

Program

Monday Feb. 16

9:00 AM - 10:30 AM

Main Hall (1F)/Room 1

Symposium 1 New Strategies for Glaucoma Diagnosis and Treatment

Organizers

Calvin CP Pang

The Chinese University of Hong Kong, Kowloon, Hong Kong

Hide Nobu Tanihara

Faculty of Life Sciences, Kumamoto University, Kumamoto, Kumamoto, Japan

Takeshi Yoshitomi

Akita University Graduate School of Medicine and Faculty of Medicine, Akita, Akita, Japan

1: SY1-1

Molecular mechanism of axonal damage in glaucoma

Speaker: Masaru Inatani¹

1. Department of Ophthalmology, University of Fukui, Yoshida, Fukui, Japan.

2: SY1-2

Recovery of retinal ganglion cell function after IOP lowering

Speaker: Jonathan Crowston^{1,2}

1. Department of Ophthalmology, University of Melbourne, East Melbourne, VIC, Australia. 2. Centre for Eye Research Australia, Melbourne, VIC, Australia.

3: SY1-3

The role of aquaporin 9 in retinal ganglion cell death in glaucoma

Speaker: Makoto Nakamura¹

1. Division of Ophthalmology Department of Surgery, Kobe University Graduate School of Medicine, Kobe, Hyogo, Japan.

4: SY1-4

Oxidative stresses in glaucoma

Speaker: Masaki Tanito¹

1. Division of Ophthalmology, Matsue Red Cross Hospital, Matsue, Shimane, Japan.

5: SY1-5

A New Drug Delivery System for Glaucoma Medication

Speaker: Tina Wong^{1,2}

1. Department of Glaucoma Singapore National Eye Centre, Singapore Eye Research Institute, Singapore, Singapore. 2. Duke NUS Graduate Medical School, Singapore, Singapore.

6: SY1-6

The Brain and Vision Restoration in Glaucoma: Back to the Future

Speaker: Neeru Gupta^{1,2} **Yeni Yucel**^{1,2}

1. Ophthalmology and Vision Sciences, University of Toronto, Toronto, ON, Canada. 2. Li Ka Shing Knowledge Institute, St. Michael's Hospital, Toronto, ON, Canada.

10:40 AM - 12:10 PM

Main Hall (1F)/Room 1

Symposium 2 Ocular Surface and Stromal Biology

Organizers

Shigeru Kinoshita

Kyoto Prefectural University of Medicine, Kyoto, Kyoto, Japan

Friedrich E. Kruse

University of Erlangen-Nuremberg, Erlangen, Germany

31: SY2-1

Mechanisms of Umbilical Mesenchymal Stem Cells in Suppressing Inflammation and Host Immune Rejection

Speaker: Winston W-Y Kao¹

1. Department of Ophthalmology, University of Cincinnati College of Medicine, Cincinnati, OH, United States.

32: SY2-2

Direct conversion of fibroblasts to human corneal epithelial-like cells by defined factors

Speaker: Koji Kitazawa^{1,2} **Takafusa Hikichi**² **Takashi Ikeda**² **Takahiro Nakamura**^{4,1} **Morio Ueno**¹ **Satoshi Kawasaki**^{1,3} **Shinji Masui**² **Shigeru Kinoshita**¹

1. Department of Ophthalmology, Kyoto Prefectural University of Medicine, Kyoto, Japan. 2. Center for iPS Research & Application, Kyoto University, Kyoto, Japan. 3. Department of Ophthalmology, Osaka University, Osaka, Japan. 4. Doshisha University, Kyoto, Japan.

33: SY2-3

Ocular surface reconstruction: Focus on the stem cell niche

Speaker: Friedrich E. Kruse¹ **Ursula Schloetzer-Schrehardt**¹ **Johannes Menzel-Severing**¹

1. Department of Ophthalmology, University of Erlangen-Nuremberg, Erlangen, Germany.

34: SY2-4

Bioengineering functional lacrimal gland in vitro

Speaker: Tetsuya Kawakita¹

1. Department of Ophthalmology, Keio University School of Medicine, Shinjuku, Tokyo, Japan.

35: SY2-5

Squamous Metaplasia of the Ocular Surface Epithelium

Speaker: Zuguo Liu^{1,2}

1. Xiamen Eye Centre of Xiamen University, Xiamen, Fujian, China. 2. Fujian Provincial Key Laboratory of Ophthalmology and Visual Science, Xiamen, China.

36: SY2-6

Holoclone-type stem cells control corneal homeostasis

Speaker: Takahiro Nakamura¹

1. Research Center for Inflammation and Regenerative Medicine, Doshisha University, Kyoto, Kyoto, Japan.

12:20 PM - 1:20 PM

Main Hall (1F)/Room 1

Luncheon Seminar 1

Recent Advance of Corneal Biology and its Clinical Use

Sponsored by Senju Pharmaceutical Co., Ltd.

Organizer

Shigeru Kinoshita

Kyoto Prefectural University of Medicine, Kyoto, Kyoto, Japan

64: LS1-1

Advanced surgical therapy of corneal endothelial disease: A revolution in evolution

Speaker: Friedrich E. Kruse¹

1. Department of Ophthalmology, University of Erlangen-Nuremberg, Erlangen, Germany.

65: LS1-2

Matricellular Functions of Lumican on Corneal Homeostasis

Speaker: Winston Kao¹

1. Department of Ophthalmology, University of Cincinnati College of Medicine, Cincinnati, OH, United States.

66: LS1-3

New therapeutic modality for corneal endothelial disease using Rho-associated kinase inhibitor eye drops

Speaker: Noriko Koizumi^{1,2}

1. Department of Biomedical Engineering, Faculty of Life and Medical Sciences, Doshisha University, Kyotanabe, Kyoto, Japan.
2. Department of Ophthalmology, Kyoto Prefectural University of Medicine, Kyoto, Japan.

2:10 PM - 3:40 PM

Main Hall (1F)/Room 1

Symposium 3

Molecular Mechanisms in Diabetic Retinopathy

Organizers

Jeong Hun Kim

Seoul National University College of Medicine, Jongno, Seoul, Korea (the Republic of)

Susumu Ishida

Hokkaido University Graduate School of Medicine, Sapporo, Hokkaido, Japan

75: SY3-1

Fight Against Angiogenesis-related Blindness: Beyond Anti-VEGF Antibody Treatment

Speaker: Jeong Hun Kim^{1,2} Jin Hyoung Kim²

1. Department of Biomedical Sciences & Ophthalmology, Seoul National University College of Medicine, Jongno, Seoul, Korea (the Republic of). 2. FARB Laboratory, Seoul National University Hospital, Seoul, Korea (the Republic of).

76: SY3-2

Inflammation and Oxidative Stress in Diabetic Retinopathy

Speaker: Kousuke Noda¹

1. Department of Ophthalmology, Hokkaido University Graduate School of Medicine, Sapporo, Hokkaido, Japan.

77: SY3-3

Alterations in the vitreous proinflammatory cytokine levels after vitrectomy in patients with proliferative diabetic retinopathy

Speaker: Shigeo Yoshida¹

1. Department of Ophthalmology, Kyushu University Graduate School of Medical Sciences, Fukuoka, Fukuoka, Japan.

78: SY3-4

ROCK as a therapeutic target in diabetic retinopathy

Speaker: Shintaro Nakao¹

1. Department of Ophthalmology, Graduate School of Medical Sciences, Kyushu University, Fukuoka, Fukuoka, Japan.

79: SY3-5

Pathophysiology of pericyte-free retinal vessels

Speaker: Akiyoshi Uemura¹

1. Department of Retinal Vascular Biology, Nagoya City University Graduate School of Medical Sciences, Nagoya, Japan.

80: SY3-6

Human retinal transcriptome Gene Expression Signature for Diabetic Retinopathy using Human Cadaver Eyes

Speaker: Periasamy Sundaresan¹ Gowthaman Govindarajan¹ Kim Ramasamy² Karthick Srinivasan²

1. Department of Genetics, Aravind Medical Research Foundation, Aravind Eye Hospital, Madurai, Tamilnadu, India. 2. Department of Retina & vitreous, Aravind Eye Hospital, Madurai, Tamilnadu, India.

9:00 AM - 10:30 AM

501 (5F)/Room 2

Symposium 4 Science in Corneal and Refractive Surgery

Organizers

Donald Tan

Singapore National Eye Centre, Singapore, Singapore

Shiro Amano

Inoue Eye Hospital/Miyata Eye Hospital, Chiyoda, Tokyo, Japan

7: SY4-1

Update on Deep Anterior Lamellar Keratoplasty

Speaker: Shiro Amano¹

1. Inouye Eye Hospital, Tokyo, Japan.

8: SY4-2

Update on DSAEK / DMEK surgery

Speaker: Donald Tan^{1,2}

1. Singapore National Eye Centre, Singapore, Singapore. 2. Duke-NUS Graduate Medical School, Singapore, Singapore.

9: SY4-3

The safety issues of phakic IOL

Speaker: Tae-im Kim¹

1. Department of Ophthalmology, Yonsei University School of Medicine, Seodaemun-gu, Seoul, Korea (the Republic of).

10: SY4-4

Corneal crosslinking (m Science m Corneal and Refractive Surgery)

Speaker: Naoko Kato¹

1. Department of Ophthalmology, Saitama Medical University, Iruma, Saitama, Japan.

11: SY4-5

Posterior corneal elevation after refractive surgery

Speaker: Vishal Jhanji¹

1. The Chinese University of Hong Kong, Kowloon, Hong Kong.

10:40 AM - 12:10 PM

501 (5F)/Room 2

Symposium 5 Recent Topics of Neuro-ophthalmology

Organizers

Hitoshi Ishikawa

School of Allied Health Sciences, Kitasato University, Sagamihara, Kanagawa, Japan

Lin-Chung Woung

Taipei City Hospital, Taipei, Taiwan

37: SY5-1

The origin, pathway and center of pupillary light reflex

Speaker: Ken Asakawa¹

1. Department of Orthoptics and Visual Science, School of Allied Health Sciences, Kitasato University, Sagamihara, Kanagawa, Japan.

38: SY5-2

Enhanced Depth Imaging (EDI) - OCT in Optic Neuropathies

Speaker: Suntaree Thitiwichienlert¹ Hitoshi Ishikawa² Totsuya Ikeda³ Ken Asakawa² Kimiya Shimizu³

1. Department of Ophthalmology, Thammasat University Hospital, Pathum Thani, Thailand. 2. Rehabilitation, Orthoptics and Visual Science Course, Kitasato University, Sagamihara, Japan. 3. Ophthalmology, Kitasato University, Sagamihara, Japan.

39: SY5-3

Clinical feature of Leber hereditary optic neuropathy - an update review

Speaker: An-Guor Wang^{1,2}

1. Department of Ophthalmology, Taipei Veterans General Hospital, National Yang-Ming University, Taipei, Taiwan. 2. School of Medicine, National Yang-Ming University, Taipei, Taiwan.

40: SY5-4

Current Updates in Ethambutol Toxic Optic Neuroretinopathy

Speaker: Erwin D. Palisoc^{1,2}

1. Department of Ophthalmology, Manila Central University College of Medicine, Caloocan city, Philippines. 2. Department of Ophthalmology, Jose R. Reyes Memorial Medical Center, Manila, Philippines.

41: SY5-5

Recent development of high-resolution MR imaging for Neuro-ophthalmology

Speaker: Masato Hashimoto¹

1. Department of Ophthalmology, Sapporo Medical University, Sapporo, Hokkaido, Japan.

12:20 PM - 1:20 PM

501 (5F)/Room 2

Luncheon Seminar 2 Postoperative Care for Ophthalmic Surgery

Sponsored by Otsuka Pharmaceutical Co., Ltd.

Organizer

Jun Shimazaki

Tokyo Dental College Ichikawa General Hospital, Ichikawa, Chiba, Japan

67: LS2-1

Endophthalmitis Prophylaxis for Cataract Surgery

Speaker: Takashi Suzuki¹

1. Department of Ophthalmology, Ehime University, Graduate School of Medicine, Toon, Ehime, Japan.

68: LS2-2

Postoperative Care of Ocular Surface after Ophthalmic Surgery

Speaker: Tetsuya Kawakita¹

1. Department of Ophthalmology, Keio University School of Medicine, Shinjuku, Tokyo, Japan.

69: LS2-3

Postoperative Care for Refractive Surgery

Speaker: Kazutaka Kamiya¹

1. Dept of Ophthalmology, Kitasato University, Sagamihara, Kanagawa, Japan.

2:10 PM - 3:40 PM

501 (5F)/Room 2

Symposium 6 What's New in IgG4 Related Ophthalmic Disease

Organizers

Masayuki Takahira

Kanazawa University School of Medicine, Kanazawa, Ishikawa, Japan

Hiroshi Goto

Tokyo Medical University, Shinjuku, Tokyo, Japan

81: SY6-1

Historical overview of IgG4 related disease

Speaker: Mitsuhiro Kawano¹

1. Division of Rheumatology Department of Internal Medicine, Kanazawa University Hospital, Kanazawa, Ishikawa, Japan.

82: SY6-2

Epidemiology and current diagnostic criteria of IgG4 related ophthalmic disease

Speaker: Masayuki Takahira¹

1. Department of Ophthalmology, Kanazawa University School of Medicine, Kanazawa, Ishikawa, Japan.

83: SY6-3

Clinical features of IgG4 related ocular diseases

Speaker: David Ta-Li Liu¹

1. Dennis Lam & Partners Eye Center, Central, Hong Kong.

84: SY6-4

Differential diagnosis of IgG4 related ophthalmic disease

Speaker: Sunny Shen^{1,2} Anita Chan^{1,2}

1. Singapore National Eye Center, Singapore, Singapore. 2. Singapore Eye Research Institute, Singapore, Singapore.

85: SY6-5

IgG4 -related ophthalmic disease and systemic evaluations

Speaker: Toshinobu Kubota¹

1. Department of Ophthalmology, National Hospital Organization Nagoya Medical Center, Nagoya, Aichi, Japan.

86: SY6-6

Therapeutic strategy for IgG4-related ophthalmic disease

Speaker: Atsushi Azumi¹

1. Department of Ophthalmology, Kobe Kaisei Hospital, Kobe, Hyogo, Japan.

4:50 PM - 5:50 PM

501 (5F)/Room 2

Afternoon Seminar 1
Evolving Femtosecond Laser Technology in
Cataract and Refractive Surgery

Sponsored by Alcon Japan Ltd.

Organizer

Shigeru Kinoshita

Kyoto Prefectural University of Medicine, Kyoto, Kyoto, Japan

180: AS1-1

Evolving Femtosecond Laser Technology in Cataract and
Refractive Surgery

Speaker: Shigeru Kinoshita¹

1. Kyoto Prefectural University of Medicine, Kyoto, Kyoto, Japan.

181: AS1-2

Introducing Femtosecond-laser to Cataract Surgery

Speaker: Hiroko Bissen-Miyajima¹

1. Department of Ophthalmology, Tokyo Dental College Suidobashi Hospital, Chiyoda-ku, Tokyo, Japan.

9:00 AM - 10:30 AM

502 (5F)/Room 3

**Symposium 7
Functional Testing of Vision**

Organizers

Takashi Fujikado

Osaka University School of Medicine, Suita, Osaka, Japan

Atsushi Mizota

Teikyo University, School of Medicine, Itabashi, Tokyo, Japan

12: SY7-1

Objective evaluation of the ocular functions - strabismus, visual acuity, and others: by using computer-based technologies

Speaker: Jong-Mo Seo ^{1,2} Woonhee Lee ¹ Minwon Seo ¹ Jeong-Min Hwang ³

1. Electrical Engineering and Computer Sciences, Seoul National University, Seoul, Korea (the Republic of). 2. Ophthalmology, Seoul National University Hospital, Seoul, Korea (the Republic of). 3. Ophthalmology, Seoul National University Bundang Hospital, Seongnam, Gyeonggi-do, Korea (the Republic of).

13: SY7-2

Evaluation of ganglion cell layer function by pattern ERG and PhNR

Speaker: Souichi Matsumoto ¹

1. Department of Ophthalmology, Teikyo University, School of Medicine, Itabashi, Tokyo, Japan.

14: SY7-3

Evaluation of inner retinal layers by phosphene and OCT in patients with advanced retinitis pigmentosa

Speaker: Takeshi Morimoto ¹

1. Department of Applied Visual Science, Osaka University Graduate School of Medicine, Suita, Osaka, Japan.

15: SY7-4

The Electrically Evoked Visual Responses and their Usefulness in Retinitis Pigmentosa

Speaker: Marten Erik Brelén ¹ Chi Wai Tsang ² Alvin Young ³ Jean Delbeke ⁴ Chi Pui C. Pang ¹

1. Department of Ophthalmology and Visual Sciences, Chinese University of Hong Kong, Kowloon, Hong Kong. 2. Hong Kong Eye Hospital, Hong Kong, Hong Kong. 3. Prince of Wales Hospital, Hong Kong, Hong Kong. 4. University of Gent, Gent, Belgium.

10:40 AM - 12:10 PM

502 (5F)/Room 3

**Symposium 8
OCT, Clinical Use and Future**

Organizers

Yoshiaki Yasuno

University of Tsukuba, Tsukuba, Ibaraki, Japan

Christopher K. Leung

The Chinese University of Hong Kong, Kowloon, Hong Kong

42: SY8-1

Anterior Segment OCT

Speaker: Donald Tan ^{1,2}

1. Singapore National Eye Centre, Singapore, Singapore. 2. Duke-NUS Graduate Medical School, Singapore, Singapore.

43: SY8-2

Latest advances in retinal nerve fiber layer imaging with optical coherence tomography

Speaker: Christopher K. Leung ¹

1. Department of Ophthalmology and Visual Sciences, The Chinese University of Hong Kong, Kowloon, Hong Kong.

44: SY8-3

Deep choroidal imaging using optical coherence tomography

Speaker: Yasushi Ikuno ¹

1. Department of Ophthalmology, Osaka University Graduate School of Medicine, Suita, Osaka, Japan.

45: SY8-4

Polarization and Doppler ocular imaging

Speaker: Yoshiaki Yasuno ^{1,2}

1. Computational Optics Group, University of Tsukuba, Tsukuba, Ibaraki, Japan. 2. Computational Optics and Ophthalmology Group, Tsukuba, Japan.

46: SY8-5

Measurement of Retinal Blood-Flow by Doppler-OCT

Speaker: Taiji Nagaoka ¹

1. Department of Ophthalmology, Asahikawa Medical University, Asahikawa, Hokkaido, Japan.

47: SY8-6

Retinal oximetry using visible-light OCT

Speaker: Hao Zhang ^{2,1}

1. Department of Ophthalmology, Northwestern University, Chicago, IL, United States. 2. Department of Biomedical Engineering, Northwestern University, Evanston, IL, United States.

12:20 PM - 1:20 PM

502 (5F)/Room 3

Luncheon Seminar 3 Clinical and Basic Updates on Angiogenesis and Vascular Biology in the Eye

Sponsored by Novartis Pharma K.K.

Organizer

Susumu Ishida

Hokkaido University Graduate School of Medicine, Sapporo,
Hokkaido, Japan

70: LS3-1

Clinical updates: neovascularization related to retinal/ choroidal disease

Speaker: Atsushi Otani¹

1. Department of Ophthalmology,, Japanese Red Cross Society,
Wakayama Medical Center, Wakayama, Japan.

71: LS3-2

Stemming Vision Loss with Stem Cells (and a little help from VEGF, HIFs and VHL)

Speaker: Martin Friedlander^{1,2}

1. Department of Cell and Molecular Biology,, The Scripps Research
Institute, La Jolla, CA, United States. 2. The Lowy Medical Research
Institute, La Jolla, CA, United States.

2:10 PM - 3:40 PM

502 (5F)/Room 3

Symposium 9 Friendship Makes it Possible! - Vision Van Project

In conjunction with Japan Ophthalmologists
Association / Cataract Foundation Japan

Organizers

Shigeru Takano

Japan Ophthalmologists Association, Minato, Tokyo, Japan

Keiichi Kato

Miyagi Ophthalmologists Association, Kurokawa, Miyagi, Japan

Kazuo Tsubota

Keio University School of Medicine, Shinjuku, Tokyo, Japan

87: SY9-1

Vision Van Project Overview

Speaker: Kazuo Tsubota¹

1. Department of Ophthalmology, Keio University School of Medicine,
Shinjuku, Tokyo, Japan.

88: SY9-2

Concept and History of Vision Van

Speaker: Eduardo Alfonso¹

1. Bascom Palmer Eye Institute, Miami, FL, United States.

89: SY9-3

The Bascom Palmer Eye Institute Vision Van Experience

Speaker: Richard K. Lee¹

1. Bascom Palmer Eye Institute/ University of Miami Miller School of
Medicine, Miami, FL, United States.

90: SY9-4

Stories from the U.S. and Japan to the Philippines

Speaker: Toru Nakazawa¹

1. Department of Ophthalmology, Tohoku University Graduate School
of Medicine, Sendai, Miyagi, Japan.

91: SY9-5

The Japan Vision Van and the Aftermath of "Typhoon Yolanda"

Speaker: Amelia C. Reyes¹

1. Eastern Visayas Society of Ophthalmology, Philippine Academy of
Ophthalmology, Makat, Philippines.

92: SY9-6

Eye Get By with a Little Help from My Friends: A Story of International Cooperation for Disaster Relief and Rehabilitation

Speaker: Harvey Uy^{1,2}

1. Philippine Academy of Ophthalmology, Makati City, Philippines. 2.
Pacific Eye and Laser Institute, Makati City, Philippines.

4:50 PM - 5:50 PM

502 (5F)/Room 3

**Afternoon Seminar 2
Current Management of Choroidal
Neovascularization due to Pathologic
Myopia**

Sponsored by Bayer Yakuhin, Ltd.

Organizer

Kyoko Ohno-Matsui

Tokyo Medical and Dental University, Bunkyo, Tokyo, Japan

182: AS2-1

Epidemiology and Diagnosis of mCNV in Asia

Speaker: Gemmy Cheung¹

1. Singapore Eye Research Institute, Singapore, Singapore.

183: AS2-2

Treatment of myopic CNV

Speaker: Yasushi Ikuno¹

1. Department of Ophthalmology, Osaka University Graduate School of Medicine, Suita, Osaka, Japan.

9:00 AM - 10:30 AM

503 (5F)/Room 4

Symposium 10 Advances in Drug Delivery

In conjunction with ARVO

Organizers

William Mieler

University of Illinois at Chicago, Chicago, IL, United States

Jennifer J. Kang Mieler

Illinois Institute of Technology, Chicago, IL, United States

16: SY10-1

Overview of Methods of Drug Delivery

Speaker: William Mieler¹

1. University of Illinois at Chicago, Chicago, IL, United States.

16b: SY10-2

Topical NSAIDs in the Treatment of Posterior Segment Diseases

Speaker: Taiji Sakamoto¹

1. Department of Ophthalmology, Kagoshima University Graduate School of Medicine and Dental Sciences, Kagoshima, Kagoshima, Japan.

16c: SY10-3

Present and Future Devices for Intraocular Sustained Drug Delivery

Speaker: Tsutomu Yasukawa¹

1. Department of Ophthalmology and Visual Science, Nagoya City University Graduate School of Medical Sciences, Nagoya, Aichi, Japan.

18: SY10-4

A 3-D Intravitreal Injection Device

Speaker: Marten Brelen¹

1. Department of Ophthalmology and Visual Sciences, Chinese University of Hong Kong, Kowloon, Hong Kong.

17: SY10-5

Sustained Delivery of anti-VEGF agents via microsphere-thermo-responsive hydrogels

Speaker: Jennifer J. Kang Mieler¹

1. Department of Biomedical Engineering Pritzker Institute of Biomedical Science and Engineering, Illinois Institute of Technology, Chicago, IL, United States.

17b: SY10-6

Polymeric Device for Transscleral Drug Delivery to the Posterior Segment

Speaker: Nobuhiro Nagai¹

1. Tohoku University, Sendai, Japan.

17c: SY10-7

Neuromodulation Therapy with Microcurrent Stimulation of the Retina

Speaker: Madhavan Jagadeesan¹

1. Hospital for Sick Children, Toronto, QC, Canada.

10:40 AM - 12:10 PM

503 (5F)/Room 4

Symposium 11 The Contribution of the Retinal Circadian System to the Aging of the Retina

Organizer

Gianluca Tosini

Morehouse School of Medicine, Atlanta, GA, United States

48: SY11-1

The retinal circadian clock and melatonin protect photoreceptors from aging

Speaker: Gianluca Tosini¹ Kenkichi Baba¹

1. Neuroscience Institute and Department of Pharmacology, Morehouse School of Medicine, Atlanta, GA, United States.

49: SY11-2

Dopamine, Retinal Circadian Clocks, and Visual Function

Speaker: P.Michael Iuvone^{1,2}

1. Department of Ophthalmology, Emory University School of Medicine, Atlanta, GA, United States. 2. Pharmacology, Emory University School of Medicine, Atlanta, GA, United States.

50: SY11-3

Light-dark condition regulates Sirtuins in the retina

Speaker: Yoko Ozawa¹

1. Department of Ophthalmology, Keio University School of Medicine, Shinjuku, Tokyo, Japan.

51: SY11-4

The circadian clock and melanopsin: a blue light-sensitive photopigment in mammalian retinal ganglion cells

Speaker: Megumi Hatori¹

1. Salk Institute for Biological Studies/Department of Ophthalmology, Keio University School of Medicine, Shinjuku, Tokyo, Japan.

12:20 PM - 1:20 PM

503 (5F)/Room 4

Luncheon Seminar 4
Focus on Risk Factors of Dry Eye Disease:
What Factors Lead to Dry Eye?

Sponsored by Santen Pharmaceutical Co., Ltd.

Organizers

Kazuo Tsubota

Keio University School of Medicine, Shinjuku, Tokyo, Japan

Kohji Nishida

Osaka University Graduate School of Medicine, Suita, Osaka, Japan

72: LS4-1

Dry eye after cataract surgery

Speaker: Yuan Jin¹

1. Zhongshan Ophthalmic Center, Sun Yat-Sen University, Guangzhou, China.

72b: LS4-2

Medication-related dry eye

Speaker: Taichiro Chikama¹

1. Hiroshima University, Hiroshima, Japan.

73: LS4-3

Contact lens-related dry eye

Speaker: Shizuka Koh¹

1. Department of Ophthalmology, Osaka University Graduate School of Medicine, Suita, Osaka, Japan.

74: LS4-4

Dry eye with MGD

Speaker: Jong Suk Song¹

1. Korea University, Seoul, Korea (the Republic of).

2:10 PM - 3:40 PM

503 (5F)/Room 4

Symposium 12
Update on Glaucoma Management

In conjunction with EVER

Organizers

Leopold Schmetterer

Medical University Vienna, Wien, Austria

Gordana S. Megevan

Center Rothschild Foundation, Genève, Switzerland

93: SY12-1

Structure and Function and their clinical relevance in the new EGS Guidelines

Speaker: Anton Hommer^{1,2}

1. Department of Clinical Pharmacology, Medical University Vienna, Wien, Austria. 2. Hera Hospital, Vienna, Austria.

94: SY12-2

Vascular imaging in Glaucoma

Speaker: Leopold Schmetterer¹

1. Department of Clinical Pharmacology, Medical University Vienna, Wien, Austria.

95: SY12-3

Compliance and its relevance for Glaucoma

Speaker: Gerhard Garhofer¹

1. Department of Clinical Pharmacology, Medical University Vienna, Wien, Austria.

96: SY12-4

Pulmonary hypertension and Glaucoma

Speaker: Anita Leys¹

1. Department of Ophthalmology, University Hospital Leuven, Leuven, Belgium.

97: SY12-5

Glaucoma treatment beyond IOP and life style

Speaker: Gordana S. Megevan¹

1. Center Rothschild Foundation, Genève, Switzerland.

4:50 PM - 5:50 PM

503 (5F)/Room 4

Afternoon Seminar 3

The Consensus of the Asia Dry Eye Society on the Concept of Dry Eye

Sponsored by Santen Pharmaceutical Co., Ltd.

Organizers

Kazuo Tsubota

Keio University School of Medicine, Shinjuku, Tokyo, Japan

Zuguo Liu

Xiamen Eye Center of Xiamen University, Xiamen, Fujian,
China

Hyo-Myung Kim

Korea University, Seoul, Korea (the Republic of)

184: AS3-1

Diagnostic Methodology of Dry eye syndrome

Speaker: Hung-Won Tchah¹

1. University of Ulsan, Seoul, Korea (the Republic of).

Study Group: none

185: AS3-2

Pathophysiology and classification of the dry eye

Speaker: Xuguang Sun¹

1. Ocular Microbiology, Tongren Eye Center, Beijing, China.

186: AS3-3

Short Breakup Time (BUT)-Type Dry Eye

Speaker: Norihiko Yokoi¹

1. Department of Ophthalmology, Kyoto Prefectural University of
Medicine, Kamigyo, Kyoto, Japan.

9:00 AM - 10:00 AM

315 (3F) / Room 5

Retinal Cell Biology 1

Moderators

Akihiro Ohira

Shimane University School of Medicine, Izumo, Shimane, Japan

Yoko Ozawa

Keio University School of Medicine, Shinjuku, Tokyo, Japan

19-1

Withdrawn

Activation of TLR3 promotes the degeneration of retinal ganglion cells by up-regulating the expression of JNK3

Shravan Chintala¹ Nahrain Putris¹ Mason Geno¹

1. Eye Research Institute, Oakland University, Rochester, MI, United States.

20-2

Heterotrimeric Kinesin-2 Mediates Transition Zone and Axoneme Formation of Mouse Photoreceptors

Li Jiang¹ Yuxiao Wei¹ Cecinio C. Ronquillo¹ Sen Wu² Robert E. Marc¹ Jeanne M. Frederick¹ Wolfgang Baehr^{1,3}

1. Department of Ophthalmology and Visual Sciences, University of Utah Health Science Center, Salt Lake City, UT, United States. 2. State Key Laboratory of Agrobiotechnology, College of Biological Sciences, China Agricultural University, Beijing, China. 3. Department of Biology, University of Utah Health Science Center, Salt Lake City, UT, United States.

21-3

Molecular Basis for Retinitis Pigmentosa Associated with the Defect of SNRNP200- Pre-mRNA Splicing

Yuan Liu¹ Xue Chen¹

1. Department of Ophthalmology, The First Affiliated Hospital of Nanjing Medical, NanJing, China.

22-4

Amelioration of age-related eye diseases in a spontaneous obese rat model by dietary intervention

Yadagiri Reddy Paduru¹ Shivalingam Pothula¹ Harishankar N² Uday Kumar Chekilla¹ S. Sreenivasa Reddy¹ Shruthi Karanam¹ G Bhanuprakash Reddy¹

1. Biochemistry, National Institute of Nutrition, Hyderabad, Telangana, India. 2. National Centre for Laboratory Animal Sciences, Hyderabad, India.

23-5

Reprogramming human newborn RPE cells toward retinal progenitor cells by SOX2

Razie Ezati¹ Zahra-soheila Soheili¹ Shahram Samei² Azadeh Etemadzadeh¹ Ehsan Ranaei pimardan^{4,1} Hamid Ahmadi³ Alireza Zomorodipour¹

1. National Institute of Genetic Engineering and Biotechnology, Tehran, Iran (the Islamic Republic of). 2. Iranian Blood Transfusion Organization research Center, Tehran, Iran (the Islamic Republic of). 3. Ophthalmic Research Center, Shahid Beheshti University of Medical Sciences, Tehran, Iran (the Islamic Republic of). 4. Tarbiat modares university, Tehran, Iran (the Islamic Republic of).

24-6

Protective effect of B101, a mixture of nutrients, in a retinal degeneration mouse model

Tomoko Hasegawa¹ Hanako O. Ikeda^{1,2} Masayuki Hata^{1,2} Yuki Muraoka¹ Akira Kakizuka³ Nagahisa Yoshimura¹

1. Department of Ophthalmology and Visual Sciences, Kyoto University Graduate School of Medicine, Kyoto, Japan. 2. Institute for Advancement of Clinical and Translational Science, Kyoto University Hospital, Kyoto, Japan. 3. Laboratory of Functional Biology, Kyoto University Graduate School of Biostudies, Kyoto, Japan.

10:05 AM - 11:05 AM

315 (3F) / Room 5

Retinal Cell Biology 2

Moderators

Peizeng Yang

The First Affiliated Hospital Chongqing Medical University/
Chongqing Eye Institute, Chongqing, China

Nahoko Ogata

Nara Medical University, Kashihara, Nara, Japan

25-1

Pericyte-deficient retinopathy models, Novel animal models for progressive diabetic retinopathy

Junyeop Lee¹ Akiyoshi Uemura³ Gou Young Koh² Young Hee Yoon¹

1. Department of Ophthalmology, Asan Medical Center, University of Ulsan, College of Medicine, Seoul, Korea (the Republic of). 2. Graduate School of Medical Science and Engineering, Korea Advanced Institute of Science and Technology, Daejeon, Korea (the Republic of). 3. Department of Retinal Vascular Biology, Nagoya City University, Graduate School of Medical Sciences, Nagoya, Japan.

26-2

Ursodeoxycholic acid attenuates endoplasmic reticulum stress-related pericyte loss in diabetic retinopathy of streptozotocin-treated mice

Yoo-Ri Chung¹ Jeong A Choi² Min Ji Kang³ Jae-Young Koh^{2,4} Young Hee Yoon¹

1. Ophthalmology, Asan Medical Center, Seoul, Korea (the Republic of). 2. Neural Injury Research Center, Asan Medical Center, Seoul, Korea (the Republic of). 3. Biomedical Science, University of Ulsan College of Medicine, Seoul, Korea (the Republic of). 4. Neurology, Asan Medical Center, Seoul, Korea (the Republic of).

27-3

Enriched CD146+ adipose stromal cells display increased migration and adhesion, Ameliorate retinal ischemia-reperfusion injury

Yogesh Jonna³ Ahmed Ramadan^{3,1} Josy Augustine³ Gangaraju Rajashekhar^{2,1}

1. Ophthalmology, Eugene and Marilyn Glick Eye Institute, Indianapolis, IN, United States. 2. Ophthalmology, Cellular and Integrative Physiology, Indiana University School of Medicine, Indianapolis, IN, United States. 3. Ophthalmology, Indiana University School of Medicine, Indianapolis, IN, United States.

28-4

Altered ER-stress and ubiquitin-proteasome system leads to photoreceptor death in obese rat model

G Bhanuprakash Reddy¹ S. Sreenivasa Reddy¹ Karanam Shruthi¹ Yadagiri Reddy Paduru¹ Radha Ayyagari²

1. Biochemistry, National Institute of Nutrition, Hyderabad, Telangana, India. 2. Ophthalmology, University of California, San Diego, CA, United States.

29-5

Transplantation of rod progenitors after ex vivo gene correction improves vision in a model of autologous cell replacement for retinitis pigmentosa

Alona O. Cramer Barnea¹ Mandeep S. Singh¹ M. Dominik Fischer¹ Samantha De Silva¹ Michelle E. McClements¹ Alun R. Barnard¹ Robert E. MacLaren¹

1. Clinical Neurosciences, University of Oxford, Oxford, United Kingdom.

Study Group: Nuffield Laboratory of Ophthalmology

30-6

Investigating the role of bone marrow derived CD34+ve cells in NMDA injured mouse retina upon transplantation

Akshay Anand¹ Neeru Jindal¹

1. Neuroscience Research Lab, Department of Neurology, Postgraduate Institute of Medical Education and Research, Chandigarh, India.

11:10 AM - 12:10 PM

315 (3F) / Room 5

Retinal Cell Biology 3

Moderators

Chi-Chao Chan

National Eye Institute, National Institutes of Health, Bethesda, MD, United States

Atsushi Hayashi

University of Toyama, Toyama, Tomaya, Japan

52-1

Enhanced proliferation of retinal pigment epithelial cells by low-level laser irradiation

Yalong Dang^{1,2} Chun Zhang²

1. Department of Ophthalmology, the First Affiliated Hospital of Zhengzhou University, Zhengzhou, China. 2. Department of Ophthalmology, Peking University Third Hospital, Beijing, China.

53-2

PEDF Improves Mitochondrial Function in RPE cells During Oxidative Stress

Yuan He¹

1. Ophthalmology, The Second Affiliated Hospital of Xi'an College of Medicine, Xi'an, China, Xi'an, Shaanxi, China.

54-3

Cell Death in Age-Related Macular Degeneration, an Immunopathological and Ultrastructural Model

Chi-Chao Chan¹ Nicholas A. Popp¹ Christopher Ardeljan² Shida Chen^{1,3} Mones Abu-Asab²

1. Laboratory of Immunology, Immunopathology Section, National Eye Institute, National Institutes of Health, Bethesda, MD, United States. 2. Histology Core, National Eye Institute, National Institutes of Health, Bethesda, MD, United States. 3. Zhongshan Ophthalmic Center, Guangzhou, Guangdong, China.

55-4

MicroRNA-150 regulates pathologic ocular neovascularization by modulating endothelial cell function

Chi-Hsiu Liu¹ Ye Sun¹ Jie Li¹ Lucy P. Evans¹ Katherine T. Tian¹ Jing Chen¹

1. Department of Ophthalmology, Boston Children's Hospital/Harvard Medical School, Boston, MA, United States.

56-5

Conditional knockout of Wnt co-receptors, Lrp5 and Lrp6, manifests persistent hyaloid vasculatures

Yoshinobu Odaka¹ Gowri Nayak-Sarangdhar¹ Maya Dassanayake² Shruti Vemaraju¹ Richard A. Lang¹

1. Ophthalmology, Vision Systems Group, Cincinnati Children's Hospital Medical Center, Cincinnati, OH, United States. 2. Wayne State University School of Medicine, Detroit, MI, United States.

57-6

HIF-1alpha and HIF-2alpha in the neuron are essential for the retinal vascular development

Toshihide Kurihara^{1,2} Yoshihiko Usui² Edith Aguilar² Peter D. Westenskow² Martin Friedlander²

1. Ophthalmology, Keio University School of Medicine, Tokyo, Japan. 2. The Scripps Research Institute, La Jolla, CA, United States.

Retina 1**Moderators****Sunil Srivastava**

Cleveland Clinic, Cleveland, OH, United States

Yoshinori MitamuraInstitute of Health Biosciences, The University of Tokushima
Graduate School, Tokushima, Tokushima, Japan**98-1****Unilateral Peripapillary Intrachoroidal Cavitation and Optic Disc Rotation**Yi Dai ¹ Jost B. Jonas ² Xinghuai Sun ¹

1. Ophthalmology, Eye & ENT Hospital, Fudan University, Shanghai, China. 2. Ophthalmology, Medical Faculty Mannheim of the Ruprecht-Karls-University, Heidelberg, Germany.

99-2**Retinal Vessels Analysis, In Vivo Visualization of Systemic Microvasculature in Pre eclampsia and Hypertension in Pregnancy**Mohammadreza Peyman ¹ Azam Bakhtiari ² Mimiwati Zahari ¹
Siti Zawiah Omar ²

1. Ophthalmology, University of Malaya, Kuala Lumpur, Malaysia. 2. University Malaya, Kuala Lumpur, Malaysia.

100-3**Slit-lamp adapter for smartphone**Sumihiro Kawano ^{1,2} Hiroki Kawano ¹ Hiroto Terasaki ¹ Toyoko Yanagita ² Taiji Sakamoto ¹

1. Ophthalmology, Kagoshima Univ Faculty of Med, Kagoshima, Kagoshima, Japan. 2. Ophthalmology, Tarumizu Chuo Hospital, Tarumizu, Kagoshima, Japan.

101-4**Intraoperative OCT (iOCT) utilizing a microscope integrated system with heads-up surgeon display, The DISCOVER Study**Sunil Srivastava ¹ Peter Kaiser ¹ Rishi Singh ¹ Justis Ehlers ¹

1. Cole Eye Institute, Cleveland Clinic, Cleveland, OH, United States.

102-5**Quantitative Analysis of Diabetic Choroidopathy using En Face Swept Source Optical Coherence Tomography**Tarek Alasil ^{1,2} Daniela Ferrara ² Caroline R. Baumal ² James G. Fujimoto ³ Jay S. Duker ² Nadia K. Waheed ²

1. Ophthalmology, Yale Eye Center, New Haven, CT, United States. 2. Ophthalmology, New England Eye Center, Boston, MA, United States. 3. Department of Engineering and Computer Science and Research Laboratories of Electronics, Massachusetts Institute of Technology, Cambridge, MA, United States.

103-6**First Result of the Hamburg Eye Vessel Study, Novel technique for SD-OCT based analysis of arteries and veins**Robert Kromer ¹ Shafin Rahman ² Maren Klemm ¹

1. University Eye Clinic Hamburg-Eppendorf, Hamburg, Germany. 2. University of Manitoba, Manitoba, MB, Canada.

11:10 AM - 12:10 PM

311/312 (3F) / Room 6

Lens - Paper**Moderators****Wei Han**

The First Affiliated Hospital, Zhejiang University, Hangzhou, Zhejiang, China

Daijiro Kurosaka

Iwate Medical University School of Medicine, Morioka, Iwate, Japan

58-1**A new histological evaluation to detect residual OVDs in cataract surgery**Hidetsugu Mori¹ Haruhiko Yamada¹ Kanji Takahashi¹

1. Ophthalmology, Kansai Medical University, Hirakata Hospital, Hirakata, Japan.

59-2**Intraoperative floppy-iris syndrome associated with antipsychotic**Masato Matsuo¹ Ichiya Sano¹ Yoshifumi Ikeda¹ Etsuko Fujihara¹ Masaki Tanito¹

1. Matsue Red Cross Hospital, Matsue, Japan.

Study Group: Division of Ophthalmology, Matsue Red Cross Hospital, Matsue, Shimane, Japan

60-3**Spectral-Domain Optical Coherence Tomography Analysis of Corneal Epithelial Thickness Changes after Cataract Surgery**Tianyu Zheng¹ Yi Lu¹ Wenwen He¹

1. EYE and ENT Hosp of Fudan Univ, Shanghai, China.

Study Group: cataract study group of Shanghai EENT hospital

61-4**A lens model for the in vivo expression and self assembly of human proteins**John I. Clark¹

1. Biological Structure, Univ of Washington, Seattle, WA, United States.

62-5**Normal Expression of AQP0 Protein is Required for Maintaining the Integrity of Interlocking Domains and Transparency of the Lens**Woo-Kuen Lo¹ Sondip K. Biswas¹ Lawrence Brako¹ Mary Gadalla¹

1. Neurobiology, Morehouse School of Medicine, Atlanta, GA, United States.

63-6**Non-essential role for cilia in coordinating precise alignment of lens fibre**Yuki Sugiyama¹ Elizabeth Shelley¹ Li Wen¹ Frank J. Lovicu¹ John McAvoy¹

1. Save Sight Institute, University of Sydney, Sydney, NSW, Australia.

2:10 PM - 3:10 PM

311/312 (3F) / Room 6

Cornea 1**Moderators****Friedrich E. Kruse**

University of Erlangen-Nuremberg, Erlangen, Germany

Noriko Koizumi

Faculty of Life and Medical Sciences, Doshisha University, Kyoto, Kyoto, Japan

104-1**Changes in corneal haze five years after endothelial keratoplasty for Fuchs endothelial dystrophy**Sanjay V. Patel¹ Keith H. Baratz¹ Jay W. McLaren¹

1. Ophthalmology, Mayo Clinic, Rochester, MN, United States.

105-2**Factors Associated with the Endothelial Cell Loss after Descemet's Stripping Automated Endothelial Keratoplasty**Takefumi Yamaguchi^{1,2} Nobuhito Ishii¹ Seika Shimazaki-Den¹ Yoshiyuki Satake¹ Jun Shimazaki^{1,2}

1. Department of Ophthalmology, Ichikawa General Hospital, Tokyo Dental College, Chiba, Japan. 2. Department of Ophthalmology, Keio University School of Medicine, Tokyo, Japan.

106-3**Investigation of the efficacy of Descemet's membrane removal during cultivated corneal endothelial cell injection in a rabbit model**Shinichiro Nakano¹ Naoki Okumura^{1,2} Junji Kitano¹ Shigeru Kinoshita² Noriko Koizumi¹

1. Department of Biomedical Engineering, Doshisha University, Kyoto, Japan. 2. Department of Ophthalmology, Kyoto Prefectural University of Medicine, Kyoto, Kyoto, Japan.

107-4**Intraoperative Optical Coherence Tomography for Anterior Segment Surgeries**Hiroto Mitamura^{1,2} Takefumi Yamaguchi^{1,2} Daisuke Tomida¹ Nobuhito Ishii¹ Seika Den Shimazaki¹ Yoshiyuki Satake¹ Jun Shimazaki^{1,2}

1. Department of Ophthalmology, Ichikawa General Hospital, Tokyo Dental College, Ichikawa, Chiba, Japan. 2. Department of Ophthalmology, Keio University School of Medicine, Shinjyuku, Tokyo, Japan.

108-5**Hyaluronan protects corneal endothelial cells against the noxious effect of extracellular histones after phacoemulsification**Hiroki Kawano¹ Taiji Sakamoto¹

1. Department of Ophthalmology, Kagoshima University Graduate School of Medical and Dental Sciences, Kagoshima, Kagoshima, Japan.

109-6

Mutation in Collagen, type XVII, alpha 1 (COL17A) causes Epithelial Recurrent Erosion Dystrophy (ERED) in northern Sweden

Frida Jonsson ¹ Berit Byström ² Ludvig Backman ³ Therese Kellgren ⁴ Patrik Ryden ⁴ Patrik Danielson ³ Ola Sandgren ² Irina Golovleva ¹

1. Medical Biosciences, Umeå University, Umeå, Sweden. 2. Clinical Sciences, Umeå University, Umeå, Sweden. 3. Integrative Medical Biology, Umeå University, Umeå, Sweden. 4. Mathematics and Mathematical Statistics, Umeå University, Umeå, Sweden.

3:45 PM - 4:45 PM 301-304 (3F) / Exhibition Hall

Anatomy/Pathology - Poster

110 - P01-1

Increased choroidal blood flow velocity with regression of unilateral acute idiopathic maculopathy

Yuki Hashimoto¹ Wataru Saito¹ Michiyuki Saito¹ Kiriko Hirooka¹ Shohei Mori¹ Kousuke Noda¹ Susumu Ishida¹

1. Hokkaido University Graduate School of Medicine, Sapporo, Japan.

111 - P02-2

Diabetic Retinal and Choroidal Edema in SDT Rats

Fumihiko Toyoda¹ Akihiro Kakehashi¹ Hiroko Takano¹ Nozomi Kinoshita¹ Machiko Shimmura¹ Ayumi Ota¹ Yoshiaki Tanaka¹ Shiho Uehara¹

1. Department of Ophthalmology, Jichi Medical University, Saitama Medical Center, Saitama, Japan.

112 - P03-3

Age related changes in the Korean pediatric human orbit on CT

Hee-Bae Ahn¹ Woo seok Choi¹ Hyun wook Shin¹ Woo Jin Jeong¹ Yoon Hyung Kwon¹ Won Yeol Ryu¹

1. Department of Ophthalmology, College of Medicine, Dong-A University, Busan, Korea (the Republic of).

113 - P04-4

Correlation Between Serum Level of Vascular Endothelial Growth Factor And Subfoveal Choroidal Thickness In Patients With POEMS Syndrome

Hirotaoka Yokouchi¹ Takayuki Baba¹ Masayasu Kitahashi¹ Toshiyuki Oshitari¹ Shuichi Yamamoto¹

1. Ophthalmology, Chiba University, Chiba, Chiba, Japan.

114 - P05-5

Ocular Morphology and Retinal Optics Technology for the Mechanism of Accommodation Improvement in Myope with Orthokeratology

Fan Lu¹ Meixiao Shen¹ Yilei Shao¹ Yimin Yuan¹ Weigen Zhu¹

1. Wenzhou Medical University, Wenzhou, China.

Study Group: Ocular imaging Laboratory

115 - P06-6

Evaluation of 12 myopia-associated genes in Chinese patients with high myopia

Qingjiong Zhang¹ Jiali Li¹ Dan Jiang¹ Xueshan Xiao¹ Shiqiang Li¹ Xiaoyun Jia¹ Wenmin Sun¹ Xiangming Guo¹

1. State Key Laboratory of Ophthalmology, Zhongshan Ophthalmic Center, Sun Yat-sen University, Guangzhou, China.

116 - P07-7

Investigation of the association between LAMA2 and EGR-1 polymorphisms and high myopia in Chinese

Wei Han¹ Hui Fang¹ Fang-yu Lin¹

1. Department of Ophthalmology, The First Affiliated Hospital, Zhejiang University, Hangzhou, Zhejiang, China.

117 - P08-8

Form deprivation myopia in wistar rats

Kosei Shinohara¹ Takeshi Yoshida¹ Tomoka Ishida¹ Liu Hongding¹ Ikuo Morita² Kyoko Ohno-Matsui¹

1. ophthalmology, Tokyo Medical and Dental University, Bunkyo-ku, Japan. 2. Section of Cellular Physiological Chemistry, Tokyo Medical and Dental University, Bunkyo-ku, Japan.

118 - P09-9

A case of myopia progression restrained by a corneal foreign body during childhood

Keisuke Kanda¹ Naoyuki Maeda¹ Takashi Fujikado¹ Kohji Nishida¹

1. Osaka University Graduate School of Medicine, Osaka, Japan.

119 - P10-10

Macular Thickness Profiles of Intra-retinal Layers in Myopia Evaluated by Ultra-High Resolution Optical Coherence Tomography

Xinting Liu¹ Yimin Yuan¹ Shenghai Huang¹ Dexi Zhu¹ Qingkai Ma¹ Xinjie Ye¹ Fan Lu¹ Meixiao Shen¹

1. Wenzhou Medical University, Wenzhou, China.

Study Group: Ocular Imaging Laboratory

120 - P11-11

Improvement of accommodation dynamics in myopic overnight orthokeratology

Meixiao Shen¹ Yilei Shao¹ Yimin Yuan¹ Weigen Zhu¹ Fan Lu¹

1. Wenzhou Medical University, Wenzhou, China.

Study Group: Ocular Imaging Laboratory

121 - P12-12

Use of atropine for prevention of childhood myopia progression in clinical practice, efficacy and safety during treatment and when tapering off medication

Kendrick Shih¹ Dorothy S. Fan^{2,1}

1. Department of Ophthalmology, Li Ka Shing Faculty of Medicine, The University of Hong Kong, Hong Kong, Hong Kong. 2. Department of Ophthalmology, Hong Kong Sanatorium and Hospital, Hong Kong, Hong Kong.

122 - P13-13

Detection of mutations in LRPAP1, CTSH, ZNF644, and SCO2 in 298 families with early-onset high myopia by exome sequencing

Xueshan Xiao¹ Dan Jiang¹ Shiqiang Li¹ Xiaoyun Jia¹ Jiali Li¹ Wenmin Sun¹ Xiangming Guo¹ Qingjiong Zhang¹

1. State Key Laboratory of Ophthalmology, Zhongshan Ophthalmic Center, Sun Yat-sen University, Guangzhou, China.

123 - P14-14

Bcl-2 associated athanogene 3 protects against hyperthermic stress by modulating nuclear factor-kappa B and extracellular signal-regulated kinase activities in human retinoblastoma Y79 cells

Tatsuya Yunoki¹ Yoshiaki Tabuchi¹ Atsushi Hayashi¹ Takashi Kondo¹

1. University of Toyama, Toyama, Japan.

124 - P15-15

A case of ciliary body leiomyoma with prominent accumulation of fluorodeoxyglucose (FDG) in FDG-PET/CT

Kan Ishijima¹ Satoru Kase¹ Hiroshi Yoshikawa² Shigenobu Suzuki³ Yasuhiro Shinmei¹ Kenichi Namba¹ Mayo Nozaki¹ Mika Noda¹ Susumu Ishida¹

1. Department of Ophthalmology Hokkaido University School of Medicine, Sapporo, Japan. 2. Department of Ophthalmology, Faculty of Medicine, Kyushu University, Fukuoka, Japan. 3. Department of Ophthalmic Oncology, National Cancer Center Hospital, Tokyo, Japan.

3:45 PM - 4:45 PM 301-304 (3F) / Exhibition Hall

Glaucoma - Poster

125 - P16-1

Protective effect of Etanercept, an inhibitor of tumor necrosis factor- α (TNF- α), in a rat model of retinal ischemia

Hyoung Won Bae¹ Yun Ha Lee¹ Sang Jin Seo¹ Sang Yeop Lee¹ Yoo Kyung Song¹ Samin Hong¹ Gong Je Seong¹ Chan Yun Kim¹

1. Ophthalmology, Yonsei University College of Medicine, Seoul, Korea (the Republic of).

126 - P17-2

Induction of Heat Shock Protein 70 (HSP70) by Geranylgeranylacetone is Critical for Retinal Ganglion Cell Protection

Yasuhiro Shinmei¹ Zhenyu Dong² Kousuke Noda¹ Nobuyoshi Kitaichi² Atsuhiko Kanda¹ Takeshi Ohguchi¹ Takayuki Harada³ Shinki Chin¹ Susumu Ishida¹

1. Department of Ophthalmology, Hokkaido University Graduate School of Medicine, Sapporo, Japan. 2. Department of Ophthalmology, Health Sciences University of Hokkaido, Sapporo, Japan. 3. Department of Molecular Neurobiology, Tokyo Metropolitan Institute for Neuroscience, Fuchu, Japan.

127 - P18-3

An in vitro analysis of the induction mechanism of the autophagy by a component chemical of citrus peel and its application to whole animal system

Masafumi Ohtsubo¹ Yasushi Ohizumi^{2,3} Yoshihiro Hotta⁴ Shinsei Minoshima¹

1. Department of Photomedical Genomics, Medical Photonics Research Center, Hamamatsu University School of Medicine, Hamamatsu, Japan. 2. Department of Medical Biochemistry, School of Pharmaceutical Sciences, University of Shizuoka, Shizuoka, Japan. 3. Kansei Research Institute, Tohoku Fukushi University, Sendai, Japan. 4. Department of Ophthalmology, Hamamatsu University School of Medicine, Hamamatsu, Japan.

128 - P19-4

Correlation of corneal, scleral and optic nerve elasticity, and intraocular pressure on optic nerve damages

Match W. Ko¹

1. Department of Mechanical Engineering, Nazarbayev University, Astana, Kazakhstan.

129 - P20-5

Corneal biomechanical parameters in subjects with glaucoma

Yoshiaki Kiuchi¹ Ulfah Rimayanti³ Yoshitaka Nakao¹ Makoto Kanako²

1. Ophthalmology and Visual Science, Hiroshima University, Hiroshima, Japan. 2. Mechanical Engineering, Osaka University, Osaka, Japan. 3. UIN, Makassar, Indonesia.

130 - P21-6

Genetic associations of primary open angle glaucoma – a systematic review and meta-analysis

Shi Song Rong¹ Li Ma¹ Shumin Tang¹ Chi Pui C. Pang^{1,2} Li Jia Chen^{1,3}

1. The Department of Ophthalmology & Visual Sciences, The Chinese University of Hong Kong, Hong Kong, -, Hong Kong. 2. The Joint Shantou International Eye Center, Shantou University and the Chinese University of Hong Kong, Shantou, China. 3. Department of Ophthalmology, Prince of Wales Hospital, Hong Kong, China.

131 - P22-7

Clinical characteristics and autonomic function in juvenile ocular hypertension

Xin Wang¹ Xinghuai Sun¹ Liangcheng Wu² Gang Yang² Shaolin Wang²

1. Ophthalmology, Eye & ENT hospital of Fudan University, Shanghai, China. 2. Ophthalmology, Jingan Central Hospital of Shanghai, Shanghai, China.

132 - P23-8

Comparison of intraocular pressure measurements between goldmann applanation tonometry, icare tonometry and non-contact tonometry in a normal population

Fathimath N. Ahmed² Mimiwati Zahari¹ Norlina Ramli¹

1. Ophthalmology, University of Malaya, Kuala Lumpur, Selangor, Malaysia. 2. Ophthalmology, University of Malaya, Kuala Lumpur, Selangor, Malaysia.

133 - P24-9

Fluctuations of intraocular pressure during the day in angle closure glaucoma patients

Ya-Chuan Hsiao^{1,3} Tsung-Lin Yang²

1. Ophthalmology, Taipei City Hospital, Taipei, Taiwan. 2. Head and Neck surgery, National Taiwan University Hospital, Taipei, Taiwan. 3. College of Medicine, National Yang-Ming university, Taipei, Taiwan.

134 - P25-10

In vivo confocal microscopy in glaucoma patients after laser peripheral iridotomy

Sabina Sapeta¹ Ewa Mrukwa-Kominek¹

1. Department of Ophthalmology, University Centre of Ophthalmology and Oncology Medical University of Silesia, Katowice, Poland.

135 - P26-11

Relationship between Bruch's membrane opening-minimum rim width and circumpapillary retinal nerve fiber layer thickness and cutoff point of structural marker

Natsuyo Yoshida-Hata¹ Yumi Matsushita² Naomichi Katai¹ Shigeko Yashiro¹ Aya O'hira¹ Yumi Sekine¹

1. Ophthalmology, National Center for Global Health and Medicine, Shinjuku, Japan. 2. Clinical research, National Center for Global Health and Medicine, Shinjuku, Japan.

136 - P27-12

Effect of Pilocarpine on Lens Parameters in Primary Angle Closure before and after Peripheral Iridotomy

N Suchitra M Nadarajah¹ Mimiwati Zahari¹ Norlina Ramli¹ Amir Samsudin¹ Mohammadreza Peyman¹

1. Ophthalmology, University Malaya Medical Centre, Kuala Lumpur, Malaysia.

137 - P28-13

Surgical results of eyes with aniridic glaucoma

Takeshi Ohguchi¹ Yasuhiro Shinmei¹ Tomoe Uno¹ Mayo Nozaki¹ Ryo Ando¹ Takuya Nitta¹ Shinki Chin¹ Susumu Ishida¹

1. Hokkaido University Graduate School of Medicine, Sapporo, Japan.

138 - P29-14

Conservation of Primary Cilia in Trabecular Meshwork

Yang Sun^{1,2} Xinyao Hu^{1,2} Cathleen Wallmuth^{1,2} Na Luo^{1,2}

1. Ophthalmology, Indiana University, Indianapolis, IN, United States. 2. Glick Eye Institute, Indianapolis, IN, United States.

139 - P30-15

Superior segmental optic nerve hypoplasia in young Japanese subjects

Takehiro Yamashita¹ Yuya Kii¹ Minoru Tanaka¹ Kumiko Nakao¹ Taiji Sakamoto¹

1. Ophthalmology, Kagoshima University Graduate School of Medical and Dental Sciences, Kagoshima, Kagoshima, Japan.

140 - P31-16

Diagnostic ability of spectral-domain versus time-domain optical coherence tomography for assessing glaucoma in high myopia

Kuo-Chi Hung¹ Pei-Chang Wu¹ Hsueh-Wen Chang² Yi-Chieh Poon¹ Mei-Ching Teng¹

1. Ophthalmology, Kaohsiung Chang Gung Memorial Hospital and Chang Gung University College of Medicine, Kaohsiung, Taiwan. 2. Biological Sciences, National Sun Yat-Sen University, Kaohsiung, Taiwan.

3:45 PM - 4:45 PM 301-304 (3F) / Exhibition Hall

Physiology/Pharmacology - Poster

141 - P32-1

Multifunctional PEG Retinylamine Conjugate Provides Prolonged Protection against Retinal Degeneration in Mice

Guanping Yu¹ Xueming Wu¹ Akiko Maeda^{2,3} Song-Qi Gao² Marcin Golczak² Krzysztof Palczewski² Zheng-Rong Lu¹

1. Department of Biomedical Engineering, Case Western Reserve University, Cleveland, OH, United States. 2. Department of Pharmacology, Case Western Reserve University, Cleveland, OH, United States. 3. Department of Ophthalmology, Case Western Reserve University, Cleveland, OH, United States.

142 - P33-2

Protective role of ZnS nanoparticles on ER stress mediated macular degeneration in Mouse Retinal Pigment Epithelial Cells

Karthikeyan Bose¹ Harini Lakshminarasimhan¹ Kathiresan Thandavarayan¹

1. Biotechnology, Kalasalingam University, Madurai, India.

143 - P34-3

Initial Experience and Early Outcome of Using Intravitreal Aflibercept in Non-AMD Cases in Hong Kong

Lap Ki Alex Ng¹ Wai Man Chan²

1. Ophthalmology, The University of Hong Kong, Hong Kong, Hong Kong. 2. Ophthalmology, Hong Kong Sanatorium and Hospital, Hong Kong, Hong Kong.

144 - P35-4

Albumin-binding of diclofenac in aqueous humor of cataract patients and development of an administration method utilizing inhibition of protein-binding

Saya Ishii^{1,2} Mineo Ozaki^{1,2} Takashi Osaki³ Norito Takamura⁴ Kenji Ogata⁴ Jin Tokunaga⁴ Nao Setoguchi⁴ Kazuhiko Arimori⁵

1. Ozaki Eye Hospital, Hyuga, Japan. 2. Ophthalmology, Faculty of Medicine, University of Miyazaki, Miyazaki, Miyazaki, Japan. 3. Tsudanuma Eye Hospital, Narashino, Chiba, Japan. 4. Second Department of clinical Pharmacy, School of Pharmaceutical Sciences, Kyusyu University of Health and Welfare, Nobeoka, Japan. 5. Department of Pharmacy, University of Miyazaki Hospital, Miyazaki, Japan.

145 - P36-5

Relationship of Ocular Microcirculation, measured by Laser Speckle Flowgraphy, and Silent Brain Infarction in Primary Aldosteronism

Naoko Aizawa¹ Hiroshi Kunikata¹ Masataka Kudo¹ Shunji Mugikura¹ Fumihiko Nitta¹ Hidetoshi Takahashi¹ Toru Nakazawa¹

1. Tohoku University, Sendai, Japan.

146 - P37-6

Role of the carrier frequency in Doppler OCT

Tatiana Avsievich¹ Anton Potlov¹ Sergey Proskurin¹

1. Biomedical Engineering, Tambov State Technical University, Tambov, Russian Federation.

147 - P38-7

Effects of alpha-1-antitrypsin administration in a murine model of diabetic retinopathy

Gustavo Ortiz¹ Juan P. Salica¹ Lopez Emiliano¹ Jorge Mancini¹ Juan Gallo¹

1. Facultad de Ciencias Biomédicas, Universidad Austral, Pilar, Argentina.

148 - P39-8

Oxidative Stress in Patients with Diabetic Retinopathy using A Specific Biomarker, 8-Hydroxydeoxyguanosine (8OH-dG)

Ching-Ju Hsieh¹ Chung-Jun Lai^{2,1} Wei-Chung Lu^{3,1} Lin-Chung Woung^{3,1}

1. Ophthalmology, Taipei City Hospital, Taipei, Taiwan. 2. Nurse, Taipei City Hospital, Taipei, Taiwan. 3. Administration, Taipei City Hospital, Taipei, Taiwan.

149 - P40-9

Cyclosporin A modified intraocular lens prevent posterior capsular opacification in rabbit eyes

Teng He¹ Tian Fang¹ Zhang Hong¹

1. Tianjin Medical University Eye Center, Tianjin, China.

150 - P41-10

Controlled Release of Antiglaucoma Drugs from Injectable Hydrogel Depots

Jui-Yang Lai¹

1. Chang Gung University, Taoyuan, Taiwan.

151 - P42-11

Fabrication and evaluation of voriconazole solid lipid nanoparticles for effective ocular delivery

Rakesh Kumar¹ Vivek R. Sinha¹

1. University Institute of Pharmaceutical Sciences, Panjab University, Chandigarh, India.

152 - P43-12

Evaluation of Safety and Tolerability of Conjunctival Ring

Satoshi Kinoshita^{1,2} Kousuke Noda^{1,2} Ikuyo Atsumi³ Haruka Obata⁴ Toru Matsunaga⁴ Takeshi Ohguchi^{1,2} Atsuhiko Kanda^{1,2} Susumu Ishida^{1,2}

1. Laboratory of Ocular Cell Biology and Visual Science, Hokkaido University Graduate School of Medicine, Sapporo, Japan. 2. Department of Ophthalmology, Hokkaido University Graduate School of Medicine, Sapporo, Japan. 3. Research Laboratories, Senju Pharmaceutical Co., Ltd., Kobe, Japan. 4. Research Laboratories, SEED Co., Ltd., Konosu, Japan.

153 - P44-13

Ocular Tissue Distribution of Unoprostone and Retinal Toxicity after Transscleral Administration using a Sustained Drug Delivery Device

Nobuhiro Nagai¹ Hirokazu Kaji² Matsuhiko Nishizawa² Takahito Imagawa³ Akiko Morikawa³ Toru Nakazawa¹ Yukihiro Mashima³ Toshiaki Abe¹

1. Tohoku University Graduate School of Medicine, Sendai, Japan. 2. Graduate School of Engineering, Tohoku University, Sendai, Japan. 3. R-tech Ueno Ltd., Tokyo, Japan.

154 - P45-14

Specific Delivery of Systemically Injected Compounds to the Retina Using Artificially Expressed Retinal Receptors

Junsung Lee¹ Ji-Ho Park¹

1. Korea Advanced Institute of Science and Technology, Daejeon, Korea (the Republic of).

155 - P46-15

Tyrosine-mutated AAV2 mediated BDNF rescued inner retina in rat retinal ischemic injury mode

Tsutomu Igarashi¹ Koichi Miyake² Maika Kobayashi^{1,2} Noriko Miyake² Osamu Iijima² Kenji Nakamoto¹ Yukihiro Hirai² Takashi Shimada² Takashi Okada² Hiroshi Takahashi¹

1. Ophthalmology, Nippon Medical School, Tokyo, Japan. 2. Department of Biochemistry and Molecular Biology, Division of Gene Therapy, Research Center for Advanced Medical Technology, Nippon Medical School, Tokyo, Japan.

156 - P47-16

Lineage negative stem cell transplantation in a mouse model of transient retinal ischemia-reperfusion injury

Gillispie Minhas¹ Akshay Anand¹

1. Neuroscience Research Lab, Department of Neurology, Postgraduate Institute of Medical Education and Research, Chandigarh, India.

157 - P48-17

Protective Effect of Genistein on Glucose Induced Toxicity in Cultured Human RPE cells

Shirish Dongare¹ Rajani Mathur¹ S Senthilkumari³ R Sharmila³ S K Gupta¹ Sushma Srivastava¹ Dr. Rohit Saxena²

1. Ocular Pharmacology, Delhi Institute of Pharmaceutical Sciences and Research, New Delhi, Delhi, India. 2. Dr. Rajendra Prasad Centre for Ophthalmic Sciences, All India Institute of Medical Sciences, New Delhi, Delhi, India. 3. Arvind Medical Research Foundation (AMRF) Arvind Eye Hospital, Dr.G.Venkataswamy Eye Research Institute, Madurai, India.

158 - P49-18

Green tea extract reduces inflammation and restores retinal pigment epithelial cell dysfunction in a sodium iodate rat model

Tsz Kin Ng¹ Jian Xiong Wang¹ Yaping Yang¹ Kai On Chu¹ Sun On Chan² Chi Pui C. Pang¹

1. Department of Ophthalmology and Visual Sciences, The Chinese University of Hong Kong, Hong Kong, Hong Kong. 2. School of Biomedical Sciences, The Chinese University of Hong Kong, Hong Kong, Hong Kong.

3:45 PM - 4:45 PM 301-304 (3F) / Exhibition Hall

Visual Neuroscience - Poster

159 - P66-1

Multifocal electroretinogram in Diabetic Retinopathy

Satyen Deka¹

1. Vitreoretina, Sri Sankaradeva Nethralaya, Guwahati, Assam, India.

160 - P67-2

Systematic and local responses of modified volvox Channelrhodopsin-1 gene therapy

Eriko Sugano¹ Kitako Tabata¹ Maki Takahashi¹ Namie Murayama¹ Hiroya Shimizu¹ Masatoshi Sato¹ Fmiaki Nishiyama¹ Makoto Tamai² Hiroshi Tomita^{1,2}

1. Dep. of Chemistry and Bioengineering, Iwate Univ, Morioka, Iwate, Japan. 2. Hospital, Tohoku Univ, Sendai, Miyagi, Japan.

161 - P68-3

Visual properties of photoreceptor degenerated rat with dual channelrhodopsin genes

Hiroshi Tomita^{1,2} Eriko Sugano¹ Kitako Tabata¹ Masatoshi Sato¹ Maki Takahashi¹ Kei Sannohe¹ Namie Murayama¹ Fmiaki Nishiyama¹ Takehiko Saito¹ Makoto Tamai²

1. Dep. of Chemistry and Bioengineering, Visual Neuroscience, Iwate Univ, Morioka, Iwate, Japan. 2. Hospital, Tohoku Univ, Sendai, Miyagi, Japan.

162 - P69-4

Isolated cilioretinal artery occlusion treated with prostaglandin E1

Ichiya Sano^{1,2} Masaki Tanito^{1,2} Yoshifumi Ikeda¹ Yasuyuki Takai² Kazunobu Sugihara² Akihiro Ohira²

1. Division of Ophthalmology, Matsue Red Cross Hospital, Matsue, Shimane, Japan. 2. Department of Ophthalmology, Shimane University Faculty of Medicine, Izumo, Shimane, Japan.

163 - P70-5

Case of binasal hemianopia determined to be psychogenic by multifocal visual evoked potentials

Mariko Yamashita¹ Eiichi Yukawa¹ Tomo Nishi¹ Nahoko Ogata¹

1. Ophthalmology, Nara Medical University, Kashihara, Japan.

3:45 PM - 4:45 PM 301-304 (3F) / Exhibition Hall

Visual Psychophysics/Physiological Optics - Poster

164 - P50-1 Withdrawn

The effects of a near tasking on ocular dominance in different viewing conditions

Ruiqing Wang¹ Tomoya Handa² Hitoshi Ishikawa² Kimiya Shimizu³ Guanfang Su¹

1. ophthalmology, the second hospital of Jilin University, Changchun, Jilin, China. 2. Rehabilitation, Orthoptics and Visual Science Course, Kitasato University, Sagamihara, Japan. 3. ophthalmology, Kitasato University, Sagamihara, Japan.

165 - P51-2

Implantation of Hydrogel Corneal Shape Changing Inlay in Pseudophakic Subjects

Hai Yen Tran^{1,2} Arturo Chayet⁴ Enrique Barragan Garza⁵ Dan Tran³

1. Ho Chi Minh City Eye Hospital, Ho Chi Minh, Viet Nam. 2. Haiyen Eye Clinic, Ho Chi Minh, Viet Nam. 3. Coastal Vision, Orange County, CA, United States. 4. Codet Vision Institute, Tijuana, Mexico. 5. Laser Ocular Hidalgo, Monterrey, Mexico.

166 - P52-3

The improvement of spoke-wheel pattern foveoschisis in a patient with X-linked retinoschisis treated with topical dorzolamide observed by high-resolution adaptive optics retinal camera

Kiyoko Gocho¹ Keiichiro Akeo¹ Shuhei Kameya¹ Kunihiro Yamaki¹ Atsushi Mizota² Hiroshi Takahashi³

1. Ophthalmology, Nippon Medical School Chiba Hokusoh, Inzai, Chiba, Japan. 2. Ophthalmology, Teikyo University, Itabashi, Tokyo, Japan. 3. Ophthalmology, Nippon Medical School, Bunkyo, Tokyo, Japan.

167 - P53-4

Sensor-less Correction of Defocus and Astigmatism in an Optical Coherence Tomography System with a 3.0 mm Beam Diameter

Reddikumar Maddipatla^{1,2} Kingshuk Bose¹ Raju Poddar¹ Ayano Tanabe³ Nobuyuki Hashimoto³ Barry Cense²

1. Department of Applied Physics, Birla Institute of Technology, Mesra, India. 2. Center for Optical Research and Education, Utsunomiya University, Utsunomiya, Japan. 3. Development Division, Citizen Holding Co., LTD., Tokorozawa, Japan.

168 - P54-5

Clinical benefits in color vision after phacoemulsification surgery combined with intraocular lens implantation

Mingxin Ao¹ Wei Wang¹

1. Ophthalmology, Peking University, Beijing, China.

169 - P55-6

The Effect of the Longitudinal Chromatic Aberration on Color Visual Acuity

Yoshiki Tanaka¹ Sho Yokoyama³ Hideki Nakamura³ Kazuo Ichikawa¹ Shoko Tanabe¹ Yukihito kato² Rie Horai² Kiyoshi Tanaka⁴

1. Vision Laboratory, Chukyo Eye Clinic, Nagoya, Japan. 2. Chukyo Eye Clinic, Nagoya, Japan. 3. Ophthalmology, JCHO Chukyo Hospital, Nagoya, Japan. 4. Faculty of Engineering, Shinshu University, Nagano, Japan.

170 - P56-7

Functional MRI Visualization of the Murine Visual Cortex Activity Evoked by Light Stimulation

Kinya Tsubota¹ Yuji Komaki⁴ Norio Takata² Tetsu Yoshida⁵ Kenji F. Tanaka² Hideyuki Okano⁴ Hiroshi Goto¹ Kazuo Tsubota³ Toshihide Kurihara³

1. Ophthalmology, Tokyo Medical University, Tokyo, Japan. 2. Psychopathology, Keio University School of Medicine, Tokyo, Japan. 3. Ophthalmology, Keio University School of Medicine, Tokyo, Japan. 4. Physiology, Keio University School of Medicine, Tokyo, Japan. 5. Division of Gene Therapy, Research Center for Genomic Medicine, Saitama Medical University, Saitama, Japan.

Study Group: Ophthalmology

171 - P57-8

Intraocular lens position, refractive status, and visual acuity during the cataract postoperative period

Kohei Utsuki¹ Naoko Tachi¹ Yoshiki Ueta¹ Yasuhiro Okamoto¹ Takao Fukutome¹ Koji Nagae¹ Kayoko Yoshimura¹ Yoshihiro Hashimoto¹

1. Shinseikai Toyama Hospital Eye Center, Toyama, Japan.

172 - P58-9

Higher-order aberrations in different types of posterior capsular opacification

Wenjie Wu¹

1. Ophthalmology, Fujian Provincial Hospital, Fuzhou, China.

173 - P59-10

Comparison of SRK/T and Haigis formulae for Predicting Corneal Astigmatism Correction by Toric Intraocular Lens

Youngsub Eom¹ Jong Suk Song¹ Yong Yeon Kim¹ Hyo Myung Kim¹

1. Ophthalmology, Korea University College of Medicine, Seoul, Korea (the Republic of).

174 - P60-11

Understanding Causes of Ring-Shaped Dysphotopsia Associated with Posterior Chamber Phakic Implantable Collamer Lenses with a Central Hole

Hyo Myung Kim¹ Youngsub Eom¹ Dae Wook Kim² Dongok Ryu³ Seul Ki Yang³ Jong Suk Song¹ Sug-Whan Kim³

1. Korea University College of Medicine, Seoul, Korea (the Republic of). 2. College of Optical Sciences, University of Arizona, Tucson, AZ, United States. 3. Space Optics Laboratory, Department of Astronomy, Yonsei University, Seoul, Korea (the Republic of).

175 - P61-12

Effects of sustained accommodation on the optics of human eye

Jason Shen¹ Frank Spors¹ Don Egan¹

1. Optometry, Western University of Health Sciences, Pomona, CA, United States.

176 - P62-13

Comparison of Subjective Refraction under Binocular and Monocular Conditions

Hidenaga Kobashi¹ Kazutaka Kamiya¹ Akihito Igarashi¹ Kimiya Shimizu¹ Wakako Ando¹ Tomoya Handa²

1. Department of Ophthalmology, University of Kitasato School of Medicine, Sagamihara, Kanagawa, Japan. 2. Department of Orthoptics and Visual Science, School of Allied Health Sciences, University of Kitasato, Sagamihara, Japan.

177 - P63-14

Inter-Rater Agreement of Computerized Visual Acuity (COMPllog) and Refractive Error Measurements (Plusoptix Photorefractor) Among School Children

Avinash Prabhu¹ Marita Pinto¹ Juthika Taludkar² Jyothi Thomas¹ Ramesh Venkatasubbu¹

1. Department of Optometry, School of Allied Health Sciences, Manipal University, Manipal, Karnataka, India. 2. Department of Public Health, Manipal University, Manipal, Karnataka, India.

178 - P64-15

Astigmatism in Chinese primary school children, prevalence, change, and effect on refractive development

Shao-en Chan¹ Hsi-Kung Kou¹ Pei-Chang Wu¹

1. Ophthalmology, Kaohsiung Chang Gung Memorial Hospital and Chang Gung University College of Medicine, Kaohsiung, Taiwan.

179 - P65-16

Individual difference between static and dynamic motion in depth discrimination training tasks

Di Zhang¹ Yulia Fattakhova¹ Jean Louis de Bougrenet de la Tocnaye¹

1. Optics Department, Telecom Bretagne, Brest, France.

Tuesday Feb. 17

9:00 AM - 11:00 AM

Main Hall (1F)/Room 1

Plenary Session 1 AMD in Asians

Organizers

Tien Yin Wong

Singapore Eye Research Institute/ Duke-NUS Graduate Medical School, Singapore, Singapore

Calvin CP Pang

The Chinese University of Hong Kong, Kowloon, Hong Kong

189: PS1-1

AMD in Asians and polypoidal choroidal vasculopathy

Keynote Speaker: Tomohiro Iida¹

1. Department of Ophthalmology, Tokyo Women's Medical University, Shinjuku, Tokyo, Japan.

190: PS1-2

Update on Imaging in Polypoidal Choroidal Vasculopathy

Speaker: Gemmy Cheung Chui Ming^{1,2}

1. Singapore Eye Research Institute, Singapore, Singapore. 2. Singapore National Eye Center, Singapore, Singapore.

191: PS1-3

Personalized medicine for age-related macular degeneration

Speaker: Kenji Yamashiro¹

1. Department of Ophthalmology and Visual Sciences, Kyoto University Graduate School of Medicine, Kyoto, Kyoto, Japan.

192: PS1-4

Risk factors of AMD in Koreans

Speaker: Kyu Hyung Park^{1,2}

1. Department of Ophthalmology, Seoul National University, College of Medicine, Jongno-gu, Seoul, Korea (the Republic of). 2. Department of Ophthalmology, Seoul National University Bundang Hospital, Seongnam, Korea (the Republic of).

193: PS1-5

Treatment options in AMD non-responders

Speaker: Marten Erik Brelén¹ **Chi Wai Tsang**² **Alvin Young**³ **Chi Pui C. Pang**¹

1. Department of Ophthalmology and Visual Sciences, Chinese University of Hong Kong, Kowloon, Hong Kong. 2. Hong Kong Eye Hospital, Hong Kong, Hong Kong. 3. Prince of Wales Hospital, Hong Kong, Hong Kong.

11:10 AM - 12:10 PM

Main Hall (1F)/Room 1

Plenary Lecture 1

Chair

Tatsuro Ishibashi

Graduate School of Medical Sciences, Kyushu University, Fukuoka, Fukuoka, Japan

230: PL1

Application of iPS Cells to Retinal Disease

Speaker: Masayo Takahashi¹

1. Laboratory for Retinal Regeneration, Center for Developmental Biology, RIKEN, Kobe, Hyogo, Japan.

1:30 PM - 3:00 PM

Main Hall (1F)/Room 1

Symposium 13 Molecular Mechanisms in Age-related Macular Degeneration

Organizers

Kyu Hyung Park

Seoul National University, College of Medicine, Jongno, Seoul, Korea (the Republic of)

Yoko Ozawa

Keio University School of Medicine, Shinjuku, Tokyo, Japan

256: SY13-1

Proteomic approaches to gain insight into the molecular pathogenesis of AMD

Speaker: Jeeyun Ahn^{1,2} Se Joon Woo^{3,2} Kyu Hyung Park^{3,2}

1. Department of Ophthalmology, Seoul Metropolitan Government Seoul National University Boramae Medical Center, Jongno, Seoul, Korea (the Republic of). 2. Department of Ophthalmology, Seoul National University, College of Medicine, Seoul, Korea (the Republic of). 3. Department of Ophthalmology, Seoul National University Bundang Hospital, Seongnam, Korea (the Republic of).

257: SY13-2

Lipofuscin-related RPE damage in age-related macular degeneration

Speaker: Yasuo Yanagi¹

1. Department of Ophthalmology, Graduate School of Medicine, The University of Tokyo, Bunkyo, Tokyo, Japan.

258: SY13-3

A role of lipid accumulated in Bruch's membrane in the pathogenesis of age-related macular degeneration

Speaker: Tsutomu Yasukawa¹

1. Department of Ophthalmology and Visual Science, Nagoya City University Graduate School of Medical Sciences, Nagoya, Aichi, Japan.

259: SY13-4

New findings about age-related macular degeneration using polarized RPE cells

Speaker: Hiroto Terasaki¹

1. Department of Ophthalmology, Kagoshima University Graduate School of Medicine and Dental Sciences, Kagoshima, Kagoshima, Japan.

260: SY13-5

The role of SIRT1 in the pathogenesis of age-related macular degeneration

Speaker: Takeshi Yoshida¹

1. Department of Ophthalmology, Tokyo Medical and Dental University, Bunkyo, Tokyo, Japan.

261: SY13-6

A new therapeutic target in age-related macular degeneration

Speaker: Hiroki Kaneko¹

1. Department of Ophthalmology, Nagoya University Graduate School of Medicine, Nagoya, Aichi, Japan.

7:50 AM - 8:50 AM

501 (5F)/Room 2

Morning Seminar 1 New Technology for DRY EYE Diagnosis

Sponsored by Kowa Company, Ltd.

Organizers

Kazuo Tsubota

Keio University School of Medicine, Shinjuku, Tokyo, Japan

Shigeru Kinoshita

Kyoto Prefectural University of Medicine, Kyoto, Kyoto, Japan

187: MS1-1

Functional visual acuity technology for dry eye

Speaker: Minako Kaido ¹

1. Department of Ophthalmology, Keio University School of Medicine, Tokyo, Japan.

365: MS1-2

Tear Film Oriented Diagnosis (TFOD) for Dry Eye

Speaker: Norihiko Yokoi ¹

1. Department of Ophthalmology, Kyoto Prefectural University of Medicine, Kamigyo, Kyoto, Japan.

9:00 AM - 11:00 AM

501 (5F)/Room 2

Plenary Session 2 Genome-wide Association Study for Complex Eye Diseases

Organizers

Nobuhisa Mizuki

Yokohama City University School of Medicine, Yokohama, Kanagawa, Japan

Chiea Chuen Khor

Genome Institute of Singapore, Singapore, Singapore

194: PS2-1

Genome-wide association study for Behcet's disease

Speaker: Nobuhisa Mizuki ¹

1. Department of Ophthalmology, Yokohama City University School of Medicine, Yokohama, Kanagawa, Japan.

195: PS2-2

The genetic basis of Exfoliation syndrome

Speaker: Khor Chiea Chuen ¹

1. Division of Human Genetics, Genome Institute of Singapore, Singapore, Singapore.

196: PS2-3

GWAS in myopia: understanding mechanisms of myopia development

Speaker: Christopher Hammond ¹

1. Departments of Ophthalmology and Twin Research & Genetic Epidemiology, King's College London, St Thomas' Hospital, London, United Kingdom.

Study Group: Consortium on Refractive Error and Myopia

197: PS2-4

Genome-wide association study in Asian patients with glaucoma

Speaker: Tin Aung ^{1,2}

1. Singapore National Eye Centre & Singapore Eye Research Institute, Singapore, Singapore. 2. Ophthalmology, National University of Singapore, Singapore, Singapore.

198: PS2-5

GWAS Success in Ophthalmology

Speaker: David A. Mackey ¹ Alex Hewitt ^{1,2}

1. Lions Eye Institute, University of Western Australia, Crawley, WA, Australia. 2. Centre for Eye Research Australia, Melbourne, VIC, Australia.

11:10 AM - 12:10 PM

501 (5F)/Room 2

Special Interest Groups 1 New Approaches to Infectious Keratitis

Organizers

Yoshitsugu Inoue

Faculty of Medicine Tottori University, Yonago, Tottori, Japan

Yu-Feng Yao

Zhejiang University, School of Medicine, Hangzhou, Zhejiang, China

231: SIG1-1

Immune Privileged Role of Indoleamine 2,3-dioxygenase 1 in Corneal Endothelial Cells Exploited by Herpes Simplex Virus Type 1

Speaker: Dai Miyazaki¹

1. Division of Ophthalmology and Visual Science, Tottori University Faculty of Medicine, Yonago, Tottori, Japan.

232: SIG1-2

Novel method to diagnose and treat Acanthamoeba keratitis

Speaker: Takashi Suzuki¹

1. Department of Ophthalmology, Ehime University, Graduate School of Medicine, Toon, Ehime, Japan.

233: SIG1-3

New Insights in the Diagnosis of Fungal and Parasitic Keratitis

Speaker: Savitri Sharma¹

1. Jhaveri Microbiology Centre, L V Prasad Eye Institute, Hyderabad, Telangana, India.

234: SIG1-4

Clinical Efficacy of Systemic Vitamin C supplementation on Reducing Corneal Opacity Resulting from Infectious Keratitis

Speaker: Seong-Jae Kim¹ Yongwun Cho¹

1. Department of Ophthalmology, Gyeongsang National University, School of Medicine, Jinju, Gyeongsangnam, Korea (the Republic of).

235: SIG1-5

Novel Deep Anterior Lamellar Keratoplasty for the recovery from infectious keratitis

Speaker: Yu-Feng Yao¹

1. Department of Ophthalmology, Sir Run Shaw Hospital, Zhejiang University School of Medicine, Hangzhou, Zhejiang, China.

12:20 PM - 1:20 PM

501 (5F)/Room 2

Luncheon Seminar 5 Adding Up the Benefits-FloraGLO® Lutein and OPTISHARP™ Natural Zeaxanthin

Sponsored by Kemin Human Nutrition & Health Asia/ DSM Nutrition Japan K.K.

Organizer

Yoko Ozawa

Keio University School of Medicine, Shinjuku, Tokyo, Japan

245: LS5-1

Adding Up the Benefits-FloraGLO® Lutein and OPTISHARP™ Natural Zeaxanthin

Speaker: Richard L. Roberts¹

1. Scientific Affairs and Technical Services, Kemin Human Nutrition and Health, Des Moines, IA, United States.

1:30 PM - 3:00 PM

501 (5F)/Room 2

Symposium 14 Updates on Genetic Epidemiology in Ophthalmology: What's the Next Hope?

Organizers

Tien Yin Wong

Singapore Eye Research Institute, Singapore National Eye Center/Duke-NUS Graduate Medical School, Singapore, Singapore

Ryo Kawasaki

Yamagata University Faculty of Medicine, Yamagata, Yamagata, Japan

262: SY14-1

The role of common and rare genetic variants in age-related macular degeneration

Speaker: Ching-Yu Cheng^{1,2}

1. Singapore Eye Research Institute, Singapore, Singapore. 2. Duke-NUS Graduate Medical School, Singapore, Singapore.

263: SY14-2

Gene-environment interaction

Speaker: Terri Young^{2,1} Xiaoyan Luo¹ Pedro Gonzalez¹ Andrei Tkatchenko³

1. Duke University, Durham, NC, United States. 2. Ophthalmology and Visual Sciences, University of Wisconsin, Madison, WI, United States. 3. Ophthalmology, Columbia University, New York, NY, United States.

264: SY14-3

Epigenetics of Eye Disease: The missing link between genes and environment

Speaker: Alex Hewitt¹

1. Centre for Eye Research Australia, University of Melbourne, East Melbourne, VIC, Australia.

265: SY14-4

Copy number variations

Speaker: Paul N. Baird¹

1. Centre for Eye Research Australia, University of Melbourne, East Melbourne, VIC, Australia.

266: SY14-5

Genome-Cohort studies

Speaker: Nobuo Fuse¹

1. Tohoku Medical Megabank Organization, Tohoku University, Sendai, Japan.

Study Group: Tohoku Medical Megabank Organization

4:20 PM - 5:20 PM

501 (5F)/Room 2

Afternoon Seminar 4 Amniotic Membrane and Umbilical Cord in Regenerative Medicine

Sponsored by ROHTO PHARMACEUTICAL CO., LTD.

Organizer

Shigeto Shimmura

Keio University School of Medicine, Shinjuku, Tokyo, Japan

361: AS4-1

Amniotic Membrane and Umbilical Cord in Regenerative Medicine

Speaker: Scheffer C. Tseng^{1,2}

1. R&D Department, TissueTech, Inc., Miami, FL, United States. 2. Ocular Surface Center, Miami, FL, United States.

9:00 AM - 11:00 AM

502 (5F)/Room 3

Plenary Session 3 Recent Advances in Retinal Basic Research

Organizers

Shibo Tang

Central South University, Changsha, Hunan, China

Yuichiro Ogura

Nagoya City University, Nagoya, Aichi, Japan

199: PS3-1

Recent Advances in Ocular Neovascular Diseases

Speaker: Xuri Li¹

1. State Key Laboratory of Ophthalmology, Zhongshan Ophthalmic Center, Sun Yat-Sen University, Guangzhou, Guangdong, China.

200: PS3-2

The mechanism of diabetic retinal edema moderated by cell membrane K⁺ channels in retinal Müller cells in diabetic animals

Speaker: Shibo Tang¹ **Wei Sun**² **Tao Li**²

1. Aier School of Ophthalmology, Central South University, Changsha, Hunan, China. 2. Zhongshan Ophthalmic Center, Sun Yat-Sen University, Guangzhou, China.

201: PS3-3

Molecular control of photoreceptor synapse development

Speaker: Takahisa Furukawa^{1,2} **Rikako Sanuki**^{1,2}

1. Laboratory for Molecular and Developmental Biology, Institute for Protein Research, Osaka University, Suita, Osaka, Japan. 2. JST, CREST, Suita, Japan.

202: PS3-4

Blue light stress and retinal responses

Speaker: Motohiro Kamei¹

1. Department of Ophthalmology, Osaka University School of Medicine, Suita, Osaka, Japan.

203: PS3-5

Receptor-associated prorenin system in the pathogenesis of diabetic retinopathy

Speaker: Susumu Ishida¹

1. Department of Ophthalmology, Hokkaido University Graduate School of Medicine, Sapporo, Hokkaido, Japan.

204: PS3-6

Neuroprotection against oxidative stress in the retina

Speaker: Yoko Ozawa^{1,2}

1. Department of Ophthalmology, Keio University School of Medicine, Shinjuku, Tokyo, Japan. 2. Laboratory of Retinal Cell Biology, Keio University School of Medicine, Tokyo, Japan.

11:10 AM - 12:10 PM

502 (5F)/Room 3

Special Interest Groups 2 Primary Angle Closure Disease

Organizers

Ching Lin Ho

Glaucoma Service Singapore National Eye Centre/Duke-NUS Graduate Medical School Singapore, Singapore, Singapore

Tetsuya Yamamoto

Gifu University Graduate School of Medicine, Gifu, Gifu, Japan

236: SIG2-1

Detection via anterior segment OCT

Speaker: Mingguang He^{1,2}

1. Department of Preventive Ophthalmology Zhongshan Ophthalmic Center, Sun Yat-sen University, Guangzhou, Guangdong, China. 2. Centre for Eye Research Australia, University of Melbourne, Melbourne, VIC, Australia.

237: SIG2-2

Lens Extraction as a Surgical Option for PAC

Speaker: Yasuo Kurimoto^{1,2}

1. Kobe City Medical Center General Hospital, Kobe, Hyogo, Japan. 2. Institute of Biomedical Research and Innovation, Kobe, Japan.

238: SIG2-3

Treatment options for acute primary angle closure

Speaker: Ching Lin Ho¹

1. Glaucoma Service Singapore National Eye Centre, Duke-NUS Graduate Medical School Singapore, Singapore, Singapore.

239: SIG2-4

Drug-induced secondary angle closure

Speaker: Janey L. Wiggs¹

1. Ophthalmology, Harvard Medical School, Boston, MA, United States.

12:20 PM - 1:20 PM

502 (5F)/Room 3

Luncheon Seminar 6 Clinical Effects of Astaxanthin on the Eye

Sponsored by AstaReal Co., Ltd.

Organizer

Nobuyo Yawata

Duke-NUS Graduate Medical School, Singapore, Singapore

246: LS6-1

Clinical Effects of Astaxanthin on the Eye

Speaker: Nobuyoshi Kitaichi ¹

1. Ophthalmology, Health Sciences University of Hokkaido, Sapporo, Japan.

1:30 PM - 3:00 PM

502 (5F)/Room 3

Symposium 15 Metamorphopsia

Organizers

Chota Matsumoto

Kinki University Faculty of Medicine, Osakasayama, Osaka, Japan

Se Woong Kang

Sungkyunkwan University School of Medicine, Jongno, Seoul, Korea (the Republic of)

267: SY15-1

Quantification of metamorphopsia

Speaker: Eiko A. Koike ¹

1. Kinki University Sakai Hospital, Sakai, Osaka, Japan.

268: SY15-2

Metamorphopsia in epiretinal membrane

Speaker: Fumiki Okamoto ¹

1. Department of Ophthalmology, University of Tsukuba, Tsukuba, Ibaraki, Japan.

269: SY15-3

Metamorphopsia of central serous chorioretinopathy

Speaker: Kyoko Fujita ¹

1. Department of Ophthalmology, Nihon University School of Medicine, Chiyoda, Tokyo, Japan.

270: SY15-4

Metamorphopsia in macular hole

Speaker: Jae Hui Kim ¹

1. Kim's Eye Hospital, Konyang University College of Medicine, Metropolitan, Daejeon, Korea (the Republic of).

271: SY15-5

Measurement of metamorphopsia: Using 3D display

Speaker: Yun Taek Kim ¹

1. Ewha Womens University, Seoul, Korea (the Republic of).

272: SY15-6

Preferential hyperacuity perimeter as a useful tool for monitoring metamorphopsia

Speaker: So-Hyun Bae ¹

1. Department of Ophthalmology, Kangnam Sacred Heart Hospital, Hallym University School of Medicine, Yeongdeungpo, Seoul, Korea (the Republic of).

4:20 PM - 5:20 PM

502 (5F)/Room 3

Afternoon Seminar 5
Recent Topics for Better Understanding the Etiology of Early AMD

Sponsored by WAKASA SEIKATSU CO., Ltd.

Organizer

Susumu Ishida

Hokkaido University Graduate School of Medicine, Sapporo,
Hokkaido, Japan

362: AS5-1

Serum calcium level and large drusen

Speaker: Kenji Yamashiro¹

1. Department of Ophthalmology and Visual Sciences, Kyoto University Graduate School of Medicine, Kyoto, Kyoto, Japan.

363: AS5-2

Lutein's effect to protect the retina

Speaker: Yoko Ozawa^{1,2}

1. Department of Ophthalmology, Keio University School of Medicine, Tokyo, Japan. 2. Laboratory of Retinal Cell Biology, Keio University School of Medicine, Tokyo, Japan.

9:00 AM - 11:00 AM

503 (5F)/Room 4

Plenary Session 4

Normal Tension Glaucoma Update

Organizers

Kazuhisa Sugiyama

Kanazawa University Graduate School of Medical Science,
Kanazawa, Ishikawa, Japan

Jost B. Jonas

Medical Faculty Mannheim, University Heidelberg, Heidelberg,
Germany

Goji Tomita

Toho University Ohashi Medical Center, Meguro, Tokyo, Japan

205: PS4-1

Disc Hemorrhage and NTG

Keynote Speaker: Ki Ho Park¹

1. Department of Ophthalmology, Seoul National University, Jongno-gu, Seoul, Korea (the Republic of).

206: PS4-2

Clinical feature of primary open-angle glaucoma with myopia

Speaker: Kazuhisa Sugiyama¹

1. Department of Ophthalmology & Visual Science, Kanazawa University Graduate School of Medical Science, Kanazawa-shi, Ishikawa, Japan.

207: PS4-3

Application of optical coherence tomography in glaucoma management

Speaker: Christopher K. Leung¹

1. Department of Ophthalmology and Visual Sciences, The Chinese University of Hong Kong, Kowloon, Hong Kong.

208: PS4-4

Genetics in normal tension glaucoma

Speaker: Kazuhiko Mori¹

1. Department of Ophthalmology, Kyoto Prefectural University of Medicine, Kamigyo-ku, Kyoto, Japan.

209: PS4-5

Lamina cribrosa in normal tension glaucoma

Speaker: Tae-Woo Kim^{1,2}

1. Department of Ophthalmology, Seoul National University College of Medicine, Jongno-gu,, Seoul, Korea (the Republic of). 2. Seoul National University Bundang Hospital, Seongnam, Korea (the Republic of).

210: PS4-6

Blood flow abnormality of optic nerve head in NTG

Speaker: Toru Nakazawa¹

1. Department of Ophthalmology, Tohoku University Graduate School of Medicine, Sendai, Miyagi, Japan.

211: PS4-7

Comparison of visual field defects between HTG and NTG

Speaker: Takeo Fukuchi¹

1. Division of Ophthalmology and Visual Science, Graduated School of Medical and Dental Sciences, Niigata University, Niigata, Niigata, Japan.

212: PS4-8

Pressure relationships in glaucomatous optic neuropathy

Speaker: Jost B. Jonas¹ **Ningli Wang**² **Diya Yang**³

1. Department of Ophthalmology, Medical Faculty Mannheim, University Heidelberg, Heidelberg, Germany. 2. Capital Medical University, Beijing Ophthalmology & Visual Sciences Key Laboratory, Beijing Institute of Ophthalmology, Beijing Tongren Eye Center, Beijing Tongren Hospital, Beijing, China. 3. Capital Medical University, Beijing Ophthalmology and Visual Sciences Key Laboratory, Beijing, China, Beijing Tongren Eye Center, Beijing Tongren Hospital, Beijing, China.

11:10 AM - 12:10 PM

503 (5F)/Room 4

Special Interest Groups 3 Asian Eye Genetics Consortium (AEGC) and eyeGENE International

In conjunction with NEI-NIH

Organizers

Gyan "John" Prakash

National Eye Institute, National Institutes of Health, Bethesda, MD, United States

Takeshi Iwata

Tokyo Medical Center, National Hospital Organization, Meguro, Tokyo, Japan

Calvin CP Pang

The Chinese University of Hong Kong, Kowloon, Hong Kong

240: SIG3-1

Asian Eye Genetics Consortium: Building Bridges between Developed and Developing Worlds

Speaker: Gyan "John" Prakash ¹

1. National Eye Institute, National Institutes of Health, Bethesda, MD, United States.

Study Group: Genetics

241: SIG3-2

Asian Eye Genetics Consortium, Genetic research programs covering the entire Asia

Speaker: Takeshi Iwata ¹

1. National Institute of Sensory Organs, Tokyo Medical Center, National Hospital Organization, Meguro-ku, Tokyo, Japan.

Study Group: Asian Eye Genetics Consortium

242: SIG3-3

Ophthalmic Genetic Studies in India and Pakistan

Speaker: Fielding (James F) J. Hejtmančík ¹

1. Molecular Ophthalmic Genetics Section Ophthalmic Genetics and Visual Function Branch, National Eye Institute, National Institutes of Health, Rockville, MD, United States.

Study Group: Asia Eye Genetics Consortium (AEGC)

243: SIG3-4

Ethnicities and Allelic Frequencies in Eye Diseases

Speaker: Calvin CP Pang ¹

1. Department of Ophthalmology & Visual Sciences, The Chinese University of Hong Kong, Kowloon, Hong Kong.

244: SIG3-5

eyeGENE®: A history and a look at its achievements. How can Asian countries participate in eyeGENE® International?

Speaker: Santa Tumminia ¹

1. National Eye Institute, National Institutes of Health, Bethesda, MD, United States.

12:20 PM - 1:20 PM

503 (5F)/Room 4

Luncheon Seminar 7 Let's Master the Pathogenesis and Treatment of Short BUT-type Dry Eye!

Sponsored by Santen Pharmaceutical Co., Ltd.

Organizers

Kazuo Tsubota

Keio University School of Medicine, Shinjuku, Tokyo, Japan

Shigeru Kinoshita

Kyoto Prefectural University of Medicine, Kyoto, Kyoto, Japan

247: LS7-1

Epidemiology of Dry Eye: The Osaka Study

Speaker: Debra A. Schaumberg ^{1,2}

1. Ophthalmology & Visual Sciences, University of Utah School of Medicine, Salt Lake City, UT, United States. 2. Epidemiology, Harvard School of Public Health, Boston, MA, United States.

248: LS7-2

Pathophysiology of and therapy for short BUT type dry eye in Korea

Speaker: Kyoungyul Seo ¹

1. Department of Ophthalmology, Yonsei University College of Medicine, Seodaemun-gu, Seoul, Korea (the Republic of).

249: LS7-3

Pathophysiology of and Therapy for Short BUT-Type Dry Eye in Japan

Speaker: Kazuo Tsubota ¹

1. Department of Ophthalmology, Keio University School of Medicine, Shinjuku-ku, Tokyo, Japan.

250: LS7-4

Pathophysiology of and therapy for short BUT type dry eye in France

Speaker: Christophe Baudouin ^{1,2}

1. Quinze-Vingts National Ophthalmology Hospital, Paris, France. 2. Team S12, Vision Institute, Paris, Paris, France.

1:30 PM - 3:00 PM

503 (5F)/Room 4

**Symposium 16
Advances in Eye Research and NEI
International Partnerships**

In conjunction with NEI-NIH

Organizers

Gyan "John" Prakash

National Eye Institute, National Institutes of Health, Bethesda, MD, United States

Jonathan Crowston

University of Melbourne, East Melbourne, VIC, Australia

Govindasamy Kumaramanickavel

Aditya Jyot Foundation for Twinkling Little Eyes, Mumbai, Maharashtra, India

273: SY16-1

Global Vision Research: NEI's International Agenda

Speaker: Gyan ". Prakash ¹

1. National Eye Institute, National Institutes of Health, Bethesda, MD, United States.

Study Group: Genetics

274: SY16-2

Ophthalmology research in the Asia-Pacific region, where we are and where we are going

Speaker: Jonathan Crowston ¹

1. Department of Ophthalmology, University of Melbourne, East Melbourne, VIC, Australia.

275: SY16-3

NISO-NEI collaborative research programs, past and future

Speaker: Takeshi Iwata ¹

1. National Institute of Sensory Organs, Tokyo Medical Center, National Hospital Organization, Meguro-ku, Tokyo, Japan.

276: SY16-4

Vision Research Programs in India: past, present and future

Speaker: Radhika Tandon ¹

1. Dr Rajendra Prasad Centre for Ophthalmic Sciences, All India Institute of Medical Sciences, New Delhi, Delhi, India.

277: SY16-5

Advances in Eye Research and NEI International Partnerships

Speaker: John McAvoy ¹

1. Save Sight Institute, University of Sydney, Sydney, NSW, Australia.

278: SY16-6

Age-related Eye Diseases: Age-related Macular Degeneration, Glaucoma and Diabetic Retinopathy – The Epidemiology and Genetics

Speaker: Govindasamy Kumaramanickavel ² **Sunita Mohan** ¹ **Radhika Krishnan** ¹ **Sundaram Natarajan** ² **Catherine McCarty** ³

1. Aditya Jyot Foundation for Twinkling Little Eyes, Mumbai, Maharashtra, India. 2. Aditya Jyot Eye Hospital, Mumbai, Maharashtra, India. 3. Essentia Institute of Rural Health, Duluth, MN, United States.

9:00 AM - 11:00 AM

315 (3F)/Room 5

Plenary Session 5
**Updates on Standardized Classifications/
Severity Scales of Ocular Diseases: a Key for
Successful Clinical Research**

Organizers

Mingguang He

Sun Yat-sen University, Guangzhou, Guangdong, China

Shih-Jen Chen

Taipei Veterans General Hospital, Taipei, Taiwan

213: PS5-1

Standardized classifications and severity scales of dry eye

Speaker: Kyoung Yul Seo¹ Ji Won Jung¹

1. Department of Ophthalmology, Yonsei University College of Medicine, Seodaemun-gu, Seoul, Korea (the Republic of).

214: PS5-2

Standardized classifications and severity scales of myopia and myopic retinopathy

Speaker: Seang-Mei Saw¹

1. National University of Singapore, Singapore, Singapore.

215: PS5-3

Standardized classifications and severity scales of cataract

Speaker: Hiroshi Sasaki¹

1. Department of Ophthalmology, Kanazawa Medical University, Kahoku, Ishikawa, Japan.

216: PS5-4

Standardized classifications and severity scales of glaucoma

Speaker: Mingguang He^{1,2} Xinxing Guo¹

1. Department of Preventive Ophthalmology Zhongshan Ophthalmic Center, Sun Yat-sen University, Guangzhou, Guangdong, China. 2. Centre for Eye Research Australia, University of Melbourne, Melbourne, VIC, Australia.

217: PS5-5

Standardized classifications and severity scales of diabetic retinopathy and age-related macular degeneration

Speaker: Shih-Jen Chen^{1,2}

1. Department of Ophthalmology, Taipei Veterans General Hospital, Taipei, Taiwan. 2. School of Medicine, National Yang-Ming University, Taipei, Taiwan.

12:20 PM - 1:20 PM

315 (3F)/Room 5

Luncheon Seminar 8
**A Trend in Prescription Use of NSAIDs in
Asian Countries and the Further Possibility
of its Use**

Sponsored by Senju Pharmaceutical Co., Ltd.

Organizer

Hiroshi Fujishima

Tsurumi University Dental Hospital, Yokohama, Kanagawa, Japan

251: LS8-1

Comparison of anti-inflammatory effects between prednisolone acetate 1% monotherapy and bromfenac 0.1% added with prednisolone acetate 1% after cataract surgery

Speaker: Uyen T. Nguyen¹

1. Ho Chi Minh City Eye Hospital, Ho Chi Minh, Viet Nam.

252: LS8-2

Paradigm shift in topical NSAID use in South Korea

Speaker: Jong Suk Song¹

1. Ophthalmology, Korea University, Seoul, Korea (the Republic of).

253: LS8-3

Use of NSAIDs in Japan and future possibilities

Speaker: Hiroshi Fujishima¹

1. Department of Ophthalmology,, Tsurumi University Dental Hospital, Yokohama, Kanagawa, Japan.

Study Group: allergy

1:30 PM - 2:30 PM

315 (3F) / Room 5

Retina 2

Moderators

Gislin Dagnelie

Johns Hopkins University School of Medicine, Baltimore, MD, United States

Akihiro Kakehashi

Jichi Medical University, Saitama Medical Center, Saitama, Saitama, Japan

279-1

Efficacy of ranibizumab in branch and central retinal vein occlusion, Outcomes from the BRIGHTER and CRYSTAL studies

Sanjeeva Wickremasinghe¹

1. University of Melbourne, The Royal Victorian Eye and Ear Hospital, Melbourne, East Melbourne, VIC, Australia.

280-2

Effects of Ranibizumab in Zone I and Zone II Retinopathy of Prematurity patients

Yi Chen¹ Jing Feng¹ Xiaoxin Li¹ Jianhong Liang¹ Hong Yin¹

1. Eye Department, Peking University People's Hospital, Beijing, China.

281-3

Predictors for the Development of Referral-Warranted Retinopathy of Prematurity in the Telemedicine Approaches to Evaluating of Acute-Phase ROP (e-ROP) Study

Graham Quinn¹

1. The Children's Hospital of Philadelphia, Philadelphia, PA, United States.

Study Group: e-ROP Cooperative Group

282-4

Prosthetic vision rehabilitation, What we have learned in a few short years, and how much more can be done

Gislin Dagnelie¹ Pamela Jeter¹ Duane Gerasch¹ Robert Massof¹ Michael Barry² Judith Goldstein¹ James Deremeik¹ Olukemi Adeyemo¹

1. Ophthalmology, Lions Vision Ctr, Johns Hopkins University, Baltimore, MD, United States. 2. Biomedical Engineering, Johns Hopkins University, Baltimore, MD, United States.

283-5

Prototype suprachoroidal retinal prostheses, a preliminary clinical trial of three patients

Penelope J. Allen^{1,2} Jonathan Yeoh^{1,2} Robert Briggs^{2,3} Mark McCombe^{1,2} Wilson Heriot^{1,2} Lauren Ayton¹ Chi Luu¹ Anthony Burkitt² Robert Shepherd^{4,2} Robyn Guymer^{1,2}

1. Macular Research Unit, CERA, Melbourne, VIC, Australia. 2. Surgical, Bionic Vision Australia, Melbourne, VIC, Australia. 3. ENT, Royal Victorian Eye and Ear Hospital, Melbourne, VIC, Australia. 4. Bionics Institute, Melbourne, VIC, Australia.

Study Group: Bionic Vision Australia Consortium

284-6

Bionic eye research, retinal ganglion cell responses to electrical stimulation with temporal patterns resembling light-evoked spike trains

Michael R. Ibbotson^{1,2} Raymond C. Wong¹ David J. Garrett³ David B. Grayden⁴ Shaun L. Cloherty¹

1. National Vision Research Institute, Australian College of Optometry, Melbourne, VIC, Australia. 2. Optometry and Vision Science, University of Melbourne, Melbourne, VIC, Australia. 3. Department of Physics, University of Melbourne, Melbourne, VIC, Australia. 4. Department of Electrical and Electronic Engineering, University of Melbourne, Melbourne, VIC, Australia.

9:00 AM - 10:00 AM

311/312 (3F) / Room 6

Cornea 2

Moderators

Roger W. Bauerman

Singapore Eye Research Institute, Duke-NUS, Singapore, Singapore

Yuichi Hori

Toho University Omori Medical Center, Ota, Tokyo, Japan

218-1

A Significant Role of Endoplasmic Reticulum Stress in Ocular Chronic Graft-Versus-Host Disease

Shin Mukai¹ Yoko Ogawa¹ Kazuo Tsubota¹

1. Department of Ophthalmology, Keio University School of Medicine, Tokyo, Japan.

219-2

Oxidative stress and heavy metal ions in severe dry eye syndrome patients in comparison with non-dry eye syndrome individuals

Ying Liu¹ Masatoshi Hirayama¹ Tetsuya Kawakita¹ Shigeto Shimmura¹ Kazuo Tsubota¹

1. Ophthalmology, School of Medicine, Keio University, Tokyo, Japan.

Study Group: Dry eye

220-3

Efficacy and Safety of Topical Diquafosol Tetrasodium Treatment for Chronic Graft-versus-Host Disease-Related Dry Eye Disease, A Randomized Comparative Clinical Study

Yoko Ogawa¹ Naoyuki Kozuki¹ Mio Yamane¹ Mizuka Kamoi¹ Yumiko Saijo-Ban¹ Tetsuya Kawakita¹ Dogru Murat¹ Kazuo Negishi¹ Shigeto Shimmura¹ Kazuo Tsubota¹

1. Department of Ophthalmology, Keio University School of Medicine, 35 Shinanomachi Shinjuku-ku, Japan.

221-4

Withdrawn

Activation of HIF-1a (hypoxia inducible factor-1a) prevents dry eye-induced acinar cell death in the lacrimal gland

Yuri Seo¹ Yong Woo Ji¹ Hyemi Noh¹ Areum Yeo¹ EungKweon Kim¹ HyungKeun Lee¹

1. Institute of Vision Research, Department of Ophthalmology, Yonsei University College of Medicine, Seoul, Korea (the Republic of).

222-5

Prospective Placebo-Controlled Trial of Intense Pulsed Light (IPL) Therapy for Meibomian Gland Dysfunction (MGD)

Jennifer P. Craig¹ Yen-Heng Chen¹ Philip Turnbull¹

1. Ophthalmology, The University of Auckland, Auckland, New Zealand.

Study Group: Ocular Surface Laboratory

223-6

A Simplified Xeroscope for the Noninvasive Measurement of Tear Break-up Time

Darien B. Gaw¹ Bernard Gil O. Tinio¹

1. Department of Ophthalmology, Makati Medical Center, Makati City, NCR, Philippines.

10:05 AM - 11:05 AM

311/312 (3F) / Room 6

Cornea 3

Moderators

Kong Yong Then

Hospital University Kebangsaan, Malaysia, Malaysia

Motokazu Tsujikawa

Osaka University Graduate School of Medicine, Suita, Osaka, Japan

224-1

Patient experience of cultured limbal epithelial transplantation - development of a Quality of Life (QOL) based outcome assessment questionnaire

Derek Ho¹ Carol Porteous^{2,3} Richard Cable^{2,3} Catey Bunce^{2,3} Alex Shortt^{2,3}

1. Ophthalmology Department, William Harvey Hospital, Ashford, United Kingdom. 2. Moorfields Eye Hospital, NIHR Biomedical Research Centre, London, United Kingdom. 3. UCL Institute of Ophthalmology, London, United Kingdom.

225-2

Localization of label retaining cells and rapidly proliferating cells in 6-month cultured primary human limbal epithelial cell sheets

Hideyuki Miyashita¹ Kazuo Tsubota¹ Shigeto Shimmura¹

1. Ophthalmology, Keio University School of Medicine, Tokyo, Japan.

226-3

Development of an Autologous Treatment Protocol for Limbal Epithelial Stem Cell Deficiency using Optimally Transparent, Mechanically Suitable RAFT Tissue Equivalents

Isobel Massie¹ Alvena K. Kureshi¹ Julie T. Daniels¹

1. Department of Ocular Biology & Therapeutics, UCL Institute of Ophthalmology, London, United Kingdom.

227-4

Limbal reconstruction using bio-engineered limbal plate in rabbit eye of limbal deficiency experimental model

Hong Kyun Kim¹

1. Department of Ophthalmology, Kyungpook Nat'l University School of Medicine, Daegu, Korea (the Republic of).

228-5

Low oxygen increases CD44 expression in lacrimal gland derived mesenchymal stem cells

Mathias Roth¹ Kristina Spaniol¹ Claus Kordes² Dieter Häussinger² Silke Schwarz³ Nicole Rotter³ Gerd Geerling¹ Stefan Schrader¹

1. Department of Ophthalmology, University Düsseldorf, Düsseldorf, Germany. 2. Department of Gastroenterology, Hepatology and Infectious Diseases, University Düsseldorf, Düsseldorf, Germany. 3. Department of Otorhinolaryngology, University Ulm, Ulm, Germany.

229-6

Meibomian Gland Dysfunction Related Dry Eye in Ectodysplasin A Mutant Mice

Yenchiao Wang¹ Xiaoxiao Chen¹ Baikai Ma¹ Sanming Li¹ Hui He¹ Tingting Liu¹ Liyin Zhang¹ Zuguo Liu¹ Wei Li¹

1. Eye Institute of Xiamen University, Xiamen, China.

Study Group: Eye Institute of Xiamen University, Xiamen, Fujian, China

12:20 PM - 1:20 PM

311/312 (3F)/Room 6

**Luncheon Seminar 9
Clinical Cases Using the Latest
Microperimeter and OCT**

Sponsored by NIDEK CO., LTD.

Organizer

Shuichi Yamamoto

Chiba University, Graduate School of Medicine, Chiba, Chiba, Japan

254: LS9-1

Clinical Evaluation of "Long Axial length Normative Database"

Speaker: Da-Wen Lu¹

1. Ophthalmology, Tri-Service General Hospital,, National Defense Medical Center, Taipei, Taiwan.

Study Group: NDMC

255: LS9-2

Diagnosis and Evaluation of Macular Diseases using MP-3

Speaker: Ichiro Maruko¹

1. Ophthalmology, Tokyo Women's Medical University , Tokyo, Japan.

1:30 PM - 2:30 PM

311/312 (3F) / Room 6

Cornea 4

Moderators

Shizuya Saika

Wakayama Medical University School of Medicine, Wakayama, Wakayama, Japan

Naoyuki Maeda

Osaka University Graduate School of Medicine, Suita, Osaka, Japan

285-1

Can Biomarkers predict the treatment outcomes of Crosslinking in Keratoconus?

Natasha Pahuja¹ Dr Rohit Shetty¹ Arkasubhra Ghosh² Vishal Arora⁴ Abhijit Roy² Harsha Rao³

1. CORNEA REFRACTIVE, NARAYANA NETHRALAYA, bangalore, India. 2. Grow lab, NARAYANA NETHRALAYA, Bangalore, India. 3. L V Prasad eye institute, Hyderabad, India. 4. NARAYANA NETHRALAYA, Bangalore, India.

286-2

Quantitative Analysis of Collagen Lamellae in the Normal and Keratoconic Human Cornea by Second Harmonic Generation Imaging Microscopy

Naoyuki Morishige¹ Ryu-taro Shin-gyou-uchi¹ Hiroya Azumi¹ Hiroaki Ohta¹ Koh-hei Sonoda¹

1. Ophthalmology, Yamaguchi University, Ube, Japan.

287-3

Predicting post Photorefractive Keratectomy Corneal Haze through Analysis of Corneal Gene Expression Patterns

Vishal Vohra¹ Dr Rohit Shetty¹ Arkasubhra Ghosh² Natasha Pahuja¹

1. Cornea and External eye disease , Narayana Nethralaya, Bangalore, India. 2. GROW Research Laboratory, Narayana Nethralaya Foundation, Bangalore, India.

Study Group: Narayana Nethralaya Study group

288-4

The evaluation of functional visual acuity after nasolacrimal duct recanalization

Tomoyuki Kamao¹ Atsushi Shiraishi¹ Naomi Takahashi² Yuichi Ohashi¹

1. Ophthalmology, Ehime University Graduate School of Medicine, Toon, Ehime, Japan. 2. Ophthalmology, Uwajima City Hospital, Uwajima, Ehime, Japan.

289-5

Engineering a Light Attenuating Contact Lens

Farah Shareef¹ David Szlachta¹ Genesis Contreras¹ Andrew Chen¹ Dimitri Azar^{2,1} Michael Cho¹

1. Bioengineering, University of Illinois at Chicago, Chicago, IL, United States. 2. Ophthalmology and Visual Sciences, University of Illinois at Chicago, Chicago, IL, United States.

290-6

Compare Pigment Location, Surface Roughness and the Dynamic Coefficient of Friction (dCOF) of 5 Different Limbal Ring Hydrogel Contact Lenses

Charis Lau¹ Kathrine Osborn-Lorenz¹ Meredith Jansen¹
Danielle Boree¹ Samuele Tosatti² Lenora Copper¹

1. Johnson & Johnson Vision Care, Inc, Jacksonville, FL, United States. 2. SuSoS AG, Dubendorf, Switzerland.

3:10 PM - 4:10 PM 301-304 (3F) / Exhibition Hall

Clinical/Epidemiologic Research - Poster

291 - P01-1

Reticular Drusen in Chinese

Ian Wong¹ Raymond L. Wong¹ Qing Li¹ Wai Yip, Jacky Lee¹ Shiu Ming, Jimmy Lai¹

1. University of Hong Kong, Hong Kong, China.

292 - P02-2

MMP20 and ARMS2/HTRA1 are Associated with Neovascular Lesion Size in Age-Related Macular Degeneration

Yumiko Akagi-Kurashige^{1,2} Kenji Yamashiro¹ Masahiro Miyake^{1,2} Masaaki Saito³ Masako Sugawara⁴ Ching-Yu Cheng^{5,7} Khor Chiea Chuen⁶ Wong Tien Yin^{5,7} Nagahisa Yoshimura¹

1. Kyoto University Graduate School of Medicine, Kyoto, Japan. 2. Center for Genomic Medicine, Kyoto, Japan. 3. Fukushima Medical University School of Medicine, Fukushima, Japan. 4. Kobe City Medical Center General Hospital, Kobe, Japan. 5. Singapore Eye Research Institute, Singapore, Singapore. 6. Division of Human Genetics, Genome Institute of Singapore, Singapore, Singapore. 7. Department of Ophthalmology, National University of Singapore and National University Health System, Singapore, Singapore.

Study Group: Nagahama Cohort Research Group.

293 - P03-3

Utilization of Eye Care Services Among Those with Unilateral Visual Impairment in Rural South India – Andhra Pradesh Eye Disease Study (APEDS)

Srinivas Marmamula^{1,2} Rohit C. Khanna¹ Giridhar Pyda¹ Rao N. Gullapalli¹

1. GPR ICARE, L V Prasad Eye Institute, Hyderabad, India. 2. Brien Holden Eye Research Centre, L V Prasad Eye Institute, Hyderabad, India.

294 - P04-4

Awareness and health-seeking practices about cataract in urban slum population of Delhi in India

Vasundhra Misra¹ Praveen Vashist¹ Tanuj Dada² Sumit Malhotra¹ Suraj Singh Senjam¹ S N Dwivedi³

1. Centre for Community Medicine, AIIMS, New Delhi, Delhi, India. 2. Ophthalmology, AIIMS, New Delhi, India. 3. Department of Biostatistics, AIIMS, New Delhi, India.

295 - P05-5

Magnitude and Determinants of Ophthalmoplagia among Persons with Diabetes in Saudi Arabia

Eman S. Kahtani¹

1. VR, King Khaled Eye Specialist Hospital, Riyadh, Middle, Saudi Arabia.

Study Group: Rajiv Khandekar <rkhandedkar@kkesh.med.sa>; Amira Youssef (ph_amira83@hotmail.com)

296 - P06-6

VF-14 score and referral decisions for cataract patients made by optometrists at a triaging ophthalmology clinic in Ampang, Malaysia

Duratul A. Hussin¹ Peter L. Hendicott¹ Andrew Carkeet¹ Philip Baker² Ai-Hong Chen³

1. School of Optometry & Vision Science, Queensland University of Technology, Kelvin Grove, QLD, Australia. 2. School of Public Health and Social Work, Queensland University of Technology, Kelvin Grove, QLD, Australia. 3. Community of Research (DDH), Universiti Teknologi MARA, Shah Alam, Selangor, Malaysia.

3:10 PM - 4:10 PM 301-304 (3F) / Exhibition Hall

Immunology/Microbiology - Poster

297 - P07-1

Loop-Mediated Isothermal Amplification For The Diagnosis Of Herpes Simplex Virus Keratitis

Zhuoshi Wang^{2,1}

1. He Eye Hospital, Shenyang, China. 2. He University, Shenyang, LN, China.

298 - P08-2

Human corneal endothelial cells are fully permissive for human cytomegalovirus infection

Mayumi Hosogai¹ Hideo Akiyama¹ Teruki Inoue¹ Nobuyuki Shima² Yoko Nakatani¹ Hiroshi Yorifuji¹ Hiroki Isomura¹ Shoji Kishi¹

1. Gunma University Graduate School of Medicine, Maebashi, Japan. 2. The University of Tokyo, Bunkyo-ku, Japan.

299 - P09-3

Long-term observation of murine models of anterior scleritis

Hiroko Taniguchi¹ Yuki Kitahara¹ Junko Hori¹

1. Ophthalmology, Nippon Medical School, Tokyo, Japan.

300 - P10-4

The V-domain Ig suppressor of T cell activation (VISTA) plays an essential role in the acceptance of corneal allografts

Tomoyuki Kunishige¹ Hiroko Taniguchi¹ Tatsukuni Ohno² Miyuki Azuma² Junko Hori¹

1. Nippon medical school, Tokyo, Japan. 2. Tokyo Medical and Dental University, Tokyo, Japan.

301 - P11-5

Inhibiting effect of wild rice (*Zizania latifolia* (Griseb) Turcz) on endotoxin-induced uveitis in mice

Kouichi Ohta¹ Atsuko Sato¹ Takao Hirano² Takanobu Kikuchi³ Kanji Horibe⁴ Nobuyuki Udagawa⁵

1. Ophthalmology, Matsumoto Dental University, Shiojiri, Japan. 2. Ophthalmology, Shinshu University School of Medicine, Matsumoto, Japan. 3. Instrumental Analysis, Research Center for Human and Environmental Science, Shinshu University, Matsumoto, Japan. 4. Oral Histology, Matsumoto Dental University, Shiojiri, Japan. 5. Biochemistry, Matsumoto Dental University, Shiojiri, Japan.

302 - P12-6

Analysis of PU.1 expression in experimental autoimmune uveoretinitis

Akihiko Umazume^{1,2} Takeshi Kezuka¹ Ryusaku Matuda¹ Naoyuki Yamakawa¹ Takuya Yashiro² Chiharu Nishiyama² Hiroshi Goto¹

1. Tokyo Medical University, Tokyo, Japan. 2. Tokyo University of Science, Tokyo, Japan.

303 - P13-7

Effects of intermittent intraocular pressure elevations on the humoral autoantibody repertoire

Julia Teister¹ Oliver W. Gramlich¹ Theresa Lueckner¹ Maren Kriechbaum¹ Norbert Pfeiffer¹ Franz Grus¹

1. Dept. of Ophthalmology, Experimental Ophthalmology, University Medical Center of the Johannes Gutenberg University, Mainz, Germany.

304 - P14-8

Complement synthesis and propagation by monocytes/microglia in AMD

Matt Rutar¹ Riccardo Natoli^{1,2} Krisztina Valter^{1,2} Jan Provis^{1,2}

1. The John Curtin School of Medical Research, The Australian National University, Canberra, ACT, Australia. 2. ANU Medical School, The Australian National University, Canberra, ACT, Australia.

305 - P15-9

Transcription Factor Expression by Human Retinal Endothelial Cells in Response to Tumor Necrosis Factor (TNF)- α and Interleukin (IL)-1 β

Liam Ashander¹ Binoy Appukkuttan¹ Yuefang Ma¹ Dione Gardner-Stephen¹ Justine Smith¹

1. Eye and Vision Health, Flinders University School of Medicine, Bedford Park, SA, Australia.

306 - P16-10

HIF-1 α upregulates ANGPTL4 to promote angiogenesis in Uveal Melanoma

Ke Hu^{1,2} Savalan B. Farrokhran¹ Murilo Rodrigues¹ Brooks Puchner¹ Laura Asnaghi¹ James T Handa¹ Shannath Merbs¹ Charles Eberhart¹ Silvia Montaner³ Akrit Sodhi¹

1. Wilmer Eye Institute, Johns Hopkins School of Medicine, Baltimore, MD, United States. 2. Ophthalmology, The First Affiliated Hospital of Chongqing Medical University, Chongqing, China. 3. Department of Oncology and Diagnostic Sciences, School of Dentistry, Department of Pathology, School of Medicine, and Greenebaum Cancer Center, University of Maryland, Baltimore, MD, United States.

307 - P17-11

Diagnostic evaluation of RTVue-100 Fourier-domain optical coherence tomography in herpetic eye disease

Reiko Kobayashi¹ Noriyasu Hashida¹ Shizuka Koh¹ Takeshi Soma¹ Kohji Nishida¹

1. Ophthalmology, Osaka University School of Medicine, Suita, Japan.

308 - P18-12

Virulence factors in *Pseudomonas aeruginosa* isolates associated with keratitis

Naoko Oka¹ Takashi Suzuki¹ Naoki Hayashi² Naomasa Gotoh² Yuichi Ohashi¹

1. Department of Ophthalmology, Ehime University School of Medicine, Toon, Japan. 2. Department of Microbiology and Infection Control Sciences, Kyoto Pharmaceutical University, Yamashina, Kyoto, Japan.

309 - P19-13

Demodex infestation as a potential cause of keratitis

Lingyi Liang¹ Hongmin Ke¹

1. Cornea, Zhongshan Ophthalmic Center, Guangzhou, China.

310 - P20-14

Long-term Result of Tacrolimus Ointment in Ocular Graft versus Host Diseases

Ji Won Jung¹ Da Ham Cho² Kyoungyul Seo¹

1. Department of Ophthalmology, everance Hospital, Institute of Vision Research, Yonsei, Seoul, Korea (the Republic of). 2. Hanawon, Ministry of Unification, Seoul, Korea (the Republic of).

311 - P21-15

Clinical backgrounds and characteristics of the patients with scleritis during the three years from 2011 to 2014

Atsushi Yoshida¹ Akira Ookubo¹ Hidetoshi Kawashima¹

1. Ophthalmology, Jichi Medical University, 3311-1 Yakushiji, Shimotsuke-shi, Tochigi, Japan.

312 - P22-16

Incidence Rate and Risk Factors for Vision Loss among AIDS-related Cytomegalovirus Retinitis Patients in Southern Thailand

Usanee Seepongphun¹ Wantanee Sittivarakul¹

1. Ophthalmology, Prince of Songkla University, Hatyai, Songkhla, Thailand.

313 - P23-17

Analysis of complications in patients with HTLV-1 uveitis

Koju Kamoi¹ Yukiko Terada¹ Kazunori Miyata² Manabu Mochizuki¹ Kyoko Ohno-Matsui¹

1. Department of Ophthalmology & Visual Science, Tokyo Medical and Dental University, Tokyo, Japan. 2. Miyata Eye Hospital, Miyakonojo, Japan.

314 - P24-18

Rapid detection of Staphylococcus aureus and Staphylococcus epidermidis in infectious endophthalmitis by SYBR Green RT PCR

Ratu Puri Sastradiwirja¹ Iwan Sovani¹

1. Ophthalmology, Cicendo National Eye Hospital, Bandung, West Java, Indonesia.

315 - P25-19

Relationship between Choroidal Blood Flow Velocity and Choroidal Thickness during Systemic Corticosteroid Therapy for Vogt-Koyanagi-Harada Disease

Kiriko Hirooka¹ Wataru Saito¹ Kenichi Namba¹ Yuko Takemoto¹ Kazuomi Mizuuchi¹ Tomoe Uno¹ Yoshiaki Tagawa¹ Michiyuki Saito¹ Yuki Hashimoto¹ Susumu Ishida¹

1. Hokkaido University Graduate School of Medicine, Sapporo, Japan.

316 - P26-20

Application of International Revised Diagnostic criteria for Diagnosis of Vogt-Koyanagi-Harada (VKH) disease

Pankaj Kumar Roy¹

1. Vitreo Retina Department, National Institute of Ophthalmology, Dhaka, Bangladesh.

3:10 PM - 4:10 PM 301-304 (3F) / Exhibition Hall

Lens - Poster

317 - P27-1

Outcome of surgical management in ectopia lentis of Marfan syndrome

Yu-Yun Huang¹ Fang-Yi Tsai¹ Shih-Jen Chen¹

1. Department of Ophthalmology, Taipei Veterans General Hospital, Taipei, Taiwan.

318 - P28-2

Area Densitometry of Rotating Scheimpflug Images Interchangeable in Quantification of Intraocular Lens Surface Opacification

Keiichiro Minami¹ Masato Honbo¹ Yasushi Kataoka¹ Kazunori Miyata¹

1. Miyata Eye Hospital, Miyakonojo, Japan.

319 - P29-3

Outcome of Cataract Surgery from Outreach Eye Camp of Community Ophthalmology Department, Dr. Rajendra Prasad Centre for Ophthalmic Sciences AIIMS, New Delhi, Review for Five Years of Services

Senjam Suraj Singh¹ Praveen Vashist¹

1. Community Ophthalmology, Dr. RPC, All India Institute of Medical Sciences, New Delhi, India.

Study Group: Community Ophthalmology Dr. RPC AIIMS

320 - P30-4

Comparison of intra-ocular pressure changes in Ziemer LDV femtosecond laser platforms with liquid or flat applanation interfaces

Geraint P. Williams^{1,2} Heng Pei Ang^{1,2} Benjamin L. George^{1,2} Xin Yi Seah^{1,2} Yua Chi Liu^{1,2} Gary Peh^{1,2} Donald Tan^{1,2} Jodhbir S. Mehta^{1,2}

1. Tissue Engineering and Stem Cell Group, Singapore Eye Research Institute, Singapore, Singapore. 2. Singapore National Eye Centre, Singapore, Singapore.

321 - P31-5

Postoperative Measurement of the Diameter of Femtosecond Laser-created Anterior Capsulotomy by Using the Implanted Intraocular Lens as a Reference Point

Manabu Hirasawa^{1,2} Keiichiro Minami¹ Riho Yumiyama¹ Shinichi Ooki¹ Hiroko Bissen-Miyajima¹

1. Ophthalmology, Tokyo Dental College Suidobashi Hospital, Tokyo, Japan. 2. Ophthalmology, Keio University School of Medicine, Tokyo, Japan.

322 - P32-6

Femtosecond Laser Cataract Surgery, Results of a prospective, contralateral, comparative single-center study

Mike P. Holzer¹ Mary Attia¹ Ramin Khoramnia¹ Tanja M. Rabsilber¹ Gerd U. Auffarth¹

1. Ophthalmology, Univ. of Heidelberg, Heidelberg, Germany.

323 - P33-7**Early clinical outcomes after implantation of a fully diffractive trifocal toric intraocular lens for presbyopia correction**Harvey Uy ^{1,2} Richard Nepomuceno ^{1,2}

1. Pacific Eye and Laser Institute, Makati, Philippines. 2. Department of Ophthalmology and Visual Sciences, University of the Philippines, Manila, Philippines.

324 - P34-8**Evaluation of Incomplete Corneal Incision in Femtosecond-Laser Assisted Cataract Surgery**Shinichi Oki ¹ Manabu Hirasawa ¹ Michiru Tanaka ¹ Keiichiro Minami ¹ Hiroko Bissen-Miyajima ¹

1. Ophthalmology, Tokyo Dental College Suidobashi Hospital, Chiyoda-ku, Japan.

325 - P35-9**Correlation of Cumulative Dissipated Energy and Intraocular Pressure After Routine Phacoemulsification with Posterior Chamber Intraocular Lens Implantation in Patients with Age-related Cataract**Pearl M. Padilla ¹

1. Ophthalmology, Makati Medical Center, Makati City, Philippines.

326 - P36-10**Incidence of Bacterial Contamination of Cataract Day-Packs Used in a Tertiary Hospital**Aileen Q. Viguilla ¹ Sherman O. Valero ¹

1. Ophthalmology, The Medical City, Ortigas Avenue, Philippines.

327 - P37-11**A comparison of keratometry measurements taken with the IOL Master 500 the NIDEK AL-Scan Optical Biometer, and the Oculus Pentacam**Tariq Ayoub ^{1,2} Alex Baneke ¹ Mohammed Oomerjee ¹ Christopher Hammond ^{1,3} Omar Mahroo ^{1,2}

1. Department of Ophthalmology, Kings College London, London, United Kingdom. 2. Moorfields Eye Hospital, London, United Kingdom. 3. Department of Twin Research and Genetic Epidemiology, Kings College London, London, United Kingdom.

328 - P38-12**Pattern of Visual Outcome After Nd:YAG Laser Capsulotomy In Patients with PCO and it's relationship to intraocular pressure, A Study of 60 Cases**Farhana Hossain ^{1,2} Ava Hossain ¹

1. Green Life Hospital Medical College, Dhaka, Bangladesh. 2. Ispahani Islamia Eye Hospital, Dhaka, Bangladesh.

329 - P39-13**Optical simulation of water clefts**Yoriko Takahashi ¹ Takushi Kawamorita ² Yusuke Seki ¹ Norihiro Mita ¹ Eri Kubo ¹ Kimiya Shimizu ² Hiroshi Sasaki ¹

1. Department of Ophthalmology, Kanazawa Medical University, Kanazawa, Japan. 2. Department of Allied Health Science, Kitasato University, Kanagawa, Japan.

330 - P40-14**Usefulness of absorptive glasses for incipient cataracts**Michihiro Onishi ¹

1. Ophthalmology, Memuro Public Hospital, Memuro, Hokkaido, Japan.

3:10 PM - 4:10 PM 301-304 (3F) / Exhibition Hall

Retinal Cell Biology - Poster

331 - P41-1

The neoangiogenesis profile of the murine laser-induced CNV mode

Helder Andre ^{1,2} Selcuk Tunik ^{1,2} Monica Aronsson ^{1,2} Anders Kvanta ^{1,2}

1. Vitreo-Retinal Clinic, St Erik Eye Hospital, Stockholm, Sweden. 2. Clinical Neurosciences, Karolinska Institute, Stockholm, Sweden.

332 - P42-2

The effect of aflibercept on the barrier function of polarized retinal pigment epithelium cells

Naoya Yoshihara ¹ Hiroto Terasaki ¹ Hiroki Otsuka ¹ Shozo Sonoda ¹ Taiji Sakamoto ¹ Toshio Hisatomi ² Tatsuro Ishibashi ²

1. Kagoshima University, Kagoshima, Japan. 2. Kyushu University, Fukuoka, Japan.

333 - P43-3

The role of Sirt1 for regulating VEGF in human RPE

Tomoka Ishida ¹ Takeshi Yoshida ¹ Kosei Shinohara ¹ Koutei Ryu ¹ Kyoko Ohno-Matsui ¹

1. Ophthalmology, Tokyo Medical and Dental University, Bunkyo, Japan.

334 - P44-4

TAK1 inhibition accelerates cellular senescence of retinal pigment epithelial cells, possible new pathway underlies early stages of AMD

Zeev Dvashi ¹ Ayala Pollack ¹

1. Ophthalmology Research Laboratory, Kaplan Medical Center, Rehovot, affiliated to the Hebrew University, Jerusalem, Rehovot, Israel.

Study Group: Ophthalmology research laboratory. Kaplan Medical Center

335 - P45-5

Characterization of HTRA1 Promoter in Patients with Exudative Age-Related Macular Degeneration

Daisuke Iejima ¹ Mao Nakayama ¹ Takeshi Itabashi ¹ Masakazu Akahori ¹ Yuichi Kawamura ¹ Takeshi Iwata ¹

1. National Institute of Sensory Organs, National Hospital Organization Tokyo Medical Center, Tokyo, Japan.

336 - P46-6

Enhanced differentiation of mouse induced pluripotent stem cells towards retinal pigment epithelium cells by using low-level laser irradiation

Wentao Wu ¹ Chun Zhang ¹

1. Department of Ophthalmology, Peking University Third Hospital, Beijing, China.

337 - P47-7

Suppression of transient receptor potential canonical channel 4 inhibits vascular endothelial growth factor-induced retinal neovascularization

Jin Hyoung Kim ¹ Hyun Beom Song ¹ Marcus Fruttiger ² Jeong Hun Kim ¹

1. Ophthalmology, Seoul National University Hospital, Seoul, Korea (the Republic of). 2. Ophthalmology, UCL, London, United Kingdom.

338 - P48-8

Different Distributions of M1 and M2 Macrophages in the Mouse Model of Laser-induced Choroidal Neovascularization

Yedi Zhou ¹ Shigeo Yoshida ¹ Takeru Yoshimura ¹ Yoshiyuki Kobayashi ¹ Takahito Nakama ¹ Muneo Yamaguchi ¹ Keijiro Ishikawa ¹ Yuji Oshima ¹ Tatsuro Ishibashi ¹

1. Department of Ophthalmology, Kyushu University Graduate School of Medical Sciences, Fukuoka, Japan.

Study Group: Ophthalmology

339 - P49-9

Alteration of N-glycan Profiles in Diabetic Retinopathy

Saori Inafuku ^{1,2} Kousuke Noda ¹ Maho Amano ² Miyuki Murata ¹ Wataru Saito ¹ Tetsu Ohashi ² Atsuhiko Kanda ¹ Shin-Ichiro Nishimura ² Susumu Ishida ¹

1. Hokkaido University Graduate School of Medicine, Sapporo, Japan. 2. Graduate School of Life Sciences, Hokkaido University, Sapporo, Japan.

340 - P50-10

Toll-like receptor 4 is implicated in high-fat diet induced activation of macrophage/microglial cells and DNA damage of retina

Jong-Jer Lee ^{1,2} Jiin-Haur Chuang ² Pei-Wen Wang ³ I-Hui Yang ¹ Chia-Shiang Chang ³

1. Ophthalmology, Kaohsiung Chang Gung Memorial Hospital and Chang Gung University College of Medicine, Kaohsiung, Taiwan. 2. The Graduate Institute of Clinical Medical Sciences, Chang Gung University College of Medicine, Taoyuan, Taiwan. 3. Endocrinology and Metabolism, Kaohsiung Chang Gung Memorial Hospital and Chang Gung University College of Medicine, Kaohsiung, Taiwan.

341 - P51-11

SP1 expression in AGEs exposed rat retinas and effects of neurotrophic factors

Guzel Bikbova ¹ Toshiyuki Oshitari ¹ Shuichi Yamamoto ¹

1. Ophthalmology and Visual Science, Chiba University, Chiba, Japan.

342 - P52-12

Protective effects of systemic treatment with methylprednisolone in a rodent model of non-arteritic anterior ischemic optic neuropathy (rAION)

Tzu Lun Huang ¹ Rong Kung Tsai ²

1. Far Eastern Memorial Hospital, New Taipei City, Taiwan. 2. Tzu Chi University, Huailen, Taiwan.

343 - P53-13**In vivo imaging of stress responses in retinal ganglion cells using AAV2-mediated delivery of pathway-specific promoter driven reporters**

Koji M. Nishiguchi¹ Kosuke Fujita² Satoru Tsuda² Yusuke Fujii² Kotaro Yamamoto² Kota Sato² Masayuki Yasuda² Toru Nakazawa^{1,2}

1. Department of Advanced Ophthalmic Medicine, Tohoku University Graduate School of Medicine, Sendai, Japan. 2. Department of Ophthalmology, Tohoku University Graduate School of Medicine, Sendai, Japan.

344 - P54-14**Effects of Intervention timing with systemic methylprednisolone in a rat model of anterior ischemic optic neuropathy (rAION)**

Rong-Kung Tsai^{1,2} Chung-Hsing Chang³

1. Institute of Eye Research, Buddhist Tzu Chi General Hospital, Hualien, Taiwan. 2. Institute of Medical Sciences, Tzu Chi University, Hualien, Taiwan. 3. Department of Dermatology, Kaohsiung Medical University Hospital, Kaohsiung, Taiwan.

345 - P55-15**ATP6AP2/(pro)renin receptor contributes to glucose metabolism via stabilizing the E1 β subunit of pyruvate dehydrogenase complex**

Atsuhiko Kanda¹ Kousuke Noda¹ Susumu Ishida¹

1. Department of Ophthalmology, Hokkaido University Graduate School of Medicine, Sapporo, Hokkaido, Japan.

346 - P56-16**Lutein's effect on repairing the tight junction of the retinal pigment epithelium induced by light exposure**

Mamoru Kamoshita^{1,2} Toshihide Kurihara^{1,2} Norihiro Nagai^{1,2} Hideto Osada² Saori Kobayashi³ Kazuo Tsubota¹ Yoko Ozawa^{1,2}

1. Ophthalmology, Keio University School of Medicine, Shinjuku, Tokyo, Japan. 2. Laboratory of Retinal Cell Biology, Keio University School of Medicine, Shinjuku, Japan. 3. Wakasa Seikatsu Co.Ltd, Kyoto, Japan.

347 - P57-17**C1q increases ganglion cell survival in adult rat retinal explants in vitro - compliments of the complement system**

Linnea Taylor¹ Karin Arnér¹ Fredrik Ghosh¹

1. Ophthalmology, Clinical Sciences, Lund University, Lund, Sweden.

348 - P58-18**Ultrathin silk fibroin membranes as prosthetic Bruch's membrane**

Audra M. Shadforth^{1,2} Shuko Suzuki² Christina Theodoropoulos¹ Neil A. Richardson^{1,2} Traian V. Chirila² Damien G. Harkin^{1,2}

1. Queensland University of Technology, Brisbane, QLD, Australia. 2. Queensland Eye Institute, Brisbane, QLD, Australia.

349 - P59-19**Neuroprotective effect of Rapamycin in Lipopolysaccharide (LPS) -induced uveitis and retinitis**

Tomohiro Okamoto^{1,2} Mamoru Kamoshita^{1,2} Kazuo Tsubota¹ Yoko Ozawa^{1,2}

1. Department of Ophthalmology, Keio University, School of Medicine, Shinjuku, Tokyo, Japan. 2. Laboratory of Retinal Cell Biology, Keio University, School of Medicine, Shinjuku, Tokyo, Japan.

350 - P60-20**Differentiation of human retinal pigment epithelial cells cultured on thin alginate/gelatin layer**

Hoda Shams Najafabadi¹ zahrasoheila soheili¹ shahram samiei² hamid ahmadi³

1. National Institute of Genetic Engineering and Biotechnology, tehran, Iran (the Islamic Republic of). 2. Iranian Blood Transfusion Organization Research Center., tehran, Iran (the Islamic Republic of). 3. Ophthalmic Research Center, Shahid Beheshti University of Medical Sciences, tehran, Iran (the Islamic Republic of).

351 - P61-21**Blue light induces inflammatory marker expression in the retinal pigment epithelium-choroid**

Toshio Narimatsu^{1,2} Kazuno Negishi² Manabu Hirasawa^{1,2} Toshihide Kurihara^{1,2} Kazuo Tsubota² Yoko Ozawa^{1,2}

1. Laboratory of Retinal Cell Biology, Keio University School of Medicine, Shinjuku, Tokyo, Japan. 2. Ophthalmology, Keio University School of Medicine, Shinjuku, Tokyo, Japan.

352 - P62-22**Blue Light Exposure-induced Oxidative Stress and Cell Death in the Retinal Pigment Epithelial Cells are Protected with NF-E2-related Factor 2 Pathway**

Kei Takayama¹ Hiroki Kaneko¹ Fuxiang Ye¹ Ryo Ijima¹ Shu Kachi¹ Akiko Higuchi¹ Yosuke Nagasaka¹ Hiroko Terasaki¹

1. Department of Ophthalmology, Nagoya University Graduate School of Medicine, Nagoya, Japan.

353 - P63-23**Neuro-protective effect of bilberry extract on the light-induced retinal degeneration in vivo**

Hideto Osada¹ Tomohiro Okamoto^{1,3} Seiji Miyake¹ Saori Kobayashi² Kazuo Tsubota³ Yoko Ozawa^{1,3}

1. Laboratory of Retinal Cell Biology, Keio University, School of Medicine, Tokyo, Japan. 2. Wakasa Seikatsu Co.Ltd, Kyoto, Japan. 3. Ophthalmology, Keio University, School of Medicine, Tokyo, Japan.

354 - P64-24**Effects of intense visible light on synaptic layers in neonatal chick retina, a morphological and biochemical investigation**

Kumar A. Jha² Tapas C. Nag¹ Shashi Wadhwa¹ T S. Roy¹ Pankaj Kumar¹

1. Anatomy, All India Institute of Medical Sciences, New delhi, India. 2. Anatomy, All India Institute of Medical Sciences, New delhi, India.

355 - P65-25

The result of an analysis of fundus photos taken from 1,443 monkeys at Tsukuba Primate Research Center during 2011-2013

Yusuke Fujii¹ Koji M. Nishiguchi² Toshinori Furukawa³ Fumiko Ono⁴ Nobuhiro Shimozawa⁵ Mutsumi Togo⁶ Michihiro Suzuki⁶ Toru Nakazawa^{1,2}

1. Department of Ophthalmology, Tohoku University Graduate School of Medicine, Sendai, Japan. 2. Department of Advanced Ophthalmic Medicine, Tohoku University Graduate School of Medicine, Sendai, Japan. 3. Department of Life Science, Kurashiki University of Science and the Arts, Kurashiki, Japan. 4. Faculty of Risk and Crisis Management, Chiba Institute of Science, Choshi, Japan. 5. National Institute of Biomedical Innovation, Tsukuba Primate Research Center, Tsukuba, Japan. 6. The Corporation for Production and Research of Laboratory Primates, Tsukuba, Japan.

356 - P66-26

Retinal Neuro-degeneration and Oxidative Stress, Vascular Endothelial Growth Factor-B (VEGF-B) in action?!

Pachiappan Arjunan¹ Zhongshu Tang² Lijin Dong³ Zhijian Wu³ Pamela M. Martin¹ Christopher W. Cutler¹ Xuri Li²

1. Georgia Regents University, Augusta, GA, United States. 2. Sun Yat-Sen University, Guangzhou, China. 3. National Eye Institute/NIH, Bethesda, MD, United States.

357 - P67-27

Promotion of retinal progenitor-like cells from adult human retinal pigment epithelial cells using AAV-2 viruses harboring hSox2

Azade Etemadzade² Zahrasoheila Soheili² Shahram Samiei¹ Razie Ezati² Ehsan Ranaei Pimardan^{3,2} Bagher Yakhchali⁴ Hamid Ahmadieh⁵

1. Iranian Blood Transfusion Organization research Center, Tehran, Tehran, Iran (the Islamic Republic of). 2. Department of molecular medicine, National institute of genetic engineering and biotechnology, Tehran, Iran (the Islamic Republic of). 3. Faculty of biological science, Tarbiat modares university, Tehran, Tehran, Iran (the Islamic Republic of). 4. Department of industrial biotechnology, National institute of genetic engineering and biotechnology, Tehran, Iran (the Islamic Republic of). 5. Ophthalmic research center, shahid beheshti university of medical sciences, Tehran, Iran (the Islamic Republic of).

358 - P68-28

Intravitreal human neural stem cells are neuroprotective in a rat model of optic nerve transection in part by upregulation and secretion of gremlin-1

Sang Jin Kim^{1,2} Ji Hyun Yun²

1. Ophthalmology, Samsung Medical Center, Sungkyunkwan University School of Medicine, Seoul, Korea (the Republic of). 2. Samsung Biomedical Research Institute, Seoul, Korea (the Republic of).

359 - P69-29

Extra Ocular Muscles and Stem Cells

Damaris Magdalene¹ Bithiah Grace Jaganathan² Darilang Mawrie² Atul Kumar² Jina Bhattacharyya³

1. Pediatric Ophthalmology and Strabismus, Sri Sankaradeva Nethralaya, Guwahati, Assam, India. 2. Department of Bio technology, IIT, Guwahati, India. 3. Department of Hematology, Guwahati Medical College, Guwahati, India.

360 - P70-30

The effect of low level laser irradiation on the proliferation of bmscs

Xiao Wang^{1,4} Yalong Dang^{1,4} Haotian Wu³ Yongsheng Xu^{2,4} Wentao Wu⁴ Chun Zhang^{1,4}

1. Ophthalmology, Peking University Third Hospital, Beijing, China. 2. Department of Biotech Treatment, Clinical Stem Cell Center, Beijing, China. 3. Beijing NO.4 High School, Beijing, Beijing, China. 4. Clinical Stem Cell Center, Peking University Third Hospital, Beijing, China.

9:00 AM - 11:00 AM

Main Hall (1F)/Room 1

Plenary Session 6 Recent Trends in Regenerative Medicine

Organizers

Kohji Nishida

Osaka University Graduate School of Medicine, Suita, Osaka, Japan

Scheffer C. Tseng

TissueTech, Inc., Miami, FL, United States

366: PS6-1

Reprogramming by a Novel Matrix Component HC-HA/PTX3 Purified from Amniotic Membrane

Keynote Speaker: Scheffer C. Tseng^{1,2}

1. R&D Department, TissueTech, Inc., Miami, FL, United States. 2. Ocular Surface Center, Miami, FL, United States.

367: PS6-2

Development of stem cell-based therapy for corneal diseases-from tissue stem cell to iPS cell

Speaker: Kohji Nishida¹

1. Department of Ophthalmology, Osaka University Graduate School of Medicine, Suita, Osaka, Japan.

368: PS6-3

Ocular Surface Transplantation: Yesterday, Today & Tomorrow

Speaker: Kenneth Kenyon^{2,1}

1. Harvard Medical School, Boston, MA, United States. 2. Tufts Medical School, Boston, MA, United States.

369: PS6-4

Tissue Stem Cells and Pluripotent Stem Cells in Regeneration of the Cornea

Speaker: Shigeto Shimmura¹

1. Department of Ophthalmology, Keio University School of Medicine, Shinjuku, Tokyo, Japan.

370: PS6-5

Retinal regeneration therapy for retinal degeneration using ES/iPS derived retinal tissue

Speaker: Michiko Mandai¹

1. Laboratory for Retinal Regeneration, RIKEN Center for Developmental Biology, Kobe, Hyogo, Japan.

371: PS6-6

Transplantation of Autologous induced Pluripotent Stem Cell-Derived Retinal Pigment Epithelium Cell Sheets for Exudative Age Related Macular Degeneration : A Pilot Clinical Study

Speaker: Yasuo Kurimoto^{2,1}

1. Kobe City Medical Center General Hospital, Kobe, Hyogo, Japan. 2. Institute of Biomedical Research and Innovation, Kobe, Japan.

372: PS6-7

Gene Transfer Driven Regenerative Medicine Approaches For Corneal Endothelial Disorders

Speaker: Rajiv R. Mohan^{1,2}

1. Mason Eye Institute and Vet Med Surgery, University of Missouri-Columbia, Columbia, MO, United States. 2. Ophthalmic Research, Harry S Truman Veterans Memorial Hospital, Columbia, MO, United States.

11:10 AM - 12:10 PM

Main Hall (1F)/Room 1

Plenary Lecture 2

Chair

Kazuo Tsubota

Keio University School of Medicine, Shinjuku, Tokyo, Japan

418: PL2

Sirtuins NAD and Aging

Speaker: Leonard P. Guarente¹

1. Glenn Laboratory for the Science of Aging, Massachusetts Institute of Technology, Cambridge, MA, United States.

12:20 PM - 1:20 PM

Main Hall (1F)/Room 1

**Luncheon Seminar 10
Ocular Mucosal Barrier Dysfunction**

Sponsored by Otsuka Pharmaceutical Co., Ltd.

Organizer

Shigeru Kinoshita

Kyoto Prefectural University of Medicine, Kyoto, Kyoto, Japan

427: LS10-1

Topical treatments of dry eye in Japan

Speaker: Yuichi Hori¹

1. Department of Ophthalmology, Toho University Omori Medical Center, Ota, Tokyo, Japan.

428: LS10-2

The molecular basis of ocular surface glycoalyx dysfunction

Speaker: Pablo Argueso¹

1. Schepens Eye Research Institute and Massachusetts Eye and Ear, Dept. of Ophthalmology, Harvard Medical School, Boston, MA, United States.

1:30 PM - 3:00 PM

Main Hall (1F)/Room 1

Symposium 17 Recent Advances in Dry Eye Research

Organizers

Norihiko Yokoi

Kyoto Prefectural University of Medicine, Kamigyo, Kyoto,
Japan

Hyo Myung Kim

College of Medicine, Korea University, Seongbuk, Seoul, Korea
(the Republic of)

439: SY17-1

Molecular Biomarkers and Personalized Medicine in Ocular Surface Disease

Speaker: Roger Beuerman^{1,2}

1. Singapore Eye Research Institute, Singapore, Singapore. 2. Duke-
NUS, Singapore, Singapore.

440: SY17-2

Biomarkers in dry eye disease

Speaker: Kyung Chul Yoon¹

1. Department of Ophthalmology, Chonnam National University
Medical School and Hospital, Gwangju, Gwangju, Korea (the Republic
of).

441: SY17-3

Visual Disturbance in Dry Eye Disease

Speaker: Shizuka Koh¹

1. Department of Ophthalmology, Osaka University Graduate School
of Medicine, Suita, Osaka, Japan.

442: SY17-4

Recent advances in meibomian gland dysfunction

Speaker: Reiko Arita^{1,2}

1. Ophthalmology, Ito Clinic, Saitama, Japan. 2. Ophthalmology, Keio
University, Tokyo, Japan.

Study Group: LIME working group

443: SY17-5

Alterations of mucins at the ocular surface in dry eye

Speaker: Yuichi Hori¹

1. Department of Ophthalmology, Toho University Omori Medical
Center, Ota, Tokyo, Japan.

7:50 AM - 8:50 AM

501 (5F)/Room 2

Morning Seminar 2
Lessons from Dry Eye Survey

Sponsored by Otsuka Pharmaceutical Co., Ltd.

Organizer

Kazuo Tsubota

Keio University School of Medicine, Shinjuku, Tokyo, Japan

364: MS2-1

Lessons from Dry Eye Survey The Impact of Dry Eye Disease on Taxi Drivers: The Tokyo Study

Speaker: Motoko Kawashima¹

1. Department of Ophthalmology, Keio University School of Medicine, Shinjuku, Tokyo, Japan.

188: MS2-2

Tear-Film Breakup Patterns Surveyed among Taxi Drivers: The Tokyo Study

Speaker: Norihiko Yokoi¹

1. Department of Ophthalmology, Kyoto Prefectural University of Medicine, Kamigyo, Kyoto, Japan.

9:00 AM - 11:00 AM

501 (5F)/Room 2

Plenary Session 7
Cell Biology and Pathology of EMT

Organizers

John McAvoy

University of Sydney, Sydney, NSW, Australia

Choun-Ki Joo

College of Medicine, The Catholic University of Korea, Seocho, Seoul, Korea (the Republic of)

Tetsuro Oshika

Faculty of Medicine University of Tsukuba, Tsukuba, Ibaraki, Japan

373: PS7-1

Understanding normal lens cell differentiation processes – will this help prevent PCO and promote lens regeneration after cataract surgery?

Keynote Speaker: John McAvoy¹ **Yuki Sugiyama**¹ **Lucy Dawes**¹ **Frank J. Lovicu**¹

1. Save Sight Institute, University of Sydney, Sydney, NSW, Australia.

374: PS7-2

Regulation of RTK signaling in TGF β -induced EMT leading to cataract

Speaker: Frank J. Lovicu¹ **Magdalena Wojciechowski**¹ **Guan Nan Zhao**¹ **John McAvoy**²

1. Discipline of Anatomy & Histology Bosch Institute and Save Sight Institute, University of Sydney, Sydney, NSW, Australia. 2. Save Sight Institute, University of Sydney, Sydney, NSW, Australia.

375: PS7-3

Transforming growth factor- β induced cytoskeletal rearrangement during epithelial-mesenchymal transition

Speaker: Young Sik Yoo¹ **Jong Hwa Jun**¹ **Choun-Ki Joo**¹

1. Catholic Institute for Visual Science College of Medicine, The Catholic University of Korea, Seoul, Korea (the Republic of).

376: PS7-4

Extracellular matrix modulation of TGF β /Smad signaling in EMT

Speaker: Kumi Shirai¹ **Shizuya Saika**¹

1. Department of Ophthalmology, Wakayama Medical University, Wakayama, Wakayama, Japan.

377: PS7-5

Regulation of EMT and its possibility for suppression of PCO

Speaker: Eri Kubo¹

1. Department of Ophthalmology, Kanazawa Medical University, Kahoku, Ishikawa, Japan.

Study Group: LE

378: PS7-6

Conclusive remarks: Epithelial-mesenchymal transition in eye

Speaker: Choun-Ki Joo^{1,2}

1. Department of Ophthalmology & Visual Science, College of Medicine, The Catholic University of Korea, Seocho, Seoul, Korea (the Republic of). 2. Catholic Institute for Visual Science, The Catholic University of Korea, Seoul, Korea (the Republic of).

11:10 AM - 12:10 PM

501 (5F)/Room 2

**Special Interest Groups 4
Mechanism of Retinal Degeneration**

Organizers

Bo Lei

First Affiliated Hospital of Chongqing Medical University, Chongqing, China

Mineo Kondo

Mie University Graduate School of Medicine, Tsu, Mie, Japan

419: SIG4-1

Stargardt Disease with Foveal Sparing Phenotype

Speaker: Kaoru Fujinami^{1,2}

1. Ophthalmology/Laboratory of Visual Physiology, National Hospital Organization, Tokyo Medical Center/National Institute of Sensory Organs, Meguro, Tokyo, Japan. 2. Ophthalmology, Keio University, School of Medicine, Shinjuku-ku, Tokyo, Japan.

420: SIG4-2

Activation of Liver X Receptor Prevents Inner Retinal Degeneration Induced by N-methyl-D-aspartate

Speaker: Bo Lei¹

1. Ophthalmology, First Affiliated Hospital of Chongqing Medical University, Chongqing Key Laboratory of Ophthalmology, Chongqing Eye Institute, Chongqing, China.

421: SIG4-3

Mechanism of paraneoplastic retinopathy with retinal ON bipolar cell dysfunction

Speaker: Shinji Ueno¹

1. Department of Ophthalmology, Nagoya University Graduate School of Medicine, Nagoya, Japan.

422: SIG4-4

Comprehensive approach to the retinal ganglion cell changes in optic chiasmal compression

Speaker: Tae Kwann Park¹

1. Department of Ophthalmology, Soonchunhyang University Hospital, Bucheon, Gyeonggi-do, Korea (the Republic of).

12:20 PM - 1:20 PM

501 (5F)/Room 2

Luncheon Seminar 11 Considerations in the Contemporary Glaucoma Treatment

Sponsored by Alcon Japan Ltd.

Organizer

Tetsuya Yamamoto

Gifu University Graduate School of Medicine, Gifu, Gifu, Japan

429: LS11-1

Treatment and Management for Primary Open-angle Glaucoma

Speaker: Takeo Fukuchi ¹

1. Division of Ophthalmology and Visual Science, Graduated School of Medical and Dental Sciences, Niigata University, Niigata, Niigata, Japan.

430: LS11-2

Outcome considerations in glaucoma treatment

Speaker: Ching Lin Ho ^{1,2}

1. Singapore National Eye Centre, Singapore, Singapore. 2. Duke-NUS Graduate Medical School, Singapore, Singapore.

431: LS11-3

Contemporary Glaucoma Treatment

Speaker: Yoshiaki Kiuchi ¹

1. Ophthalmology and Visual Science, Hiroshima University, Hiroshima, Japan.

1:30 PM - 3:00 PM

501 (5F)/Room 2

Symposium 18 Comparative Effectiveness Research in Ophthalmology

Organizers

Masakazu Yamada

Kyorin University Eye Center, Mitaka, Tokyo, Japan

Yoshimune Hiratsuka

National Institute of Public Health, Wako, Saitama, Japan

444: SY18-1

Overview: How can we assess cost, utility, and effectiveness?

Speaker: Rei Goto ¹

1. Hakubi Center of Advanced Research, Graduate School of Economics, Kyoto University, Sakyo, Kyoto, Japan.

445: SY18-2

Cost-effectiveness in the Treatment of Glaucoma

Speaker: Poemen Pui-Man Chan ^{1,2} Emmy Li ^{1,2} Clement C. Tham ^{1,2}

1. Department of Ophthalmology & Visual Sciences, Chinese University of Hong Kong, Hong Kong, Hong Kong. 2. Hong Kong Eye Hospital, Hong Kong, Hong Kong.

446: SY18-3

Cost Effectiveness of Treating Patients with Age-Related Macular Degeneration

Speaker: Joshua D. Stein ^{1,2}

1. Department of Ophthalmology and Visual Sciences, University of Michigan, Ann Arbor, MI, United States. 2. Institute for Healthcare Policy and Innovation, Ann Arbor, MI, United States.

447: SY18-4

Diabetic retinopathy

Speaker: Ryo Kawasaki ¹

1. Department of Public Health, Yamagata University Faculty of Medicine, Yamagata, Yamagata, Japan.

4:20 PM - 5:20 PM

501 (5F)/Room 2

Afternoon Seminar 6
Latest Multifocal IOL in Japan

Sponsored by Alcon Japan Ltd.

Organizer

Kazuo Tsubota

Keio University School of Medicine, Shinjuku, Tokyo, Japan

540: AS6-1

Overview of multifocal IOL market

Speaker: Kazuno Negishi ¹

1. Department of Ophthalmology, Keio University School of Medicine, Shinjuku, Tokyo, Japan.

541: AS6-2

Clinical outcomes of a diffractive multifocal toric intraocular lens, a diffractive multifocal intraocular lens with low addition power, and combined implantation of multifocal intraocular lens with different addition powers

Speaker: Ken Hayashi ¹

1. Hayashi Eye Hospital, Fukuoka, Japan.

9:00 AM - 10:00 AM

502 (5F) / Room 3

Glaucoma 1

Moderators

Craig Crosson

The Medical University of South Carolina, Charleston, SC, United States

Tomomi Higashide

Kanazawa University, Graduate School of Medical Science, Kanazawa, Ishikawa, Japan

379-1

Evaluation of vision-specific quality of life using binocular visual field in glaucoma patients

Shiho Kunimatsu-sanuki¹ Kazuko Omodaka¹ Ikumi Takatsu¹ Mineko Ono² Yoshimi Suzukamo² Toru Nakazawa¹

1. Ophthalmology, Tohoku University Graduate School of Medicine, Sendai, Miyagi, Japan. 2. Physical Medicine and Rehabilitation, Tohoku University Graduate School of Medicine, Miyagi, Japan.

380-2

Partial abrasion of inner retinal layers in frequent eye rubbing patients

Ritsuko Yamada^{1,2} Tadayuki Nishide¹ Kazuro Yabuki³ Atsuya Takayama⁴ Nobuhisa Mizuki¹

1. Department of Ophthalmology, Yokohama City University School of Medicine, Yokohama, Japan. 2. Radioisotope Institute St. Marianna University School of Medicine, Kawasaki, Japan. 3. Department of Ophthalmology, Saiseikai Yokohama-shi Nanbu Hospital, Yokohama, Japan. 4. Department of Orthopedics, Keisukai Kanazawa Hospital, Yokohama, Japan.

381-3

Transcorneal electrical stimulation therapy for glaucomatous optic neuropathy

Nga Kwan B. Choy¹ Shiu Ming, Jimmy Lai¹ Wai Yip, Jacky Lee¹

1. Faculty of Medicine, The University of Hong Kong, Hong Kong, Hong Kong.

382-4

Valproic Acid Protects Retinal Neurons from NMDA-Induced Neurotoxicity via Stimulation of Neuronal TrkB Receptors

Atsuko Kimura¹ Kazuhiko Namekata¹ Xiaoli Guo¹ Takahiko Noro¹ Chikako Harada¹ Takayuki Harada¹

1. Visual Research Project, Tokyo Metropolitan Institute of Medical Science, Tokyo, Japan.

383-5

Spermidine stimulates neuroprotection and optic nerve regeneration following optic nerve injury

Takahiko Noro^{2,1} Kazuhiko Namekata² Xiaoli Guo² Atsuko Kimura² Yuriko Azuchi² Tadashi Nakano¹ Hiroshi Tsuneoka¹ Takayuki Harada²

1. Ophthalmology, Jikei University School of Medicine, Tokyo, Japan. 2. Visual Science Project, Tokyo Metropolitan Institute of Medical Science, Tokyo, Japan.

384-6

A common, protein-coding variant in the SIX6 gene confers POAG risk by altering DNA binding properties

Michael Hauser^{1,2} Joshua Schipper⁶ Shelby Strickland¹ Megan Carnes⁴ Yangfan Liu⁵ Edwin Oh⁵ Nicholas Katsanis⁵ Allison Ashley-Koch¹ Raluca Gordan³ R. R. Allingham²

1. Medicine, Duke University, Durham, NC, United States. 2. Ophthalmology, Duke University, Durham, NC, United States. 3. Biostatistics and Bioinformatics, Duke University, Durham, NC, United States. 4. Biology, North Carolina State University, Raleigh, NC, United States. 5. Cell Biology, Duke University, Durham, NC, United States. 6. Center for Genomic and Computational Biology, Duke University, Durham, NC, United States.

Study Group: NEIGHBORHOOD Investigators

10:05 AM - 11:05 AM

502 (5F) / Room 3

Glaucoma 2

Moderators

Paul Kaufman

University of Wisconsin School of Medicine & Public Health,
Madison, WI, United States

Yoshiaki Kiuchi

Hiroshima University, Hiroshima, Hiroshima, Japan

385-1

Role of the Renin-Angiotensin System in Trabecular Meshwork of Glaucoma

Erdal Tan Ishizuka¹ Atsuhiko Kanda¹ Yasuhiro Shinmei¹ Satoshi Kinoshita¹ Yoko Dong¹ Saori Inafuku¹ Yoshiaki Tagawa¹ Kousuke Noda¹ Susumu Ishida¹

1. Department of Ophthalmology, Hokkaido University Graduate School of Medicine, Sapporo, Japan.

Study Group: Laboratory of Ocular Cell Biology and Visual Science

386-2

Correlation Between Serial Scleral and Corneal Pneumatonometry

Debbie S. Kuo¹ Yvonne Ou¹ Bennie Jeng² Robert Bhisitkul¹ Jay M. Stewart¹ Jacque Duncan¹ Ying Han¹

1. Ophthalmology, University of California, San Francisco, San Francisco, CA, United States. 2. Ophthalmology, University of Maryland, Baltimore, MD, United States.

387-3

Outcomes of Combined subconjunctival with subscleral Ologen implant in glaucoma filtering surgery

Dewang Angmo¹ Talvir Siddhu¹ Meenakshi Wadhvani¹ Shreyas Temkar¹ Tanuj Dada¹

1. Ophthalmology, Dr RP Centre for Ophthal Sciences, AIIMS, Delhi, New Delhi, India.

388-4

Effects of ranibizumab on cultured human Tenon's fibroblast, An in vitro study

Siti Munirah¹ Sushil Kumar Vasudevan¹ Siti Hamimah S.Abdul Kadir¹ Zakaria Bannur¹ Jonathan Crowston²

1. Faculty of Medicine, Brain and Neuroscience Communities of Research, Universiti Teknologi MARA, Shah Alam, Selangor, Malaysia. 2. Centre for Eye Research Australia, Melbourne, VIC, Australia.

389-5

Visual Impairment after Trabeculectomy with Adjunctive Mitomycin C and Its Risk Factors

Kenji Kashiwagi¹ Satoshi Kogure¹ Fumihiko Mabuchi¹ Tatsuya Chiba¹ Tetsuya Yamamoto² Yasuaki Kuwayama³ Makoto Araie⁴

1. Ophthalmology, University of Yamanashi, Chuo, Japan. 2. Ophthalmology, University of Gifu, Gifu, Japan. 3. Ophthalmology, Fukushima Eye Clinic, Osaka, Japan. 4. University of Tokyo, Tokyo, Japan.

390-6

Association of Lens Vault Related Parameters with Angle Closure

Monisha Nongpiur^{1,2} Mingguang He³ Tin Aung^{1,2}

1. Glaucoma, Singapore Eye Research Institute, Singapore, Singapore. 2. Ophthalmology, Yong Loo Lin School of Medicine, National University of Singapore, Singapore, Singapore. 3. State Key Laboratory of Ophthalmology, Zhongshan Ophthalmic Center, Sun Yat-sen University, Guangzhou, China.

11:10 AM - 12:10 PM

502 (5F)/Room 3

Special Interest Groups 5 Corneal Endothelial Health and Disease

Organizer

Shigeru Kinoshita

Kyoto Prefectural University of Medicine, Kyoto, Kyoto, Japan

423: SIG5-1

The scientific foundation of DMEK for treatment of endothelial disorders

Speaker: Friedrich E. Kruse¹ Ursula Schloetzer-Schrehardt¹
Theofilos Tourtas¹ Johannes Menzel-Severing¹

1. Department of Ophthalmology, University of Erlangen-Nuremberg, Erlangen, Germany.

424: SIG5-2

Effect of Topography on Corneal Endothelial Cell Behaviour

Speaker: Jodhbir S. Mehta^{1,2}

1. Singapore National Eye Centre, Singapore, Singapore. 2. Singapore Eye Research Institute, Singapore, Singapore.

425: SIG5-3

Development of a bioengineered corneal endothelial cell sheet to fit the corneal curvature

Speaker: Nobuyuki Shima¹ Masahiro Yamaguchi² Shiro Amano^{3,4} Satoru Yamagami¹

1. Department of Ophthalmology, The University of Tokyo, Bunkyo-ku, Tokyo, Japan. 2. Juntendo University School of Medicine, Tokyo, Japan. 3. Inoue Eye Hospital, Tokyo, Japan. 4. Miyata Eye Hospital, Ehime, Japan.

426: SIG5-4

Cell Therapy for the Treatment of Corneal Endothelial Dysfunction

Speaker: Naoki Okumura^{1,2}

1. Department of Biomedical Engineering, Doshisha University, Kyoto, Kyoto, Japan. 2. Department of Ophthalmology, Kyoto Prefectural University of Medicine, Kyoto, Japan.

12:20 PM - 1:20 PM

502 (5F)/Room 3

Luncheon Seminar 12 The History and Prospects of Orthokeratology Contact Lenses; Global and Japanese Development

Sponsored by Universal View Co., Ltd. / TORAY INDUSTRIES, INC.

Organizer

Kenneth Kenyon

Tufts Medical School, Boston, MA, United States

432: LS12-1

Orthokeratology: A Global Perspective

Speaker: Kenneth Kenyon^{1,2}

1. Ophthalmology, Tufts Medical School, Boston, MA, United States. 2. Ophthalmology, Harvard Medical School, Boston, MA, United States.

433: LS12-2

Orthokeratology (Ortho-K) in Japan ~ 6 years after approval ~

Speaker: Kenichi Yoshino¹

1. Ophthalmology, Yoshino Eye Clinic, Taito-ku, Tokyo, Japan.

1:30 PM - 3:00 PM

502 (5F)/Room 3

Symposium 19

Cataract: Recent Advances in Etiopathogenic Signaling and Potential Therapies

Organizers

Dhirendra P. Singh

University of Nebraska Medical Center, Omaha, NE, United States

Eri Kubo

Kanazawa Medical University, Kahoku, Ishikawa, Japan

448: SY19-1

Thiol-based redox regulation and signaling in lens epithelial cells

Speaker: Hongli Wu ^{1,2} Christy Xavier ¹ Xiaobin Liu ¹

1. Pharmaceutical Sciences, University of North Texas Health Science Center, Fort Worth, TX, United States. 2. North Texas Eye Research Institute, Fort Worth, TX, United States.

Study Group: Lens (LE)

449: SY19-2

Prdx6 Mutated at Sumo1 Sites Protects Lens Epithelial Cells by Escaping And Blocking Oxidative Stress-Induced Aberrant Sumoylation Signaling

Speaker: Dhirendra P. Singh ¹

1. Ophthalmology and Visual Sciences, University of Nebraska Medical Center, Omaha, NE, United States.

450: SY19-3

Autophagy is essential for intracellular quality control and suppression of age-related cataract

Speaker: Hideaki Morishita ¹ Satoshi Eguchi ² Hiroataka Kimura ² Junko Sasaki ² Michael L. Robinson ³ Takehiko Sasaki ² Noboru Mizushima ¹

1. Biochemistry and Molecular Biology, The University of Tokyo, Tokyo, Japan. 2. Medical Biology, Akita University Graduate School of Medicine, Akita, Japan. 3. Zoology, Miami University, Pearson Hall, OH, United States.

451: SY19-4

How Do Genetic Modifiers Prevent or Assist Cataract Development

Speaker: Xiaohua Gong ¹

1. Vision Science and Optometry, University of California Berkeley, Berkeley, CA, United States.

452: SY19-5

Isomerizations of aspartyl residues in lens crystallins from age-related cataracts

Speaker: Noriko Fujii ¹ Takumi Takata ¹ Norihiko Fujii ² Hiroshi Sasaki ³

1. Radiation Biochemistry and Biological Function Division of Radiation Life Science, Research Reactor Institute, Kyoto University, Sennangun, Osaka, Japan. 2. Teikyo University, Tokyo, Japan. 3. Kanazawa Medical University, Uchinada, Japan.

9:00 AM - 11:00 AM

503 (5F)/Room 4

**Plenary Session 8
Imaging in Uveitis**

Organizers

Sunil Srivastava

Cleveland Clinic, Cleveland, OH, United States

Annabelle A. Okada

Kyorin University School of Medicine, Mitaka, Tokyo, Japan

391: PS8-1

Overview on Imaging in Uveitis: What's Useful and What's Not

Keynote Speaker: Sunil Srivastava¹

1. Cole Eye Institute, Cleveland Clinic, Cleveland, OH, United States.

392: PS8-2

Fluorescein angiography in uveitis

Speaker: Hyeong Gon Yu¹

1. Department of Ophthalmology, Seoul National University College of Medicine, Seoul, South, Korea (the Republic of).

393: PS8-3

Indocyanine green angiography in uveitis

Speaker: Kei Nakai¹

1. Yodogawa Christian Hospital/ Department of Ophthalmology, Osaka University Graduate School of Medicine, Suita, Osaka, Japan.

394: PS8-4

Laser speckle flowgraphy in uveitis

Speaker: Daiju Iwata¹

1. Department of Ophthalmology, Hokkaido University Graduate School of Medicine, Sapporo, Hokkaido, Japan.

395: PS8-5

EDI-OCT in Behcet's disease

Speaker: Min Kim¹ Sung Chul Lee¹

1. Department of Ophthalmology, Yonsei University College of Medicine, Seodaemun-gu, Seoul, Korea (the Republic of).

396: PS8-6

EDI-OCT in uveitis and scleritis

Speaker: Annabelle A. Okada¹ Hiroshi Keino¹ Takayo Watanabe¹ Makiko Nakayama¹

1. Department of Ophthalmology, Kyorin University School of Medicine, Mitaka-shi, Tokyo, Japan.

12:20 PM - 1:20 PM

503 (5F)/Room 4

**Luncheon Seminar 13
The Efficacy and Biological Significance of
Aflibercept as a VEGF Family Blocker**

**Sponsored by Bayer Yakuhin, Ltd. / Santen
Pharmaceutical Co., Ltd.**

Organizer

Susumu Ishida

Hokkaido University Graduate School of Medicine, Sapporo, Hokkaido, Japan

434: LS13-1

The effect of intravitreal aflibercept treatment for Japanese patients with exudative Age-related macular degeneration

Speaker: Yuji Oshima¹

1. Department of Ophthalmology,, Graduate School of Medical Science, Kyushu University, Fukuoka, Japan.

435: LS13-2

Evolving Therapeutic Option for Diabetic Macular Edema -Aflibercept-

Speaker: Kousuke Noda¹

1. Department of Ophthalmology, Hokkaido University Graduate School of Medicine, Sapporo, Hokkaido, Japan.

1:30 PM - 3:00 PM

503 (5F)/Room 4

Symposium 20 Basic Research in Ocular Infection and Immunology

Organizers

Soon-Phaik Chee

Singapore National Eye Centre, Singapore, Singapore

Kenichi Namba

Hokkaido University Graduate School of Medicine, Sapporo,
Hokkaido, Japan

453: SY20-1

Autoimmunity vs autoinflammation in ocular inflammation

Speaker: Yih-Shiou Hwang¹

1. Department of Ophthalmology, Chang Gung Memorial Hospital,
Taipei, Taiwan.

454: SY20-2

Immunomodulation in epidemic keratoconjunctivitis

Speaker: Nobuyo Yawata^{1,2}

1. Singapore Eye Research Institute, Singapore, Singapore. 2. Duke-
NUS Graduate Medical School/Singapore Institute for Clinical Sciences
, Singapore, Singapore.

455: SY20-3

The role of IL-27 in the formation of ocular inflammatory disease

Speaker: Koh-hei Sonoda¹

1. Department of Ophthalmology, Graduate School of Medicine,
Yamaguchi University, Ube-shi, Yamaguchi, Japan.

456: SY20-4

Mechanisms involved in Vogt-Koyanagi-Harada disease

Speaker: Peizeng Yang¹ Zi Ye¹ Chaokui Wang¹ Shengping
Hou¹ Liping Du¹ Jian Qi¹ Aize Kijlstra²

1. The First Affiliated Hospital of Chongqing Medical University
Chongqing Key Lab of Ophthalmology Chongqing Eye Institute,
Chongqing Medical University, Shapingba, Chongqing, China. 2.
University Eye Clinic Maastricht, Maastricht, Netherlands.

457: SY20-5

Immune regulation of ocular inflammatory disease by Foxp3+ regulatory T cells

Speaker: Hiroshi Keino¹

1. Department of Ophthalmology, Kyorin University School of
Medicine, Mitaka, Tokyo, Japan.

9:00 AM - 9:50 AM

315 (3F) / Room 5

Visual Neuroscience - Paper**Moderators**

Neeru Gupta

University of Toronto, Toronto, Ontario, Canada

Shuichi Yamamoto

Chiba University, Graduate School of Medicine, Chiba, Chiba, Japan

397-1**Higher Room Luminance Increases Multifocal Electroretinogram Amplitude and Implicit Time**Muhamad Syukri Mohamad Rafiuddin¹ Ai Hong Chen^{1,2}

1. Advanced Electrophysiology Centre for Vision, Optometry, Universiti Teknologi MARA, Puncak Alam, Selangor, Malaysia. 2. iROViS, Drug Discovery & Health Community of Research, Universiti Teknologi MARA, Shah Alam, Selangor, Malaysia.

398-2**Optical coherence tomography (OCT) and electrophysiological assessment in retinal vein occlusion with macular oedema treated with intravitreal triamcinolone acetonide (IVTA)**Dr J L Goyal¹ Dr Richa Agarwal¹ Dr Ritu Arora¹ Dr B Ghosh¹

1. Ophthalmology, Guru Nanak Eye Centre, New Delhi, India.

399-3**Reduced full-field electroretinogram in early post-operative days in eyes with idiopathic epiretinal membrane**Atsuhiko Tanikawa¹ Iyo Ueda¹ Ryota Sakurai¹ Tadashi Mizuguchi¹ Akira Nakamura¹ Yoshiaki Shimada¹ Masayuki Horiguchi¹

1. Ophthalmology, Fujita Health University School of Medicine, Toyoake, Aichi, Japan.

400-4**VEGFR2 is required for maintaining tissue homeostasis in adult retina**Masaharu Ohbayashi^{1,2} Yuichiro Ogura² Akiyoshi Uemura¹

1. Department of Retinal Vascular Biology, Nagoya City University Graduate School of Medical Sciences, Nagoya, Japan. 2. Department of Ophthalmology and Visual Sciences, Nagoya City University Graduate School of Medical Sciences, Nagoya, Japan.

401-5**Application of Flicker ERG with Newly Devised RETevalTM for Prematurely Born Babies**Akio Tabuchi¹ Tsutomu Yamashita¹ Tomoko Yokoyama³ Nobumasa Takahashi² Ikuko Nojima² Mizue Takasugi² Noriko Kimura² Masao Yoshikawa⁴

1. Sensory Science, Kawasaki University of Medical Welfare, Kurashiki, Japan. 2. Pediatrics, Fukuyama Medical Center, Fukuyama, Japan. 3. Ophthalmology, University of Hiroshima, Hiroshima, Japan. 4. Mayo com., Inazawa, Japan.

10:05 AM - 10:55 AM

315 (3F) / Room 5

Physiology/Pharmacology - Paper**Moderators**

Xiaorong Li

Tianjin Medical University Eye Hospital & Eye Institute, Tianjin, China

Nobuhisa Naoi

Miyazaki University, School of Medicine, Miyazaki, Miyazaki, Japan

408-1**Enhanced Ocular Delivery of Anticancer Drugs by Blocking P-gp Drug Efflux Transporters in Blood Ocular Barriers, An Experimental Study**Santosh K. Patnaik³ Nabanita Halder³ Bhavna Chawla⁴ Vasantha Thavaraj¹ Nihar R. Biswas² Thirumurthy Velpandian³

1. RHN, ICMR, New Delhi, India. 2. IGIMS, Patna, Bihar, India. 3. Ocular Pharmacology & Pharmacy, Dr.R.P.C, AIIMS, New Delhi, New Delhi, India. 4. Dr. R.P.C, AIIMS, New Delhi, New Delhi, India.

409-2**The application of exosomes derived from mesenchymal stem cells in retinal diseases**Xiaorong Li¹

1. Tianjin Medical University Eye Hospital & Eye Institute, Tianjin, China.

410-3**eNOS-related mechanotransduction changes in aged porcine angular aqueous plexus cells**Yuan Lei^{1,5} William D. Stamer² Jihong Wu^{1,5} Xinghui Sun^{3,4}

1. Research Centre, Eye and ENT Hospital of Fudan University, Shanghai, China. 2. Duke University, Durham, CA, United States. 3. Department of Ophthalmology and Vision Science, Eye and ENT hospital, Shanghai Medical College, Fudan University, Shanghai, China. 4. State Key Laboratory of Medical Neurobiology, Institutes of Brain Science, Fudan University, Shanghai, China. 5. Shanghai Key Laboratory of Visual Impairment and Restoration, Eye and ENT hospital, Shanghai Medical College, Fudan University, Shanghai, China.

411-4**Pulse-waveform analysis of choroidal blood flow in acute central serous chorioretinopathy**Michiyuki Saito¹ Wataru Saito¹ Kiriko Hirooka¹ Yuki Hashimoto¹ Shohei Mori¹ Kousuke Noda¹ Susumu Ishida¹

1. Department of Ophthalmology, Hokkaido University Graduate School of Medicine, Sapporo, Hokkaido, Japan.

412-5**RPE65 Retinal Gene Therapy Update and the Frequency of the RPE65 Mutations in the Asia-Pacific Region, Implications for Increased Genetic Testing and Preparation for Future Treatments**Daniel C. Chung¹

1. Scheie Eye Institute, Perelman School of Medicine at the University of Pennsylvania, Philadelphia, PA, United States.

12:20 PM - 1:20 PM

315 (3F)/Room 5

Luncheon Seminar 14 Prevention of AMD –Up to date

Sponsored by B.L.J. Company, Ltd.

Organizer

Taiji Sakamoto

Kagoshima University Graduate School of Medicine and Dental Sciences, Kagoshima, Kagoshima, Japan

436: LS14-1

How has the Prevention Research of AMD progressed?

Speaker: Yasuo Yanagi¹

1. Department of Ophthalmology, Graduate School and Faculty of Medicine, The University of Tokyo, Tokyo, Japan.

437: LS14-2

Nutrient Supplement for early AMD

Speaker: Yoko Ozawa^{1,2}

1. Department of Ophthalmology, Keio University School of Medicine, Shinjuku, Tokyo, Japan. 2. Laboratory of Retinal Cell Biology, Keio University School of Medicine, Tokyo, Japan.

1:30 PM - 2:30 PM

315 (3F) / Room 5

Retina 3

Moderators

Sundaram Natarajan

Aditya Jyot Eye Hospital/Maharashtra University of Health Sciences, Mumbai/Nashik, Maharashtra, India

Toshiaki Kubota

Oita University Faculty of Medicine, Oita, Oita, Japan

458-1

Changes in visual acuity and health related quality of life among patients with diabetic macular edema with and without intra-vitreous bevacizumab treatment

Dipesh Bhattarai⁵ Jyoti Khadka¹ Anita Shrestha² Madan P. Upadhyay³ Subodh Gnyawali³ Sagun Narayan Joshi⁴

1. Flinders University, Adelaide, SA, Australia. 2. NHSSP, Kathmandu, Nepal. 3. B. P. Eye Foundation, Kathmandu, Nepal. 4. Department of Ophthalmology, Institute of Medicine, Kathmandu, Nepal. 5. Internship, Non Communicable Disease, WHO country office for Nepal, Kathmandu, Nepal.

459-2

Whole Exome sequencing reveals two novel mutations in the FAM161A gene causing autosomal recessive retinitis pigmentosa in Indian population

Yu Zhou¹ Zhi-lin Jiang¹ Lu-lin Huang¹ Sundaresan Periasamy² Xian-jun Zhu¹

1. Key Laboratory for Human Disease Gene Study and Institute of Laboratory Medicine, Cheng Du, Si Chuan, China. 2. Department of Genetics Aravind Medical Research Foundation, Aravind Eye Hospital, Tamilnadu, India.

Study Group: Sichuan Provincial Key Laboratory for Human Disease Gene Study and Institute of Laboratory Medicine

460-3

Innovative Stem Cell Therapy for the Treatment of Retinitis Pigmentosa

Wei He¹

1. He University Eye Hospital, Shenyang, China.

461-4

Changes of cytokines levels in aqueous humor at the induction phase of aflibercept treatment in age-related macular degeneration

Tomohito Sato³ Masaru Takeuchi³ Yoko Karasawa³ Masataka Ito¹ Toshio Enoki²

1. Developmental Anatomy and Regenerative Biology, National Defense Medical College, Tokorozawa, Japan. 2. Ophthalmology, Enoki Eye Clinic, Sayama, Japan. 3. Ophthalmology, National Defense Medical College, Tokorozawa, Japan.

462-5

Mechanisms of action of human iPSC-derived neural progenitor cells on treating retinal degenerative disease

Yuchun Tsai¹ Bin Lu¹ Dhruv Sareen¹ Clive Svendsen¹ Shaomei Wang¹

1. Regenerative Medicine Institute, Cedars-Sinai Medical Center, Los Angeles, CA, United States.

463-6

rAAV.sFlt-1 gene therapy human trial for wet age related macular degeneration

Elizabeth P. Rakoczy¹ Choo-May Lai¹ Aaron L. Magno²
Matthew Wikstrom¹ Martyn A. French³ Steven D. Schwartz⁴
Mark S. Blumenkranz⁵ Thomas W. Chalberg⁶ Mariapia A. Degli-Espoti¹ Ian J. Constable¹

1. Centre for Ophthalmology and Visual Sciences, The University of Western Australia, Perth, WA, Australia. 2. Molecular Ophthalmology, Lions Eye Institute, Nedlands, WA, Australia. 3. School of Pathology and Laboratory Medicine, The University of Western Australia, Perth, WA, Australia. 4. Ophthalmology, University of California, Los Angeles, Los Angeles, CA, United States. 5. Ophthalmology, Stanford University, Palo Alto, CA, United States. 6. Avalanche Biotechnologies, Menlo Park, CA, United States.

9:00 AM - 10:00 AM

311/312 (3F) / Room 6

**Eye Movements/Strabismus/Amblyopia/
Neuro-ophthamology - Paper**

Moderators

Erwin D. Palisoc

Manila Central University College of Medicine, Caloocan,
Philippines

Atsushi Miki

Kawasaki Medical School, Kawasaki, Okayama, Japan

402-1

**Orbital Septum-Sparing Dorsal Approach for
Transcutaneous Simultaneous Advancement of the
Levator Aponeurosis and Müller Muscle**

Ari Shinojima¹ Mitsuko Yuzawa¹

1. Ophthalmology, Nihon University Hospital, Tokyo, Japan.

403-2

**Automated Pupillograph as a Screening Tool in
Ophthalmology Clinic**

Chaithra Aroor¹ Dr Rohit Shetty¹ Narendra KP¹ Bhujang Shetty¹

1. Narayana Nethralaya, Bangalore, India.

Study Group: Control and Cases

404-3

**Role of Zinc (Zn) in Ethambutol-induced
Neuroretinopathies, Functional and Morphologic
assessment in rabbit model**

Erwin D. Palisoc¹ Hitoshi Ishikawa^{2,3} Ken Asakawa^{2,3} Kimiya Shimizu³ Kimiyo Mashimo³

1. Department of Ophthalmology, Manila Central University College of Medicine, Caloocan city, Philippines. 2. Department of Orthoptics and Visual Science, Kitasato University School of Allied Health Sciences, Sagami-hara city, Kanagawa, Japan. 3. Department of Ophthalmology, Kitasato University School of Medicine, Sagami-hara city, Kanagawa, Japan.

405-4

**Incidence and risk factors of inferior rectus injury in
pediatric orbital blow-out floor fractures**

Yan Tong Koh² Shantha Amrith¹ Errol W. Chan¹

1. Ophthalmology, National University Hospital, Singapore, Singapore.

2. Ophthalmology, Tan Tock Seng Hospital, Singapore, Singapore.

406-5

**Dose and Time Response of Mn²⁺-enhanced Magnetic
Resonance Imaging for Tracing Visual Pathway in Rabbits**

Yuntao Hu¹ Weiling Wang⁴ Hui Xu² Xiaodong Sun³ Zhizhong Ma¹

1. Ophthalmology, Peking University Third Hospital, Beijing, China. 2. Radiology, Peking University Third Hospital, Beijing, China. 3. Ophthalmology, Affiliated First People's Hospital of Shanghai Jiao Tong University, Shanghai, China. 4. Ophthalmology, Hospital of Ningxia Medical University, Yinchuan, China.

407-6

**The 10-year Effectiveness of Botulinum (A Toxin Therapy)
on Esotropia in Children**

Patcharapan Bhaktikamala¹ Supaporn Theingtrisorn¹

1. Ophthalmology, Prince of Songkhla University, Hatyai, Songkhla, Thailand.

10:05 AM - 10:55 AM

311/312 (3F) / Room 6

Clinical/Epidemiologic Research - Paper

Moderators

Mark Radford

Queensland Eye Institute, South Brisbane, Queensland, Australia

Hidetoshi Kawashima

Jichi Medical University, Shimotsuke, Tochigi, Japan

413-1

Teacher led screening for early identification of vision problems among children

Subodh Gnyawali¹ Dipesh Bhattarai²

1. Academics and Research, BP Eye Foundation, Kathmandu, Kathmandu, Nepal. 2. Ophthalmology, BP Eye Foundation, Kathmandu, Kathmandu, Nepal.

414-2

Diabetic retinopathy in newly diagnosed type 2 diabetes mellitus patients in urban slums of Mumbai, India is 6.32%

Sunita Mohan² Radhika Krishnan² Arvind K. Singh² Uthra Satagopan² Ashwini Rogye² Manish Sonawane² Ravina Gaonkar² Sundaram Natarajan¹ Govindasamy Kumaramanickavel¹ Catherine McCarty³

1. Aditya Jyot Eye Hospital, Mumbai, India. 2. Aditya Jyot Foundation for Twinkling Little Eyes, Mumbai, India. 3. Essentia Institute of Rural Health, Duluth, MN, United States.

Study Group: Aditya Jyot Diabetic Retinopathy in Urban Mumbai Slums Study (AJDRUMSS)

415-3

Association of Early Microvascular Damage in the Eye and Kidney with Risk of Cardiovascular Events in a Multi Ethnic Asian Population

Carol Cheung¹ Wanfen Yip¹ Charumathi Sabanayagam¹ Tien Yin Wong¹

1. Singapore Eye Research Institute, Singapore, Singapore.

416-4

Knowledge Attitudes and Practice of common Eye Diseases and Presenting Vision in Rural Bangladesh, The Bangladesh Population-based Diabetes and Eye Study (BPDES)

Fakir M Amirul Islam^{1,2} Rahul Chakrabarti¹ Christine Critchley¹

1. Statistics, Data Science and Epidemiology, Swinburne University of Technology, Melbourne, VIC, Australia. 2. Organisation for Rural Community Development, Narail, Bangladesh.

417-5

Dietary Nutrients and Age-Related Cataract in the Age-Related Eye Disease Study I, A study of Prevalence, Incidence, and Progression to Cataract Extraction

Lauren Doss¹ Tanya Glaser¹ JohnPaul SanGiovanni¹ Elvira Agron¹ Emily Chew¹

1. Clinical Trials Branch, Division of Epidemiology and Clinical Applications, National Eye Institute, National Institutes of Health, Bethesda, MD, United States.

12:20 PM - 1:20 PM

311/312 (3F)/Room 6

**Luncheon Seminar 15
Innovation 2015 in Dry Eye Disease**

Sponsored by R-Tech Ueno, Ltd.

Organizer

Kazuo Tsubota

Keio University School of Medicine, Shinjuku, Tokyo, Japan

438: LS15-1

Innovation 2015 in Dry Eye Disease

Speaker: Penny A. Asbell¹

1. Department of Ophthalmology, Mount Sinai School of Medicine, New York, NY, United States.

1:30 PM - 2:30 PM

311/312 (3F) / Room 6

Visual Psychophysics/Physiological Optics - Paper

Moderators

Hiroshi Uozato

Niigata University of Health and Welfare, Niigata, Niigata, Japan

Yasuki Ito

Nagoya University Graduate School of Medicine, Nagoya, Aichi, Japan

464-1

Human vertical disparity tolerance differences between 3D stereoscopic and autostereoscopic displays

Xinzhu Sang¹ Di Zhang² Peng Wang¹ Jean Louis de Bougrenet de la Tocnaye²

1. State Key Laboratory of Information Photonics and Optical Communications, Beijing University of Posts and Telecommunications, Beijing, China. 2. Optics Department, Telecom Bretagne, Brest, France.

465-2

Attempts to measure longitudinal chromatic aberration with polychromatic eccentric photorefraction

Yun Chen¹ Arne Ohlendorf² Frank Schaeffel¹

1. Institute for Ophthalmic Research, University Tuebingen, Tuebingen, Germany. 2. ZEISS Vision Science Lab, Institute for Ophthalmic Research, University Tuebingen, Tuebingen, Germany.

466-3

Ultra-High Resolution Spectral-Domain Polarization-Sensitive Optical Coherence Tomography for Retinal Imaging

Barry Cense¹ Bas Biezemans¹ Ernesto Garcia Ruiz²

1. Center for Optical Research and Education, Utsunomiya University, Utsunomiya, Tochigi, Japan. 2. National Instruments Japan Corporation, Nagoya, Japan.

467-4

Label-free Imaging of the Retina

Cong Ye¹ Sicong He^{2,3} Qiqi Sun^{2,3} Jianan Y. Qu^{2,3} Christopher K. Leung¹

1. Department of Ophthalmology and Visual Sciences, The Chinese University of Hong Kong, Kowloon, Hong Kong. 2. Department of Electronic and Computer Engineering, Hong Kong University of Science and Technology, Kowloon, Hong Kong. 3. Center for System Biology and Human Health, Hong Kong University of Science and Technology, Kowloon, Hong Kong.

468-5

Functional visual acuity of early presbyopia

Yusaku Katada¹ Kazuno Negishi¹ Kazuhiro Watanabe¹ Yuta Shigeno¹ Megumi Saiki¹ Hidemasa Torii¹ Minako Kaido¹ Kazuo Tsubota¹

1. Department of Ophthalmology, Keio University School of Medicine, Tokyo, Japan.

469-6

Accommodative Movements in the Anterior and Posterior Segment, Implications for Presbyopia and Glaucoma

Paul L. Kaufman^{1,2} Julie Kiland¹ Gregg Heatley¹ Timothy Michael Nork¹ Jared McDonald¹ Alexander Katz¹ Elke Lütjen-Drecoll³ Mary Ann Croft¹

1. Ophthalmology and Vis. Sci., University of Wisconsin, Madison, WI, United States. 2. Wisconsin National Primate Research Center, University of Wisconsin-Madison, Madison, WI, United States. 3. Institute of Anatomy II, University of Erlangen-Nuremberg, Erlangen, Nuremberg, Germany.

3:10 PM - 4:10 PM 301-304 (3F) / Exhibition Hall

Biochemistry/Molecular Biology - Poster

470 - P01-1

Polyphenolic Compounds Fisetin and Luteolin decrease Inflammation and Oxidative Stress-induced Cytotoxicity in ARPE-19 Cells

Maria Hytti¹ Niina Piippo¹ Eveliina Korhonen¹ Kai Kaarniranta¹
² Anu Kauppinen^{1,2}

1. Department of Ophthalmology, University of Eastern Finland, Kuopio, Finland. 2. Kuopio University Hospital, Kuopio, Finland.

471 - P02-2

Suppression of high fat diet-induced inflammation in the RPE by angiotensin II type 1 receptor blockade

Norihiro Nagai^{1,2} Kazuo Tsubota² Yoko Ozawa^{1,2}

1. Laboratory of Retinal Cell Biology, Keio University, School of Medicine, Tokyo, Japan. 2. Department of Ophthalmology, Keio University, School of Medicine, Tokyo, Japan.

472 - P03-3

Preliminary study on expression of uncoupling protein 2 in human retinal pigment epithelial cells

Zhang Chuntao¹

1. The Second Affiliated Hospital of Xi'an Medical University, Xi'an, China.

473 - P04-4

Studying GRP78 over-expression in cultured adult human RPE cells and its effects on the expression of the inflammatory factor

Amirhossein Mansoori¹

1. Department of Basic Sciences Biotechnology, National institute of genetic engineering and biotechnology, Tehran, Iran (the Islamic Republic of).

474 - P05-5

Aqueous level of angiotensin-like 4 correlates with phenotypes of diabetic retinopathy, Nonperfusion area and macular volume

Dong Ho Park¹ Soo Hyun Kwon¹ Jae Pil Shin¹ In Taek Kim¹

1. Department of Ophthalmology, Kyungpook National University, Daegu, Korea (the Republic of).

475 - P06-6

Does endothelin 2 have a role in diabetic retinopathy?

Chooi-May Lai^{1,2} Nicolette Binz² Ireni S. Ali Rahman¹ Elizabeth P. Rakoczy^{1,2}

1. Centre for Ophthalmology and Visual Science, The University of Western Australia, Crawley, WA, Australia. 2. Molecular Ophthalmology, Lions Eye Institute, Nedlands, WA, Australia.

476 - P07-7

Increased vitreous concentrations of MCP-1 and IL-6 after vitrectomy in patients with PDR, Possible relation to postoperative macular edema

Yoshiyuki Kobayashi¹ Shigeo Yoshida¹ Yedi Zhou¹ Takahito Nakama¹ Keijiro Ishikawa¹ Shintaro Nakao¹ Yukio Sassa² Yuji Oshima¹ Toshihiro Kono² Tatsuro Ishibashi¹

1. Department of Ophthalmology, Kyushu University Graduate School of Medical Sciences, Fukuoka, Japan. 2. Department of Ophthalmology, Fukuoka University Chikushi Hospital, Fukuoka, Japan.

477 - P08-8

Functional analysis of semaphorin 3F in rat retinal ganglion cells after optic nerve crush

Ji-Ae Ko¹ Chihiro Ohki¹ Akira Minamoto¹ Yousuke Sugimoto¹
Junko Hirata¹ Yoshiaki Kiuchi¹

1. Ophthalmology, Hiroshima Univ Grad Sch of Biomed Sci, Hiroshima, Japan.

478 - P09-9

Genetic analysis of hereditary retinal dystrophies in consanguineous Pakistani families

Zeinab Ravesh^{1,2} Nicole Weisschuh² Bernd Wissinger²
Muhammad Ansar¹

1. Biochemistry Department, Quaid-i-Azam University, Islamabad, Pakistan. 2. Molecular Genetics Laboratory, Institute of Ophthalmic Research, Tübingen, Germany.

479 - P10-10

Autosomal recessive bestrophinopathy, a novel mutation in a Korean family

Christopher Lee¹ Ikhyun Jun¹ Ji Lee¹ Hye Kim¹ Sung Lee¹ Eung Kim¹

1. Ophthalmology, Yonsei University College of Medicine, Seoul, Korea (the Republic of).

480 - P11-11

Modulation of Glutathione S-Transferase Pi Isoform (GSTP1) Expression by Lethal and Non-Lethal Oxidative Stress in Human Retinal Pigment Epithelial Cells

Wen-Hsiang Lee¹ Matthew B. Donovan² Ali M. Saeed²

1. Ophthalmology, Bascom Palmer Eye Institute - University of Miami, Miami, FL, United States. 2. Medical Education, University of Miami Miller School of Medicine, Miami, FL, United States.

3:10 PM - 4:10 PM 301-304 (3F) / Exhibition Hall

Cornea - Poster

481 - P12-1

Severe Intraepithelial Neoplasia Association with Conjunctival Squamous Papilloma

Murat Dogru¹ Jun Miyauchi² Yoichi Tanaka² Takefumi Yamaguchi¹ Seika Den Shimazaki¹ Yoshiyuki Satake¹ Jun Shimazaki¹

1. Ophthalmology, Tokyo Dental College, Ichiawa, Japan. 2. Pathology and Laboratory Medicine, Tokyo Dental College, Ichikawa, Japan.

482 - P13-2

Laser Therapy for Ocular Lesions of Nevus of Ota in a child

Sachi Amaki¹ Masahiro Kobayashi^{2,3} Masaru Tanaka⁴

1. Ophthalmology, Amaki Clinic, 2-19-10-3F Shinbashi, Minato-ku, Japan. 2. Plastic surgery, Amaki Clinic, 2-19-10-3F Shinbashi, Minato-ku, Tokyo, Japan. 3. Faculty of Nursing and Medical Care, Keio University, 35 Shinanomachi, Shinjuku-ku, Japan. 4. Dermatology, Tokyo Women's Medical University Medical Center East, 2-1-10 Nishi-Ogu, Arakawa-ku, Tokyo, Japan.

483 - P14-3

The Effect of Rebamipide to the Human Conjunctival Epithelium

Yoshiyuki Satake¹ Kazunari Higa¹ Jun Shimazaki¹

1. Ophthalmology, Tokyo Dental College, Ichikawa, Chiba, Japan.

484 - P15-4

NEW TECHNIQUE FOR PRIMARY PTERIGIUM EXCISION-WITHOUT CONJUNCTIVAL GRAFT

Alexandra Mieth¹ Eduardo Arenas¹

1. Ophthalmology-Eye Pathology, Fundacion Santa Fe de Bogota, Bogota, Colombia.

485 - P16-5

Comparison of the Coefficient of Friction of New and Worn Daily Disposable Silicone Hydrogel Contact Lenses to Human Corneal Tissue

Tawnya Wilson¹ Kristy Canavan¹ Rudolf Aeschlimann² Samuele Tosatti² Ryan Butterfield³ Kathrine Osborn-Lorenz¹

1. Research and Development, Johnson and Johnson Vision Care, Inc, Jacksonville, FL, United States. 2. SuSoS, Dubendorf, Switzerland. 3. MaxisIT, Jacksonville, FL, United States.

Study Group: Johnson and Johnson Vision Care, Inc

486 - P17-6

Cosmetic and mechanical lens fit acceptance of 1-DAY ACUVUE® DEFINE™ Brand Contact Lenses with LACREON® Technology

Meredith Jansen¹ Charis Lau¹ Michael Mayers¹ Danielle Boree¹ Lenora Copper¹

1. Johnson & Johnson Vision Care, Inc., Jacksonville, FL, United States.

487 - P18-7

Effect of Mini Scleral Lenses on Higher Order Aberration in Irregular Cornea

Mukesh Kumar¹ Dr Rohit Shetty¹

1. Refractive Surgery, Narayana Nethralaya, Bangalore, India.

488 - P19-8

Comparative Evaluation of Microbial Adhesion on Cosmetic and Clear Hydrogel Lenses

Carol Lakkis¹ Scott Piper² Danielle Boree¹

1. Research & Development, Johnson & Johnson Vision Care, Jacksonville, FL, United States. 2. Kelly Services, Inc, Troy, MI, United States.

489 - P20-9

Analysis of first 100 refractive surgeries with a 500-Hz scanning spot excimer laser

Rupali Jain^{2,1}

1. cornea, shri sadguru sewa sangh trust, Chitrakoot, India. 2. cornea, SSSST, chitrakoot, Madhya Pradesh, India.

Study Group: Jankikund

490 - P21-10

Wavefront-optimised Vs. topography guided ablation, a contralateral eye study

Anand Pasari¹ Arun Jain¹ Chintan Singh¹ Partha Chakma¹

1. Department of Ophthalmology, Advanced Eye Centre, Chandigarh, India.

491 - P22-11

Corneal biomechanical measurement of patients with congenital glaucoma using Scheimpflug noncontact tonometry

Takanori Matsuoka¹ Kenji Matsushita¹ Rumi Kawashima¹ Kohji Nishida¹

1. Osaka University Graduate School of Medicine, Osaka, Japan.

492 - P23-12

Rabbit model of corneal ectasia with excimer laser

Aristides Konstantopoulos^{1,2} Yua Chi Liu¹ Andri Riau¹ Jinesh Shah¹ Nyein Chan Lwin¹ Ericia Pei Wen Teo¹ Gary Hin Fai Yam¹ Jodhbir S. Mehta¹

1. Singapore Eye Research Institute, Singapore, Singapore. 2. Singapore National Eye Centre, Singapore, Singapore.

493 - P24-13

Association of Sex Hormone Levels and Corneal Hysteresis During Menstrual Cycle

Azam Bakhtiari¹ Mohammadreza Peyman¹

1. University of Malaya, Kuala Lumpur, Malaysia.

494 - P25-14

Niche function of amniotic membrane stromal cells in corneal epithelial stem cell expansion

Wei Li^{1,2} Jie Yang^{1,2} Jing Jie^{1,2} Tingting Liu^{1,2} Yangluowa Qu^{1,2} Hui He^{1,2} Zuguo Liu^{1,2}

1. Eye Institute of Xiamen University, Xiamen, China. 2. Fujian Provincial Key Laboratory of Ophthalmology and Visual Science, Xiamen, Fujian, China.

495 - P26-15

N-cadherin expression in hypoxic spheroidal cultivation of human limbal epithelial cells

Kazunari Higa^{1,2} Hideyuki Miyashita² Jun Shimazaki^{1,2} Kazuo Tsubota^{2,1} Shigeto Shimmura^{2,1}

1. Ophthalmology / Cornea Center, Tokyo Dental College, Ichikawa general hospital, Ichikawa, Chiba, Japan. 2. Ophthalmology, Keio University School of Medicine, Shinjuku-ku, Japan.

Study Group: CCB

496 - P27-16

Galectin Expression Signature in Murine Corneal Allograft

Satoshi Sugaya^{1,2} Zhiyi Cao¹ Wei-sheng Chen³ Kenneth Kenyon¹ Takefumi Ymaguchi⁴ Masahiro Omoto⁴ Pedram Hamrah⁴ Noorjahan Panjwani^{1,3}

1. Ophthalmology, Tufts University, New England Eye Center, Boston, MA, United States. 2. Ophthalmology, Nihon University school of Medicine, Tokyo, Japan. 3. Sackler School of Graduate Biomedical science, Tufts University, Boston, MA, United States. 4. Schepens Eye Research Institute/Massachusetts Eye and Ear, Boston, MA, United States.

497 - P28-17

Derivation of mesenchymal stromal cells from pluripotent stem cells through a neural crest lineage using small molecule compounds with defined media

Yoshinori Nakai¹ Morio Ueno¹ Makoto Fukuta² Mokoto Ikeya² Naoki Okumura³ Noriko Koizumi³ Junya Toguchida² Shigeru Kinoshita¹

1. Ophthalmology, Kyoto Prefectural University of Medicine, Kyoto, Kyoto, Japan. 2. Department of Cell Growth and Differentiation, Center for iPS Cell Research and Application, Kyoto, Kyoto, Japan. 3. Department of Biomedical Engineering, Doshisha University, Kyotanabe, Kyoto, Japan.

498 - P29-18

Genetic association of TCF4 intronic polymorphisms, CTG18.1 and rs17089887 with Fuchs' endothelial corneal dystrophy in Indian population

Debasmita P. Alone¹ Gargi G. Nanda¹ Biswajit Padhy¹ Sujata Samal² Vinay Malloji¹ Sujata Das²

1. School of Biological Sciences, National Institute of Science Education and Research, Bhubaneswar, Odisha, India. 2. Cornea and Anterior Segment, L.V. Prasad Eye Institute, Bhubaneswar, India.

499 - P30-19

A COL4A3 locus (rs7606754) has an additive effect on the corneal curvature of 20-year olds

Seyhan Yazar¹ Alex W. Hewitt¹ Jenny A. Mountain² David A. Mackey¹

1. Centre for Ophthalmology and Visual Science/Lions Eye Institute, University of Western Australia, Nedlands, Perth, WA, Australia. 2. Telethon Kids Institute, University of Western Australia, Perth, WA, Australia.

500 - P31-20

Association of ZEB1 variations and TCF4 SNP rs613872 with late onset Fuchs endothelial corneal dystrophy in Indian Patients

Ranjan Gupta¹ Arundhati Sharma¹ Babu Lal Kumawat² Radhika Tandon² Namrata Sharma² Preeti Paliwal¹ Rasik.B Vajpayee³

1. Department of Anatomy, AIIMS, DELHI, NEW DELHI, India. 2. Dr.Rajendra Prasad Centre for Ophthalmic Sciences, AIIMS, DELHI, NEW DELHI, India. 3. University of Melbourne, Center for Eye Research, University of Melbourne, VIC, Australia.

501 - P32-21

Attenuation of Lysyl Oxidase and Collagen Gene Expression in Keratoconus patient corneal epithelium corresponds to disease severity

Tejal SJ² Rohit Shetty⁴ Vishal Arora² Rudy M. A. Nuijts¹ Arkasubhra Ghosh³ Abhijit Roy³ Natasha Pahuja¹

1. Cornea and Refractive Department, Narayana Nethralaya, Bangalore, Karnataka, India. 2. Cataract and Refractive Department, Narayana Nethralaya, Bangalore, India. 3. Grow Research Laboratory, Narayana Nethralaya, Bangalore, Karnataka, India. 4. Cornea and Refractive Surgeries, Narayana Nethralaya, Bangalore, India.

502 - P33-22

Safety of Intracameral Moxifloxacin/Dexamethasone Fixed-Dose Formulation on the Corneal Endothelium in a Rabbit Model

Reginald Robert Tan¹ Joseph Anthony Tumbocon¹ Ruben Lim Bon Siong¹ Jay Vicencio¹

1. Eye Institute, St Luke's Medical Center, Quezon City, Metro Manila, Philippines.

503 - P34-23

Expression of Eph receptors in corneal endothelium

Jennifer Young¹ Neil Richardson^{1,2} Damien Harkin^{1,2}

1. Queensland Eye Institute, South Brisbane, QLD, Australia. 2. School of Biomedical Sciences, Queensland University of Technology, Brisbane, QLD, Australia.

504 - P35-24

The influence of dextran on the in-vitro development of corneal endothelium in corneorscleral rims prior to transplantation

Filip Filev¹

1. Ophthalmology, University Medical Center Hamburg-Eppendorf, Hamburg, Hamburg, Germany.

505 - P36-25

A case of a corneal bee sting monitored by anterior segment optical coherence tomography

Emi Inagaki¹ Shigeto Shimmura¹ Yutaka Hara² Shin Hatou¹ Kazuo Tsubota¹

1. Ophthalmology, Keio University, Tokyo, Japan. 2. Hara Eye Clinic, Otawara, Japan.

506 - P37-26

Tear expression profiling of cytokine, chemokine and soluble receptor in keratoconus patients

Jeewon Mok¹ Kyung-Sun Na^{1,2} Choun-Ki Joo^{1,2}

1. Catholic Institutes of Visual Science, The Catholic University of Korea, Seoul, Seoul, Korea (the Republic of). 2. Department of Ophthalmology & Visual Science, College of Medicine, Seoul St. Mary's hospital Eye Institute, Seoul, Seoul, Korea (the Republic of).

507 - P38-27

The use of corneal densitometry in assessing the treatment outcome after corneal transplantation

Syarifah Faiza Syed Mohd Dardin^{1,2}

1. School of Medicine, University of Manchester, Manchester, Manchester, United Kingdom. 2. Department of Ophthalmology, Hospital Putrajaya, Wilayah Persekutuan Putrajaya, Wilayah Persekutuan Putrajaya, Malaysia.

508 - P39-28

Inhibition of lymphangiogenesis and hemangiogenesis in corneal inflammation by subconjunctival Prox1 siRNA injection in rats

Chang Rae Rho^{1,2} Jun-Sub Choi² Choun-Ki Joo^{2,3}

1. Department of Ophthalmology and Visual Science, Daejeon St. Mary's Hospital, College of Medicine, The Catholic University of Korea, Daejeon, Korea (the Republic of). 2. Catholic Institute for Visual Science, College of Medicine, The Catholic University of Korea, Seoul, Korea, Seoul, Korea (the Republic of). 3. Department of Ophthalmology and Visual Science, Seoul St. Mary's Hospital, College of Medicine, The Catholic University of Korea, Seoul, Korea (the Republic of).

509 - P40-29

Suppression of corneal inflammation by inhibition of lymphangiogenesis in rat alkali burn model

Jun-Sub Choi¹ Chang Rae Rho¹ Choun-Ki Joo^{1,2}

1. Catholic Institute for Visual Science, The Catholic University of Korea, Seoul, Korea (the Republic of). 2. Department of Ophthalmology & Visual Science, College of Medicine, The Catholic University of Korea, Seoul, Korea (the Republic of).

510 - P41-30

Decellularized human corneal limbus for limbal reconstruction

Kristina Spaniol¹ Mathias Roth¹ Gerd Geerling¹ Stefan Schrader¹

1. Ophthalmology, University Hospital Düsseldorf, Düsseldorf, Germany.

511 - P42-31

P2Y2 agonist promotes corneal epithelial wound healing

Yong Soo Byun¹ Woong-Joo Whang¹ Choun-Ki Joo¹

1. Department of Ophthalmology and Visual Science, Catholic University of Korea, Seoul St. Mary's Hospital, Seoul, Korea (the Republic of).

512 - P43-32

Upstream Signal Transduction Pathway of HSP27 Phosphorylation Can Control Corneal Epithelial Cell Migration and Apoptosis during Wound Healing

Jae Yong Kim¹ Soon-Suk Kang¹ Eun-Soon Kim¹ Hungwon Tchah¹

1. Ophthalmology, University of Ulsan College of Medicine, Asan Medical Center, Seoul, Seoul, Korea (the Republic of).

513 - P44-33

High prevalence of sleep and mood disorders in dry eye patients-The survey of 1000 eye clinic visitors-

Masahiko Ayaki¹ Motoko Kawashima¹ Kazuno Negishi¹ Taishiro Kishimoto² Masaru Mimura² Kazuo Tsubota¹

1. Ophthalmology, Keio University, Tokyo, Japan. 2. Psychiatry, Keio University, Tokyo, Japan.

514 - P45-34

Sjögren's syndrome-like exocrinopathy and dry eye of TRAF6 deficient mice

Satoko Nakano¹ Kaori Noguchi² Takashi Kobayashi² Toshiaki Kubota¹

1. Ophthalmology, Oita University, Yufu-City, Oita, Japan. 2. Infectious Disease Control, Oita University, Yufu-City, Oita, Japan.

515 - P46-35

Compensatory increase in tear volume and mucins in Meibomian gland dysfunction caused by stearoyl-CoA desaturase-1 deficiency

Takaaki Inaba¹ Yasuhisa Tanaka¹ Shusaku Tamaki¹ Tomotaka Ito¹ Ntambi James² Kazuo Tsubota¹

1. Department of Ophthalmology, Keio University School of Medicine, Tokyo, Japan. 2. Departments of Biochemistry and of Nutritional Sciences, University of Wisconsin-Madison, Madison, WI, United States.

516 - P47-36

Effectiveness of rebamipide prodrug in a mouse model induced dry eye

Woon hyung Ghim¹ Kyong Jin Cho¹ Moo Hwan Chang¹

1. Dankook University Medical College, Cheonan, Korea (the Republic of).

517 - P48-37

Expression of the ocular surface mucins in dry eye patients

Yan Wang¹ Liangliang Niu¹ Jihong Wu¹ Jianjiang Xu¹

1. Ophthalmology, Eye and ENT Hospital of Fudan University, Shanghai, China.

518 - P49-38

Lagosleep a New Eyelid Syndrome

Eduardo Arenas^{1,2} Ingrid Ulloa¹

1. Cundinamarca, Universidad El Bosque, Bogota, Colombia. 2. Cundinamarca, Universidad Nacional de Colombia, Bogota, Colombia.

Study Group: Dry eye

519 - P50-39

The Relationship between Blinking and Ocular Surface Abnormalities

Hiroaki Kato¹ Norihiko Yokoi¹ Rieko Sakai¹ Mengxi Niu¹ Akihide Watanabe¹ Shigeru Kinoshita¹

1. Department of Ophthalmology, Kyoto Prefectural University of Medicine, Kyoto, Japan.

520 - P51-40

Lactoferrin Alleviates Desiccating and Restraint Stress Induced Dry Eye Disease by Reducing Lacrimal Gland and Corneal Inflammation

Samuel Connell¹ Motoko Kawashima¹ Shigeru Nakamura¹ Toshihiro Imada¹ Kokoro Sano¹ Akiko Ito¹ Kai Jin¹ Ryuji Hisamura¹ Kazuo Tsubota¹

1. Department of Ophthalmology, Keio University, Tokyo, Japan.

521 - P52-41

Effects of a warm compress with menthol on the tear film conditions

Reiko Arita^{1,2} Naoyuki Morishige³ Ichiro Sakamoto⁴ Natsuko Imai⁵ Michihito Igaki⁶ Atsushi Suzuki⁷ Kazuo Tsubota²

1. Ophthalmology, Itoh Clinic, Saitama, Saitama, Japan. 2. Ophthalmology, Keio University, Tokyo, Japan. 3. Ophthalmology, Yamaguchi University, Ube City, Japan. 4. Personal Health Care Products Research Laboratories, KAO Corporation, Tokyo, Japan. 5. Personal Health Care Products Research Laboratories, KAO Corporation, Tokyo, Japan. 6. Personal Health Care Products Research Laboratories, KAO Corporation, Tokyo, Japan. 7. Personal Health Care Products Research Laboratories, KAO Corporation, Tokyo, Japan.

Study Group: LIME working group

522 - P53-42

Proteolytic Degradation of Galectin-3 in Dry Eye

Yuichi Uchino¹ Jerome Mauris¹ Ashley M. Woodward¹ Julia Dieckow¹ Francisco Amparo¹ Reza Dana¹ Flavio Mantelli² Pablo Argueso¹

1. Schepens Eye Research Institute, Department of Ophthalmology, Harvard Medical School, Boston, MA, United States. 2. IRCCS Fondazione GB Bietti, Rome, Italy.

523 - P54-43

Increase in tear secretion by abdominal breathing in healthy women

Kokoro Sano¹ Motoko Kawashima¹ Kazuhiro Ikeura¹ Reiko Arita¹ Kazuo Tsubota¹

1. Department of Ophthalmology, Keio University School of Medicine, Tokyo, Japan.

524 - P55-44

An association between SNPs in the TNFA promoter region and Korean Dry Eye Disease patients

Sung A Lim¹ Jeewon Mok¹ Kyung-Sun Na¹ Hee-Jung Ju¹ Choun-Ki Joo¹

1. Catholic Institutes of Visual Science, Seoul, Korea (the Republic of).

525 - P56-45

Topical rebamipide improves subjective symptoms of dry eye by modulating pain sensation in cornea

Yoshiaki Tagawa^{1,2} Nobuyoshi Kitaichi³ Takeshi Ohguchi² Erdal Tan Ishizuka^{1,2} Saori Inafuku^{1,2} Satoshi Kinoshita^{1,2} Atsuhiko Kanda^{1,2} Kousuke Noda^{1,2} Susumu Ishida^{1,2}

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526 - P57-46

Effects of punctal occlusion on dry eye clinical signs and symptoms, and tear cytokine levels using direct measurement and generalized linear modeling

Louis Tong¹ Roger Beuerman¹ Susan Simonyi² David A. Hollander³ Michael E. Stern³

1. Singapore National Eye Centre, Singapore, Singapore. 2. Allergan Singapore Ltd., Singapore, Singapore. 3. Allergan, Inc., Irvine, CA, United States.

527 - P58-47

Influence of warm compress and eyelid massage on the tear lipid layer thickness in office workers

Takashi Kojima^{1,2} Osama M. Ibrahim² Murat Dogru^{3,2} Kazuo Tsubota²

1. Ophthalmology, Gifu Red Cross Hospital, Gifu, Japan. 2. Ophthalmology, Keio University School of Medicine, Tokyo, Japan. 3. Ophthalmology, Tokyo Dental College, Chiba, Japan.

528 - P59-48 Withdrawn

Clinical predictors of early dry eye, objective vs subjective comparison

Balamurali Vasudevan¹ Emily Washek²

1. Optometry, Midwestern University, Glendale, AZ, United States. 2. Osteopathic Medicine, Midwestern University, Glendale, AZ, United States.

529 - P60-49

Study of various lubricants in the eye using modern assessment tools

Dhawal Haria¹ Tejal Sj¹ Dr Rohit Shetty¹

1. Ophthalmology, Narayana Netralaya, Bangalore, Karnataka, India.

530 - P61-50

Immunohistochemical localization of D-β-aspartic acid-containing proteins, a molecular marker of aging, in pterygium

Yuichi Kaji¹ Tetsuro Oshika¹ Ryouhei Nejima² Saiyo Mori² Kazunori Miyata² Noriko Fujii³

1. Ophthalmology, Tsukuba University, Tsukuba, Japan. 2. Ophthalmology, Miyata Eye Hospital, Miyakonojyo, Japan. 3. Research Reactor Institut, Kyoto University, Sennan, Japan.

531 - P62-51**Downregulation of IL-8, ECP, and total IgE in the tears of patients with atopic keratoconjunctivitis treated with rebamipide eyedrops**

Mayumi Ueta^{1,2} Jun Shoji³ Chie Sotozono¹ Shigeru Kinoshita¹
 1. Ophthalmology, Kyoto Prefectural University of Medicine, Kyoto, Kyoto, Japan. 2. Doshisha University, Kyotanabe, Kyotanabe, Japan. 3. Nihon University School of Medicine, Tokyo, Japan.

532 - P63-52**A case with refractory scleritis remitted by abatacept treatment**

Akio Miyakoshi¹ Tomoko Nakamura¹ Koichiro Shinoda¹ Atsushi Hayashi¹
 1. University of Toyama, Toyama, Japan.

533 - P64-53**Comparative Study of Eyelid Hygiene Solutions in Meibomian Gland Dysfunction**

Jatuporn Duangpatra¹ Theeratep Tantayakom¹ Wiwan Sansanayudh¹ Raveewan Choontanom¹ Kanaspana klanarongran¹
 1. Ophthalmology, Phramongkutklao Hospital, Bangkok, Thailand.

534 - P65-54**Vernal keratoconjunctivitis, clinica and therapeutic aspects**

Sihem Lazreg¹
 1. Centre Dr Lazreg, Blida , Algeria.

535 - P66-55**Comparison of SLET(simple limbal epithelial transplantation) with CLAU (conjunctival limbal autograft) in unilateral chronic ocular burns**

Ritu Arora¹ Pallavi Dokania¹ J L Goyal¹ Parul Jain¹ Aditi Manudhane¹ Pooja Jain¹ Richa Agarwal¹
 1. Ophthalmology, Guru Nanak Eye Centre, New Delhi, India.

536 - P67-56**Role of Matrix Metalloproteinase in Stevens - Johnson syndrome (SJS) Ocular Sequelae Patients**

Renu Venugopal¹ Seema Sen¹ Seema Kashyap¹ Tushar Agarwal¹ Namrata Sharma¹
 1. All India Institute of Medical Sciences, New Delhi, India.

537 - P68-57**Is Vitamin D Receptor Knockout Mice a Qualified Model of Meibomian Gland Dysfunction?**

Kai Jin¹ Motoko Kawashima¹ Masataka Ito² Kazuo Tsubota¹
 1. Department of Ophthalmology, Keio University School of Medicine, Tokyo, Japan. 2. Developmental Anatomy, National Defense Medical College, Tokyo, Japan.

Study Group: Kawashima Group

538 - P69-58**Determination of tegafur and 5-fluorouracil in tear by HILIC-MS/MS**

Ritsuko Obuchi^{1,2} Xiao-Pen Lee² Makiko Hirosawa¹ Hiroo Ishida³ Ken-ichi Fujita⁴ Susumu Nittono² Masato Yoshida¹ Yasutsuna Sasaki^{3,4} Keizo Sato² Haruo Takahashi¹

1. Department of Ophthalmology, Showa University School of Medicine, Tokyo, Japan. 2. Department of Legal Medicine, Showa University School of Medicine, Tokyo, Japan. 3. Division of Medical Oncology, Department of Medicine, Showa University School of Medicine, Tokyo, Japan. 4. Institute of Molecular Oncology, Showa University, Tokyo, Japan.

539 - P70-59**3D meibography for diagnosis of dry eye**

Young-Sik Yoo¹ Kyung-Sun Na¹ Choun-Ki Joo¹
 1. The Catholic University of Korea, Seoul, Korea (the Republic of).

Thursday Feb. 19

9:00 AM - 11:00 AM

Main Hall (1F)/Room 1

Plenary Session 9 Cutting Edge Aging Research

Organizers

Kazuo Tsubota

Keio University School of Medicine, Shinjuku, Tokyo, Japan

Jonathan Crowston

University of Melbourne, East Melbourne, VIC, Australia

544: PS9-1

Autophagy: an intracellular degradation system

Keynote Speaker: Noboru Mizushima¹

1. Department of Biochemistry and Molecular Biology, Graduate School and Faculty of Medicine, The University of Tokyo, Bunkyo-ku, Tokyo, Japan.

545: PS9-2

Lifestyle and the ageing optic nerve

Speaker: Jonathan Crowston^{1,2}

1. Department of Ophthalmology, University of Melbourne, East Melbourne, VIC, Australia. 2. Centre for Eye Research Australia, Melbourne, VIC, Australia.

546: PS9-3

Dry Eye Research from the Aspect of Aging

Speaker: Kazuo Tsubota¹

1. Department of Ophthalmology, Keio University School of Medicine, Shinjuku, Tokyo, Japan.

11:10 AM - 12:10 PM

Main Hall (1F)/Room 1

Plenary Lecture 3

Chair

Yozo Miyake

Aichi Medical University, Nagakute, Aichi, Japan

584: PL3

Gene Polymorphism-based Personalized Patient Care in AMD

Speaker: Nagahisa Yoshimura¹

1. Department of Ophthalmology and Visual Sciences, Kyoto University Graduate School of Medical Science, Kyoto, Kyoto, Japan.

12:20 PM - 1:20 PM

Main Hall (1F)/Room 1

Luncheon Seminar 16 The Future of Eyeglasses - Functional Eyewear

Sponsored by JIN Co., LTD.

Organizer

Norihiko Yokoi

Kyoto Prefectural University of Medicine, Kyoto, Kyoto, Japan

589: LS16-1

The Future of Eyeglasses - Functional Eyewear

Speaker: Kazuo Tsubota¹

1. Department of Ophthalmology, Keio University School of Medicine, Shinjuku-ku, Tokyo, Japan.

2:30 PM - 4:00 PM

Main Hall (1F)/Room 1

Symposium 21 Retinal Imaging

Organizers

Akitoshi Yoshida

Asahikawa Medical University, Asahikawa, Hokkaido, Japan

Gemmy Cheung Chui Ming

Singapore Eye Research Institute, Singapore, Singapore

657: SY21-1

Fundus Autofluorescence in Clinical Practice

Speaker: Tetsuju Sekiryu¹

1. Department of Ophthalmology, Fukushima Medical University School of Medicine, Fukushima, Fukushima, Japan.

658: SY21-2

Scanning Laser Ophthalmoscope

Speaker: Satoshi Ishiko¹

1. Department of Medicine and Engineering Combined Research Institute, Asahikawa Medical University, Asahikawa, Hokkaido, Japan.

659: SY21-3

Ultra-wide-field imaging in the management of retinal diseases

Speaker: Jaeryung Oh¹

1. Department of Ophthalmology, Korea University College of Medicine, Seongbuk, Seoul, Korea (the Republic of).

660: SY21-4

Application of reflectivity-based and motion-based OCT for diagnosis and management of retinal diseases

Speaker: Masanori Hangai¹

1. Ophthalmology, Saitama Medical University, Iruma, Saitama, Japan.

661: SY21-5

Adaptive Optics Fundus Camera

Speaker: Yasuki Ito¹

1. Department of Ophthalmology, Nagoya University Graduate School of Medicine, Nagoya, Aichi, Japan.

4:10 PM - 5:10 PM

Main Hall (1F)/Room 1

Plenary Lecture 4

Chair

Kazuo Tsubota

Keio University School of Medicine, Shinjuku, Tokyo, Japan

676: PL4

Recent Progress in iPS Cell Research and Application

Speaker: Shinya Yamanaka^{1,2}

1. Center for iPS Cell Research and Application, Kyoto University, Kyoto, Kyoto, Japan. 2. The J. David Gladstone Institutes, Gladstone Institute of Cardiovascular Disease, and L.K. Whittier Foundation Investigator in Stem Cell Biology, San Francisco, CA, United States.

9:00 AM - 11:00 AM

501 (5F)/Room 2

Plenary Session 10 New Insights into Corneal Cell Biology

Organizers

Shizuya Saika

Wakayama Medical University School of Medicine, Wakayama, Wakayama, Japan

Kyoung Yul Seo

Yonsei University College of Medicine, Seodaemun, Seoul, Korea (the Republic of)

547: PS10-1

Limbal stem cells and niche microenvironments for corneal surface regeneration

Keynote Speaker: Ursula Schlotzer-Schrehardt¹ Friedrich E. Kruse¹

1. Department of Ophthalmology, University of Erlangen-Nuernberg, Erlangen, Germany.

548: PS10-2

UV-induced ocular surface inflammation is related to HMGB1 via reactive oxygen species (ROS)

Speaker: Kyoung Yul Seo¹ Soo Jung Han¹ Sangchul Yoon¹ Jeon-Soo Shin²

1. Department of Ophthalmology, Yonsei University College of Medicine, Seodaemun-gu, Seoul, Korea (the Republic of). 2. Department of Microbiology and Immunology, Yonsei University College of Medicine, Seoul, Korea (the Republic of).

549: PS10-3

Neurotrophic keratopathy: involvement of cation channel receptors in the pathogenesis of

Speaker: Shizuya Saika¹

1. Department of Ophthalmology, Wakayama Medical University School of Medicine, Wakayama, Wakayama, Japan.

550: PS10-4

The New Cell Surface Markers for Human Corneal endothelial Cells

Speaker: Jodhbir S. Mehta^{1,2}

1. Singapore National Eye Centre, Singapore, Singapore. 2. Tissue Engineering and Stem Cell, Singapore Eye Research Institute, Singapore, Singapore.

551: PS10-5

Cell-injection therapy as a new therapeutic modality for corneal endothelial diseases

Speaker: Noriko Koizumi^{1,2}

1. Department of Biomedical Engineering Faculty of Life and Medical Sciences, Doshisha University, Kyotanabe, Kyoto, Japan. 2. Department of Ophthalmology, Kyoto Prefectural University of Medicine, Kyoto, Japan.

12:20 PM - 1:20 PM

501 (5F)/Room 2

Luncheon Seminar 17 Recent Advances in Corneal Surgical Treatments -Present and Future-

Sponsored by Alcon Japan Ltd.

Organizer

Shigeru Kinoshita

Kyoto Prefectural University of Medicine, Kyoto, Kyoto, Japan

590: LS17-1

Evolution of Advanced Corneal Surgery -Present and Future

Speaker: Tsutomu Inatomi¹

1. Department of Ophthalmology,, Kyoto Prefectural University of Medicine, Kyoto, Kyoto, Japan.

591: LS17-2

Art, Philosophy and Science of Corneal Surgery

Speaker: Shigeto Shimmura¹

1. Department of Ophthalmology, Keio University School of Medicine, Shinjuku, Tokyo, Japan.

2:30 PM - 4:00 PM

501 (5F)/Room 2

Symposium 22 Molecular Genetics of Eye Diseases

Organizers

Yoshihiro Hotta

Hamamatsu University School of Medicine, Hamamatsu,
Shizuoka, Japan

Hyeong Gon Yu

Seoul National University College of Medicine, Jongno-gu.,
Seoul, Korea (the Republic of)

662: SY22-1

Molecular genetics of anophthalmia/microphthalmia

Speaker: Maki Fukami¹

1. Department of Molecular Endocrinology, National Research Institute
for Child Health and Development, Setagaya, Tokyo, Japan.

663: SY22-2

Molecular genetics of Miyake's disease

Speaker: Takeshi Iwata¹

1. National Institute of Sensory Organs, Tokyo Medical Center, National
Hospital Organization, Meguro-ku, Tokyo, Japan.

664: SY22-3

Mutation analysis of Japanese retinitis pigmentosa patients for various causative genes including EYS and USH2A using multiple methods

Speaker: Shinsei Minoshima¹

1. Medical Photonics Research Center, Hamamatsu University School
of Medicine, Hamamatsu, Shizuoka, Japan.

665: SY22-4

Targeted exome sequencing in Korean with retinitis pigmentosa

Speaker: Hyeong Gon Yu¹

1. Department of Ophthalmology, Seoul National University College of
Medicine, Seoul, South, Korea (the Republic of).

666: SY22-5

Targeted exome sequencing in Chinese patients with inherited retinal degenerations

Speaker: Zi-Bing Jin¹

1. Lab for Stem Cell & Retinal Regeneration Division of Ophthalmic
Genetics, The Eye Hospital of Wenzhou Medical University, Wenzhou,
Zhejiang, China.

9:00 AM - 10:30 AM

502 (5F)/Room 3

Symposium 23 New Insight for Retinal Detachment, Damage and Treatment

Organizers

Hiroko Terasaki

Nagoya University Graduate School of Medicine, Nagoya, Aichi, Japan

Taiji Sakamoto

Kagoshima University Graduate School of Medicine and Dental Sciences, Kagoshima, Kagoshima, Japan

Demetrios G. Vavvas

Harvard Medical School, Boston, MA, United States

552: SY23-1

Toxic effects of extracellular histones and their neutralization by vitreous in retinal detachment

Speaker: Hiroki Kawano¹ Taiji Sakamoto¹

1. Department of Ophthalmology, Kagoshima University Graduate School of Medical and Dental Sciences, Kagoshima, Kagoshima, Japan.

553: SY23-2

Biological change in retinal detachment

Speaker: Hiroki Kaneko¹

1. Department of Ophthalmology, Nagoya University Graduate School of Medicine, Nagoya, Aichi, Japan.

554: SY23-3

Retinal and Choroidal Changes after RD surgery

Speaker: Ga Eun Cho¹ Se Woong Kang¹

1. Department of Ophthalmology, Sunkyunkwan University School of Medicine, Gangnam, Seoul, Korea (the Republic of).

555: SY23-4

The protective effects of the proteasome inhibitor bortezomib on ischemia-reperfusion injury in the rat retina

Speaker: Chang-Hao Yang¹

1. Department of Ophthalmology, National Taiwan University Hospital, Taipei, Taiwan.

556: SY23-5

New strategies in neuroprotection and regeneration for retinal diseases

Keynote Speaker: Demetrios G. Vavvas¹ Yusuke Murakami¹ Hidetaka Matsumoto¹ Keiko Kataoka¹ George Trichonas¹ Maki Kayama¹ Toshio Hisatomi³ Hiroko Terasaki² Tatsuro Ishibashi² Joan Miller¹

1. Department of Ophthalmology, Harvard Medical School, Boston, MA, United States. 2. Nagoya, Nagoya, Japan. 3. Kyushu University, Fukuoka, Japan.

10:40 AM - 12:10 PM

502 (5F)/Room 3

Symposium 24 Epigenetics in Ocular Development and Diseases

Organizers

Sumiko Watanabe

Institute of Medical Science, University of Tokyo, Minato, Tokyo, Japan

Biao Yan

Nanjing Medical University, Nanjing, China

579: SY24-1

The microRNA regulates the lens development and differentiation

Speaker: Eri Kubo¹

1. Department of Ophthalmology, Kanazawa Medical University, Kahoku, Ishikawa, Japan.

Study Group: LE

580: SY24-2

Roles of Histone methylation for retinal bipolar cell differentiation

Speaker: Sumiko Watanabe¹

1. Department of Molecular and Developmental Biology, Institute of Medical Science, University of Tokyo, Minato, Tokyo, Japan.

581: SY24-3

Genomewide DNA methylation analysis of primary human trabecular meshwork cells with dexamethasone stimulation

Speaker: Akira Matsuda¹

1. Laboratory of Ocular Atopic Diseases, Juntendo University Graduate School of Medicine, Bunkyo, Tokyo, Japan.

582: SY24-4

Age-related macular degeneration and DNA methylation

Speaker: Paul N. Baird¹

1. Centre for Eye Research Australia, University of Melbourne, East Melbourne, VIC, Australia.

583: SY24-5

Pathogenic role of lncRNA-MALAT1 in endothelial cell dysfunction in diabetes mellitus

Speaker: Biao Yan¹

1. Nanjing medical university, Nanjing, China.

Study Group: Jing-Yu Liu, Jin Yao, Xiu-Miao Li, Jiang Qin

12:20 PM - 1:20 PM

502 (5F)/Room 3

**Luncheon Seminar 18
Clinical Practice of Pathologic Myopia -
Clinical Study for Myopic CNV and Case
Conference**

Sponsored by Novartis Pharma K.K.

Organizers

Akito Hirakata

Kyorin University School of Medicine, Mitaka, Tokyo, Japan

Kyoko Ohno-Matsui

Tokyo Medical and Dental University, Bunkyo, Tokyo, Japan

592: LS18-1

Overview on RADIANCE study

Speaker: Hyeong Gon Yu¹

1. Department of Ophthalmology, Seoul National University College of Medicine, Seoul, South, Korea (the Republic of).

LS18-2

Case Presentation Speaker: Hyeong Gon Yu¹

1. Department of Ophthalmology, Seoul National University College of Medicine, Seoul, South, Korea (the Republic of).

LS18-3

Case Presentation Speaker: Gemmy Cheung Chui Ming¹

1. Singapore National Eye Centre, Singapore, Singapore.

LS18-4

Case Presentation Speaker: Won-Ki Lee¹

1. The Catholic University of Korea, Seoul, Korea (the Republic of).

2:30PM - 4:00PM

502 (5F)/Room 3

**Symposium 25
Inflammatory Mechanisms in Diabetic
Retinopathy and Other Retinal
Degeneration**

Organizers

Masaru Takeuchi

National Defense Medical College, Tokorozawa, Saitama, Japan

Susumu Ishida

Hokkaido University Graduate School of Medicine, Sapporo, Hokkaido, Japan

669: SY25-1

Role of VEGF as a pro-inflammatory cytokine in diabetic macular edema

Speaker: Susumu Ishida¹

1. Department of Ophthalmology, Hokkaido University Graduate School of Medicine, Sapporo, Hokkaido, Japan.

667: SY25-2

Elevation of Th17-associated cytokines in the vitreous fluids of proliferative diabetic retinopathy

Speaker: Masaru Takeuchi¹

1. Department of Ophthalmology, National Defense Medical College, Tokorozawa, Saitama, Japan.

668: SY25-3

Role of high-mobility group box-1 in the development of diabetic retinopathy

Speaker: Ahmed M. Abu El-Asrar¹

1. Department of Ophthalmology, College of Medicine, King Saud University, Heidelberg, Saudi Arabia.

668b: SY25-4

Neuro-inflammation in diabetic retinopathy via the renin-angiotensin system activation

Speaker: Toshihide Kurihara¹

1. Keio University School of Medicine, Tokyo, Japan.

668c: SY25-5

Role of inflammation in retinitis pigmentosa

Speaker: Yasuhiro Ikeda¹

1. Ophthalmology, Kyushu University, Fukuoka, Japan.

670: SY25-6

Role of inflammation in age-related macular degeneration

Speaker: Miho Nozaki¹

1. Department of Ophthalmology and Visual Science, Nagoya City University Graduate School of Medical Sciences, Nagoya, Aichi, Japan.

7:50 AM - 8:50 AM

503 (5F)/Room 4

Morning Seminar 3 Japanese Cedar Pollinosis - Ocular Symptoms and Quality of Life -

Sponsored by Santen Pharmaceutical Co., Ltd.

Organizer

Atsuki Fukushima

Kochi Medical School, Nankoku, Kochi, Japan

542: MS3-1

A Quality of Life Questionnaire for Japanese Allergic Conjunctival Disease

Speaker: Kazumi Fukagawa^{1,2}

1. Ryogoku Eye Clinic, Tokyo, Japan. 2. Ophthalmology, Keio Univ. School of Med., Tokyo, Japan.

Study Group: Japanese Ocular Allergology Society

543: MS3-2

Treatment of Allergic Conjunctivitis in Consideration for QOL

Speaker: Jun Shoji¹

1. Department of Ophthalmology,, Nihon University School of Medicine, Itabashi, Tokyo, Japan.

9:00 AM - 11:00 AM

503 (5F)/Room 4

Plenary Session 11 Myopia; Genes or Environment?

Organizers

David A. Mackey

University of Western Australia, Crawley, WA, Australia

Kyoko Ohno-Matsui

Tokyo Medical and Dental University, Bunkyo, Tokyo, Japan

557: PS11-1

Epidemiology of Myopia

Speaker: Ryo Kawasaki¹

1. Department of Public Health, Yamagata University Faculty of Medicine, Yamagata, Yamagata, Japan.

558: PS11-2

Influence of environment

Speaker: Jost B. Jonas¹

1. Department of Ophthalmology, Medical Faculty Mannheim, University Heidelberg, Heidelberg, Germany.

559: PS11-3

Genetics for myopia, high myopia, and extreme myopia in Japan

Speaker: Masahiro Miyake¹

1. Department of Ophthalmology, Kyoto University Graduate School of Medicine, Kyoto, Kyoto, Japan.

Study Group: Nagahama study group

560: PS11-4

Characterization of genes and gene by environment interactions for myopia in Asian populations

Speaker: Qiao Fan¹

1. Singapore Eye Research Institute, Singapore, Singapore.

Study Group: CREAM

561: PS11-5

Genes and Environment affecting myopia in Australia

Speaker: David A. Mackey¹ Alex Hewitt^{1,2} Seyhan Yazar¹ Maria Franchina¹

1. Lions Eye Institute, University of Western Australia, Crawley, WA, Australia. 2. Centre for Eye Research Australia, Melbourne, VIC, Australia.

11:10 AM - 12:10 PM

503 (5F)/Room 4

Special Interest Groups 6 Retinal Development and Regeneration

Organizers

Takahisa Furukawa

Institute for Protein Research, Osaka University, Suita, Osaka, Japan

Masayo Takahashi

Center for Developmental Biology, RIKEN, Chuo, Kobe, Japan

585: SIG6-1

Differentiation of retinal precursor cells from human embryonic stem cell

Speaker: Jung Hyun Park^{2,1} Hyeong Gon Yu¹

1. Ophthalmology, School of Medicine, Seoul National University, Seoul, Korea (the Republic of). 2. Ophthalmology, Seoul Paik Hospital, Inje University, Seoul, Korea (the Republic of).

586: SIG6-2

Regeneration therapy for retinal degeneration

Speaker: Michiko Mandai¹

1. Laboratory for Retinal Regeneration, RIKEN Center for Developmental Biology, Kobe, Hyogo, Japan.

587: SIG6-3

Retinal development and retinitis pigmentosa

Speaker: Shinichi Fukuda¹

1. Department of Ophthalmology, Institute of Clinical Medicine University of Tsukuba, Tsukuba, Ibaraki, Japan.

588: SIG6-4

Atp6ap2/(pro)renin receptor is associated with cell polarity required for laminar formation during retinal development in mice

Speaker: Atsuhiko Kanda¹

1. Department of Ophthalmology, Hokkaido University Graduate School of Medicine, Sapporo, Hokkaido, Japan.

12:20 PM - 1:20 PM

503 (5F)/Room 4

Luncheon Seminar 19 Key Factors in Glaucoma Treatment: Start and Strengthen

Sponsored by Santen Pharmaceutical Co., Ltd.

Organizers

Yasuaki Kuwayama

Fukushima Eye Clinic, Osaka, Osaka, Japan

Goji Tomita

Toho University Ohashi Medical Center, Meguro, Tokyo.

593: LS19-1

Which patients and when to start ... PPG and early phase

Speaker: Atsuya Miki¹

1. Ophthalmology, Osaka University, Suita, Osaka, Japan.

594: LS19-2

Consider risk factors ... Desired patients to strengthen earlier

Speaker: Makoto Aihara¹

1. Yotsuya Shirato Eye Clinic, Tokyo, Japan.

595: LS19-3

Keep lifelong vision ... Desired patients to strengthen more

Speaker: Hiroshi Sakai¹

1. University of the Ryukyus, Nishihara, Japan.

2:30 PM - 4:00 PM

503 (5F)/Room 4

Symposium 26 Recent Topics in Anti-aging in Ophthalmology

Organizers

Nobuyoshi Kitaichi

Health Sciences University of Hokkaido, Sapporo, Hokkaido, Japan

Motoko Kawashima

Keio University School of Medicine, Shinjuku, Tokyo, Japan

671: SY26-1

Aging and oxidative stress in human corneal epithelial cells: protective effects of natural antioxidants

Speaker: Kyung Chul Yoon ¹

1. Department of Ophthalmology, Chonnam National University Medical School and Hospital, Gwangju, Gwangju, Korea (the Republic of).

672: SY26-2

Anti-aging approach for dry eye disease

Speaker: Motoko Kawashima ¹

1. Department of Ophthalmology, Keio University School of Medicine, Shinjuku, Tokyo, Japan.

673: SY26-3

Accommodation and asthenopia

Speaker: Nobuyoshi Kitaichi ^{1,2}

1. Ophthalmology, Health Sciences University of Hokkaido, Sapporo, Hokkaido, Japan. 2. Ophthalmology, Hokkaido University, Sapporo, Japan.

674: SY26-4

Oxidative stress and glaucoma

Speaker: Kenya Yuki ¹

1. Harvard Medical School, Boston Children's Hospital, Boston, MA, Japan.

675: SY26-5

Light stress-induced aging of retina and its possible modifications

Speaker: Masaki Tanito ¹

1. Division of Ophthalmology, Matsue Red Cross Hospital, Matsue, Shimane, Japan.

9:00 AM - 10:00 AM

315 (3F) / Room 5

Immunology/Microbiology - Paper**Moderators****Justine Smith**

Flinders University, Adelaide, South Australia, Australia

Atsuki Fukushima

Kochi Medical School, Nankoku, Kochi, Japan

562-1**The C-C Chemokine receptor 6 (CCR6) is crucial for Th2-driven allergic conjunctivitis**So-Hyang Chung¹ Choun-Ki Joo¹

1. Seoul St. Mary's Hospital, The Catholic University of Korea, Seoul, Korea (the Republic of).

563-2**Regulatory T Cell Dysfunction in High-Risk Corneal Transplantation**Takenori Inomata¹ Jing Hua¹ Sang-Mok Lee² Tina Shiang¹ Homer Chang¹ Qiang Zhang¹ Reza Dana¹

1. Ophthalmology, Schepens Eye Research Institute/ Massachusetts Eye and Ear Infirmary/ Harvard Medical School, Boston, MA, United States. 2. Ophthalmology, Hallym University College of Medicine, Gyeonggi-do, Korea (the Republic of).

564-3**Withdrawn****CD73/adenosine axis contributes to the immunosuppressive ability of mesenchymal stem cells in experiment autoimmune uveitis**Xiaomin Zhang¹

1. Tianjin Medica University Eye Hospital & Eye Institute, Tianjin, China.

565-4**Epigenetic Therapy for Ocular Inflammation**Lai Wei¹

1. State Key Laboratory of Ophthalmology, Zhongshan Ophthalmic Center, Sun Yat-sen University, Guangzhou, China.

566-5**Characteristic T-cell populations in the vitreous fluid of eyes with viral infection-associated uveitis**Kazuichi Maruyama¹ Tohru Inaba² Sunao Sugita³ Hiroshi Kunikata¹ Manabu Mochizuki⁴ Toru Nakazawa¹

1. Ophthalmology, Tohoku University Graduate School of Medicine, Sendai, Japan. 2. Infection Control and Laboratory Medicine, Kyoto Prefectural University of Medicine, Kyoto, Japan. 3. RIKEN Center for Development Biology, Kobe, Japan. 4. Ophthalmology, Tokyo Dental and Medical University, Tokyo, Japan.

567-6**Analysis of cytokines related to helper T cells in the vitreous of endogenous and infectious uveitis**Masaki Shibata¹ Tomohito Sato¹ Yoko Karasawa¹ Masataka Ito¹ Masaru Takeuchi¹

1. Ophthalmology, National Defense Medical College, Tokorozawa, Saitama, Japan.

10:05 AM - 10:55 AM

315 (3F) / Room 5

Anatomy/Pathology - Paper**Moderators****Toshinori Murata**

School of Medicine, Shinshu University, Matsumoto, Nagano, Japan

Hidetoshi Yamashita

Yamagata University School of Medicine, Yamagata, Yamagata, Japan

574-1**Comparison of Posterior Eye Shape using Retinal SDOCT and MRI**Anthony N. Kuo¹ Ryan P. McNabb¹ Sina Farsiu^{2,1} Seang Mei Saw³ Terri Young^{4,1} Joseph A. Izatt^{2,1}

1. Duke Eye Center, Durham, NC, United States. 2. Biomedical Engineering, Duke University, Durham, NC, United States. 3. National University of Singapore, Singapore, Singapore. 4. Ophthalmology and Visual Sciences, University of Wisconsin, Madison, WI, United States.

575-2**Induction of apoptosis by resveratrol in human uveal melanoma cells**Sandeep Goswami¹ Arpna Srivastava¹ Bhavna Chawla² Neelam Pusker² Mandeep S. Bajaj² Seema Kashyap³ Jasbir Kaur¹

1. Department of Ocular Biochemistry, Dr. Rajendra Prasad Centre for Ophthalmic Sciences, All India Institute of Medical Sciences, New Delhi, India. 2. Ocular Oncology and Pediatric Ophthalmology Services, Dr. Rajendra Prasad Centre for Ophthalmic Sciences, All India Institute of Medical Sciences, New Delhi, India. 3. Department of Ocular Pathology, Dr. Rajendra Prasad Centre for Ophthalmic Sciences, All India Institute of Medical Sciences, New Delhi, India.

576-3**NADPH Oxidase-4 as an Indicator of Reactive Oxygen Species Stress in Retinoblastoma**Lata Singh¹ Seema Kashyap¹ Neelam Pusker² Seema Sen¹ Jasbir Kaur³ Anjana Sharma⁴

1. Ocular Pathology, All India Institute of Medical Sciences, New Delhi, India. 2. Ophthalmology, All India Institute of Medical Sciences, New Delhi, India. 3. Ocular Biochemistry, All India Institute of Medical Sciences, New Delhi, India. 4. Ocular Microbiology, All India Institute of Medical Sciences, New Delhi, India.

577-4**Correlation of HMG protein with Clinicohistopathological Parameters in Primary Retinoblastoma**Mithalesh K. Singh¹ Lata Singh¹ Seema Kashyap¹ Neelam Pusker² Seema Sen¹ Anjana Sharma³ Bhavna Chawla²

1. Ocular Pathology, All India Institute of Medical Sciences, New Delhi, Delhi, India. 2. Ophthalmology, All India Institute of Medical Sciences, New Delhi, Delhi, India. 3. Ocular Microbiology, All India Institute of Medical Sciences, New Delhi, Delhi, India.

578-5**Profiling of MicroRNAs Involved in Retinal Degeneration Caused by Selective Müller Cell Ablation**Sook Hyun Chung¹ Weiyong Shen¹ SoRa Lee¹ Mark Gillies¹

1. Clinical Ophthalmology and Eye Health, Save Sight Institute, Sydney, NSW, Australia.

9:00 AM - 10:00 AM

311/312 (3F) / Room 6

Biochemistry/Molecular Biology - Paper

Moderators

Akira Murakami

Juntendo University Graduate School of Medicine, Bunkyo, Tokyo, Japan

Kazushige Tsunoda

National Institute of Sensory Organs, Meguro, Tokyo, Japan

568-1

Genetic variants associated with exfoliation glaucoma affect promoter activity of the LOXL1 antisense gene

R Rand Allingham¹ Khor Chiea Chuen³ Mineo Ozaki² Susan Williams⁴ Allison Ashley-Koch¹ Inas Aboobakar¹ Tin Aung³ Michael Hauser¹

1. Duke University, Durham, NC, United States. 2. University of Miyazaki, Miyazaki, Japan. 3. National University of Singapore, Singapore, Singapore. 4. University of Witwatersrand, Johannesburg, South Africa.

569-2

Taflofan sine reveals beneficial effects on the tear film and ocular surface, a proteomic study

Franz H. Grus¹ Sebastian Funke¹ Sabine Beck¹ Katrin Lorenz¹ Marion Kotterer¹ Dominik Wolters¹ Norbert Pfeiffer¹

1. Ophthalmology, University Medical Center, Experimental Ophthalmology, Mainz, Germany.

570-3

Malondialdehyde is Increased in Wet AMD Patients' Serum and Eyes

Fuxiang Ye¹ Hiroki Kaneko¹ Ryo Ijima¹ Yosuke Nagasaka¹ Kei Takayama¹ Masatoshi Nagaya¹ Hiroko Terasaki¹

1. Ophthalmology, Nagoya University Graduate School of Medicine, Nagoya, Aichi, Japan.

571-4

Loss of function analysis of nicotinamide nucleotide adenyltransferase 1 gene in developing mouse retina

Akira Murakami¹ Eisuke Arai¹ Yuki Yoshikawa² Sumiko Watanabe²

1. Department of Ophthalmology, Juntendo Univ Grad School of Medicine, Tokyo, Japan. 2. Department of Molecular and Developmental Biology, Institute of Medical Science, University of Tokyo, Tokyo, Japan.

572-5

Modulation of miRNA-7 trafficking and ubiquitin protein ligase A (UBE2A)-mediated amyloidogenesis by the circular RNA (circRNA) ciRS-7 in age-related macular degeneration (AMD)

Walter Lukiw^{2,1} Yuhai Zhao^{3,1} Aileen Pogue⁵ Surjyadipta Bhattacharjee⁴

1. Neurology and Ophthalmology, LSU Neuroscience Center, New Orleans, LA, United States. 2. Neurology and Ophthalmology, LSU Neuroscience Center, New Orleans, LA, United States. 3. LSU Neuroscience Center, New Orleans, LA, United States. 4. LSU Neuroscience Center, New Orleans, LA, United States. 5. Alchem Biotech, Toronto, ON, Canada.

573-6

HPS6 mutations identified by whole-exome sequencing in two sisters with ocular albinism

Yoshihiro Hotta¹ Miho Sato¹ Junya Nakajima^{2,3} Katsuhiro Hosono¹ Daisuke Miyamichi¹ Takashi Negishi^{1,4} Takahito Nomura¹ Noriko Miyake³ Tsutomu Ogata⁵ Naomichi Matsumoto³

1. Department of Ophthalmology, Hamamatsu University School of Medicine, Hamamatsu, Japan. 2. Department of Pediatrics, Tokyo Medical University, Tokyo, Japan. 3. Department of Human Genetics, Yokohama City University Graduate School of Medicine, Yokohama, Japan. 4. Department of Ophthalmology, Juntendo University School of Medicine, Tokyo, Japan. 5. Department of Pediatrics, Hamamatsu University School of Medicine, Hamamatsu, Japan.

1:25 PM - 2:25 PM 301-304 (3F) / Exhibition Hall

Retina - Poster

596 - P01-1

Current Changes in Treatment and Medical Expense of Age-Related Macular Degeneration in Japan

Atsuki Kume¹ Kenji Kashiwagi¹ Tomohiro Ohshiro¹ Yoichi Sakurada¹

1. Ophthalmology, University of Yamanashi, Chuo, Japan.

597 - P02-2

Structural predictors of the development of choroidal neovascularisation in early age-related macular degeneration

Thomas Hong¹ Geoffrey K. Broadhead^{1,2} Andrew A. Chang^{1,2}

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598 - P03-3

Reliability of Smartphone-Based Electronic Visual Acuity Testing, (Applications in Remote Monitoring and Clinical Research of Macular Pathology)

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599 - P04-4

Proteomic analysis of exudative age-related macular degeneration

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600 - P05-5

Quantitative Analysis of Fundus Autofluorescence in Exudative Age-related Macular Degeneration, Long-term Follow-up

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601 - P06-6

Structural and Functional Relationship between Optical Coherence Tomography and Custom Developed Manipal E-Amsler Screening Test Inpatients with Macular Diseases

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602 - P07-7

Inner choroidal layer thickness in central serous chorioretinopathy by enhanced depth imaging optical coherence tomography

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603 - P08-8

Factors Influencing Need for Retreatment and Long-term Visual Outcome After Intravitreal Bevacizumab For Myopic Choroidal Neovascularization

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604 - P09-9

Diurnal blood pressure variation type in diabetic patients with macular edema

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605 - P10-10

Relationship between outer retinal microstructural changes and visual acuity in diabetic macular edema

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606 - P11-11

Quantitative analysis of automated retinal layer segmentation in ischemic and non-ischemic diabetic macular edema using spectral domain optical coherence tomography

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607 - P12-12

Evaluating the Outcome of National Health Insurance (NHI)-Approved Three-Dose Intravitreal Ranibizumab Injection in Eyes with Diabetic Macular Edema (DME) in Taiwan

Yu-fan Chang^{1,2} Tai-Chi Lin^{1,2} Chang-Sue Yang^{1,2} Po-Kang Lin^{1,2} An-Fei Lee^{1,2} Ling-Ing Lau^{1,2} Fang-Yi Tsai^{1,2} Fenq-Lih Lee^{1,2} Shih-Jen Chen^{1,2}

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608 - P13-13

Intravitreal bevacizumab increases intraocular inflammatory factor levels after injection in patients with proliferative diabetic retinopathy

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609 - P14-14

Evaluation of ganglion cell-inner plexiform layer thickness according to nerve conduction velocity and autonomic nerve function in diabetes

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610 - P15-15

Short Pulse Duration High-Power Laser Photocoagulation During Vitrectomy for Diabetic Retinopathy Reduces Postoperative Inflammation

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611 - P16-16

Comparison of Navigated and Conventional Panretinal Pattern Scan Laser Photocoagulation for Diabetic Retinopathy

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612 - P17-17

Navilas[®] navigated laser system treatment for diabetic macular edema

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613 - P18-18 **Withdrawn**

Clinical and microbiological profile of patients with Corynebacterium endophthalmitis, Review of a decade

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614 - P19-19

Implications of Visually Symptomatic vs Asymptomatic Fungal Eye Disease

Shagun Dhaliwal ^{1,2} Johnathan Kim ² Luke Potts ^{3,2} Jason Smart ^{4,2} Kevin Lai ^{4,3} Robert Rosa ^{3,2} Angela Hochhalter ² Juhee Song ²

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615 - P20-20

Optical coherence tomographic highly reflective line in eyes with resolved macular edema associated with branch retinal vein occlusion

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616 - P21-21

The occurrence and progression of outer retinal tubulation in Chinese patients after intravitreal injections of ranibizumab

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617 - P22-22

Spectral Domain Optical Coherence Tomography of occult optic disc pit

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618 - P23-23

Fundus autofluorescence and onset time in central serous chorioretinopathy

Ichiro Maruko ^{1,2} Yutaka Ishikawa ¹ Kanako Itagaki ² Yukinori Sugano ² Tetsuju Sekiryu ² Iida Tomohiro ¹

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619 - P24-24

Peripapillary choroidal thickness in central serous chorioretinopathy, Is choroid outside of the macula also thick?

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620 - P25-25

A Report On Fluorescein Angiographies Done At A Tertiary Institution Since The Approval Of PHIC Circular No. 0035 S. 2013 (17 DEC 2013)

Bryan Jason B. Atienza ¹ Sherman Valero ¹

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621 - P26-26

En face imaging of Optical Coherence Tomography in a case of choroidal rupture

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622 - P27-27

Normal Macular Thickness in Healthy Indian Eyes using Spectral-Domain Optical Coherence Tomography

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623 - P28-28

Experimental visualization and quantification of vitreous contamination following intravitreal injections

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624 - P29-29

Half-dose Verteporfin Photodynamic Therapy for Acquired Vitelliform Lesions associated with central serous chorioretinopathy

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625 - P30-30

Bilateral central retinal vein occlusion associated with mantle cell lymphoma

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626 - P31-31

Comparison of Subfoveal Choroidal Thickness Results according to Photodynamic Therapy Spot Size for Chronic Central Serous Chorioretinopathy

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627 - P32-32

Regional Macular Function, Evaluating Repeatability in Tractional Epiretinal Membranes

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628 - P33-33

Discrepancy in Fluorescein Angiography and Optical Coherence Tomography Findings of Macular Edema in Intermediate Uveitis

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629 - P34-34

Correlation between OCT findings and visual outcomes after anti-VEGF therapy for RVO

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630 - P35-35

Role of scleral buckling in addition to vitrectomy for the treatment of rhegmatogenous retinal detachment, systematic review and meta-analysis

Takashi Ueta ¹ Kiyohito Totsuka ¹ Murilo Roggia ¹ Hiroko Inui ¹ Yasuo Noda ¹

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631 - P36-36

Peripheral Prosthetic Vision in the Inferior Visual Field as a Means to Improve Mobility Performance

Marc Patrick H. Zapf ¹ Paul B. Matteucci ¹ Nigel H. Lovell ¹ Gregg J. Suaning ¹

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632 - P37-37

Autosomal dominant cone-rod dystrophy with GUCY2D gene mutations in three Japanese families

Takuro Fujimaki ¹ Ai Yanagawa ¹ Keiko Fujiki ¹ Akira Murakami ¹

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Study Group: Department of Ophthalmology, Juntendo University Graduate School of Medicine

633 - P38-38

Attempt neonatal fundus blood flow measurement using a Laser speckle flowgraphy (LSFG)

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634 - P39-39

Parental Awareness of the Need for ROP Screening of Premature Infants in North China

Jing Feng ¹ Yi Chen ¹ Xiaoxin Li ¹

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635 - P40-40

Characteristics and outcomes of fall-related open-globe injuries in pseudophakic patients

Shaheen Kavoussi ¹ Martin Slade ¹ Seth Meskin ¹ Ron Adelman ¹

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636 - P41-41

Evisceration Or Reconstruction In Case Of Globe Rupture With No Light Perception

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Study Group: nil

637 - P42-42

The application of pulsed water jets in vitreoretinal surgery and relevant retinal findings

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638 - P43-43

In Vivo Emulsification Analysis of 1000 and 5000 Silicone Oil After Retinal Detachment Surgery

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639 - P44-44

Influences of 27-gauge transconjunctival sutureless vitrectomy on postoperative corneal topographic conditions

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640 - P45-45

Novel surgical technique for the treatment of the massive subretinal hemorrhage

Takahiro Sogawa¹ Kaori Sayanagi¹ Yasushi Ikuno¹ Noriyasu Hashida¹ Chikako Hara¹ Yoko Fukushima¹ Miki Sawa¹ Kohji Nishida¹

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641 - P46-46

The comparison of surgical outcome of idiopathic epiretinal membrane using ICG(IndoCyanine Green) or BBG(Brilliant Blue G)

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642 - P47-47

Prediction of spontaneous closure and visual outcome in traumatic macular hole with spectral domain optical coherence tomography

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643 - P48-48

Unexplained entity of CNVM following VR surgery

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1:25 PM - 2:25 PM 301-304 (3F) / Exhibition Hall

Eye Movements/Strabismus/Amblyopia/ Neuro-ophthamology - Poster

644 - P49-1

A new anti-suppression approach improves the contrast sensitivity and visual evoked potential in anisometropic amblyopia

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645 - P50-2

Objective assessment of visual functions in individuals with severe motor and intellectual disabilities

Kenji Suzuki¹ Takahiro Niida¹ Yuma Shinomiya¹ Hitoshi Uchiyama¹ Yuko Komachi¹ Hiroshi Mochizuki¹

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646 - P51-3

Dynamics of Distractor and Target Spatial Averaging in the Global Effect of Saccades

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647 - P52-4

Evaluation of macular inner retinal layer in optic tract syndrome using swept-source optical coherence tomography

Katsutoshi Goto^{1,2} Atsushi Miki^{1,3} Tsutomu Yamashita^{1,3} Syunsuke Araki¹ Go Takizawa¹ Kenichi Mizukawa¹ Junichi Kiryu¹

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648 - P53-5

Clinical measurement of ocular counter-rolling during head tilt using fundus photography

Han Woong Lim¹ Minjee Lee¹ Seung Hun Park¹ Sei yeul Oh² Yumi Song³ Sang Won Moon¹

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649 - P54-6

Retinal ganglion cell atrophy in homonymous hemianopia due to acquired occipital lesions using swept-source OCT

Tsutomu Yamashita^{1,2} Atsushi Miki^{1,2} Katsutoshi Goto^{2,3} Syunsuke Araki² Yoshiaki Ieki² Akio Tabuchi¹ Junichi Kiryu²

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650 - P55-7

Intraosseous orbital cellular hemangioma with intracranial involvement

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651 - P56-8

Case of blepharospasm and cellulitis following facial plastic surgery

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652 - P57-9

Buccal mucous membrane grafting for cicatricial entropion

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653 - P58-10

Suture infection suspected to be caused by silk thread used in suspension surgery for ptosis

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654 - P59-11

Noninvasive Assessment of Extraocular Muscle Insertion Using 3-Dimensional Anterior Segment Optical Coherence Tomography before Strabismus Reoperation

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655 - P60-12

Effect of horizontal transposition of vertical rectus muscle for treatment of acquired trochlear nerve palsy

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656 - P61-13

Effects of divergence with base-in prisms on near visual function

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