hana D

OPT7, Novel molecular mechanisms of diabetic retinopathy

Chairs:

Sayon Roy, United States
Renu Kowluru, United States

Role of Connexin 43 in Human Diabetic Retinopathy 08:00
Sayon Roy, United States

MicroRNAs: Social Network for Diabetic Retinopathy 08:24
Manuela Bartoli, Augusta, Georgia, United States

Molecular Mechanism for the Retina-protective Effect of PPARalpha 08:48
Jay Ma, United States

Scientific Programme

Beta-adrenergic Receptor Inhibition of Inflammatory Pathway in the Diabetic Retina	09:12
Jena Steinle, Detroit, MI, United States	
Neuroretinal Changes in Diabetes: Lessons Learned from Post-mortem Human Tissues	09:36
Patrice Fort, Ann Arbor, United States	

Session: Ocular Imaging
08:00 - 10:00

Nishiki

IMA3, OCT angiography and Doppler OCT

Chairs:

Rainer Leitgeb, Vienna, Austria
Brandon Lujan, United States

Blood Velocity, Flux and Flow: Objective Measurements of Single Cell Hemodynamics in the Living Retina	08:00
Jesse Schallek, United States	
Optical Coherence Tomography Angiography: Split-spectrum Amplitude-decorrelation Angiography	08:24
Brandon Lujan, United States	
Advanced OCT Angiography for Simultaneous Pigment and Vascular Imaging	08:48
Yoshiaki Yasuno, Japan	
Measurement of Total Retinal Blood Flow by Multi-beam Doppler OCT	09:12
Christoph Hitzenberger, Austria	

Session: Cornea and Ocular Surface
08:00 - 10:00

Ohgi

COS4, Corneal Refractive Surgeries

Chairs:

Choun-Ki Joo, Korea, Republic of
Shirou Amano, Japan

Intralase Enabled Keratoplasty (IEK): Optimal Design and Size	08:00
Choun-Ki Joo, Korea, Republic of	
Comparison of Laser in situ Keratomileusis and Photorefractive Keratectomy in Ten-year Follow-up Using a Mixed Effect Model	08:24
Shirou Amano, Japan	
Deep anterior lamellar keratoplasty in unusual situations	08:48
Namrata Sharma, India	
Big-bubble Technique with Automatic Depth-sensing Needle for Precision Lamellar Keratoplasty	09:12
Young-Sik Yoo, Seoul, Korea, Republic of	

Scientific Programme

The Role of Vitamin D in the Eye: Two Month Oral Vitamin D Supplement in People with Dry Eye/Low Vitamin D 09:36
Chih Huang Yang, Brisbane, QLD, Australia

Session: Lens
08:00 - 10:00

Natsume

LEN4, Lens Regeneration and Evolution

Chairs:

Chikafumi Chiba, Japan

Loss and Gain of the Lens in the Evolution of Cephalopods 08:00
Atsushi Ogura, Japan

Approaching Newt Lens Regeneration by Transgenesis 08:24
Chikafumi Chiba, Japan

Cell Signaling and Lens Regeneration: Diverse Developmental Mechanisms 08:48
Jonathan Henry, United States

Measuring Eye Lens Biometrics Rapidly - Taking the Pain out of Quantifying Cell Density, Proliferation Rates and TUNEL in Lens Samples 09:12
Alexia Kalligeraki, United Kingdom

Session: Ophthalmic Genomics
08:00 - 10:00

Katsura

OGM9, Genomics of ophthalmic diseases

Chairs:

Dongfeng Chen, United States

Profiling of Epigenetic Landscape Changes Reveals Gene Mis-regulation Mechanisms in Mouse Models of CRX-linked Retinopathies 08:00
Philip Ruzycski, Saint Louis, MO, United States

Epigenetic Changes Associated with Age-related Macular Degeneration 08:24
Jiang Qian, United States

Epigenetic Regulation of Retinal Development 08:48
Dongfeng Chen, United States

Altering ocular Disease Phenotypes by RNA Manipulation Approaches 09:12
Cheryl Y Gregory-Evans, Vancouver, British Columbia, Canada

Scientific Programme

Session: Ocular Immunology
08:00 - 10:00

Mizuki

JNT12 (RPE+IMM), RPE regulation of innate immune activity and functionality in macrophages

Chairs:

Andrew W. Taylor, United States
Masaru Takeuchi, Japan
Kouichi Ohta, Japan

RPE Cells Differentiated from iPS Cells Possess Immune Functions Similar to Primary RPE Cells Sunao Sugita, Japan	08:00
RPE Regulation of Macrophage Phagocytosis and Antigen Processing Pathways Andrew W. Taylor, United States	08:24
Retinal Microglia Are Critical for Subretinal Neovascularization in a Murine Model of Macular Telangiectasia Yoshihiko Usui, Japan	08:48
Nonclassical Macrophages and Neovascular Remodeling in Neovascular AMD Priyatham S. Mettu, United States	09:12
Abundance of Nonclassical Macrophages in Postmortem Eyes with Dry Age-related Macular Degeneration Eleonora Lad, United States	09:36

Opening Ceremony, Plenary Lecture
10:30 - 11:45

Concord AB

The Ernst H. Barany Prize

Plenary Lecture: The Pharmacologic Revolution in Treatment of Diabetic Eye Disease Lloyd Paul Aiello	10:30
Award Ceremony	11:15

Session: Lens
13:00 - 15:00

Hana A

LEN5, Channels and Transporters

Chairs:

Thomas White, Stony Brook, United States
Nick Delamere, United States

TRP Channels as Master Controllers of Homeostasis in the Lens Nick Delamere, United States	13:00
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Scientific Programme

Dynamic Regulation of Lens Volume: Roles for Channels, Transporters and their Signalling Pathways Paul Donaldson, New Zealand	13:24
Unconventional Roles of Connexin 50 in Lens Cell Adhesion and Differentiation Jean X. Jiang, United States	13:48
Connexin Specific Lens Signalling Thomas White, Stony Brook, United States	14:12
Connexin 46 G143R Mutation on Intracellular Loop Domain Alters its Interaction with Calmodulin and Gating of Hemichannels Zhengping Hu, San Antonio, United States	14:36
Structural Role for Aqp0b in the Zebrafish Lens Irene Vorontsova, United States	14:48

Session: Independent Session
13:00 - 15:00

Hana B

IND2, Electrophysiology of Vision

Chairs:

Mineo Kondo, Tsu City, Japan
Pierre Lachapelle, Canada

Clinical Application of Photopic Negative Response to Optic Nerve and Retinal Diseases Shigeki Machida, Japan	13:00
Electroretinography of Retino-geniculate Pathways with Relevance for Vision; Implications for Clinical Electrophysiology Jan Kremers, Germany	13:24
Basic Research and Clinical Application of RETeval, New Mydriasis-free Full-field ERG Recording Device Mineo Kondo, Tsu City, Japan	13:48
Could Birth Asphyxia Impair the Retina More than the Brain? Pierre Lachapelle, Canada	14:12

Session: Ocular Pharmacology and Therapeutics
13:00 - 15:00

Hana C

JNT11(OPT+IMM), An intersection of receptor signaling pathways with neuroinflammation (inflammasome)

Chairs:

Valery Shestopalov, Miami, Florida, United States
Raquel Santiago, Portugal

Scientific Programme

Modulation of inflammation with third generation antisense oligonucleotides in ocular pathology and beyond	13:00
Wayne Jiang, United States	
The Blockade of Adenosine A2A Receptor Affords Neuroprotection through the Control of Microglia-Mediated Neuroinflammation in Experimental Models of Glaucoma	13:24
Ana Raquel Santiago, Coimbra, Portugal	
Panx1-mediated Danger Signaling and Caspase Activation in IOP-induced Ischemia and Glaucoma	13:48
Valery Shestopalov, Miami, Florida, United States	
Mechanical Strain Primes the Inflammasome in Astrocytes through the P2X7 Receptor	14:12
Claire Mitchell, Philadelphia, United States	
IL-1B Inhibition Reduces Chemokine-mediated Inflammation in Retinal Degeneration	14:36
Nilisha Fernando, Canberra, Australia	

Session: Retinal Neuroscience and Development
13:00 - 15:00

Hana D

RND3, Cell-cell signaling and retinal development

Chairs:

Jin Woo Kim, Korea, Republic of
Helen McNeil, Canada

The Hippo/YAP Pathway in Reactive Müller Cells	13:00
Muriel Perron, France	
Mechanisms of Differential Signaling among Retinal Progenitors during Neurogenesis	13:24
Brian Link, United States	
A Notch-Gli2 Axis Sustains Hedgehog Responsiveness of Neural Progenitors and Müller Glia	13:48
Valerie Wallace, Canada	
Fat3-dependent Mechanisms of Amacrine Cell Morphogenesis	14:12
Lisa Goodrich, United States	
Combinatorial Actions of the Clustered Protocadherins in Retinal Circuit Patterning	14:36
Julie Lefebvre, Canada	

Scientific Programme

Session: Glaucoma
13:00 - 15:00

Nishiki

GLA4, ONH/NFL imaging in glaucoma

Chairs:

Ki Ho Park, Seoul, Korea, Republic of
Gouji Tomita, Japan

Inner Retinal Layer Imaging in Glaucoma	13:00
Masanori Hangai, Saitama, Japan	
Impact of Lamina Cribrosa Morphology in Glaucoma	13:24
Ki Ho Park, Seoul, Korea, Republic of	
Imaging of Optic Nerve in Eyes with Pathologic Myopia	13:48
Kyoko Ohno-Matsui, Japan	
Implications of Optic Disc Tilt in the Progression of Primary Open-angle Glaucoma	14:12
Kyung Rim Sung, Korea, Republic of	
Bruch's Membrane Opening (BMO) and BMO-minimum Rim Width (BMO-MRW) in a Normal Japanese Population	14:36
Gouji Tomita, Japan	

Session: Cornea and Ocular Surface
13:00 - 15:00

Ohgi

COS5, Cornea Transplantation and keratoprosthesis

Chairs:

Winston Kao Ben, United States
Jun Shimazaki, Japan

Cell and Gene Therapy of Congenital and Acquired Cornea Diseases	13:00
Winston Kao, Cincinnati, Ohio, United States	
Endothelial Keratoplasty in Japan	13:24
Jun Shimazaki, Japan	
Deep Anterior Keratoplasty (DALK) for Ocular Surface Disease	13:48
Shigeto Shimmura, Japan	
Functional Testing of the Corneal Endothelium before and after DSAEK for Fuchs Endothelial Dystrophy	14:12
Jesper Hjortdal, Denmark	
Keratocyte Plasticity and the Potential for Harnessing it for in vivo Regeneration of the Corneal Stroma	14:36
Carol Greene, Auckland, New Zealand	

Scientific Programme

Session: Ophthalmic Genomics
13:00 - 15:00

Natsume

OGM5, Congenital stationary night blindness from A-Z

Chairs:

Christina Zeitz, France
Yozo Miyake, Japan

Phenotypes in Patients with CSNB	13:00
Isabelle Audo, France	
Grm6 Missense Mutation Reduces but Does Not Eliminate mGluR6 Expression and ON Bipolar Cell Function	13:24
Neal Peachey, Cleveland, Ohio, United States	
Gene Defect Identification in CSNB	13:48
Christina Zeitz, France	
Role of TRPM1 Channel in Retinal Circuit Development	14:12
Takashi Kozuka, Japan	
Melanoma Associated Retinopathy: A Paraneoplastic Syndrome with CSNB-like Characteristics	14:36
Catherine Morgans, United States	

Session: Ocular Immunology
13:00 - 15:00

Katsura

JNT6 (IMM+OPT), Molecular mechanisms of fibrosis in eye tissues

Chairs:

Ram Nagaraj, United States
Michael Wormstone, United Kingdom

Ironing out the Wrinkles of Lens Fibrosis	13:00
Michael Wormstone, United Kingdom	
Myofibroblasts and Non-TGFβ Smad Signaling in Corneal Ctroma	13:24
Shizuya Saika, Japan	
AGE-RAGE Interaction in Fibrosis of Lens Epithelial Cells	13:48
Ram Nagaraj, United States	
αB-crystallin Regulates Subretinal Fibrosis by Modulation of Epithelial-mesenchymal Transition	14:12
Keijiro Ishikawa, Japan	

Scientific Programme

Session: RPE Choroid Biology and Pathology
13:00 - 15:00

Mizuki

RPE6, The Next Best thing: Making sense of the bestrophinopathies

Chairs:

Alan Marmorstein, United States
Olaf Strauß, Germany

Insights into Autosomal Recessive Bestrophinopathy from a “Disease in a Dish” Model	13:00
Alan Marmorstein, United States	
Unexpected Roles of Best1 in the Brain: The Channel-mediated Release of Gliotransmitters, Glutamate and GABA, and its Role in Excitation/Inhibition Balance	13:24
C. Justin Lee, Seoul, Korea, Republic of	
Trafficking Defects of Mutant Bestrophins: Implications for Calcium Channel Activity	13:48
Olaf Strauß, Germany	
The First Best Thing: Insights from a Naturally Occurring Animal Model of BEST1-associated Maculopathies	14:12
Karina Guziewicz, United States	
The Effect of Premature Stop Mutation in Bestrophin-1 on Calcium Signaling in Retinal Pigment Epithelium	14:36
Soile Nymark, Tampere, Finland	

Session: Ocular Pharmacology and Therapeutics
15:30 - 17:30

Hana A

OPT8, Prostaglandins for Ocular Hypertension Treatment: A new Era is Dawning

Chairs:

Naj Sharif, United States
Filippo Drago, Italy

What Are PG-receptor Deficient Mice Teaching us about IOP Regulation?	15:30
Makoto Aihara, Tokyo, Japan	
Latanoprostene Bunod, AN FP Agonist-NO Donor Conjugate Ocular Hypotensive Agent	15:54
A. Krauss, United States	
EP2 Receptor Agonists as Novel Drugs to Treat OHT and Gaucoma	16:18
Naj Sharif, United States	
Prostaglandin EP4 Agonists: Potent IOP Lowering Agents that Increase Outflow Facility	16:42
Ganesh Prasanna, United States	
Ocular Blood Flow Enhancement and Possible Neuroprotective Effects with Topically Instilled Prostaglandins	17:06
Makoto Araie, Japan	

Scientific Programme

Session: Retinal Cell Biology
15:30 - 17:30

Hana B

RCB4, Signal Transduction in the Retina

Chairs:

Alexander Dizhoor, United States

Activation-induced Conformational Changes in Arrestin	15:30
Vsevolod Gurevich, United States	
Protein Interactions of Retinal Guanylyl Cyclase in Phototransduction and Congenital Blinding Disorders	15:54
Alexander Dizhoor, United States	
Organization of the Synaptic Signaling Cascade at the Rod Photoreceptor Synapse	16:18
Kirill Martemyanov, United States	
A Novel Mechanism that Drives Retinal Ganglion Cell Oscillation in a Retinal Deafferentated Mouse Model	16:42
Ching-Kang Chen, United States	
Short Term Adaptations in Rods Triggered by Retinoid Release	17:06
Timothy W Kraft, United States	

Session: Ophthalmic Genomics
15:30 - 17:30

Hana C

OGM10, Genetics of Retinal Degenerations

Chairs:

Radha Ayyagari, United States
Carlo Rivolta, Switzerland

Discovery of the Underlying Cause of Inherited Retinal Degeneration by Ext Generation Sequencing: Challenges and Opportunities	15:30
Radha Ayyagari, United States	
Simple and Complex ABCA4 Disease	15:54
Rando Allikmets, United States	
Mutations in CEP78 Define a New Ciliopathy Characterized by Cone-rod Dystrophy and Hearing Loss	16:18
Carlo Rivolta, Switzerland	
Genetic Modifiers Interact with Crb1 to Cause Neovascularization in the Posterior Eye	16:42
Patsy Nishina, Bar Harbor, Maine, United States	
Gene Therapy Rescues Despite Late-stage, Low-efficiency Treatments	17:06
Susanne Koch, New York, United States	
Identification and Functional Analysis for Novel Gene Mutation Responsible for Autosomal Dominant Macular Dystrophy with Dysfunction of ON-type Bipolar Cells	17:18
Yuichi Kawamura, Meguro-ku, Tokyo, Japan	

Scientific Programme

Session: Retinal Neuroscience and Development
15:30 - 17:30

Hana D

RND6, RGC axonal targeting and regeneration

Chairs:

Zhigang He, United States
Dave Feldheim, United States

Plexin-A1 and Semaphorin-6D Are Involved in Retinal Axon Fasciculation and Targeting	15:30
Alexandra Rebsam, France	
Reciprocal Connections between Cortex and Thalamus Contribute to Retinal Axon Targeting to Dorsal Lateral Geniculate Nucleus	15:54
Jiayi Zhang, China	
Retinal Origin of Direction Selectivity in the Mouse Superior Colliculus	16:18
Jianhua Cang, Evanston, United States	
Formation of Retinal Ganglion Cell Types	16:42
Dave Feldheim, United States	
Restoration of Visual Function by Promoting Axon Regeneration and Conduction	16:54
Zhigang He, United States	

Session: Ocular Imaging
15:30 - 17:30

Nishiki

IMA4, Functional & contrast enhanced imaging

Chairs:

Jesse Schallek, United States
Christoph Hitzenberger, Austria

PS OCT in the anterior segment	15:30
Sujin Hoshi, Japan	
Jones-matrix OCT for Non-invasive Multi-contrast Imaging	15:54
Shuicha Makita, Japan	
Neurovascular Coupling in the Retina	16:18
Gerhard Garhofer, Vienna, Austria	
Fluorescence Lifetime Imaging Ophthalmoscopy FLIO	16:42
Martin Zinkernagel, Bern, Switzerland	
Visible-light OCT-based Functional and Multimodal Retinal Imaging	17:06
Shuliang Jiao, United States	

Scientific Programme

Session: Glaucoma
15:30 - 17:30

Ohgi

GLA5, Translaminar pressure gradient and glaucoma progression

Chairs:

Jost Jonas, Germany

Intracranial Pressure a New Risk Factor for Glaucoma	15:30
Ningli Wang, Beijing, China	
Cerebrospinal Fluid Pressure Influence upon the Translaminar Pressure Gradient and Retinal Veins	15:50
William Morgan, Nedlands, Western Australia, Australia	
The Interaction between IOP and ICP	16:10
Michael Greenwood, United States	
Anatomical Features of the Optic Nerve Head in Relationship to the Trans-lamina Cirbrosa Pressure Difference	16:30
Jost Jonas, Germany	
Impact of Elevated Pressure in the Adenosinergic System in Microglia and Retina	16:50
Maria Helena Madeira, Coimbra, Portugal	
Aphakic Glaucoma after Pars Plana-lensectomy with and without Removal of the Peripheral Lens Capsule - A Comparative Study	17:10
Wolf Lagrèze, Freiburg, Germany	

Session: Cornea and Ocular Surface
15:30 - 17:30

Natsume

COS6, Keratoconus biology and treatment

Chairs:

Naoyuki Maeda, Japan

Vishal Jhanji, Hong Kong, China

Quality of Vision in Keratoconus	15:30
Naoyuki Maeda, Japan	
Keratoconus: A Systemic Disease	15:54
Dimitrios Karamichos, Oklahoma City, United States	
Advancements in Early Diagnosis of Keratoconus	16:18
Vishal Jhanji, Hong Kong, China	
Keratoconus: Emerging Disease Genes and Pathways	16:42
Shukti Chakravarti, United States	
Corneal Regulatory Molecular Networks Driving Keratoconus	17:06
Arka Ghosh, India	

Scientific Programme

Session: Ocular Immunology
15:30 - 17:30

Katsura

JNT2 (IMM+RPE), RPE and Inflammation

Chairs:

Florian Sennlaub, France
Olaf Strauß, Germany

Fate Mapping Distinguishes Migration Patterns of Microglia versus Monocyte-derived Macrophages to the RPE in Inflammation	15:30
Daniel Saban, United States	
The RPE Response to Complement Attack	15:54
Stephen Moss, United Kingdom	
The Transitional Zone of Geographic Atrophy Lesions: Mononuclear Phagocyte Interactions with RPE and Photoreceptors	16:18
Xavier Guillonneau, France	
Spleen-derived Monocytes in RPE-adjacent Subretinal Inflammation	16:42
Christophe Roubeix, France	

Session: Lens
15:30 - 17:30

Mizuki

LEN6, Animal Models of Cataract

Chairs:

Shizuya Saika, Japan
Judith West-Mays, Canada

Cataract Surgery and Cognitive Function: Epidemiological Evidence from the HEIJO-KYO Cohort	15:30
Kimie Miyata, Kashihara City, Japan	
Application of Different Rodent Models to Further our Understanding of Fibrotic Cataract Pathology	15:54
Frank Lovicu, Australia	
EMT-type Cataract in Mice: Roles of TGFb-related Signals	16:18
Kumi Shirai, Japan	
Identifiacion of Gene Mutations Responsible for Cataract in Mouse and Rat Models	16:42
Kenta Wada, Japan	
Is it Possible to Induce Ultraviolet Radiation Nuclear Cataract in the Rabbit?	17:06
Stefan Löfgren, Sweden	

Poster Session
17:30 - 19:00

Poster Area

Glaucoma

Scientific Programme

Comparison of iPad Based Visual Field Testing with Humphrey SITA in Glaucoma

Elizabeth Graham, Sydney , NSW, Australia

Aqueous Humor Micrnas as Potential Biomarkers of Outflow Function in Primary Open Angle Glaucoma: A Pilot Study

Hari Jayaram, Portland, OR, United States

Cofilin-1 Mediated Neuroprotection after α -synuclein Antibody Injection in a Glaucoma Animal Model

Julia Teister, Mainz, Germany

Optical and Electron Microscopic Study of Ex-PRESS Device Blockages of Neovascular Glaucoma Patients

Kaori Sekimoto, Tokyo, Japan

Characterization of Optineurin E50K Mouse Model with Normal Tension Glaucoma

Mao Nakayama, Tokyo, Japan

Pigment Epithelium Central Limit-Inner Limit of the Retina Minimal Distance Integrated over 2Pi (PIMD-2Pi), a Promising Morphometric Variable for Follow up of Glaucoma Derived from 3D-OCT Volumes of the Optic Nerve Head

Per G. Söderberg, Uppsala, Sweden

Mechanical Strain Regulates Transcription, Translation and Calcium Levels in Retinal Neurons and Glia - Relevance for Disease

Sarah Redmon, Salt Lake City, Utah, United States

Molecular Pathogenesis of Early Glaucomatous Optic Neuropathy in a Spontaneous Feline Model

Kazuya Oikawa, Madison, WI, United States

Poster Session
17:30 - 19:00

Poster Area

Lens

VPS45 Mutation Induces Ectopic Lens Fiber Differentiation in the Lens Epithelium through the Activation of TGF- β Signaling

Akane Hagiwara, Okinawa, Japan

Analyzing Anterior Epithelial Cell Division in Whole Pig Lenses

Rebecca Zoltoski, Chicago, United States

A Conserved RNA Binding Protein Celf1 Regulates Lens Development through Distinct Post-transcriptional Mechanisms

Archana Siddam, Newark, United States

A Role for Spred Proteins in Lens Development

Fatima Wazin, Sydney, NSW, Australia

Zebrafish as a Model for Studying the Effects of Ionizing Radiation on the Eye Lens

Miguel Jarrin, Durham, United Kingdom

Scientific Programme

Poster Session
17:30 - 19:00

Poster Area

Cornea and Ocular Surface

Corneal Cross-linking in Children with Progressive Keratoconus: A 5-year Follow-up

Beatrice E Frueh, Bern, Switzerland

Evaluation of Changes in Higher-order Aberrations after Lamellar Keratoplasty in Patients with Limbal Dermoid Cyst Using Swept-source Optical Coherence Tomography

Ryotaro Toda, Hiroshima, Japan

Proteome Changes in Human Tears Associated with Aqueous-deficient and Evaporative Dry Eye Syndrome

Franz Grus, Mainz, Germany

Topical Ozone Application Augments Corneal Collagen Crosslinking

Aysun Sanal Dogan, Ankara, Turkey

Next-generation Comprehensive Diagnosis of Suspect and Keratoconus Eyes Using High Resolution Tomography and Biomechanics: Thinking Beyond Topography

Mathew Francis, Bangalore, India

Corneal Surface Temperature in the Guinea Pig: Influence of Age, Tearing and Inflammation

M.Carmen Acosta, Sant Joan d'Alacant, Spain

Towards Good Manufacturing Practice: Comparing the Suitability of Collagens to Produce Tissue-equivalents for Ocular Surface Reconstruction

Ana Rita Pinho, London, Non-US/Non-Canadian, United Kingdom

Basal Tear Production and Corneal Surface Temperature in Awake and Anaesthetized Restrained Mice

Adolfo Aracil, Sant Joan d'Alacant, Spain

In vitro Effects of Benzalkonium Chloride on Human Meibomian Gland Epithelial Cells

Ulrike Hampel, Mainz, Germany

The Effect of Proparacaine on the Corneal Epithelium and Neuropeptides

Yong-Soo Byun, Seoul, Korea, Republic of

Correlations of Fleischer Deposits Location with Topographical Parameters within Various Deformations of Cornea

Anatoly Sergeevich Mistryukov, Moscow, Russian Federation

Scheimpflug Evaluation of Emmetropic, Ametropic and Excimer Laser Operated Eyes

Sidiqe Aliyeva, Baku, Azerbaijan

Poster Session
17:30 - 19:00

Poster Area

Ocular Imaging

An Automated System that Remove Outliers from Key Feature Points and from Multi-model Retinal Images Registration

Jiang Liu, Ningbo, China

Scientific Programme

Autofluorescence in Stargardt Disease as Predictor for Disease Progression

Natalia Palarie, Chisinau, Republic of Moldova

Cloud-based Automated Software for Diabetic Retinopathy Screening and Monitoring in a National Screening Program

Daniel Ting, Singapore, Singapore

Optical Coherence Tomography Angiography for Detection of Carotid Artery Stenosis: A Pilot Study

Beata Falkenberg, Bern, Bern, Switzerland

Poster Session
17:30 - 19:00

Poster Area

RPE Choroid Biology and Pathology

p27 Behaves as a Regulator of Phagocytosis and Epithelial-mesenchymal Transition in RPE Cells after Photoreceptor Damage

Norihiro Sudou, Tokyo, Japan

Diurnal Processing of NLRP3 Inflammasome Components in Retinal Pigment Epithelium (RPE)

Lucia Celkova, Dublin, Ireland

The Contribution of Insulin-receptor Mediated Signaling in the RPE to the Development of Diabetic Retinopathy

Ivy Samuels, Cleveland, OH, United States

Human Retinal Pigment Epithelial Cell - Extracellular Matrix Interactions: Relevance to Age-related Macular Degeneration (AMD)

Steven Eamegdool, Sydney, Australia

MicroRNA-21 Regulates Prorenin Receptor (PRR)-mediated Induction of Vascular Endothelial Growth Factor (VEGF) Expression in ARPE-19 Cells

P. Michael Iuvone, Atlanta, Georgia, United States

Some Scavenger Receptors Participate in the Elimination of Aged Photoreceptor Outer Segments by RPE Cells through Lipid Raft Membrane Subdomains

Emeline Nandrot, Paris, France

Poster Session
17:30 - 19:00

Poster Area

Retinal Cell Biology

A Novel Erythropoietin Derived Peptide Has Significant Neuroprotective Efficacy in Diabetic Retinopathy

Paul Canning, Belfast, United Kingdom

Histopathological Findings in Eyes from Patients with Stargardt Disease

Mary Rayborn, Cleveland, OH, United States

Characterization of Müller Cells Isolated from the Central and Peripheral Human Retina

Ling Zhu, Sydney, - If in U.S, Select a State -, Australia

Scientific Programme

RCircadian regulation of the Inner Retinal Vasculature: A Paradigm for Geographic Atrophy Development

Natalie Hudson, Dublin, Ireland

Characterization of HTRA1 Regulatory Element in Patients with Exudative Age-related Macular Degeneration

Daisuke Iejima, Tokyo, Japan

Inflammasome Activation in Photoreceptor Cells

Mei Chen, Belfast, Yes, United Kingdom

The Retinal Light Response Altered by ChR2 Activation in Müller Cells

Cameron Baker, Berkeley, California, United States

Visual Restoration Effect by Ectopic Expression of Channelrhodopsin in the Murine Retina Using Tet System

Yusaku Katada, Tokyo, Japan

Potential Contribution of SIK2 to Müller Cell Transdifferentiation

Asli Ugurlu, Istanbul, Turkey

Regulatory Role of microRNA-184 in Diabetic Retinopathy

Yusuke Takahashi, Oklahoma City, United States

Dark Rearing as a Means of Mimicking 'Physiological Hypoxia': A Rationale for Non-invasive Treatment of Retinopathy of Prematurity

Samuel John Adamson, Sydney, Australia

Systematic Analysis of the Effects of Diabetes-relevant Stimuli on Human Retinal Cell Expression of Extracellular Matrix Constituents

Meredith Giblin, Nashville, TN, United States

Humanin G Is Protective against Mitochondrial DNA-mediated and Amyloid- β -induced Cell Stress in Age-related Macular Degeneration (AMD) ARPE-19 Cybrid Cells

Sonali Nashine, Irvine, California, United States

Variable Cone ERG in a Multigenic Canine Model of Cone-rod Dystrophy with RPGRIP1 and MAP9 Mutations

Keiko Miyadera, Philadelphia, United States

Cytochrome P450 Oxidase 2C Inhibition Augments the Protective Effects of Omega-3 Long-chain Polyunsaturated Fatty Acids on Pathological Ocular Angiogenesis

Yan Gong, Boston, United States

The Potential Contribution of Endoplasmic Reticulum Calcium Depletion to Endoplasmic Reticulum Stress and Cone Death in CNG Channel Deficiency

Xi-Qin Ding, Oklahoma City, United States

Poster Session
17:30 - 19:00

Poster Area

Retinal Neuroscience and Development

The Role of Brain Aromatase in Eye Development of Zebrafish

Zulvikar Syambani Ulhaq, Kumamoto, Japan

Scientific Programme

An ER-resident BH3-only Protein, BNip1, Induces Apoptosis in Response to Excessive Vesicular Transport during Photoreceptor Differentiation

Yuko Nishiwaki, Onna-son, Okinawa, Japan

Expression of Quaking RNA-binding Protein in the Mouse Retina

Chieko Koike, Kusatsu, Shiga, Japan

Dissociation between Functional and Anatomical Non-crossing Visual Response in Mice

Hiromitsu Kunimi, Tokyo, Japan

Role of Circadian Clock Genes Bmal1, Per2 and Thyroid Hormone Activating Enzyme Type II Deiodinase (Dio2) in Photoreceptor Development

Onkar Sawant, Cleveland, OH, United States

The Mouse Model for Human Peroxisome Biogenesis Disorders: Characterization and Treatment of the Associated Retinopathy

Anna Polosa, Montreal, Quebec, Canada

Amyloid- β 1-42 Oligomers-induced Retinal Damage: Role of TGF- β 1

Claudio Bucolo, Catania, Italy

Poster Session
17:30 - 19:00

Poster Area

Ocular Pharmacology and Therapeutics

The Anti-oxidative Effects of Natural Alkaloids on MIO-M1 and ARPE-19 Cells

Fanfan Zhou, Camperdown, NSW, Australia

Increasing the Rate of Homology Directed Repair for Inherited Retinal Diseases Using the CRISPR/Cas9 System

Brian Rossmiller, Tokyo, 東京都, Japan

Investigation and Characterization of Ex-vivo Transscleral Diffusion of Dexamethasone Sodium Phosphate and Triamcinolone Acetonide in Solution and a Dry Formulation in Rabbit and Porcine Sclerae

Pamela Ko, San Diego, CA, United States

The Approach to Modify Müller Cells -photoreceptor Interactions: The Treatment of 670 nm Red Light prevents Activation of Microglia in the in vitro Model of Light Damage

Yen-Zhen Lu, Canberra, ACT, Australia

Vector Engineering to Improve Transgene Expression in a Non-viral Nanoparticle Gene Therapy

Rahel Zulliger, Houston, Texas, United States

Genome Editing and Disease Modeling of RPGR-associated Retinitis Pigmentosa

Joseph Giacalone, Iowa City, United States

NOX2 Blockade Prevents Diabetes-induced Retinal Endothelial Cell Senescence by Normalizing Arginase Expression/Activity and Restoring no Availability

Robert W. Caldwell, Augusta, Georgia, United States

The Monthly Eye Drop: Preclinical Testing of Long-term, Hydrogel/Microsphere Eye Drops for Glaucoma

Morgan Fedorchak, United States

Scientific Programme

Caffeine and A2A Receptor Antagonism Control Microglia Reactivity and Afford Protection against Transient Retinal Ischemia

Raquel Boia, Coimbra, Portugal

Targeting Thyroid Hormone Components Locally in the Retina to Protect Cone Photoreceptors

Hongwei Ma, Oklahoma City, Oklahoma, United States

iPSc-derived Pericytes Integrate into Developing Retinal Vasculature

Petr Baranov, Boston, MA, United States

High-precision Anti-microvascular Therapy via the Synergy of Light and Sound

Zizhong Hu, Ann Arbor, United States

Poster Session

17:30 - 19:00

Poster Area

Ocular Immunology

Cytokine Profiling in Patients with Age Related Macular Degeneration and Polypoidal Choroidal Vasculopathy

Rupesh Agrawal, Singapore, Singapore

Adenosine A2A Receptor Blockade Prevents Microglia-mediated Retinal Neurodegeneration Triggered by Elevated Hydrostatic Pressure

Inês Dinis Aires, Coimbra, Portugal

Poster Session

17:30 - 19:00

Poster Area

Ophthalmic Genomics

The Frequency of Alu Repetitive Elements in Angiotensin-converting Enzyme in Jordanian Diabetic Retinopathy Patients

Diala Abu-Hassan, Amman, Jordan

Genomic Disruption of VEGF-A Expression in Human Retinal Pigment Epithelial Cells Using CRISPR-Cas9 Endonuclease

Glenn Yiu, Sacramento, CA, United States

Actin turnover is dysregulated by RPGR mutations in induced pluripotent stem cell and animal models of retinitis pigmentosa

Roly Megaw, Edinburgh, United Kingdom

Welcome Reception, Gala Dinner

19:30 - 21:30

Eminence Hall

Gala Banquet

Scientific Programme

Wednesday, 28 September 2016

Session: Retinal Cell Biology
08:00 - 10:00

Hana A

RCB6, Oxidative and ER Stress in Retinal Degenerations

Chairs:

Steven Fliesler, United States
Sarah X. Zhang, United States

Endoplasmic Reticulum Stress in Achromatopsia	08:00
Jonathan Lin, United States	
Oxidative Stress Studies Using the NaIO₃ Model of Retinal Degeneration	08:24
Vera Bonilha, United States	
Targeting Oxidative Stress in the Retina Using Gene and Drug Therapies	08:48
Alfred Lewin, United States	
Inhibition of Oxidative and ER Stress by the Mitochondrial-derived Peptide Humanin	09:12
David Hinton, United States	
Manipulating ER Chaperones and the UPR for Retinal Neuroprotection	09:36
Sarah X. Zhang, United States	

Session: RPE Choroid Biology and Pathology
08:00 - 10:00

Hana B

RPE7, Metabolic Coupling in the outer retina

Chairs:

Kathleen Boesze-Battaglia, United States
Muayyad Al-Ubaidi, United States

Metabolic Fate of the RPE's Daily Meal of Photoreceptor Outer Segment Lipids	08:00
Kathleen Boesze-Battaglia, United States	
Reverse TCA Cycle Flux through Isocitrate Dehydrogenases 2 Is Dominant in Retinal Pigment Epithelium and Confers Protection from Oxidative Stress	08:24
Jianhai Du, Seattle, United States	
ATP6AP2/(pro) Renin Receptor Contributes to Glucose Metabolism via Stabilizing the Pyruvate Dehydrogenase E1 β Subunit	08:48
Susumu Ishida, Japan	
Metabolic Coupling between Müller Cells and Photoreceptors: The Consequences of Genetically Disrupting Energy Metabolism in Müller Cells	09:12
Weiyong Shen, Australia	

Scientific Programme

Retbindin, a Novel Retina-specific Protein with a Role in Metabolic Homeostasis 09:36
Muayyad Al-Ubaidi, United States

Session: Retinal Neuroscience and Development
08:00 - 10:00

Hana C

RND5, Retinal circuitry and visual signal processing

Chairs:

Wei Li, United States
Samer Hatter, United States

Synaptic Connections of S-cones in a Mammalian Retina 08:00
Wei Li, United States

Rapid versus sustained contribution of retinal photoreceptors to non-image forming visual functions 08:24
Samer Hatter, United States

Synaptic Mechanism for Tonic Inhibition of ON Alpha Ganglion Cells in the Mouse Retina 08:48
Jonathan Demb, New Haven, CT, United States

Cellular and Synaptic Mechanisms Underlying Direction Selectivity in the Retina 09:12
Wei Wei, United States

Inhibition within the Starburst Amacrine Cell (SAC) Network Localizes SAC Dendritic Signaling and Sharpens Direction Selectivity 09:36
Jeffery Diamond, United States

Session: Ophthalmic Genomics
08:00 - 10:00

Hana D

OGM7, Genetics of corneal dystrophies

Chairs:

Sudha Iyengar, United States
Anthony Aldave, United States

Mutations in COL17A1 Cause ERED in the Swedish Population 08:00
Irina Golovleva, Umeå, Sweden

Elucidating the Genetic Basis of Posterior Polymorphous Corneal Dystrophy 08:24
Anthony Aldave, United States

Genomewide Association Analysis Identifies Novel Genetic Loci for Fuchs Endothelial Corneal Dystrophy 08:48
Sudha Iyengar, United States

The Use of CRISPR-Cas9 to Treat Corneal Dystrophy 09:12
Tara Moore, San Francisco, California, United States

Scientific Programme

Session: Cornea and Ocular Surface
08:00 - 10:00

Nishiki

COS7, New Diagnosis and Therapies for Corneal Diseases

Chairs:

Rajiv Mohan, Columbia, Missouri, United States
Shigeru Kinoshita, Japan

Nanomedicine for Corneal Disorders	08:00
Rajiv Mohan, Columbia, Missouri, United States	
Scientific Evidence on Cultured Human Corneal Endothelial Cell-Injection Therapy	08:24
Shigeru Kinoshita, Japan	
Holistic Approach to Keratoconus Diagnosis and Treatment	
Arka Ghosh, India	
New Insight into the Diagnosis of Limbal Stem Cell Deficiency	08:48
Sophie X. Deng, United States	
MicroRNA-184 Downregulation Promotes Corneal Epithelial Wound Healing	09:12
Peter Sol Reinach, Wenzhou, Zhejiang, China	

Session: Glaucoma
08:00 - 10:00

Ohgi

GLA6, Biomechanics of glaucoma

Chairs:

Ross Ethier, United States
Michael J.A. Girard, Singapore, Singapore

MRI-based Finite Element Analysis Predicts Large Optic Nerve Head Strains during Horizontal Eye Movements and Validations Using Optical Coherence Tomography	08:00
Michael J.A. Girard, Singapore, Singapore	
Measuring the Pressure-induced Full-field Deformation of the Human Lamina Cribrosa	08:20
Thao Nguyen, Baltimore, United States	
Measuring lamina cribrosa curvature for assessing optic nerve head strains	08:40
Tae-Woo Kim, Korea, Republic of	
Determination of Iris Mechanical Properties Using Image-based Finite Element Modelling	09:00
Rouzbeh Amini, Akron, Ohio, United States	
Estimates of Trabecular Meshwork Stiffness Using Novel Approaches	09:20
Christopher Ross Ethier, Atlanta, United States	
High Throughput Screening for Glaucoma Drugs Using Cellular Contractile Force	09:40
Chan Park, United States	

Scientific Programme

Session: Lens
08:00 - 10:00

Natsume

LEN7, Lens Cytoskeleton

Chairs:

Roy Quinlan, United Kingdom
Velia Fowler, United States
Vasantha Rao, Durham, North Carolina, United States

Directed Migration of Lens Fibre Cells - A Two-phase Model	08:00
Yuki Sugiyama, Japan	
Requirement of Aquaporin-0 and Adherens Junctions for the Integrity of Interlocking Protrusions and Transparency of the Lens	08:24
Woo-Kuen Lo, United States	
Regulation of Caveolar Morphology by the F-BAR Domain Protein PACSIN2/Syndapin II	08:48
Shiro Suetsugu, Japan	
Defect of Mitotic Vimentin Phosphorylation Causes Microphthalmia and Cataract via Aneuploidy and Senescence in Lens Epithelial Cells	09:12
Hidemasa Goto, Japan	
The Lens Actin Filament Cytoskeleton: Diverse Structures for Complex Functions	09:36
Velia Fowler, United States	
Tropomodulin 1 Regulation of Actin Is Required for the Formation of Large Paddle Protrusions between Mature Lens Fiber Cells	09:48
Catherine Cheng, United States	

Session: Ocular Pharmacology and Therapeutics
08:00 - 10:00

Katsura

OPT13, Gene delivery to the eye

Chairs:

Cheryl L. Rowe-Rendleman, United States
Joan O'Brien, Philadelphia, PA, United States

Nanoconjugate Gene Therapy of Human Diabetic Limbal Epithelial Progenitor Cells	08:00
Alexander Ljubimov, Los Angeles, United States	
Investigational Gene Therapy for RPE65-Mediated Inherited Retinal Disease	08:24
Daniel Chung, United States	
Progress on the Primary Open-angle African American Glaucoma Genetics (POAAGG) Study	08:48
Joan O'Brien, Philadelphia, PA, United States	
Long Term Results of the Retinal Gene Therapy in LCA2 Patients: A Picture Painted by the Brain	09:12
Manzar Ashtari, Philadelphia, PA, United States	

Scientific Programme

Magnetic nanoparticle base transfection of corneal cells **09:36**
Thomas A Fuchsluger, Erlangen, Germany

Session: Independent Session
08:00 - 10:00

Mizuki

IND4, Cell-signaling in anterior segment development and diseases

Chairs:

Lixing W. Reneker, United States
Chia-Yang Liu, United States

Programmed Cell Death (PCD) in Anterior Segment Morphogenesis and Diseases **08:00**
Lixing W. Reneker, United States

Shp2 Is Indispensable for Corneal Innervation and Epithelial Stratification in Mice **08:24**
Chia-Yang Liu, United States

TRP Channel Receptors and Signal Transduction in Corneal Wound Healing **08:48**
Yuka Okada, Japan

Chemokine Signaling Is Required for Proper Neuropatterning during Ocular Development **09:12**
Peter Lwigale, Houston, Texas, United States

Regulation of Ciliary Body Morphogenesis and Secretion: Notch, BMP, Adhesion and Beyond **09:36**
Ting Xie, United States

Opening Ceremony, Plenary Lecture
10:30 - 11:45

Concord AB

The Retina Research Foundation's Paul Kayser International Award in Retina Research

Introduction **10:30**
Theodore G. Wensel, United States

Plenary Lecture: Melanopsin Signaling in the Eye **10:40**
King-Wai Yau

Award Ceremony **11:25**

Scientific Programme

Session: Glaucoma
13:00 - 15:00

Hana A

GLA3, Restoring Conventional Outflow

Chairs:

Yiqin Du, United States
Nils Loewen, Pittsburgh, United States

Molecular and Cellular Components of Compromised and Restored IOP Homeostasis in Glaucoma	13:00
Ted Acott, Portland, Oregon, United States	
Prevention of Glaucoma Phenotypes through iPSC-TM Transplantation in vivo	13:20
Markus Kuehn, Iowa City, United States	
From Fistula to Reconstruction	13:40
Wang Ningli, Beijing, China	
Therapeutic Effect Analysis on the Treatment of Congenital Glaucoma through Modified Combined Trabeculotomy-trabeculectomy	14:00
Xiao-Bo Xia, Changsha, China	
Measuring Discrete Outflow Enhancement	14:20
Nils Loewen, Pittsburgh, United States	
Trabecular Meshwork Regeneration by Stem Cells	14:40
Yiqin Du, United States	

Session: Independent Session
13:00 - 15:00

Hana B

IND3, Oxidative Stress in Ocular Tissue

Chairs:

Iok-Hou Pang, United States
Jiyang Cai, United States

ATF-4 Links ER Stress to the Oxidative Stress in Glaucoma	13:00
Ramesh Kasetti, Fort Worth, United States	
Choroidal Gamma Delta T Cells and Sodium Iodate-induced Oxidative Injury	13:24
Jiyang Cai, United States	
Glutaredoxin 2 (Grx2) Protects Retinal Pigment Epithelial Cells from Oxidative Damage by Regulating Autophagy	13:48
Christy Xavier, Fort Worth, TX, United States	
In vivo Chemiluminescence Detection of Reactive Oxygen Species in the Mouse Retina	14:12
Ning Fan, Shenzhen, China	

Scientific Programme

Session: Cornea and Ocular Surface
13:00 - 15:00

Hana C

COS8, Ocular Surface Epithelial Homeostasis (Conjunctival, Limbal, Corneal)

Chairs:

Che John Connon, Newcastle-upon-Tyne, United Kingdom
Kohji Nishida, Japan

The Limbal Border: A Stem Cell Niche that Generates Moving Corneal Epithelia	13:00
Nick Di Girolamo, Sydney, Australia	
Developing a Conjunctival Epithelial Replacement Therapy	13:24
Rosalind M.K. Stewart, United Kingdom	
Development of Stem Cell-based Therapy for Corneal Diseases-from Tissue Stem Cell to iPS Cell	13:48
Kohji Nishida, Japan	
The Mechanical Properties of the Human Corneal Limbus and their Influence on Epithelial Stem Cell Phenotype	14:12
Ricardo Gouveia, United Kingdom	
Glial-like Functions of the Corneal Epithelial Cells Maintain the Subbasal Nerves	14:36
Mary Ann Stepp, United States	

Session: Ocular Imaging
13:00 - 15:00

Hana D

IMA5, Imaging in glaucoma and myopia

Chairs:

Susana Marcos, Spain
Leopold Schmetterer, Austria

Imaging the Structures of the Optic Nerve Head	13:00
Ian A. Sigal, Pittsburgh, PA, United States	
Jones-matrix OCT for Myopic Posterior Diseases	13:24
Yasushi Ikuno, Japan	
Glaucoma neuroimaging in humans and experimental animal models	13:48
Kevin Chan, United States	
Anterior segment imaging for glaucoma evaluation	14:12
Christopher Leung, Kowloon, Hong Kong, China	
Clinical application of measurement of structure and function in glaucoma	14:36

Scientific Programme

Session: Independent Session
13:00 - 15:00

Nishiki

IND6, Autophagy in eye health and disorders

Chairs:

Debasish Sinha, United States

Insights into Membrane Dynamics of Autophagy and Its Implications in Diseases	13:00
Tamotsu Yoshimori, Japan	
Autophagy in the Retina, Development, Degeneration and Ageing	13:24
Patricia Boya, Spain	
Live Imaging and Molecular Dissection of Organelle Degradation in the Lens	13:48
Noboru Mizushima, Japan	
The Dual Protective Role of p62 in the RPE with Aging and AMD	14:12
James T. Handa, United States	
Effect of Optineurin on Retinal Ganglion Cell Transmitophagy at the Optic Nerve Head	14:36
Nicholas Marsh-Armstrong, Davis, United States	

Session: Ocular Pharmacology and Therapeutics
13:00 - 15:00

Ohgi

OPT6, Matching clinical needs and novel drug delivery systems for the posterior segment of the eye

Chairs:

Rocio Herrero-Vanrell, Madrid, Spain
Ken-ichi Hosoya, Japan

Intraocular Pharmacokinetic Modelling and Drug Delivery	13:00
Arto Urtti, Finland	
Materials Inspired by the Challenges in Ophthalmic Drug Delivery	13:20
George Mihov, Netherlands	
The Role of Blood-retinal Barrier Transporters in Retinal Drug Delivery	13:40
Ken-ichi Hosoya, Japan	
Stimuli-responsive Drug Delivery Technologies for the Back of the Eye	14:00
Ilva Rupenthal, New Zealand	
Protein Nano-assemblies for Improved Intraocular Delivery	14:20
Uday Kompella, United States	
Novel Biodegradable Oil/Protein Microspheres for the Treatment of Posterior Segment Diseases	14:40
Rocio Herrero-Vanrell, Madrid, Spain	

Scientific Programme

Session: Retinal Neuroscience and Development
13:00 - 15:00

Natsume

RND7, Retinal regeneration through controlled dedifferentiation

Chairs:

David Hyde, Notre Dame, IN, United States

Innate Immune System Regulation of Retinal Regeneration - Enhanced Photoreceptor Replacement Kinetics Following Delayed Immune Suppression	13:00
Jeff Mumm, United States	
Factors that Regulate Müller Glia Reprogramming and Proliferation in the Light-damaged Zebrafish Retina	13:24
David Hyde, Notre Dame, IN, United States	
RB and Hippo Pathway Signaling: Not what you'd Expect	13:48
Rod Bremner, Toronto, Canada	
Genomic Mechanisms of Lhx2-dependent Control of Reactive Gliosis in Retina	14:12
Seth Blackshaw, Baltimore, United States	

Session: Retinal Cell Biology
13:00 - 15:00

Katsura

RCB5, Assembly and Maintenance of the Phototransduction Organelle

Chairs:

Joseph C. Besharse, United States

Microtubule Organization and the Early Development of Photoreceptors Outer Segments	13:00
Joseph C. Besharse, United States	
New Insights in the Rod Outer Segment Morphogenesis	13:24
Vadim Y. Arshavsky, United States	
Mechanisms of Daily Renewal of Rod Outer Segment Discs	13:48
Burgoyne Thomas, London, United Kingdom	
Three-dimensional Organization of Photoreceptor Nascent Disk Membranes	14:12
Stefanie Volland, United States	
New Approaches to Rod Structure and Disease Mechanisms	14:36
Theodore G. Wensel, United States	

Scientific Programme

Session: Lens
13:00 - 15:00

Mizuki

LEN8, Post-translational modification of crystallins

Chairs:

Kirsten Lampi, United States
Noriko Fujii, Osaka, Japan

Deamidation, Isomerization, and Racemization in Lens Beta/Gamma-crystallins from Aged, Cataractous Lenses	13:00
Kirsten Lampi, United States	
Deamidation of Alpha- and Gamma-crystallins: its Effects on Structure and Interactions	13:24
John Carver, Australia	
Age-dependent Isomerization and Racemization at Specific Aspartyl Residues in Lens Crystallins: Analysis and Biological Relevance	13:48
Noriko Fujii, Osaka, Japan	
Age-related Abnormal Asp Isomers Distribution in Lens Specific αA-crystallin Monomeric and Polymeric State	14:12
Takumi Takata, Japan	
Role of Deamidated γ-crystallin Proteins in Cataract Formation	14:36
David Cameron Thorn, Canberra, ACT, Australia	

Session: Cornea and Ocular Surface
15:30 - 17:30

Hana A

COS10, Dry Eye

Chairs:

Kazuo Tsubota, Japan
Zuguo Liu, China

Comparison of Two Mucin Secretagogues for the Treatment of Dry Eye: Diquafosol Tetrasodium and Rebamipide	15:30
Yuichi Hori, Japan	
Mechanism of Visual Disturbance in Dry Eye	15:54
Shizuka Koh, Suita, Japan	
Glutathione Plays a Novel and Critical Role in Ocular Surface Development	16:18
Vasilus Vasiliou, United States	
Microbiome-oriented Supplements for the Treatment of Dry Eye	16:42
Motoko Kawashima, Japan	
Neuropathic Pain: A Missing Piece of the Dry Eye Puzzle	17:06
Elizabeth Felix, Miami, Florida, United States	

Scientific Programme

Session: Lens
15:30 - 17:30

Hana B

LEN9, PCO/EMT

Chairs:

Michael Wormstone, United Kingdom
Frank Lovicu, Australia

Regulation of Autophagy in Cyclosporine-A Treated Lens Epithelial Cells	15:30
Heather Chandler, United States	
Epigenetic Mechanisms Regulating Cell Reprogramming Associated with the Lens Fibrotic Disease PCO	15:54
Janice Walker, Philadelphia, Pennsylvania, United States	
Tropomyosin: Its Relationship with Age-related-cataract and Posterior Capsular Opacification	16:18
Eri Kubo, Japan	
Matrix Metalloproteinase 9 (MMP9) Regulates Cytoskeletal Dynamics during Epithelial to Mesenchymal Transition (EMT) in Lens Epithelium	16:42
Aftab Taiyab, Canada	
A Role for Nox4 in Mediating TGFβ-induced EMT Leading to Cataractogenesis	17:06
Shannon Das, Australia	

Session: Ocular Pharmacology and Therapeutics
15:30 - 17:30

Hana C

JNT9 (OPT+GLA), Therapeutic targets for retinal disease: Lessons learnt from bench side

Chairs:

Renu Kowluru, United States
John Penn, Nashville, United States

Retinal Vascular Inflammation in Diabetic Retinopathy	15:30
John Penn, Nashville, United States	
The Ureohydrolase Arginase as a Novel Therapeutic Target for Retinopathy	15:54
Ruth B. Caldwell, Augusta, GA, United States	
Is Tiam1-Rac1 Axis a Legit Therapeutic Target for Preventing Retinal Dysfunction in Diabetes? An Outsider's Perspective	16:18
Anjan Kowluru, United States	
Chronic Retinal Inflammation in Diabetic Retinopathy	16:42
Susanne Mohr, United States	
Retinal Response Ischemic Injury: Role of Histone Deacetylase and Sphingolipids	17:06
Craig Crosson, United States	

Scientific Programme

Session: Ophthalmic Genomics
15:30 - 17:30

Hana D

OGM4, Epigenetic Modifications And Non-Coding RNAs In The Ocular Health and Disease

Chairs:

Julia V. Busik, United States
Alexander Ljubimov, Los Angeles, United States

Is There a Role of Epigenetics in Diabetic Retinopathy?	15:30
Renu Kowluru, United States	
DNA methylation profiles of normal and diabetic iPS cells	15:54
Alex Ljubimov, United States	
Diabetic retinopathy: the microRNA Connection	16:18
Subrata Chakrabarti, London, Canada	
Dual Anti-inflammatory and Anti-angiogenic Role of miR-15a in the Retina	16:42
Julia V. Busik, United States	
The Role of Micrnas in Normal and Diseased Corneal Epithelial Homeostasis	17:06
Mehrnoosh Saghizadeh, Los Angeles, United States	

Session: Glaucoma
15:30 - 17:30

Nishiki

GLA7, Biology of the TM

Chairs:

Hidenobu Tanihara, Japan
Ernst R. Tamm, Regensburg, Germany

Growth Factors and their Modulation of Trabecular Meshwork Biology	15:30
Ernst R. Tamm, Regensburg, Germany	
Steroid-induced Alterations in Trabecular Meshwork	15:54
Tomokazu Fujimoto, Japan	
Biological and Cytoskeletal Interactions of Glaucomatous Medications in Trabecular Meshwork	16:18
Megumi Honjo, Tokyo, Japan	
The Role of Extracellular Matrices in the Anterior Chamber Angle Development	16:42
Masaru Inatani, Japan	
Conditional Deletion of Fibronectin in the Trabecular Meshwork Outflow Pathways of the Mouse Eye	17:06
Silke Eggerstorfer, Germany	

Scientific Programme

Session: Retinal Cell Biology
15:30 - 17:30

Ohgi

JNT4 (RPE+RCB), Understanding Diabetic Retinopathy and AMD through animal models

Chairs:

Sayon Roy, United States
Debasish Sinha, United States

Three Dimensional Retinal Cultures for Evaluation of Neuronal Cell Death and Regeneration	15:30
Toshiyuki Oshitari, Chiba, Japan	
Characterization and Whole Genome Analysis of Cynomolgus Monkeys with Hereditary Macular Drusen	15:54
Akiko Suga, Japan	
Retinal Pathology in a Novel Primate Model of Diabetic Retinopathy	16:18
An-Fei Li, Taiwan, Province of China	
Restoration of Lysosomal Function in Animals Models of Age-related Macular Degeneration	16:42
Mallika Valapala, United States	
MTORC1 AMD: Insights from a Genetically Engineered Mouse Model	17:06
Debasish Sinha, United States	

Session: Retinal Neuroscience and Development
15:30 - 17:30

Natsume

RND9, Modeling human retinal disease

Chairs:

David Cobrinik, United States
Takeshi Iwata, Japan

Exploring the Retinoblastoma Origin with Fetal, Mouse, and hPSC-derived Retina Models	15:30
David Cobrinik, United States	
The Use of Induced Pluripotent Stem Cells to Reveal Pathogenic Gene Mutations and Explore Treatments for Retinitis Pigmentosa	15:54
Yoko Ozawa, Japan	
Development of 3D-retina Cell Models for Understanding Retinitis Pigmentosa Pathomechanisms	16:18
Olivier Goureau, France	
Generation and Analysis of Induced Photoreceptor-like Cells from Fibroblasts of Patients with Retinitis Pigmentosa	16:42
Yuko Seko, Japan	
Normal Tension Glaucoma by Optineurin E50K Mutation: Disease Mechanism and Therapeutic	17:06
Takeshi Iwata, Japan	

Scientific Programme

Session: Ocular Pharmacology and Therapeutics
15:30 - 17:30

Katsura

OPT10, TBI (traumatic brain injury): Visual dysfunction and treatment

Chairs:

P. Michael Iuvone, Atlanta, Georgia, United States
Thomas A Fuchsluger, Erlangen, Germany

Visual Aspects of TBI	15:30
Richard Blanch, Birmingham, United Kingdom	
Mechanisms and Therapy in Air Blast Induced Eye Trauma	15:54
Tonia Rex, United States	
HIOC, a TrkB Receptor Activator, for the Treatment of Blast-induced Vision Loss	16:18
P. Michael Iuvone, Atlanta, Georgia, United States	
Activation of the Innate Immune System Following Blast Injury to the Eye	16:42
Eldon Geisert, United States	

Session: RPE Choroid Biology and Pathology
15:30 - 17:30

Mizuki

RPE9, Inflammasomes in the RPE

Chairs:

Anu Kauppinen, Finland

The NLRP3 Inflammasome and RPE Homeostasis	15:30
Matthew Campbell, Dublin, Ireland	
Inflammasome Activation: Evidence in an Animal Model of AMD	15:54
Joanne A. Matsubara, Canada	
Inflammasomes in the RPE	16:18
Nagaraj Kerur, Lexington, United States	
Mitochondrial Damage and Inflammasome Signaling in the RPE	16:42
Anu Kauppinen, Finland	
Gene Therapy with the Caspase Activation and Recruitment Domain (CARD) Slows the Retina Degeneration of the Sod2 Knock-out Mouse Model of Geographic Atrophy	17:06
Cristhian Ildefonso, Gainesville, FL, United States	

Scientific Programme

Thursday, 29 September 2016

Session: Retinal Neuroscience and Development
08:00 - 10:00

Hana A

RND8, Mechanisms of neuroprotection

Chairs:

Xian-Jie Yang, United States
John Ash, United States

The Metabolic and Redox Signaling Controlled by the Rod-derived Cone Viability Gene NXNL1	08:00
Thierry Leveillard, France	
The Duality of mTORC1 in Promoting Cone Survival in Retinitis Pigmentosa	08:24
Claudio Punzo, United States	
Cellular Mechanisms of Cytokine-mediated Neuroprotection in Mouse Models of Retinal Degeneration	08:48
Xian-Jie Yang, United States	
An Extracellular Signaling Pathway that Includes Both Leukemia Inhibitory Factor and Endothelin 2 Regulates Both Neuroprotection and Gliosis in the Retina	09:12
John Ash, United States	
Molecular Mechanisms Underlying Neuroprotective Effects of PEDF in Retinal Degeneration	09:36
Valeria Marigo, Modena, Italy	
mTORC2 and GSK3β Are Inhibitory but mTORC1 Is Necessary for AKT3-induced Optic Nerve Regeneration	09:48
Yang Hu, Philadelphia, United States	

Session: Cornea and Ocular Surface
08:00 - 10:00

Hana B

COS9, Reimbursement of Ocular Surface Cell Based therapies -Bottlenecks in Bioprocessing

Chairs:

Kohji Nishida, Japan
Julie Daniels, London, United Kingdom

Is Regenerative Medicine Affordable for the Ocular Surface?	08:00
Julie Daniels, London, United Kingdom	
Molecular Aliasing and Biological Variance	08:24
Daniel Gibson, United States	

Scientific Programme

Ocular surface reconstruction using cultivated epithelial cell sheet -Dawning of a new era Yoshie Oie, Japan	08:48
Alginate-encapsulation for the Storage and Therapeutic Delivery of Adipose-derived Stem Cells for Ocular Surface Repair Stephen Swioklo, United Kingdom	09:12
Second Harmonic Imaging of Corneal Collagen: Insights into Corneal Evolution and Scarless Wound Healing Elena Koudouna, United Kingdom	09:36

Session: Glaucoma
08:00 - 10:00

Hana C

GLA8, Distal Outflow Resistance: Towards Understanding MIGS

Chairs:

Darryl R. Overby, United States
Arthur Sit, United States

Intrascleral Veins Require Deep Thoughts beyond Superficial Episcleral Veins Sayoko Moroi, Ann Arbor, United States	08:00
Measurement and Physiology of Episcleral Venous Pressure Arthur Sit, United States	08:24
Role of Schlemm's Canal and Collector Channels in Intraocular Pressure (IOP) Regulation Mike Fautsch, Rochester, MN, United States	08:48
Anatomy of Smooth Muscle Cells in Distal Vessels James Tan, Pasadena, United States	09:12
Aqueous Angiography and Minimally Invasive Glaucoma Surgeries Alex Huang, Los Angeles, United States	09:36

Session: RPE Choroid Biology and Pathology
08:00 - 10:00

Hana D

RPE11, Aging RPE: Proteostasis mechanisms in health and diseases

Chairs:

Luminita Paraoan, Liverpool, United Kingdom

Age-related Impaired Trafficking of the Major RPE Proteolysis Regulator Cystatin C Luminita Paraoan, Liverpool, United Kingdom	08:00
SQSTM1/p62 a Key Player in the Regulation of Proteostasis Defence during RPE Aging Process Kai Kaarniranta, Kuopio, Finland	08:24

Scientific Programme

The role of RPE-expressed SIRT1 in the Pathogenesis of Age-related Macular Degeneration	08:48
Takeshi Yoshida, Japan	
Mechanism of RPE Proteostasis in Health and Disease Using an in vitro "Aging" Model	09:12
Fnu Ruchi, United States	
Alterations in miR-155 Levels Mediate RPE Physiology & Pathophysiology	09:36
Arvydas Maminishkis, United States	
Effects of Amyloid Beta on Cultured Human Retinal Pigment Epithelial Cells	09:48
Naonori Masuda, Kashihara City, Japan	

Session: Ocular Imaging
08:00 - 10:00

Nishiki

IMA6, AO in vision sciences

Chairs:

Wolfgang Drexler, Austria
Christopher Leung, Kowloon, Hong Kong, China

Adaptive Optics for Vision Evaluation	08:00
Pablo Artal, Spain	
Prospects for Two-photon Imaging in the Living Human Eye	08:24
Jennifer Hunter, Rochester, New York, United States	
High-resolution Retinal Imaging in Color Blindness	08:48
Joseph Carroll, United States	
Adaptive Optics Retinal Physiology	09:12
Austin Roorda, United States	

Session: Ocular Pharmacology and Therapeutics
08:00 - 10:00

Ohgi

OPT9, Blue light and circadian system

Chairs:

Gianluca Tosini, United States
Kazuo Tsubota, Japan

The Effect of Blue Light for Ocular Health: from Retina to the Ocular Surface	08:00
Kazuo Tsubota, Japan	
Blue Light Reception in Retinal Ganglion Cells and its Role in the Clockwork	08:24
Megumi Hatori, Tokyo, Japan	

Scientific Programme

A Blue Light-photopigment Working in the Inner Retina of Vertebrates	08:48
Mario Guido, Argentina	
Effects of Blue Light on the Circadian System and Eye Physiology	09:12
Gianluca Tosini, United States	
Circadian Clocks within the Retina Synchronize to Light: Dark Cycles Using OPN5	09:36
Ethan Buhr, Seattle, Washington, United States	

Session: Independent Session
08:00 - 10:00

Natsume

IND7, Plasticity in the Visual System

Chairs:

Bryan William Jones, United States
Robert E. Marc, United States

Retinal Plasticity in Human Retinitis Pigmentosa and Age-related Macular Degeneration. Implications for Vision Rescue	08:00
Bryan William Jones, United States	
Anatomical and Macromolecular Changes in the Retina of the nm3342 Mouse: A Potential Model of Serous Retinal Detachment	08:24
Geoff Lewis, United States	
Neurovascular interactions: a target for therapeutic intervention in retinal degeneration	08:48
Botir Sagdullaev, United States	
Remodelling of the Inner Retina Secondary to Photoreceptor Degeneration	09:12
Lisa Nivison-Smith, Australia	
Ganglion Cell Changes during Retinal Degeneration	09:36
Erica Fletcher, Parkville, Victoria, Australia	

Session: Retinal Cell Biology
08:00 - 10:00

Katsura

RCB7, Mouse to Human : Modeling AMD

Chairs:

Neena B. Haider, Boston, United States
Margaret DeAngelis, United States

Novel Multigenic Genetic Mouse Model for AMD	08:00
Neena B. Haider, Boston, United States	
The Aging Transcriptome in Health and Disease of the Retina	08:24
Margaret DeAngelis, United States	

Scientific Programme

The elaborated connecting cilium in photoreceptor cell	08:48
Rui Chen, United States	
Energy Metabolism of Photoreceptors Drive Pathological Angiogenesis	09:12
Jean-Sébastien Joyal, Montreal, Canada	
Cholesterol Esterification in Photoreceptors: Retinal and Clinical Significance in Mice and Humans	09:36
Irina Pikuleva, Cleveland, OH, United States	

Session: Lens
08:00 - 10:00

Mizuki

LEN10, The Zonule of Zinn: biology and pathology

Chairs:

Tomoyuki Nakamura, Japan
Steve Bassnett, United States

Functional Connection of the Key Matrix Is the Intra-capsular Zonule for Lens Accommodation on Monkey Eye	08:00
Mari Hiraoka, Japan	
Latent TGFβ Binding Protein-2 Is Essential for the Stable Structure of Ciliary Zonule Microfibrils	08:24
Tomoyuki Nakamura, Japan	
Molecular Composition of the Ciliary Zonule and its Role in Regulating Lens Size	08:48
Steve Bassnett, United States	
Investigating the Implications of the Long Anterior Zonule Trait	09:12
Dan K. Roberts, United States	
Cataract Surgery in Exfoliation Syndrome Patients: Errors in the Prediction of Postoperative Refraction and Postoperative Change of Intraocular Pressure	09:36
Nobuyuki Ishikawa, Japan	

Opening Ceremony, Plenary Lecture
10:30 - 11:45

Concord AB

The Ludwig von Sallmann Prize

Introduction	10:30
Steven Fliesler, United States	
Plenary Lecture: Retinoids and Retinal Degenerations	10:40
Rosalie Crouch, United States	
Award Ceremony	11:25

Scientific Programme

Session: Retinal Neuroscience and Development
13:00 - 15:00

Hana A

JNT5 (RND+RCB), ES/iPS-based approaches to treating retinal dystrophies

Chairs:

David Gamm, United States
Valeria Canto-Soler, United States

Developing an Autologous iPS Cell Derived RPE Based Cell Therapy for Macular Degeneration	13:00
Kapil Bharti, United States	
Cultivation, Installation and Preservation: Development of Cellular Therapies for Age-related Macular Degeneration	13:24
Dennis Clegg, Santa Barbara, United States	
Assessing Authenticity of Human Pluripotent Stem Cell-derived Photoreceptor Precursors	13:48
David Gamm, United States	
Enabling High Throughput Screening in 3-D Retinal Organoids for Drug Discovery	14:12
Maria Valeria Canto-Soler, Baltimore, MD, United States	
Combining Stem Cells, Genome Editing and Tissue Engineering to Rebuild the Outer Retina	14:36
Budd Tucker, United States	

Session: RPE Choroid Biology and Pathology
13:00 - 15:00

Hana B

RPE12, RPE dysfunction in AMD: from oxidative damage to inflammasome activation

Chairs:

Magali Saint-Geniez, United States
Patricia D'Amore, United States

Innate Immune Pattern Recognition Receptor (PRR) Sensing in Retinal Degeneration	13:00
Sarah Doyle, Ireland	
Metabolic Control of RPE Maturation and Dysfunction	13:24
Magali Saint-Geniez, United States	
Choroid Endothelium Signals Regulate Outer Retina-blood Barrier through Modulation of Basement Membrane Assembly	13:48
Enrique Rodriguez-Boulan, United States	
Dissecting Molecular Pathways of HCA2 Signaling in Normal and Aged Retinal Pigment Epithelium	14:12
Olya Fromal, Augusta, Georgia, United States	
A Novel Inhibitor of 5-Lipoxygenase Prevents Oxidative Stress-induced Cell Death of Retinal Pigment Epithelium Cells	14:24
S. Patricia Becerra, Bethesda, United States	

Scientific Programme

Session: Glaucoma
13:00 - 15:00

Hana C

GLA10, Lymphangiogenesis, Lymphatics and IOP Regulation

Chairs:

Ganesh Prasanna, United States
Dan Stamer, Durham, United States

Paradoxical Roles of Schlemm's Canal Inner Wall	13:00
William D Stamer, Durham, United States	
Recent Advances in Ocular Lymphatic Research and Implication in Glaucoma	13:24
Lu Chen, United States	
The Effect of Podoplanin Inhibition on Lymphangiogenesis under Pathological Conditions	13:48
Kazuichi Maruyama, Japan	
Schlemm's Canal Is a Unique Vessel with a Combination of Blood Vascular and Lymphatic Phenotypes that Forms by a Novel Developmental Process	14:12
Krishnakumar Kizhatil, Bar Harbor, Maine, United States	
Discussion: Targeting Schlemm's canal as a glaucoma therapy	14:36

Session: Ocular Imaging
13:00 - 15:00

Hana D

IMA1, New advances in ocular imaging - part II

Chairs:

Yoshiaki Yasuno, Japan
Pablo Artal, Spain

Tear Film Thickness Measured by OCT in Sicca Patients	13:00
Leopold Schmetterer, Austria	
3-D OCT Ocular Biometry	13:24
Susana Marcos, Spain	
Air-puff Swept - Source Optical Coherence Tomography	13:48
Maciej Wojtkowski, Poland	
Towards OCT on Chip	14:12
Wolfgang Drexler, Austria	
Compact AO OCT	14:36
Dan Ferguson, United States	

Scientific Programme

Session: Ocular Pharmacology and Therapeutics
13:00 - 15:00

Nishiki

OPT12, Imaging biomarkers for retinal diseases

Chairs:

Ash Jayagopal, Switzerland
Mahnaz Shahidi, United States

In Vivo Imaging of Self-quenched Indocyanine Green-antibody Conjugates in Retinal Disease	13:00
Ashwath Jayagopal, Basel, Switzerland	
Imaging of Retinal Vascular and Oxygen Extraction Responses to Light Flicker in Stages of Diabetic Retinopathy	13:24
Mahnaz Shahidi, United States	
In vivo AOSLO Imaging of Changes in Diabetic Retinopathy	13:48
Stephen Burns, United States	
Cone Survivability in Aging and Age-related Macular Degeneration and the Neural Economy Hypothesis	14:12
Ann Elsner, United States	
Dendrimer-based Systemic Therapy and Imaging for Retinal Degeneration	14:36
Rangaramanujam Kannan, United States	

Session: Lens
13:00 - 15:00

Ohgi

LEN11, Alpha crystallins and small heat-shock proteins

Chairs:

John Carver, Australia
Heath Ecroyd, Wollongong, Australia

Small Molecule Pharmacological Chaperones for Lens Alpha-crystallin	13:00
Usha Andley, United States	
Good Things in Small Packages: The Molecular Chaperone Action of the Small Heat Shock Proteins	13:24
Heath Ecroyd, Wollongong, Australia	
Dynamic Structure and Flexible Functions of sHSPs	13:48
Justin Benesch, United Kingdom	
Investigating the Structure of the Small Heat-shock Protein αB-crystallin under Conditions of Macromolecular Crowding	14:12
Aidan Bradley Grosas, Canberra, Australian Capital Territory, Australia	

Scientific Programme

Session: Ophthalmic Genomics
13:00 - 15:00

Natsume

OGM11, Genetics of myopia

Chairs:

Calvin C. P. Pang, Hong Kong, China
Seyhan Yazar, Australia

Genome Cohort Study and Association Study for Axial Length and Refractive Error in Japanese	13:00
Nobuo Fuse, Japan	
Genetics of Myopia Endophenotypes	13:24
Ching-Yu Cheng, Singapore	
Genetic and Environmental Influences on Myopia: An Australian Perspective	13:48
Seyhan Yazar, Australia	

Session: Ophthalmic Genomics
13:00 - 15:00

Katsura

JNT7 (GLA+OGM), Genetics of normal tension glaucoma

Chairs:

Janey Wiggs, United States
John Fingert, Iowa City, Iowa, United States

Normal Tension Glaucoma and TANK Binding Kinase 1 (TBK1)	13:00
John Fingert, Iowa City, Iowa, United States	
The Role of Cerebrospinal Fluid Pressure (CSFp) in Normal Tension Glaucoma (NTG): Is there a Genetic Contribution?	13:24
Robert Rand Allingham, Durham, NC, United States	
Normal-tension Glaucoma Genome-wide Association Studies	13:48
Janey Wiggs, United States	
Mitochondrial Pathogenic Mechanism in Optineurin E50K Mutation-mediated Retinal Ganglion Cell Degeneration	14:12
Wonkyu Ju, La Jolla, United States	
Age-dependent neurodegeneration and abnormal bone with loss of optineurin	14:36
Henry Tseng, United States	

Session: Ocular Immunology
13:00 - 15:00

Mizuki

IMM4, Innate mechanisms that contribute to RPE pathology

Chairs:

Aparna Lakkaraju, United States
David S. Williams, United States

Scientific Programme

Defective Phagosome Transport in the RPE Activates Complement and Induces AMD-like Pathogenesis	13:00
David S. Williams, United States	
Restoration of Organelle Trafficking Protects the RPE from Complement-mediated Damage	13:24
Aparna Lakkaraju, United States	
Complement Dysregulation in Stargardt Macular Degeneration	13:48
Roxana Radu, United States	
Mitochondrial DNA Damage and the CFH Genotype	14:12
Deborah Ferrington, United States	
Distinct RPE and Retina Mitochondrial Respiration Defects in STGD3 Juvenile Maculopathy	14:36
Camille Yolande Dejos, Edmonton, AB, Canada	

Session: Glaucoma
15:30 - 17:30

Hana A

GLA9, Status of glaucoma gene and stem cell therapy

Chairs:

Paul Kaufman, Madison, United States
Xuyang Liu, China

Schwalbe's Line Cells Show Stem Cell Characteristics	15:30
Barbara Braunger, Regensburg, Germany	
Patient-derived Stem Cells for IOP Control	15:50
Mary Kelley, United States	
Transplantation of iPSC-derived TM Cells Restores Outflow Facility in an Aged Glaucoma Mouse Model	16:10
Wei Zhu, Iowa City, IA, United States	
Hurdles Affecting Successful Therapeutic Transduction of Retinal Ganglion Cells	16:30
Rob Nickells, United States	
Trabecular Meshwork and Ciliary Muscle Gene Therapy for Glaucoma	16:50
Paul Kaufman, Madison, United States	
Exoenzyme C3 Transferase Lowered IOP in Rats	17:10
Xuyang Liu, China	

Scientific Programme

Session: Retinal Cell Biology
15:30 - 17:30

Hana B

RCB8, Retinoids in vision

Chairs:

John M. Nickerson, United States
T. Michael Redmond, United States

New Insights into RPE65's Mechanism	15:30
T. Michael Redmond, United States	
Neonatal and Developmental Visual Consequences in the IRBP Knockout Mouse Eye	15:54
John M. Nickerson, United States	
Pineal Photoreception Involving Bistable Pigments, Parapinopsins in Lower Vertebrates	16:18
Akihisa Terakita, Japan	
The Effects of 11-cis Retinal and Retinal Analogues on Cone Photoreceptor Survival	16:42
Masahiro Kono, Japan	
Seeing (Infrared)Red	17:06
Joseph Corbo, St. Louis, United States	

Session: RPE Choroid Biology and Pathology
15:30 - 17:30

Hana C

RPE13, Lymphatics and fluid movement in the posterior eye: Recent advances and remaining controversies

Chairs:

Tailoi Chan-Ling, Australia

Non-invasive Dynamic Tracking of Aqueous Humour Outflow and Cerebrospinal Fluid Drainage	15:30
Yeni Yucel, Canada	
Evidence of lymphatics and glymphatics in the posterior human eye and retrobulbar optic nerve.	15:54
Tailoi Chan-Ling, Australia	
Organ Characteristics in Lymphatic Drainage	16:18
Kato Seiji, Oita, Japan	
Evidence of a Glymphatic Clearance Pathway in the Optic Nerve	16:42
Emily Mathieu, Toronto, Ontario, Canada	
Evidence for a glymphatic system in human, primate, rat and mouse retina	17:06
Ping Hu, Sydney, New South Wales, Australia	

Scientific Programme

Session: Retinal Neuroscience and Development
15:30 - 17:30

Hana D

RND11, Ca⁺⁺ signaling in retinal ganglion cells and outer retinal neurons

Chairs:

David Krizaj, United States
Richard Kramer, United States

Calcium Dynamics and Signaling at the Mammalian Cone Photoreceptor Synapse	15:30
Steve DeVries, United States	
Regulation of Intraterminal Ca²⁺ at Ribbon Synapses of Rods and Cones	15:54
Wally Thoreson, United States	
TRP Channels as Multimodal Modulators of Retinal Ganglion Cell Function and Survival	16:18
David Krizaj, United States	
Re-inventing Phototransduction with Ion Channel Photoswitches that Restore Visual Function to Blind Mice	16:42
Richard Kramer, United States	
Synaptic and dendritic signaling in the vGluT3 circuit of the retina	17:06
Z Jimmy Zhou, New Haven, United States	

Session: Lens
15:30 - 17:30

Nishiki

LEN12, Physiological Optics

Chairs:

Paul Donaldson, New Zealand
Barbara Pierscioneck, United Kingdom

Salt and Water Circulation through the Lens: A Role in Controlling Optics?	15:30
Richard T Mathias, Stony Brook, New York, United States	
MRI Measurements of Physiological Optics of the Lens: Applications to the Human Eye	15:54
Ehsan Vaghefi, New Zealand	
Are Water Channel and Cell-to-Cell Adhesion Functions of AQP0 Critical for Eye Lens Biomechanics?	16:18
Kulandaiappan Varadaraj, United States	
Age-dependence of the Crystalline Lens Shape and Power with Stretching Force during Simulated Accommodation	16:42
Bianca Maceo Heilman, Miami, Florida, United States	
Ageing Changes in the Refractive Index of the Lens: How the Biological Lens Can Inform Implant Design	17:06
Barbara Pierscioneck, United Kingdom	

Scientific Programme

Session: Ocular Pharmacology and Therapeutics
15:30 - 17:30

Ohgi

OPT15, Innovative approaches for retinal degeneration and therapy

Chairs:

Nawajes Mandal, Oklahoma City, United States
Sanjoy Bhattacharya, United States

Glutaredoxin 2 (Grx2) Gene Knockout Mice: A Novel Model of Age-related Macular Degeneration	15:30
Christy Xavier, Fort Worth, TX, United States	
Metabolic Profiling Directed Approach for Therapeutic Development	15:54
Sanjoy Bhattacharya, United States	
Optic Nerve Injury-induced Phosphoproteomic Changes in the Retina	16:18
Yang Liu, Fort Worth, United States	
Novel Sphingolipid Mediator for Retinal Ganglion Cell Death and Survival	16:42
Nawajes Mandal, Oklahoma City, United States	
Novel Therapeutics for Age Related Macular Degeneration	17:06
Rajkumar Patil, Singapore, Singapore	
Adipose stem cell treatment protects against visual deficits of mild traumatic brain injury	17:18
Rajashekhar Gangaraju, Memphis, United States	

Session: Independent Session
15:30 - 17:30

Natsume

IND5, Meibomian Glands and Meibum - From Biochemistry to Physiology to Disease

Chairs:

Igor A. Butovich, United States
James V. Jester, United States

Anatomy and Physiology of the Meibomian Glands	15:30
Erich Knop, Berlin, Berlin, Germany	
Eye on the Lipids: Lipids and the Eye	15:54
Igor A. Butovich, United States	
Characterization of Meibocyte Differentiation in Human and Mouse Meibomian Glands	16:18
James V. Jester, United States	
The Analysis of Meibum Is the Bridge Between Clinical Findings and Basic Science	16:42
Reiko Arita, Japan	
Elovl4 Products and their Relationship to Phenotype in Humans, Mice, and Zebrafish	17:06
Robert E. Anderson, United States	

Scientific Programme

Session: Ophthalmic Genomics
15:30 - 17:30

Katsura

OGM12, Current concept in genetics of hereditary ocular developmental anomalies

Chairs:

Elena Semina, Milwaukee, United States
Elfride De Baere, Belgium

Novel Factors in Human Ocular Disease	15:30
Robyn Jamieson, Australia	
Non-coding cis-acting Defects in Retinal Dystrophies: From Locus Resequencing to Interpretation	15:54
Elfride De Baere, Belgium	
Conserved Genetic Pathways Associated with Microphthalmia, Anophthalmia and Coloboma	16:18
Elena Semina, Milwaukee, United States	
Leber's Congenital Amaurosis by CC2 Compound Heterozygous Mutation and its Phenotypic Analysis in Zebrafish	16:42
Yuriko Minegishi, Japan	
Modeling Congenital Ocular Disorders in Zebrafish	17:06
Jeff Gross, United States	

Session: Ophthalmic Genomics
15:30 - 17:30

Mizuki

OGM6, An omics perspective on pediatric eye diseases

Chairs:

Subhabrata Chakrabarti, Hyderabad, India
Calvin C. P. Pang, Hong Kong, China

Human Cone Precursor Circuitry Underlying Retinoblastoma Initiation	15:30
Hardeep Pal Singh, Los Angeles, United States	
A Functional Omics Perspective on the Retinopathy of Prematurity	15:54
Inderjeet Kaur, India	
Understanding the Development of Anterior Segment Anomalies from an Omics Perspective	16:18
Subhabrata Chakrabarti, Hyderabad, India	
Understanding the Pathogenesis of Developmental Eye Diseases Using Animal Models	16:42
Hemant Khanna, United States	