<table>
<thead>
<tr>
<th>Room</th>
<th>8:30–10:30am Symposium</th>
<th>12–1:15pm Workshop/SIG</th>
<th>1:30–3pm Workshop/SIG</th>
<th>3:15–5pm Workshop/SIG</th>
<th>5:15–7pm Basic/Clinical Lecture</th>
</tr>
</thead>
<tbody>
<tr>
<td>S 210A-C</td>
<td></td>
<td>130 Pizza with the Expert</td>
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<tr>
<td>S 230EF</td>
<td></td>
<td></td>
<td>131 Authorship Ethics: Credit and Credibility</td>
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<tr>
<td>S 230GH</td>
<td></td>
<td></td>
<td>132 Animal Models Leading to Clinical Trials</td>
<td>144 Amblyopia [EY] #811-817</td>
<td></td>
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<tr>
<td>S 320GH</td>
<td></td>
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<td>133 EVER/ARVO Workshop: Corneal Cross-linking</td>
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<tr>
<td>S 330EF</td>
<td></td>
<td>135 VSS Symposium at ARVO</td>
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<tr>
<td>S 310E-H</td>
<td>Sunday Social Universal Studios with music by ARVO Rocks! 7:30 – 9am and 4 – 5pm</td>
<td>138 Microglia in the Aging Retina: Can aging changes in retinal microglia contribute to age-related retinal disease? — SIG</td>
<td>146 Glia [RC] #825-831</td>
<td></td>
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</tr>
<tr>
<td>S 320AB</td>
<td>7:30 – 10:30pm (admission required)</td>
<td>139 New understanding about extracellular matrix turnover and its contribution to material properties — SIG</td>
<td>147 Gene Therapy [PH] #832-838</td>
<td></td>
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<tr>
<td>S 320CD</td>
<td></td>
<td>140 Understanding cone degeneration in retinitis pigmentosa and associated disorders — SIG</td>
<td>148 Shedding light on mechanisms - genetics and beyond [CL] #839-845</td>
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<tr>
<td>S 330GH</td>
<td></td>
<td>141 The Aging Eye — SIG</td>
<td>150 Microbial Pathogenesis [IM] #852-858</td>
<td></td>
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<tr>
<td>S 331A-D</td>
<td></td>
<td>142 A Report from the TFOS International Workshop on Contact Lens Discomfort — SIG</td>
<td>151 Contact Lens [CO] #859-864</td>
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### Sunday, May 4 - Posters

#### 8:30–10:15am

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<tr>
<th>Session Number</th>
<th>Session Title</th>
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<th>Board Number</th>
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<tr>
<td>103</td>
<td>Meibomian Gland, Lacrimal Gland and Tear Film [CO]</td>
<td>13-63</td>
<td>(A0001-A0051)</td>
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<tr>
<td>104</td>
<td>Immunobiology of AMD [IM]</td>
<td>64-86</td>
<td>(A0119-A0141)</td>
</tr>
<tr>
<td>105</td>
<td>Retina/RPE Immunobiology #1 [IM]</td>
<td>87-110</td>
<td>(A0142-A0165)</td>
</tr>
<tr>
<td>106</td>
<td>IOP measurement [GL]</td>
<td>111-155</td>
<td>(A0204-A0248)</td>
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<tr>
<td>108</td>
<td>Vascular flow imaging [MOI]</td>
<td>193-236</td>
<td>(B0001-B0044)</td>
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<tr>
<td>109</td>
<td>Retinal imaging [RE, IM, MOI, VN]</td>
<td>237-286</td>
<td>(B0045-B0094)</td>
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<tr>
<td>110</td>
<td>Vitreomacular Interface and Management [RE, PH, VI]</td>
<td>287-329</td>
<td>(B0265-B0307)</td>
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<tr>
<td>111</td>
<td>Clinical electrophysiology [VN]</td>
<td>330-351</td>
<td>(C0101-C0122)</td>
</tr>
<tr>
<td>112</td>
<td>RPE/Retina Cell Biology and Degeneration, I [RC, RE]</td>
<td>352-383</td>
<td>(C0123-C0154)</td>
</tr>
<tr>
<td>113</td>
<td>Retina/RPE: Biochemistry and Molecular Biology [BI, RE]</td>
<td>384-429</td>
<td>(C0155-C0200)</td>
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<tr>
<td>114</td>
<td>Amblyopia: Detection and Prevalence [EY]</td>
<td>430-440</td>
<td>(D0049-D0059)</td>
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<tr>
<td>115</td>
<td>Drug delivery #1 [PH, RE]</td>
<td>441-486</td>
<td>(D0060-D0105)</td>
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#### 1:30–3:15pm

<table>
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<tr>
<th>Session Number</th>
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<th>Program Number</th>
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</thead>
<tbody>
<tr>
<td>118</td>
<td>Corneal Cell and Molecular Biology and Stem Cells [CO]</td>
<td>488-529</td>
<td>(A0077-A0118)</td>
</tr>
<tr>
<td>119</td>
<td>Pharmacology and clinical studies [GL]</td>
<td>530-567</td>
<td>(A0166-A0203)</td>
</tr>
<tr>
<td>120</td>
<td>Biomarkers and Retinal Disease [RE]</td>
<td>568-574</td>
<td>(B0095-B0101)</td>
</tr>
<tr>
<td>121</td>
<td>Anti-VEGF [RE]</td>
<td>575-611</td>
<td>(B0102-B0138)</td>
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<tr>
<td>122</td>
<td>Biochemistry and Molecular Biology of AMD I [BI, RE]</td>
<td>612-636</td>
<td>(B0139-B0163)</td>
</tr>
<tr>
<td>123</td>
<td>Retinal diseases in the aged eye [CL, RE]</td>
<td>637-690</td>
<td>(C0047-C0100)</td>
</tr>
<tr>
<td>124</td>
<td>Retinal Development [RC]</td>
<td>691-723</td>
<td>(C0234-C0266)</td>
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<tr>
<td>125</td>
<td>Lens cell biology and structure [LE]</td>
<td>724-750</td>
<td>(C0267-C0293)</td>
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<tr>
<td>126</td>
<td>Binocular vision and stereopsis [VI]</td>
<td>751-757</td>
<td>(C0312-C0318)</td>
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<tr>
<td>127</td>
<td>Spatial and temporal vision [VI]</td>
<td>758-790</td>
<td>(D0001-D0033)</td>
</tr>
<tr>
<td>128</td>
<td>Amblyopia: Neural Mechanisms and Treatment [EY]</td>
<td>791-805</td>
<td>(D0034-D0048)</td>
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#### 3:15–5pm

<table>
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<tr>
<th>Session Number</th>
<th>Session Title</th>
<th>Program Number</th>
<th>Board Number</th>
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<tr>
<td>153</td>
<td>Cornea surgery, posterior lamellar transplantation [CO]</td>
<td>872-896</td>
<td>(A0052-A0076)</td>
</tr>
<tr>
<td>154</td>
<td>Lamina cribrosa, angles and blebs [GL]</td>
<td>897-944</td>
<td>(A0249-A0296)</td>
</tr>
<tr>
<td>155</td>
<td>Structure function [GL]</td>
<td>945-990</td>
<td>(A0297-A0342)</td>
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<tr>
<td>156</td>
<td>Corneal Dystrophies and Genetics [CO]</td>
<td>991-1025</td>
<td>(A0380-A0414)</td>
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<tr>
<td>157</td>
<td>Diabetic Retinopathy [BI]</td>
<td>1026-1047</td>
<td>(B0164-B0185)</td>
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<tr>
<td>158</td>
<td>The Diabetic Retina: physiology and pharmacology [PH, RE]</td>
<td>1048-1070</td>
<td>(B0186-B0208)</td>
</tr>
<tr>
<td>159</td>
<td>Retinal detachment and allied diseases [RE]</td>
<td>1071-1126</td>
<td>(B0209-B0264)</td>
</tr>
<tr>
<td>160</td>
<td>Other macular disease imaging and surgery [RE, GEN, VI]</td>
<td>1127-1172</td>
<td>(C0001-C0046)</td>
</tr>
<tr>
<td>161</td>
<td>AMD and CNV: Preclinical and Clinical Studies [RC, RE]</td>
<td>1173-1205</td>
<td>(C0201-C0233)</td>
</tr>
<tr>
<td>162</td>
<td>Cataractogenesis and cataract models [LE]</td>
<td>1206-1223</td>
<td>(C0294-C0311)</td>
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*Poster board numbers correspond to poster location in Level 1/South Hall A
A = Poster Area A, B = Poster Area B, C = Poster Area C and D = Poster Area D*

*10:45 – 11:45am: All Posters and Networking — authors will be present at poster boards*
**101 The Pathology of Retinal Neuro-inflammation**

Recent research has identified neuro-inflammation as a key component of retinal disease. Major advances in the pathobiology of retinal neuro-inflammation have yielded greater insight into the significance of cytokines, microglia, deviant immune responses, and targeted therapies. This symposium will focus on neuro-inflammation in diabetic retinopathy, age-related macular degeneration, uveitis, and glaucoma as well as describe unique imaging modalities and drug delivery systems.

**Moderators:** Deepak P. Edward, Rebecca C. Stacy and Jayakrishna Ambati

1 — 8:30  **Genetics and Functional Studies in Retinal Inflammation.** Kang Zhang. Zhang Lab-Osler Ln, University of California, San Diego, La Jolla, CA *CR

2 — 8:49  **Review of cellular targets for diabetic retinopathy, and their relation to animal models.** Timothy Kern. 1Medicine, Case Western Reserve University, Cleveland, OH; 2Stokes Veterans Admin Hospital, Cleveland, OH

3 — 9:08  **Inflammasome in age-related macular degeneration.** Jayakrishna Ambati. E300 Kentucky Clinic, University of Kentucky, Lexington, KY *CR


5 — 9:46  **Neuro-inflammation in glaucoma.** Gulgun Tezel. Ophthalmology & Visual Sciences, University of Louisville, Louisville, KY

6 — 10:05  **Novel drug delivery systems for treating retinal neuroinflammation.** Rangaramanujam Kannan. Ophthalmology, Wilmer Eye Institute, Johns Hopkins University, Baltimore, MD

— 10:24  **Discussion**

**102 ROP: Evolving Phenotypes and Emerging Treatments**

This session highlights the greatly increasing cases of ROP world-wide and evolving appearances of it, as well as novel methods of prevention of severe ROP and current treatments, caveats associated with them, and future directions that will take into account retinal development and vision.

**Moderators:** M. Elizabeth Hartnett, Cynthia A. Toth and Gerard A. Lutty

7 — 8:30  **ROP blindness worldwide: phenotypes in the 3rd epidemic.** Graham Quinn. 1Pediatric Ophthalmology, Children’s Hospital of Philadelphia, Philadelphia, PA; 2Ophthalmology, Perelman School of Medicine, University of Pennsylvania, Philadelphia, PA

8 — 8:50  **Prevention of ROP: Mechanisms of lipid metabolites and IGF-1 in ROP.** Lois Smith. 1Ophthalmology, Boston Children’s Hospital, Boston, MA; 2Ophthalmology, Harvard Medical School, Boston, MA

9 — 9:10  **Mechanisms of Oxygen Stresses in ROP.** John S. Penn. Vanderbilt Eye Institute, Nashville, TN

10 — 9:30  **Promoting Vascular repair in prematurity to prevent ROP.** Maria Grant. Pharmacology and Therapeutics, University of Florida, Gainesville, FL

11 — 9:50  **Current Screening and Treatments in ROP.** Antonio Capone. 1Partner, Associated Retinal Consultants, Royal Oak, MI; 2Ophthalmology, Oakland University-William Beaumont Hospital School of Medicine, Auburn Hills, MI *CR

12 — 10:10  **Retinal and Visual Development in ROP.** Anne Fulton. Ophthalmology, Children’s Hospital of Boston, Harvard, Boston, MA

* Refer to the Program Number in the Clinical Trial (CT) Registration Index. *CR Refer to the Program Number in the Commercial Relationships (CR) Index for Disclosures.
103 Meibomian Gland, Lacrimal Gland and Tear Film

Moderators: Erich Knop, J Daniel Nelson and Ulrike H Hampel

13 — A0001 Immunohistochemical observation of meibomian gland following ocular surface alkali burning in wild-type and Smad3-deficient mice. Shin Mizoguchi1, Y. Okada1, R. Arita2, S. Saika1. 1Ophthalmology, Wakayama Medical University, Wakayama, Japan; 2Ophthalmology, Itoh Clinic, Saitama, Japan


15 — A0003 Application of Active-type Vitamin D3 for External Use to Treat Meibomian Gland Dysfunction of Mice. Kai Jin1, M. Kawashima1, M. Ito2, A. Ito1, S. Connell1, K. Sano1, K. Tsubota1. 1Ophthalmology, Keio University, Tokyo, Japan; 2Developmental Anatomy, National Defense Medical College, Tokyo, Japan; 3Medical and Veterinary Sciences, University of Bristol, Bristol, United Kingdom


17 — A0005 Membrane Steroid Receptors are Expressed by Human Meibomian Gland Epithelial Cells. Wendy R. Kam, R. Rahimi Darabad, D. A. Sullivan. Scheepens Eye Research Institute, Massachusetts Eye and Ear, Harvard Medical School, Boston, MA

18 — A0006 The Effect of Androgens on Human Meibomian Gland Epithelial Cells. Amali Ariyavdiana1, H. Zhu2, N. Khandekar1, A. M. McDermott2, E. B. Papas1,2, 1Brien Holden Vision Institute, Sydney, NSW, Australia; 2School of Optometry and Vision Science, University of New South Wales, Sydney, NSW, Australia; 3The Ocular Surface Institute, College of Optometry, University of Houston, Houston, TX

19 — A0007 Morphological characterization of a meibomian gland epithelial cell line. Nagayoshi Asano1,2, U. Hampel1, G. Fabian1, A. Schröder1, M. Schicht1, S. Möbius1, F. P. Paulsen1. 1Department of Anatomy II, Friedrich-Alexander-University Erlangen Nürnberg, Erlangen, Germany; 2Saniten Pharmaceuticals. Co., Ltd, Nara, Japan

20 — A0008 The Impact of Treatment on 13-Cis Retinoic Acid-Challenged Human Meibomian Gland Epithelial Cells. Karen DIONNE1, A.M. McDermott2, J.J. Nichols3, H. ZHU2, K.K. Nichols1. 1The Ocular Surface Institute, University of Houston, Houston, TX; 2Brien Holden Vision Institute, Sydney, NSW, Australia

21 — A0009 The natural history of meibomian glands: Age-related changes in an asymptomatic population. Nisha S. yeotikar1,2, H. Zhu1,2, B.O. omali1,2, D. Tilia1,2, V. Thomas2, M. Markoullis1, K.K. Nichols2, J.J. Nichols3, E.B. Papas1,2. 1Biosciences, Brien Holden Vision Institute, Kensington, Sydney, NSW, Australia; 2Vision CRC, Brien Holden Vision Institute, Sydney, NSW, Australia; 3School of Optometry & Vision Science, University of New South Wales, Sydney, NSW, Australia; 4Clinical Research and Trials Centre, Brien Holden Vision Institute, Sydney, NSW, Australia; 5The Ocular Surface Institute, University of Houston, Houston, TX

22 — A0010 Gender Differences in a Meibomian Gland Dysfunction-Specific Symptom Questionnaire. Justin T. Kwan1, D.L. Opitz2, M.M. Horn1, J.R. Paugh1. 1Contact Lens, Dry Eye Research, Southern California College of Optometry, Fullerton, CA; 2Illinois College of Optometry, Chicago, IL; 3Private Practice, Azusa, CA

23 — A0011 The Cyclic Change of Meibum Fatty Acid Composition During the Menstrual Cycle. Tomo Suzuki1,2, S. Kamada1,2, S. Fujisawa1, T. Tajiya1, S. Kinoshita1. 1Department of Ophthalmology, Kyoto Prefectural University of Medicine, Kyoto, Japan; 2Ophthalmology, Kyoto City Hospital Organization, Kyoto, Japan; 3Shimadzu Techno-Research, Inc., Kyoto, Japan; 4Senju Pharmaceutical Co., Ltd, Osaka, Japan

24 — A0012 Dry Eyes and Al. Holly Inglis1,2, M. Friedlander3,4, S.L. Watson1,2. 1Corneal Unit, Prince of Wales Hospital, Sydney Eye Hospital, Sydney Children’s Hospital, Sydney, NSW, Australia; 2Prince of Wales Hospital, Sydney, NSW, Australia; 3University of Sydney, Sydney, NSW, Australia; 4Department of Medical Oncology, Prince of Wales Hospital, Sydney, NSW, Australia; 5University of New South Wales, Sydney, NSW, Australia

25 — A0013 Blink-Related Changes in Light Scattering in Meibomian Gland Dysfunction. Quianta Moore, S. C. Pfugfelder. Ophthalmology, Baylor College of Medicine, Houston, TX

26 — A0014 A Novel Meibographer with Dual Mode Standard Noncontact Surface Infrared Illumination and Infrared Transillumination. Stephen Grenon1, S. Liddle2, J. Grenon1, J. Rosimo1, N. Luck1, C.A. Blackie2, D.R. Korb3,4. 1TearScience Inc, Morrisville, NC; 2Korb Associates, Boston, MA

27 — A0015 Meibomian Gland Function Cannot Be Predicted By Meibography In Patients Symptomatic For Dry Eye. David Murakami1,2, C. A. Blackie1,2, H. Pult1,4, D.R. Korb1,2. 1TearScience, Morrisville, NC; 2Korb Associates, Boston, MA; 3Optometry and Vision Research, Weinheim, Germany; 4School of Optometry and Vision Science, Cardiff University, Cardiff, United Kingdom

28 — A0016 Infrared Meibography in Ocular Graft-versus-Host Disease Prior and Following Allogeneic Stem Cell Transplantation. Sebastian E. Siebelmann1, L. A. Engel1, S. Wittig1, F. Bock1, C. Scheid1, C. Cursiefen1, P. Steven1. 1Department of Ophthalmology, University of Cologne, Cologne, Germany; 2University of Cologne, Department of Internal Medicine, Cologne, Germany

29 — A0017 Comparison of effect of five warming devices onto tear functions, meibomian glands and ocular surface. Reiko Arita1,2, N. Morishige1, R. Shirakawa1, Y. Sato1, S. Amano1. 1Department of Ophthalmology, Itoh Clinic, Saitama, Japan; 2Department of Ophthalmology, University of Tokyo, Tokyo, Japan; 3Department of Ophthalmology, Yamaguchi University, Ube, Yamaguchi, Japan


31 — A0019 Comparative analysis of clinical and confocal outcomes in patients with meibomian gland dysfunction treated with warm compresses versus wet chamber warming goggless: a retrospective study. Veronica Canton1, E. Garoli1, E. Villani1, R. Ratiglia2. 1Clinical Sciences and Community Health, University of Milan, Milan, Italy; 2Fondazione IRCCS Ca’ Granda Ospedale Maggiore Policlinico, Milan, Italy; 3Eye Clinic, San Giuseppe Hospital, Milan, Italy


The Commercial Relationships (CR) Index for Disclosures and the Clinical Trial (CT) Registration Index are at arvo.org/amindices.
34 — A0022  Longitudinal changes of tear lipids with lid warming treatment in patients with Meibomian gland dysfunction. Louis Tong1,2, S. Lam1, G. Shui1, H. Lee1, J. Tan1, R. Acharya1, M. Venk1. 1Cornea and External Eye Disease Service, Singapore National Eye Ctr, Singapore; Singapore; 2Duke-NUS Graduate Medical School, Singapore, Singapore; Singapore; 3Institute of Genetics and Developmental Biology, Chinese Academy of Sciences, Beijing, China; 4Singapore Bioinformatics Institute, Singapore, Singapore; 5Ngee Ann polytechnic, Singapore, Singapore; 6Biochemistry, National University of Singapore, Singapore, Singapore

35 — A0023  Diurnal variations of human tear lipids. Simin Masoudi1,2, F. Stapleton1,2, T. W. Mitchell1, M. D. Wilcox1. 1School of Optometry and Vision Science, University of New South Wales, Sydney, NSW, Australia; 2Brien Holden Vision Institute, Sydney, NSW, Australia; 3University of Wollongong, Wollongong, NSW, Australia

36 — A0024  Composition of Terrestrial and Marine Mammal Tears is Dependent on Species and Environment. Robin Kelleher Davis, P. Argueso. Ophthalmology, Scheepens Eye Research Institute and Massachusetts Eye and Ear, Harvard Medical School, Boston, MA

37 — A0025  Investigation of Surface Properties of Films of Human Meibum from Normal Eyes and from Eyes with Meibomian Gland Dysfunction. Georgi A. Georgiev1, N. Yokoi2, S. Ivanova1, V. Tonchev1, R. Krastev1, Z. Lalchev1. 1Biochemistry, Sofia University “St Kliment Ohridski”, Sofia, Bulgaria; 2Ophthalmology, Kyoto Prefectural University of Medicine, Kyoto, Japan; 3RI Kaischew Institute of Physical Chemistry, Bulgarian Academy of Sciences, Sofia, Bulgaria; 4NI Natural and Medical Sciences Institute, University of Tubingen, Tubingen, Germany *CR

38 — A0026  Tear Film and Lipid Layer Structure in Relation to Four Phases of the Blink Cycle. Peter E. King-Smith1, K. S. Reuter1, C. G. Begley2, R. J. Braun1. 1Optometry, Ohio State University, Columbus, OH; 2Optometry, Indiana University, Bloomington, IN; 3Mathematical Sciences, University of Delaware, Newark, DE

39 — A0027  Evaluation of tear film lipid layer (TFLL) thickness and tear thinning rates in cigarette smokers. Daniel R. Powell1, E. P. King-Smith1, H. L. Chandler1. 1Optometry, University of Houston, Houston, TX; 2Optometry, The Ohio State University, Columbus, OH

40 — A0028  Correlation between the aqueous tear clearance and the turnover of tear lipids in dry eye patients. Maurizio Fossarello, F. Cornella, G. M. Satta, P. E. Napoli. Ophthalmology, University of Cagliari, Cagliari, Italy

41 — A0029  Thick Human Tear Lipid Films: Effect of Lipids Interaction with Model Tear Proteins on Interfacial Properties. Tatanya F. Svitova1, M. C. Lin1,2. 1Optometry School, Clinical Research Center, University of California, Berkeley, Berkeley, CA; 2Vision Science Graduate Group, University of California, Berkeley, Berkeley, CA

42 — A0030  The Influence of Eyeliner Cosmetics and Squalene on the Conformation of Human Meibum. Rahul Bholia1, M. Hunter1, M. Yapper1, D. Borchman1, D. Gerlach1. 1Ophthalmology, University of Louisville, Prospect, KY; 2Department of chemistry, University of Louisville, Louisville, KY

43 — A0031  In vitro surface pressure measurements of various tear film lipids. Hendrik Walther1, L. N. Subbaraman1, S. Wettig2, L. W. Jones1. 1CCLR - School of Optometry and Vision Science, University of Waterloo, Waterloo, ON, Canada; 2School of Pharmacy, University of Waterloo, Waterloo, ON, Canada


45 — A0033  Relative Efficacy of Loteprednol Lotemax® vs. Loteprednol-Tobrafinem (Zylet®) on Corneal and Conjunctival Inflammation: In Vivo Confocal Microscopy Results of a Phase IV Randomized Clinical Trial. Yueeda Qazi, A. Kheirkhah, T. H. Dohlman, F. Amparo, R. Dana, P. Hamrah. Ophthalmology, Massachusetts Eye and Ear Infirmary, Boston, MA

46 — A0034  Thermal pulsation for meibomian gland dysfunction in Asian patients. David Rooney1, J. Tan1, U. Acharya1, H. Lee2, Z. Yang1, M. Venk1, L. Tong1. 1University of Alabama School of Medicine, Birmingham, AL; 2Ngee Ann Polytechnic, Singapore, Singapore; 3Bioinformatics Institute, Agency of Science Technology and Research, Singapore, Singapore; 4Singapore, Singapore; 5Yong Loo Lin School of Medicine, National University of Singapore, Singapore, Singapore; 6Department of Biochemistry and Development of Biological Sciences, National University of Singapore, Singapore; 7Singapore National Eye Center, Singapore, Singapore

47 — A0035  Efficacy and Safety of azithromycin 1.5% eye drops (Azyet®) in patients with moderate to severe chronic blepharitis. Serge Doan1, C. Baudouin1, M. Labetoulle1, T. Bourcier1, L. Hoffart1, P. Pisella2. 1Ophthalmology, Schepens Eye Research Institute, Boston, MA; 2Alcon, Geneva, Switzerland


49 — A0037  Prevalence of MGD, blepharitis, and demodex in an optometric practice. Scott E. Schachtner1, A. Schachtner1, M. M. Hom2, S. G. Hauswirth1, 1Private Practice, Scott E Schachtner, OD, PC, Pismo Beach, CA; 2Private Practice, Milton Hom, OD, Azusa, CA; 3Student, University of California, Los Angeles, Los Angeles, CA; 4Private Practice, Minnesota Eye Consultants, PA, Bloomington, MN; 5Adjunct Clinical Faculty, Southern California College of Optometry, Fullerton, CA

50 — A0038  Electrical Stimulation of the Lacrimal Gland in Rabbits. Mark Brinton1, J. Chung1, A. Kossler2, J. Loudin1, C. Ta2, V. Palanker1,2. 1Hansen Experimental Physics Laboratory, Stanford University, Stanford, CA; 2Ophthalmology, School of Medicine, Stanford University, Stanford, CA; 3Ophthalmology, Kim’s Eye Hospital, Konyang University College of Medicine, Seoul, Republic of Korea

51 — A0039  Adenoviral vector-mediated transfer of erythropoietin and GFP to the lacrimal gland in rat. Ana C. Dias, L. C. Dias, L. Nominato, E. M. Rocha. Ophthalmology, FMRP-USP, Ribeirão Preto, Brazil

52 — A0040  Differential roles of Pannexin-1 mediated signaling in the regulation of lacrimal gland morphogenesis and inflammation. Helen M. Makarenkov1, P. Imperadore1, D. Zoukhri2, V. Shestopalov1, 1Cell and Molecular Biology, Scripps Research Institute, La Jolla, CA; 2General Dentistry, Tufts University School of Dental Medicine, Boston, MA; 3Ophthalmology, Bascom Palmer Eye Institute University of Miami School of Medicine, Miami, FL; 4Vavilov Institute for General Genetics, Moscow, Russian Federation

53 — A0041  Leukocyte phenotype and lymphatic vessel distribution in canine lacrimal and nictitating glands. Christopher M. Reilly1, S. Park1, C. F. Marfurt2, B. C. Leonard2, C. J. Murphy1,3. 1School of Veterinary Medicine, University of California, Davis, Davis, CA; 2Anatomy and Cell Biology, Indiana University School of Medicine, Indianapolis, IN; 3School of Medicine, University of California, Davis, Davis, CA

54 — A0042  Autonomic and Sensory Innervation of the Dog Lacrimal Gland. Carl F. Marfurt1, C. M. Reilly1, S. Park2, C. J. Murphy1, 1Anatomy and Cell Biol, Indiana Univ Sch of Medicine - Northwest, Gary, IN; 2School of Veterinary Medicine, University of California-Davis, Davis, CA; 3School of Veterinary Medicine, University of California-Davis, Davis, CA

*CR Refer to the Program Number in the Commercial Relationships (CR) Index for Disclosures.
56 — A0044 Epithelial Mesenchymal Transition in adult rabbit lacrimal glands after duct ligation induced injury. Hong He, H. Lin, S. C. Yu. School of Medicine, Johns Hopkins University, Baltimore, MD

57 — A0045 Usefulness of a new dry-eye mouse model produced by exorbital and intraorbital lacrimal gland excision. Katsukihiro Shimomiyay,1, M. Ueta1, 2, Ophthalmology, Boston University School of Medicine, Boston, MA; 2Ophthalmology, Boston University School of Medicine, Boston, MA; 2Department of Anatomy, Physiology and Cell Biology, University of California, Davis, Davis, CA; 3Department of Pathology, Microbiology and Immunology, University of California, Davis, Davis, CA; 4Anatomy and Cell Biology, School of Medicine, Indiana University, Indianapolis, IN; 2Department of Ophthalmology & Vision Science, University of California, Davis, School of Medicine, Davis, CA *CR


59 — A0047 Observation of ER stress induction in dry eye induced mouse lacrimal glands acinar cells. Yuri Seo, Y. J. H. Noh, A. Yoo, E. Kim, H. Lee. ophthalmology, Institute of vision Research, Yonsei university college of medicine, Seoul, Republic of Korea

60 — A0048 Characterization of Adult Mouse Lacrimal Gland Explant Cultures. Daniela Marcano, G. Achariya, S. C. Pflugfelder. Baylor College of Medicine, Houston, TX

61 — A0049 Ocular Surface and Lacrimal Gland Alterations in the C57BL/6.NOD- Aec1Aec2 Mouse Model of Sjögren’s Syndrome. In-Chon Yu, E. Volpe, F. Bian, S. C. Pflugfelder, C. S. De Paiva. Ocular Surface Center, Department of Ophthalmology, Cullen Eye Institute, Baylor college of medicine, Houston, TX

62 — A0050 Alteration in Cell Structure and Function in Lacrimal Glands of Thrombospordin-1-/- Mouse of Sjögren’s Syndrome. Sumit Bhattacharya,1 R. R. Hodges, S. Masli,$, D. Darri,.1 Ophthalmology, Schepens Eye Research Institute Massachusetts Eye and Ear Infirmary Harvard Medical School, Boston, MA; 2Ophthalmology, Boston University School of Medicine, Boston, MA

63 — A0051 Antecedents of Sjögren’s and Other Inflammatory Infiltrates May be Present in All Adult Lacrimal Glands. Austin K. Mircheff, Y. Wang. Dept of Physiology & Biophysics, Univ of Southern California, Los Angeles, CA *CR


65 — A0120 The apoptosis inhibitor of macrophage/CD5 molecule-like protein (AIM/CD5L) is expressed in the human retina and is a target of autoreactivity in age-related macular degeneration (AMD). David D. New1, N. Lenchik1,2, F. Giorgianni4, A. H. Alhatem1, S. Beranova4, I. Gerling1, M. Radic1, A. Iannaccone2, Ophthalmology/Hamilton Eye Institute, University of TN Health Science Center, Memphis, TN; 2Medicine/Endocrinology, University of TN Health Science Center, Memphis, TN; 3Microbiology, Immunology and Biochemistry, University of TN Health Science Center, Memphis, TN; 4Pharmaceutical Sciences, University of TN Health Science Center, Memphis, TN

66 — A0121 Impaired autophagy in retinal pigment epithelial cells induces inflammatory responses in macrophages. Jian Liu1, D. A. Copland1, H. Chiu2, L. B. Nicholson1, A. D. Dick1. Ophthalmology, School of Clinical Sci, University of Bristol, Bristol, United Kingdom; 2Department of Neuroscience, University of Bristol, Bristol, United Kingdom


68 — A0123 Vascular endothelial growth factor (VEGF) enhances retinal pigmented epithelial (RPE) cell production of protective complement factor H. Lindsay S. Keir1, P. D. Westenskow2, Y. Usui3, T. Kurihara4, A. Richards5, M. Saleemi1, M. Friedlander1. Cell and Molecular Biology, The Scripps Research Institute, La Jolla, CA; 2School of Clinical Sciences, University of Bristol, Bristol, United Kingdom; 3Queens Medical Research Institute, University of Edinburgh, Edinburgh, United Kingdom *CR

69 — A0124 Further implication of Pigment Epithelium-Derived Factor (PEDF) in CAR. Charles E. Thirkill. Ocular Immunology, UC Davis, Davis, CA

70 — A0125 A2E induced inflammatory RPE cells impede immune balance of T cell subsets via COX-PGE2 pathways. Qian Shi1, Q. Wang1, Y. Chen1, X. Sun1. Ophthalmology, Department of Ophthalmology, Shanghai First People’s Hospital Affiliated Shanghai Jiao Tong University, Shanghai, China; 2Department of Pharmacology, School of Medicine, Case Western Reserve University, Cleveland, Ohio, USA, Cleveland, OH


72 — A0127 STAT3 activation in circulating immune cells is related to neovascular age-related macular degeneration. Hoping Xu, J. Lecher, U. Chakravarthi, M. Chen. Centre for Experimental Medicine, Queen’s University Belfast, Belfast, United Kingdom

73 — A0128 Lutein supplementation leads to a decreased level of the circulating complement membrane attack complex sC5b-9. Aize Kijistra1, Y. Tian1, R. van der Veen1, M. Makridaki, I. Murray2, T. Berendschot2. University Eye Clinic Maastricht, Maastricht University, Maastricht, Netherlands; 2Faculty of Life Sciences, University of Manchester, Manchester, United Kingdom

74 — A0129 Lutein leads to a decrease of complement factor D (CFD) secretion by in vitro cultured mature adipocytes. Yuan Tian1, A. Kijistra1, J. Renes2, T. Berendschot2. University Eye Clinic Maastricht, Maastricht University, Maastricht, Netherlands; 2Human Biology, NUTRIM School for Nutrition, Toxicology and Metabolism, Maastricht University, Maastricht, Netherlands


A0132  Effect of Risk Alleles in CFH, C3, and VEGFA on the Response to Intravitreal Bevacizumab in Tunisian patients with neovascular AMD. Habibi Imen1,2, F. Kort3, I. Sfar1, A. Chebel1, R. Bourouai2, T. Ben Abdallah1, L. El Matrī1, Y. Gorgi1. 1Research Laboratory of renal Transplantation and Immunopathology (LR03SP01), University Tunis El Manar; Charles Nicolle Hospital, Tunis, Tunisia; 2Oculogenetic Research Unit, Department B of Ophthalmology, Hedi Rais Institute of Ophthalmology, Tunis, Tunisia

A0133  Changes in Occurrence of Anti-Retinal Autoantibodies Associated with the Progression from “Dry” To “Wet” AMD. Grazyna Adamus1, E. Y. Chew2, F. L. Ferris3, M. L. Klein1. 1Ophthal-Casey Eye Inst, Oregon Health Sciences University, Portland, OR; 2National Eye Institute, National Institutes of Health, Bethesda, MD

A0134  Toll-like receptor activation of retinal pigment epithelial cells induces a glycolytic shift and increase of IL-33 expression. Sofia Theodoropoulou, D. A. Copland, J. Liu, A. D. Dick. Academic Unit of Ophthalmology, School of Clinical Sciences, University of Bristol, Bristol, United Kingdom

A0135  Regulation of vascular leakage by Fas Ligand: Distinguishing the role of soluble from membrane FasL in unique knock-in mice with laser-induced choroidal neovascularization. Adarsha Koirala1, A. Marshall-Rothstein2, B. R. Ksander1, M. S. Gregory-Ksander1. 1Ophthalmology, Scheepens Eye Research Institute,Massachusetts Eye and Ear Infirmary, Harvard Medical School, Boston, MA; 2Medicine, University of Massachusetts Medical School, Worcester, MA

A0136  Change in the Distribution and Phenotype of Subretinal Microglia in C57BL/6J and R6/2 Mutant Mice with Aging. Tao Li1, B. Arend1, X. Chen1, K. Zhang1, R. Ufret-Vincenty1. 1Ophthalmology, UT Southwestern Medical Center, Dallas, TX; 2The People’s Hospital of Hainan, Haikou, China

A0137  The ocular conjunctiva and conjunctivo-associated lymphoid tissue as a mucosal immunization route: humoral and cellular immune responses against Salmonella typhimurium Bacterial Ghosts. Aleksandra Inic-Kanada1, S. Belij1, M. Stoianovic1, E. Marinkovic2, I. Stojicevic1, E. Stein1, A. Ladurner1, U. Mayr1, W. Lubitz1, T. Barisani-Asenbauer1. 1Laura Bassi Centres of Expertise, OCUVAC-Centre of Ocular Inflammation and Infection, Institute of Specific Prophylaxis and Tropical Medicine, Centre for Pathophysiology, Infectiology and Immunology, Medical University of Vienna, Vienna, Austria; 2Research and Development, Institute of Virology, Vaccines and Serum - TORLAK, Belgrade, Serbia; 3BIRD-C GmbH&CoKG, Kritzendorf, Austria

A0138  Retinal pigment epithelial cells co-cultured with activated T cells upregulate chemoattractants but do not increase monocyte migration. Tina Jehs, H. B. Juel, C. Faber, M. H. Nissen. Eye Research Unit, University of Copenhagen, Copenhagen, Denmark

A0139  Dysregulation of Macrophage Cholesterol Homeostasis in AMD Pathogenesis. Abdoulaye Sene1, A. A. Khan1, D. Cox1, R. E. Nakamur1, N. Zapata1, I. Chowers1, J. S. Parks1, R. S. Apte1. 1Ophthalmology, Washington University, St. Louis, MO; 2Ophthalmology, 3Hadassah-Hebrew University Medical Center, Jerusalem, Israel; 4Pathology/Section on Lipid Sciences and Biochemistry, Wake Forest School of Medicine, Winston-Salem, NC

A0140  Innate immune activation in neovascular Age-related Macular Degeneration. Judith Lechner, M. Chen, U. Chakravarty, H. Xu. Centre for Experimental Medicine, Queen’s University Belfast, Belfast, United Kingdom

A0141  Age-related macular degeneration is associated with increased plasma levels of soluble TNF receptor II. Carsten Faber1, T. Jehs1, H. B. Juel1, A. Singh1, M. Falek1, T. Sorensen1, M. H. Nissen1. 1Faculty of Health Sciences, Department of International Health, Immunology and Microbiology, University of Copenhagen, Copenhagen, Denmark; 2Department of Ophthalmology, Copenhagen University Hospital Roskilde, Roskilde, Denmark

A0142  Analysis of factors related to invasion and metastasis in Choroidal Melanoma. Guijui Zhao, Q. Wang, Q. Xu, J. Lin. Ophthalmology, Affiliated Hosp of Qingdao Med College, Qingdao, China

A0143  Management of primary intraocular lymphoma (P I O L ): results from the prospective German PIOL. Registry (PIOL-R). Uwe Pleger1, A. Kortel1, M. Herwig3, R. Guthoff2, M. Li3, T. Meyer-ter-Velde3, A. M. Joussen1, 2, M. Böhm1, F. Mackensen3, K. Jahnke1. 1Department of Ophthalmology, Charite, Berlin, Germany; 2Hematology and Oncology, Charité-Universitätsmedizin Berlin, Berlin, Germany; 3Department of Ophthalmology, University of, Bonn, Germany; 4Department of Ophthalmology, University of, Düsseldorf, Germany; 5Department of Ophthalmology, University of, Würzburg, Germany; 6Department of Ophthalmology, University of, Münster, Germany; 8Department of Ophthalmology, University of, Heidelberg, Germany

A0144  Spontaneous Intraocular Tumor Regression Requires CD8+ T cells, IFNγ, CD95FasL, and nontumor stroma expression of IFNγR1 and CD95Fas. Maxine Miller, J. Mandell, K. Beatty, M. Rizzo, D. M. Previte, S. Thorne, K. C. McKenna. Ophthalmology, University of Pittsburgh, Pittsburgh, PA

A0145  Cancer-Associated Retinopathy. Khalid F. Tabbara1, M. O. Jaroudi1, S. S. Shoughy1, H. I. Salti2. 1Ophthalmology, The Eye Center, Riyadh, Saudi Arabia; 2Ophthalmology, American University of Beirut Medical Center, Beirut, Lebanon

A0146  Clinical, functional, and imaging findings in cancer cancer-associated retinopathy (CAR) and optic neuropathy (CAON). Rebeca S. Epstein1, E. Sollenberger1, G. Adamus1, A. Iannaccone1. 1Ophthalmology, University of Tennessee Health Sciences Center, Memphis, TN; 2Ocular Immunology Lab, Oregon Health & Science Univ, Portland, OR

A0147  Comparisons of Therapeutic effects of Mesenchymal Stem Cells and Dexamethasone on Recurrent Experimental Autoimmune Uveitis. Xiaomin Zhang1, L. Zhang1, H. Zheng1, H. Shao2, H. Nian1, L. Bai1, X. Li1. 1Tianjin Medical University Eye Hospital & Eye Institute, Tianjin, China; 2Department of Ophthalmology & Visual Sciences, School of Medicine, University of Louisville, Louisville, KY

Exhibit/Poster Hall SA A0142-A0165
Sunday, May 04, 2014 8:30 AM-10:15 AM
Immunology/Microbiology

Moderator: Kyle C. McKenna

105 Retina/RPE Immunobiology

Refer to the Program Number in the Clinical Trial (CT) Registration Index. *CR Refer to the Program Number in the Commercial Relationships (CR) Index for Disclosures.
93 — A0148  Autoimmune uveitis: A pilot study of Vitamin D levels and its supplementation effect. Maria Valdez1, A. T. Mirthi1, M. T. Francisco2, M. Maldonado2, M. Lopez1, I. Montalvo2, A. Robles3, S. Vooorduin4. Fundacion Hospital Zubera de la Luz, Mexico, Mexico; 2Fundacion Hospital Nuestra Senora de la Luz, Mexico, Mexico; 3Fundacion Hospital Nuestra Senora de la Luz, Mexico, Mexico; 4Fundacion Hospital Nuestra Senora de la Luz, Mexico, Mexico; 5Fundacion Hospital Nuestra Senora de la Luz, Mexico, Mexico; 6Instituto Mexicano del Seguro Social, Mexico, Mexico; 7Fundacion Montalvo 6, A. Robles7, S. Voorduin8. 1Fundacion Mexico; 5Instituto Mexicano del Seguro Social, Mexico, Mexico; 6Fundacion Hospital Nuestra Senora de la Luz, Mexico, Mexico; 7Fundacion Hospital Nuestra Senora de la Luz, Mexico, Mexico; 8Fundacion Hospital Nuestra Senora de la Luz, Mexico, Mexico.

94 — A0149  Comparison of Endotoxin-Induced Uveitis Model and Experimental Autoimmune Uveitis Model in Lewis Rats for Drug Screening. Lichun Zhong, L. S. Desai. Ocular Science Department, Toxikon Corporation, Bedford, MA *CR

95 — A0150  Disruption of DOCK2 expression significantly reduces retinal inflammation in a spontaneous mouse model of EAU: a pilot study. Clare L. Corbett1, L. Kuffova1, Y. Fukui2,3. 1Ocular Science Department, Toxikon Corporation, Bedford, MA; 2Ophthalmology, Graduate School of Ophthalmology, University of Missouri, Columbia, MO; 3Departments of Ophthalmology, Medicine, and Biomedical Science, University of Cincinnati, Cincinnati, OH.

96 — A0151  Ligation of Toll-like receptor 7 (TLR7) by CL097 enhances the IL-17+ uveitogenic T cell response via p38 signaling in Dendritic cells (DCs). Hong Nian. Eye hospital, University of Nebraska Medical Center, Omaha, NE; 2Palmetto Retina Center, Eye Institute, University of Nebraska Medical Center, West Columbia, SC; 3Santen, Inc., Emeryville, CA *CR

97 — A0152  Pivotal roles of P2RX7 in the induction of Th1 and Th17 responses in experimental autoimmune uveitis. Atsunobu Takeda1, T. Yoshimura1, S. Hirakawa1, T. Hisatomi2, Y. Ikeda1, H. Enaida1, Y. Oshima1, K. Sonoda1, T. Ishibashi1. 1Ophthalmology, Graduate School of Medical Sciences, Kyushu University, Fukuoka, Japan; 2Ophthalmology, Graduate School of Medicine, Yamaguchi University, Ube, Japan

98 — A0153  Prevention of Experimental Autoimmune Uveitis by Inhibition of the Cyclooxygenase-2-Linked Pathway in a Rodent Model. Kazuichi Maruyama1, H. Keino2, K. Yamamoto3, S. Moritoh4, T. Nakazawa5. 1Ophthalmology, Tohoku University Graduate School of Medicine, Sendai, Japan; 2Ophthalmology, Kyorin University, Tokyo, Japan

99 — A0154  Effects of Interferon-alpha2a on the expression of tight junctions in ARPE-19 cells. Alex Fonollosa1-3, J. Artaraz1, M. Valcarcel1, C. Salado2, E. Vecino1. 1Ophthalmology, Hospital Universitario Cruces, Bilbao, Spain; 2Grupo Ofthalmobiologia Experimental, Universidad del Pais Vasco, Bilbao, Spain

100 — A0155  Efficacy and safety of treatment with Interferon-α for non-infectious sight-threatening intraocular inflammation. Lucia Kuffova1-3, K. Sipieri Cornish4, S. Chia5, J. V. Forrester5. 1Immunity, Infection and Inflammation (Ocular Immunology), University of Aberdeen, Aberdeen, United Kingdom; 2Clinical Department of Ophthalmology, Aberdeen Royal Infirmary, Aberdeen, United Kingdom

101 — A0156  Th1-, Th2-, and Th17-relevant cytokine levels in vitreous humour of sarcoidosis patients with uveitis. masaki shibata6, T. Sato6, A. Tanaka6, Y. Karasawa6, M. Muroka6, M. Ito6, M. Takeuchi. national defense medical collage, Saitama, Japan

102 — A0157  Neuroretinitis: Clinical characterization and structural outcomes. Maria Elena Gonzalez-Montpetit1, S. Valero1, J. Artaraz1, B. Jiménez Gómez1, A. Orive1, M. Valcarcel2. 1Ocular Science Department, Toxikon Corporation, Bedford, MA; 2Ophthalmology, Graduate School of Ophthalmology, University of Missouri, Columbia, MO

103 — A0158  Pediatric uveitis associated optic disc edema. Brian Savoie1, R. Banki2. 1Internal Medicine, Roger Williams Medical Center, Providence, RI; 2Ophthalmology, New York Eye and Ear Infirmary, New York, NY

104 — A0159  Complications of Pediatric Uveitis in a Lebanese Cohort. Alaa Bou Ghannam1,2, J. Artaraz3, M. Valcarcel4. 1Internal Medicine, Roger Williams Medical Center, Providence, RI; 2Ophthalmology, New York Eye and Ear Infirmary, New York, NY; 3Ophthalmology, University of Missouri, Columbia, MO; 4Ophthalmology, Graduate School of Ophthalmology, University of Missouri, Columbia, MO

105 — A0160  Etiologic Features of Uveitis in an University Center in Argentina. Mariana Ingolotti1, B. A. Schlaen1, P. Chiaradia1, C. A. Couto1. 1Ophthalmology, Hospital Universitario Cruces, Bilbao, Spain

106 — A0161  Trends in Patterns of Posterior Uveitis and Panuveitis in a Tertiary Institution in Singapore. Helen Mi1, S. C. Lin2, Y. Kim1. 1Ophthalmology, National University Hospital, Singapore, Singapore; 2National Healthcare Group Eye Institute, Tan Tock Seng Hospital, Singapore; 3Eye Centre, Singapore General Hospital; 4Eagle Eye Centre, Singapore General Hospital

107 — A0162  Long-term effects of tocolizumab therapy for uveitic macular edema. Marina Mesquida1, V. Llorens1, B. Molins1, M. Sainz de la Maza1, A. Adan Civera1. Ophthalmology, Hospital Clínica de Barcelona, Barcelona, Spain

108 — A0163  Impact of intraocular inflammation on the corneal endothelium in patients with chronic uveitis. Eugenia Orias1, P. Ruisenor Vazquez1, M. Delrivo1, J. D. Galletti1, B. A. Schlaen1, P. Chiaradia1, A. C. Couto1. Hospital de Clinicas Jose de San Martin, Buenos Aires, Argentina

109 — A0164  The SAKURA Study, a Phase III, Multicenter, Randomized, Double-Blinded, Study of Intravitreal Injections of DE-109 for the Treatment of Active, Noninfectious Uveitis of the Posterior Segment: Baseline Ocular Disease Characteristics. Pauline Merrill1, Q. Nguyen2, W. L. Clark3, L. Wilson4, M. Valentine5, J. Nao6, N. Shams7, A. Khwaja8, Y. Yang9. 1Ophthalmology, Rush University, Chicago, IL; 2Stanley M. Truhlsen Eye Institute, University of Nebraska Medical Center, Omaha, NE; 3Palmetto Retina Center, West Columbia, SC; 4Santen, Inc., Emeryville, CA *CR

110 — A0165  Intravitreal injection of dexamethasone implant during cataract surgery in patients with noninfectious uveitis. Dong Hyun Kim, B. Cho, H. Chung, J. Heo. Seoul National University College of Medicine, Seoul, Republic of Korea

Exhibit/Poster Hall SA A0204-A0248

Sunday, May 04, 2014 8:30 AM-10:15 AM

Glucoma

106 IOP measurement

Moderators: John H. Liu and Kaveh Mansouri

111 — A0204  Distribution of Intraocular Pressure Measurements During Follow-up and its Relationship with Rates of Visual Field Progression. Sara Ghobraiel1, G. V. De Moraes1,2, J. S. Myers1, J. M. Liebmann1,2, R. Ritch4. 1Department of Ophthalmology, New York University, New York, NY 10016, NY; 2Einhorn Clinical Research Center, New York Eye and Ear Infirmary, New York, NY; 3Glucoma Service, Wills Eye Institute, Philadelphia, PA; 4Department of Ophthalmology, New York Medical College, Valhalla, NY *CR

112 — A0205  Comparison of Intraocular Pressure Measurements Between Icare Pro Rebound Tonometer and Tono-Pen XL Tonometer in Supine and Lateral Decubitus Body Positions. Chungkwon Yoo1, T. Lee1, J. Hwang1, S. C. Lin2, Y. Kim3. 1Ophthalmology, Korea University College of Medicine, Seoul, Republic of Korea; 2Ophthalmology, University of California, San Francisco, San Francisco, CA *CR

113 — A0206  Effect of Obesity on Postural Intraocular Pressure Changes. Cindy Lam1, L. Beltran-Aguilo2, J. Cheng1, G. E. Trope1, Y. M. Buys. 1Department of Ophthalmology & Vision Sciences, Khoo Teck Puat Hospital, Singapore, Singapore; 2Ophthalmology, University of Toronto, Toronto, ON, Canada; 3Department of Ophthalmology, Institut Català de la Retina, Barcelona, Spain; 4Department of Ophthalmology & Vision Sciences, Khoo Teck Puat Hospital, Singapore, Singapore

The Commercial Relationships (CR) Index for Disclosures and the Clinical Trial (CT) Registration Index are at arvo.org/amindices.
114 — A0207  Rise of Intraocular Pressure in Subjects With and Without Glaucoma during Four Common Yoga Positions. Jessica V. Jasien1, G. V. De Moraes2, R. Ritch1.11Einhorn Clinical Research Center, New York Eye and Ear Infirmary, New York, NY; 2New York University School of Medicine, New York, NY; 3New York Medical College, Valhalla, NY

115 — A0208  The effect of different body position on intraocular pressure and its relationship to ocular and systemic factors in healthy subjects. Jie Hao1, Y. Zhen1, S. Li1, H. Wang1.1Beijing Tongren Eye Center, Beijing Tongren Hospital, Beijing, China; 2Aier Ophthalmology Hospital, Nanjing, China; 3Xingtai Hospital, Xingtai, China


117 — A0210  Postural Intraocular Pressure Changes In Eyes With Normal Tension Glaucoma Without Ocular Hypotensive Agents And Healthy Control Eyes. Hiroki Tanaka, A. Sawada, T. Yamamoto. Gifu University Graduate School of Medicine, Gifu, Japan


119 — A0212  Diurnal patterns and safety of ambulatory blood pressure and 24-Hour intraocular pressure monitoring in normal and normotensive glaucoma patients. O’Ree J. Knight1, J. Mwanza1, S. D. Lawrence1, A. J. Viera1, D. L. Budenz1.1Department of Ophthalmology, University North Carolina, Chapel Hill, NC; 2Department Family Medicine and Hypertension Research Program, University of North Carolina, Chapel Hill, NC

120 — A0213  Tonometric Values Of Intraocular Pressure, Using The Goldmann Tonometer, Tonopen And Diaton Transpalpebral Tonometer In Keratoconus. Felipe T. Daher, A. Paranhos. Department of Ophthalmology and Visual Sciences, Paulista School of Medicine, São Paulo Hospital, Federal University of São Paulo, São Paulo, Brazil

121 — A0214  Performance of implantable inductive pressure sensor for continuous monitoring of intraocular pressure. Mi Jeung Kim1,2, J. Jeoung1,3, J. Kim1,4, Y. Kim1,4, C. Jang1,2, S. Lee1, J. Kim1, S. Lee1, J. Kang1, Park1,2.1Ophthalmology, Seoul National University College of Medicine, Seoul, Republic of Korea; 2Ophthalmology, Seoul National Univ Hosp, Seoul, Republic of Korea; 3Ophthalmology, Seoul National University Boramae Hospital, Seoul, Republic of Korea; 4Korea Institute of Science and Technology, Seoul, Republic of Korea; 5Electronic Engineering, Sogang University, Seoul, Republic of Korea

122 — A0215  Relationship of intraocular pressure related patterns as determined by repeated application tonometry and a contact lens sensor in patients with open angle glaucoma. Christina A. Korbi1, R. Goedkoop1, N. Pfeiffer1, K. Lorenz1.1Department of Ophthalmology, University Medical Centre, Mainz, Germany; 2Sensimed AG, Lausanne, Switzerland

123 — A0216  The Effects of General Anesthesia on IOP in Nonhuman Primates (NHP). Lisa A. Hethcox, C. Calvert, C. A. Girkin, J. C. Downs. Ophthalmology, University of Alabama at Birmingham School of Medicine, Birmingham, AL

124 — A0217  Acceptance of the Water-Drinking Test as Compared to the Diurnal Intraocular Pressure Profile by Patients with Primary Open-Angle Glaucoma. Ricardo Moreno1, J. A. Paczka2, M. Barba1, M. Molina2, L. Aceves2, J. Vargas1.1Clinico y Quirurgico, Instituto de oftalmologia y ciencias visuales, Guadalajara, Mexico; 2Clinico y Quirurgico, Departamento de Oftalmologia; Hospital “Valentín Gómez Farias” del ISSSTE., Guadalajara, Mexico

125 — A0218  A Comparative Study of the Water Drinking Test in Eyes with Open-Angle Glaucoma and Prior Trabeculectomy or Tube Shunt. Patricia Martinez1, V. Trubnik2, B. Leiby2, S. Hegarty2, J. S. Myers1.1Glaucoma, Wills Eye Hospital, Philadelphia, PA; 2Pharmacology and Experimental Therapeutics Division of Biostatistics, Jefferson University/Jefferson Medical college, Philadelphia, PA

126 — A0219  Water-drinking test for monocular trial with prostaglandin analogue in patients with primary open angle glaucoma or ocular hypertension. Wendel Martins1,2, M. Hatanaka1, L. M. Alencar1, W. Lelia1, R. Suzuki1, I. Landini1, M. Moraes1, R. Susanna1.1Glaucoma, Hospital das Clínicas da Faculdade de Medicina da USP, São Paulo, Brazil; 2Glaucoma, Centro de Reabilitação Visual de Alagoas - CERVI, Maceió, Brazil

127 — A0220  Citius, Altius, Fortius: agreement between Perkins and Dynamic Contour Tonometry (Pascal) and the impact of altitude. Oscar D. Albis-Donado1,2, S. Barthiya3, V. Gil-Reyes4, G. Casale-Vargas4,5, N. Arreguin-Rebollier1.1Glaucoma, Instituto Mexicano de Oftalmologia, Mexico, Mexico; 2Glaucoma, Fortis Hospital, Gurgaon, India; 3Cornea, OMESVI, Mexico, Mexico; 4Glaucoma, Glaucos, Zacatecas, Mexico

128 — A0221  Intraocular pressure (IOP) measured with the Ocular Response Analyzer is a better predictor of glaucoma progression than Goldmann IOP in the United Kingdom Glaucoma Treatment Study (UKGTS). Gerassimos Lascaratos1, D. F. Garway-Heath1, R. A. Russel2, D. P. Crab3, H. Zhu1, C. Hirn1, A. Kotecha1, K. Suzuki1.1NIHR Biomedical Research Centre at Moorfields Eye Hospital NHS Foundation Trust and UCL Institute of Ophthalmology, London, United Kingdom; 2Department of Optometry and Visual Science, City University, London, United Kingdom

129 — A0222  Comparison of Tono-Pen and Pneumotonometer Measurements from Scleral Locations with Intraocular Pressure Measurements from the Cornea. Tak Yee Tania Tai, N. Harizman. Ophthalmology, New York Eye and Ear Infirmary, New York, NY

130 — A0223  Comparison of the Intraocular Pressure of Infants Obtained Using Three Portable Tonometers. Tomomi Nakamura, Y. Kiuchi, Y. Sugimoto. Department of Ophthalmology & Visual Science, Hiroshima University Graduate School of Biomedical Sciences, Hiroshima, Japan

131 — A0224  Interverber agreement using the Tonosafe application tonometry and dynamic contour tonometry- comparing ophthalmologists, nurses and technicians. Ahmed Elkarmouty1, A. Kotecha1, A. Ajony1, K. Barton2,3.1Moorfields Eye Hospital, London, United Kingdom; 2Glaucoma Service, Moorfields Eye Hospital NHS Foundation Trust, London, United Kingdom; 3NIHR Biomedical Research Centre for Ophthalmology, UCL Institute of Ophthalmology, UCL Institute of Ophthalmology and Moorfields Eye Hospital NHS Foundation Trust, London, United Kingdom

132 — A0225  An audit of iCare rebound tonometry in a tertiary glaucoma centre. Parham Azarbood1, R. Holder1, L. Crawley1, P. Bloom1, M. Cordeiro1, F. Ahmed1.1Ophthalmology, Imperial College London, London, United Kingdom; 2Institute of Ophthalmology, UCL, London, United Kingdom

133 — A0226  The Difference Between Goldmann Applanation Tonometry and Pascal Dynamic Contour Tonometry in Both Normal and Open Angle Glaucoma Patients. Michael Giovingo, M. A. Latina. Glaucoma, Massachusetts Eye and Ear Infirmary, Boston, MA

*CR Refer to the Program Number in the Commercial Relationships (CR) Index for Disclosures.

**CT** Refer to the Program Number in the Clinical Trial (CT) Registration Index.
134 — A0227 Comparison of intraocular pressure measurements with the I-Care,Tonometer and Goldmann application tonometers including properties of the central corneal thickness in young healthy persons. Saulius Galuaskas, R. Strupaiute, E. Streikaukaitė, R. Asoklis. Vilnius University Faculty of Medicine, Vilnius, Lithuania

135 — A0228 Interobserver and interdevice agreement between ophthalmologists using the reusable Goldmann application prism, the Tonosafe disposable prism and the Dynamic Contour tonometer. Csilla Ajtony1, A. Kotecha1,2, A. Elkarmouty1, K. Barton1,3. ‘Glaucoma Service, Moorfields Eye Hospital NHS Trust, London, United Kingdom; ‘NIHR Biomedical Research Centre for Ophthalmology, UCL Institute of Ophthalmology and Moorfields Eye Hospital NHS Foundation Trust, London, United Kingdom; ‘Department of Epidemiology and Genetics, UCL Institute of Ophthalmology, London, United Kingdom

136 — A0229 A self-Tonometer yields low variation and indicates linearity in the elasticity of palpebral tissue. Hassan Muhammad, R. Al-Abdalla, R. Farrow2, A. S. Khouri, R. D. Fechner1. ‘Department of Biomedical Engineering, New Jersey Institute of Technology, Newark, NJ; ‘Department of Physics, New Jersey Institute of Technology, Newark, NJ; ‘Institute of Ophthalmology and Visual Science, Rutgers New Jersey Medical School, Newark, NJ; ‘Federated Department of Biological Sciences, New Jersey Institute of Technology, Newark, NJ

137 — A0230 Racial Differences in the Diagnostic Value of IOP Asymmetry. Alice L. Williams1, B. Leiby1, C. Wright1, D. M. de Barros1, I. Fahmy1, S. Bhardwaj1, A. Biswas2, P. Ichhpuijani1, J. D. Henderson1, G. L. Sphaet1. ‘Wills Eye Institute, Philadelphia, PA; ‘Thomas Jefferson University, Philadelphia, PA; ‘Research Institute of Ophthalmology, Cairo, Egypt; ‘Sunetra Family Eye Care Centre, Kolkata, India; ‘Temple University School of Medicine, Philadelphia, PA; ‘Government Medical College and Hospital, Chandigarh, India; ‘Universidade Estadual Paulista, Campos Batucatu, Brazil


139 — A0232 Comparison of the Effect of Latanoprost on IOP Lowering in Two Strains of Normotensive Rat. Mark Vezina, C. Li. Ocular And Neuroscience, Charles River, Senneville, QC, Canada *CR

140 — A0233 Accuracy and reliability of rebound tonometer to measure the IOP of enucleated pig eyes in vertical and horizontal positions. Youngcheol Yoo, K. Lee. Ophthalmology, Kangdong Sacred Heart Hospital, Seoul, Republic of Korea

141 — A0234 Comparison of the New Rebound Tonometer with TonoPen for Pediatric Patients in Supine Position. Yung Ju Yoo1,2, J. Jeoung3,4, K. Park5,6, D. Kim1,7, ophthalmology, Seoul National University Hospital, Seoul, Republic of Korea; ‘Ophthalmology, Seoul National University College of Medicine, Seoul, Republic of Korea

142 — A0235 Daily biorhythms of ocular volume changes and the cardiovascular system functional parameters in healthy, ocular hypertension, normal tension and primary open angle glaucoma populations. Robert H. Wasilewicz1, P. Wasilewicz2, J. Kociecki3, C. Ewa1, A. Radziemski1, J. Blaszczynska1, C. Mazurek1, R. Slowinski1. ‘Ophthalmology, University of Medical Sciences, Poznan, Poland; ‘Hypertensionology, Angiology and Internal diseases, University of Medical Sciences, Poznan, Poland; ‘Laboratory of Intelligent Decision Support Systems, University of Technology, Poznan, Poland; ‘Poznan Supercomputing and Networking Center, Poznan, Poland

143 — A0236 Patient Education Tool for Estimating Intraocular Pressure. Kimberly Pham1, G. Wu2, B. Kim1, E. Ross2, V. Gunasekaran1, J. Nguyen1, A. Gupta2, D. A. Lee1. ‘University of California, Berkeley, San Jose, CA; ‘University of Iowa, College of Public Health, Iowa City, IA; ‘Aravind Eye Hospital, Madurai, India; ‘University of Southern California, Los Angeles, CA; ‘Stanford University School of Medicine, Stanford, CA; ‘Ophthalmology, Stanford Hospital & Clinics, Stanford, CA; ‘Ophthalmology, University of Texas Medical School at Houston, Houston, TX

144 — A0237 Correlation Between Serial Sceral and Corneal Intraocular Pressure Measurements by Pneumotonometry. Debbie S. Kuo1, Y. Ou1, B. H. Jeng1, R. B. Bhisitkul1, J. M. Stewart1, J. L. Duncan1, Y. Hani1. ‘Ophthalmology, University of California, San Francisco, San Francisco, CA; ‘Ophthalmology, University of Maryland, Baltimore, MD

145 — A0238 The Effect of Corneal Biomechanical Properties on Rebound Tonometer in Patients with Normal Tension Glaucoma. Jong-Hoon Shin1, J. Lee2,3, E. Kim1, J. Caprio1,2. ‘Ophthalmology, Pusan National University Hospital, Busan, Republic of Korea; ‘Ophthalmology, The Jules Stein Eye Institute, University of California at Los Angeles School of Medicine, Los Angeles, CA; ‘Ophthalmology, Chung Hwa Sun Eye Clinic, Daegu, Republic of Korea

146 — A0239 The 24-hour intraocular pressure related pattern discriminates patients with primary open angle glaucoma from healthy subjects. Rene Goeckelkoop1, K. Mansourii1, J. Lindell1, S. Simon-Zoula1, Y. Tal1. ‘Clinical Development and Medical Affairs, Sensimed SA, Lausanne, Switzerland; ‘Glaucoma Sector, Department of Ophthalmology, Geneva University Hospitals, Geneva, Switzerland; ‘Bistatistics, Technostat, Raanana, Israel *CR

147 — A0240 Novel implantable capacitive inductive pressure sensor for continuous wireless intraocular pressure monitoring. Ki Ho Park1,2, Y. Kim1,3, M. Kim1,2, J. Jeoung3,4, S. Kim1,2, C. Jang5,6, K. Shin1, S. Lee1,2, J. Kim1, S. Lee1. ‘Ophthalmology, Seoul National University College of Medicine, Seoul, Republic of Korea; ‘Department of Ophthalmology, Seoul National University Hospital, Seoul, Republic of Korea; ‘Ophthalmology, Seoul National Boramae Hospital, Seoul, Republic of Korea; ‘Korea Institute of Science and Technology, Seoul, Republic of Korea; ‘Electronic Engineering, Seoul, Republic of Korea

148 — A0241 Variability of intraocular pressure with increasing collar pressure due to tight tie among obese and normal adults. Ramesh S Ve1, V. Vijay2, M. Devassy3, N. Sanker4, K. Srinivasan5. ‘Department of Optometry, School of Allied Health Sciences, Manipal University, Manipal, India; ‘Fractalk Works Pvt Ltd, Innovation Centre, MUTHI, Manipal University, Manipal, India


152 — A0245 Comparison of the systemic risk factors, including body mass index, between primary open-angle glaucoma and normal tension glaucoma. Chikako Samnohe1, Y. Ikeda2,3, K. Mori1, M. Ueno2, S. Kinoshita3, M. Nakano1, H. Yamada2, S. Tszaki3, S. Hasagawa4, K. Yoshii5. ‘Sannohe Eye Clinic, Aomori, Japan; ‘Oike-Ikeda Eye Clinic, Kyoto, Japan; ‘Department of Ophthalmology, Kyoto Prefectural University of Medicine, Kyoto, Japan; ‘Department of Genomic Medical Sciences, Kyoto Prefectural University of Medicine, Kyoto, Japan; ‘Department of Medical Statistics, Kyoto Prefectural University of Medicine, Kyoto, Japan *CR
153 — A0246  The behaviour of the intracocular pressure-related pattern recorded with a contact lens sensor and blood pressure pattern over 24 hours in primary open angle glaucoma patients. Jeanette Lindell1, R. Goedkoop1, R. Wasilewicz2. 1Sensimed, Lausanne, Switzerland; 2Przemienienia Panskiego Hospital, Poznan, Poland *CR

154 — A0247  Orbital Cerebrospinal Fluid Space in Ocular Hypertension. Xiaobin Xie1,2, J. Xian1, Y. Li1, N. Wang2. 1Ophthalmology, Eye Hospital of China Academy of CMS, Beijing, China; 2Beijing Tongren Eye Center, Beijing Tongren Hospital, Capital Medical University, Beijing, China; 3Radiology, Beijing Tongren Hospital, Capital Medical University, Beijing, China *CR

155 — A0248  Preliminary Report of the Association of Pulsatile Translaminar Pressure Gradient with Glaucomatous Damage. Cynthia J. Roberts1,2, G. Fleming1, A. M. Mahmoud3, N. Baker1, P. A. Weber2, A. N. Springer4, R. H. Small2, 1Ophthalmology, The Ohio State University, Columbus, OH; 2Biomedical Engineering, The Ohio State University, Columbus, OH; 3Ophthalmic Surgeons and Consultants of Ohio, Columbus, OH; 4Anesthesiology, The Ohio State University, Columbus, OH *CR

Exhibit/Poster Hall SA A0343-A0379

Sunday, May 04, 2014 8:30 AM-10:15 AM
Clinical/Epidemiologic Research

107 Measuring visual function and quality of life

Moderators: Elizabeth S. John and Ecosse L. Lamoureux

156 — A0343  Visual profile of Australian Indigenous children. Shelley Hopkins1, G. Sampson2, P. Hendicott1, J. M. Wood1. 1School of Optometry and Vision Science, Queensland University of Technology, Kelvin Grove, QLD, Australia; 2Optometry, Deakin University, Geelong, VIC, Australia

157 — A0344  Visual Function in a Large Cohort of Mexican Population. Aida Jimenez-Corona1, C. Pantoja-Melendez1, E. O. Graue2. 1Ocular Epidemiology, Instituto de Oftalmologia Conde de Valenciana, IAP, Mexico City, Mexico; 2Department of Cornea and Refractive Surgery, Instituto de Oftalmologia Conde de Valenciana, IAP, Mexico, City, Mexico

158 — A0345  Optimization of Text Display on Portable Tablets. Eng Li1, C. Marcellino1, S. Huang2. 1Case Western Reserve University, Cleveland, OH; 2Department of Ophthalmology and Visual Sciences, University Hospitals Case Medical Center, Cleveland, OH

159 — A0346  Mobile App Reading Speed Test. Alec Kingsnorth, J. S. Wolffsohn, T. E. Drew. Life and Health Sciences, Aston University, Birmingham, United Kingdom


161 — A0348  Evaluation of reading speed ability in glaucoma patients with central visual field defects. Kojiro Imaji1, J. Takahashi1, K. Mori1, H. Kato1, Y. Ikeda2, M. Ueno1, M. Yamamura2, S. Kinoshita1. 1Ophthalmology, Kyoto Prefectural Univ of Med, Kyoto, Japan; 2Oike-Ikeda Eye Clinic, Kyoto, Japan


163 — A0350  Evaluation of the Test-Repeat Reliability of the Electronic-ETDRS Visual Acuity Tester. Kevin J. Kerr1, M. A. Gened1, A. J. Wahlent1, J. K. Cheetham1, Y. Hashad2. 1Clinical Development, Retina Therapeutic Area, Allergan, Inc, Irvine, CA; 2School of Pharmacy, University of Southern California, Los Angeles, CA *CR

164 — A0351  Mesopic functional visual acuity in normal subjects. Takahiro Hiraoka, Y. Okamoto, F. Okamoto, T. Oshika. Dept of Ophthalmology, University of Tsukuba, Faculty of Medicine, Tsukuba, Japan

165 — A0352  Visual and somatosensory contributions to Center of Pressure (COP) balance in a legally blind and normally sighted group using the Nintendo Wii Balance BoardTM. Pamela E. Jeter1, J. Gu1, C. Roach2, M. Corson2, L. Yang1, G. Dagnelie1. 1Ophthalmology, Johns Hopkins University, Baltimore, MD; 2Electrical & Computer Engineering, Carnegie Mellon University, Pittsburgh, PA

166 — A0353  Afferent visual function in Veterans after combat blast. Glenn Cockermom1, S. Lemke2, C. Glynn-Milley1, K. Cockermom1. 1Ophthalmology, Veterans Administration Palo Alto, Palo Alto, CA; 2Center for Health Care Evaluation, Veterans Administration Palo Alto, Menlo Park, CA; 3Ophthalmology, Stanford University, Palo Alto, CA

167 — A0354  Morphometric And Functional Assessment Of Eyes With Unilateral Central Serous Choroioretinopathy. Irene Rusu1, A. I. Zameno-Millan2, E. Esquina-Gregori2, R. Dolz-Maro2, P. Hernandez-Martinez1, J. Pascual-Camps1, M. Andreu-Fenoll1, S. Mereje1, R. Gallego-Pinazo1. 1Ophthalmology, New York School of Medicine, New York, NY; 2Unit of Macula, Department of Ophthalmology, University and Polytechnic Hospital La Fe., Valencia, Spain *CR

168 — A0355  Frequency doubling perimetry and random dot kinematograms in deaf and hearing children. Richard Hollingsworth1, A. Ludlow1, A. Wilkins2, P. M. Allen1, R. Calver1. 1Vision & Hearing Science, Anglia Ruskin university, Cambridge, United Kingdom; 2Psychology, Essex University, Colchester, United Kingdom; 3Psychology, Birmingham University, Birmingham, United Kingdom

169 — A0356  Normal values and repeatability of bivariate contour ellipse area (BCEA) with Microperimeter Mp-1. Alessandro Cutini, S. Fragiotta, L. Spada, E. Rigoni, M. Salomone, M. Marcelli, E. M. Vingolo. Department of Medical and Surgical Science and Biotechnology, UOC Ophthalmology, University of Rome “Sapienza”-Pontine Pole, Rome, Italy

170 — A0357  Subjective and objective performance of antireflective lenses during daily activities. Rebecca K. Zoltoski, J. M. McMahan. Dean’s Education, Illinois College of Optometry, Chicago, IL


173 — A0360  Quality of life in patients with Keratoconus. Shameli Guzman Tapia, O. Fernandez, O. Baca, R. Velasco, A. Babayan, E. D. Alegra, C. Pacheco Del Valle. cornea, Hospital de la Luz, Mexico, Mexico


175 — A0362  Development of an elderly low vision questionnaire for less developed areas of China. Xiaoman Li1, J. Chen1, F. Lu1, F. Thorn1. 1School of Optometry and Ophthalmology, Wenzhou Medical University, Wenzhou, China; 2New England College of Optometry, Boston, MA

*CR Refer to the Program Number in the Clinical Relationships (CR) Index for Disclosures.

177 — A0364 Sex- and age-based NEI VFQ-25 for middle-aged and older Japanese population. Hideki Fukuoka1, C. Tange 2, Y. Yamanaka 1, R. Otsuka 2, F. Ando 3, H. Shimokata 4, 1Department of Advanced Medicine, National Center for Geriatrics and Gerontology, Obu, Japan; 2Development of Preventive Medicine, National Center for Geriatrics and Gerontology, Obu, Japan; 3Sports and Health Sciences, Aichi Shukutoku University, Nagakute, Japan; 4Graduate School of Nutritional Sciences, Nagoya Univ of Arts and Sciences, Kitanagoya, Japan

178 — A0365 Development of a Chinese version of the Catquest-9SF Questionnaire as a tool for patients with cataract in China. Xinchao Lin, M. Li, X. Zhongli, M. Yu. State Key Laboratory of Ophthalmology, Zhongshan Ophthalmic Center, Sun Yat-sen University, Guangzhou, China

179 — A0366 Preliminary Estimation and Validation of the Glaucoma Utility Index-Singapore. Hla M. Htoon 1, 1, M. Baskaran 1, 1, J. Chay 2, A. Aw 2, T. Aung 2, 1, E. L. Lamoureux 1, 1, E. A. Finkelstein 1, 1, Singapore Eye Research Inst, Singapore, Singapore; 2Singapore National Eye Centre, Singapore, Singapore; 3Duke-NUS Graduate Medical School, Singapore, Singapore; 4Yong Loo Lin School of Medicine, National University of Singapore, Singapore, Singapore


181 — A0368 Quality of Life in Patients Affected Concurrently by Glaucoma and Macular Degeneration. Chloé L. Payton, A. T. Phan, J. S. Hoop, L. S. Morgan, L. Racette. Ophthalmology, Indiana University School of Medicine, Indianapolis, IN

182 — A0369 An update of the Eye-tm Bank project: a novel system to measure ophthalmic patient-reported outcomes. Konrad Pesudos 1, J. Khakta 1, E. K. Fenwick 1, E. L. Lamoureux 1, 1, 1NHMRC Ctr Clin Eye Res/Optometry, Flinders University SA, Adelaide, SA, Australia; 2Centre for Eye Research Australia, University of Melbourne, Melbourne, SA, Australia; 3Singapore Eye Research Institute, Singapore National Eye Centre, Singapore, Singapore

183 — A0370 Assessment of Quality of Life in Patients with Neovascular Age Related Macular Degeneration who Switch Therapy to Alblerecept. Khusboo K. Agrawal 1, R. Chen 1, R. Patel 1, S. Ittiara 1, S. M. Harirpadad 1, 1Ophthalmology, New York Eye and Ear Infirmary, New York, NY, 2Ophthalmology, University of Chicago, Chicago, IL; 3Ophthalmology, Mercy Medical Center, Chicago, IL *CR

184 — A0371 Self-Reported Visual Function and Related Quality of Life in Middle-Aged and Older Adults from an Urban Census District of Parintins, Brazilian Amazon Region. Adriana Berezowsky 1, S. Munoz 2, P. Y. Sacai 1, N. Nunes Cavascan 1, J. M. Furtado 1, P. H. Morales 1, M. J. Cohen 2, 2, R. Belfort, Jr. 1, S. R. Salomao 1, 1Departamento de Oftalmologia, Universidade Federal de Sao Paulo, Sao Paulo, Brazil; 2Salud Publica, Universidad de La Frontera, Temuco, Chile; 3Oftalmologia, Otorrinolaringologia e Cirurgia de Cabeça e Pescoço, Faculdade de Medicina de Ribeirao Preto, USP, Ribeirao Preto, Brazil; 4Instituto de Olhos de Manaus, Manaus, Brazil; 5Cirurgia, Divisao de Oftalmologia, Faculade de Medicina - Universidade Federal do Amazonas, Manaus, Brazil

185 — A0372 Impact of visual impairment in the health-related quality of life and psychosocial aspects in uvexis patients. Luci M. Silva, C. Muccioli. Ophthalmology, Federal University of Sao Paulo - UNIFESP, Sao Paulo, Brazil

186 — A0373 Challenges for the Cataract Surgeon Treating People with Dementia: A Qualitative Study. Joanna Jeffers 1, 1, M. P. Clarke 1, 1, J. T. Taylor 2, 2, K. Brittain 1, 1, Newcastle University, Newcastle Upon Tyne, United Kingdom; 2Newcastle Eye Centre, Newcastle Upon Tyne, United Kingdom

187 — A0374 Depression and Self-Care Behaviors Among Patients with Diabetic Retinopathy. Brynn Wajda 1, A. C. Ho 1, B. Rovner 1, 1, P. A. Murchison 1, 1, R. J. Casten 1, 1, J. A. Haller 1, 1, Ophthalmology, Wills Eye Hospital, Philadelphia, PA; 2Psychiatry and Human Behavior, Thomas Jefferson University, Philadelphia, PA; 3Jefferson Hospital for Neuroscience, Philadelphia, PA

188 — A0375 Positive impact of Comprehensive Vision Rehabilitation on psychosocial well-being. Alexandra Selivanova 1, M. Jackson 1, Vision Rehabilitation, Massachusetts Eye and Ear Infirmary, Boston, MA; 1Department of Ophthalmology, Harvard Medical School, Massachusetts Eye and Ear Infirmary, Boston, MA

189 — A0376 Driving Safety Appears to Improve when Correcting Astigmatism with Toric Contact Lenses. Daniel Cox 1, S. Record 2, T. Banton 1, R. J. Hawkins 1, 1Psychiatry & Neurobehavioral Sciences, University of Virginia School of Medicine, Charlottesville, VA; 2Ophthalmology, University of Virginia School of Medicine, Charlottesville, VA *CR
195 — B0003 Association of Retinal Vessel Calibre and Iris Colour. Evelyn Moore1, A. McGowan2, C. C. Patterson1, S. Giuliana1, V. Silvestri1, A. P. Maxwell2, G. McKay3. 1Ophthalmology, Royal Victoria Hospital, Belfast, United Kingdom; 2Centre for Public Health, Queen’s University, Belfast, United Kingdom; 3Centre for Experimental Medicine, Queen’s University, Belfast, United Kingdom

196 — B0004 Retinal Vascular Dilatation to Flicker Light is Reduced in patient with Retinal Vein Occlusion. Federico Corvii, G. Querques1, C. La Spina1, R. Lattanzio1, G. Zerbin1, F. Bandello1. 1Ophthalmology, San Raffaele Scientific Institute, Vita-Salute University, Milan, Italy; 2Ophthalmology, University Paris Est Creteil, Centre Hospitalier Intercommunal de Creteil, Creteil, France *CR

197 — B0005 Dynamic retinal vessel reaction to flickering light is changed in chronic hemodialysis patients. Konstantin E. Kotliar1, C. Schmaderer1, S. Tholen2, A. Schmid-Trucksaeser1, I. M. Lanzl1, I. Slesiarchyt1, U. Heemann2. 1Physiotherapy, Technische Universität München, Munich, Germany; 2Nephrology, Technische Universität München, Munich, Germany; 3Ophthalmology, Technische Universität München, Munich, Germany; 4Institute of Exercise and Health Sciences, Basel University, Basel, Switzerland; 5Institut de la Vision, Paris, France

198 — B0006 Oxygen Saturation Profiles in Retinal Vessels. David Bragason, E. Stefansson. Ophthalmology, Landspitali University Hospital, Reykjavik, Iceland *CR

199 — B0007 Detection of Changes in Retinal Vessel Blood Oxygen Saturation using Hyperspectral Imaging. Susith I. Kalasekara1, S. R. Patel1, A. M. Shahidi1, J. G. Flanagan1, C. Hudson1, 2Ophthalmology & Vision Sciences, University of Toronto, Toronto, ON, Canada; 3School of Optometry and Vision Science, University of Waterloo, Waterloo, ON, Canada *CR

200 — B0008 The Effect of Oxygen Treatment on Retinal Vessel Oxygen Saturation in Severe Chronic Obstructive Pulmonary Disease. Thorunn S. Eliasdottir1, S. H. Hardarson1, D. Bragason1, E. Stefansson1. 1Ophthalmology, University of Iceland / Landspítali University Hospital, Reykjavik, Iceland; 2Anesthesiology, University of Iceland / Landspítali University Hospital, Reykjavik, Iceland; 3Physiology, University of Iceland, Reykjavik, Iceland *CR

201 — B0009 The Effect of Cataract on Retinal Oximetry. Sveinn H. Hardarson1, D. Bragason1, T. Eysteinsson2, E. Stefansson1. 1Ophthalmology, University of Iceland / Landspítali University Hospital, Reykjavik, Iceland; 2Ophthalmology, University of Iceland, Reykjavik, Iceland; 3Physiology, University of Iceland, Reykjavik, Iceland *CR


203 — B0011 A new non-invasive method for detecting retinal vasculature using blue reflectance scanning laser ophthalmoscope. Yichao Li1, L. Zhao2, W. T. Wong2, H. Qian3. 1Visual Function Core, National Eye Institute, Bethesda, MD; 2Unit on Neuron-Glia Interactions in Retinal Disease, National Eye Institute, Bethesda, MD

204 — B0012 Retinal Oximetry with a Scanning Laser Ophthalmoscope compared to a Fundus Camera Oximeter. Jona V. Kristiansdottiri, S. H. Hardarson1, E. Stefansson1, 2Ophthalmology, Landspitali, University Hospital, Reykjavik, Iceland; 3Biomedical Sciences, University of Iceland, Reykjavik, Iceland *CR


207 — B0015 Automatic detection of the retinal neovascularization in diabetic patients. benjamin bouche-helias1, D. Helbert2, B. Mercier2, C. Fernandez-Maloigne1, N. Levezziel1. 1University of Poitiers, Poitiers, France; 2University of Poitiers, Poitiers, France

208 — B0016 Feasibility and Clinical Utility of Ultra-Widefield Indocyanine Green Angiography. Michael Klutfas1, N. A. Yannuzzi1, C. E. Pang1, S. Srinivas1, S. R. Sadda1, K. Freund1, S. Kiss1. 1Ophthalmology, Weil Cornell Medical College, New York, NY; 2Vitreous Retina Macula Consultants, New York, NY; 3Ophthalmology, New York University School of Medicine, New York, NY; 4Ophthalmology, University of Southern California - Keck School of Medicine, Los Angeles, CA *CR

209 — B0017 An adaptive binning approach in auto-fluorescence lifetime ophthalmology (FLIO) applied to healthy volunteers and patients with diabetes mellitus without diabetic retinopathy. Matthias Klemm1, D. Schweitzer1. 1Biomedical Engineering Group, Technische Universität Ilmenau, Ilmenau, Germany; 2Experimental Ophthalmology, University of Jena, Jena, Germany

210 — B0018 Impact of Macular Pigment on Fluorescence Lifetimes. Lydia Sauer, S. Peters, R. Augsten, M. Hammber. Department of Ophthalmology, University hospital Jena, Jena, Germany

211 — B0019 Quantifying Retinal Vascular Differences in SDOCT Images from Diabetics vs. Controls. Joel A. Papay, A. E. Elsner, A. Walker. School of Optometry, Indiana University, Bloomington, IN

212 — B0020 Three dimensional non-invasive vascular imaging of retinal vascular occlusion by optical coherence angiography. Daisuke Muramatsu1, H. Kishida1, Y. Hong1, Y. Yasuno2, T. Issaki3, H. Goto1, M. Miura1. 1Ophthalmology, Tokyo Medical University, Tokyo, Japan; 2COG, University of Tsukuba, Tsukuba, Japan; 3Ophthalmology, Tokyo Medical University, Ibaraki Medical Center, Inashiki gun, Japan

213 — B0021 Occluded and Partially Occluded Blood Vessel Detection from Macular OCT scans. Pedro Rodrigues1, P. Guimarães1, C. Farinha1, J. Figueira1, P. Serrano1, R. Bernardes1, 2IAIIBLI - Association for Innovation and Biomedical Research on Light and Image, Coimbra, Portugal; 2IBIBLI - Institute for Biomedical Imaging and Life Sciences, Faculty of Medicine, University of Coimbra, Coimbra, Portugal; 3Mathematics Section, Department of Science and Technology, Open University, Lisbon, Portugal; 4CHUC - Centro Hospitalar e Universitário de Coimbra, Coimbra, Portugal; 5Department of Information Engineering, University of Padova, Padova, Italy

214 — B0022 Doppler Fourier-domain optical coherence tomography measured Retinal blood flow in Chinese American adults: The Chinese American Eye Study. Sowmya Srinivas1, O. Tan1, S. Wu1, M. Nittala1, D. Huang2, R. Varma1, S. R. Sadda1. 1Doppler OCT Reading Center, Doheny Eye Institute, Los Angeles, CA; 2Casey Eye Institute, Oregon Health & Science University, Portland, OR; 3Department of Ophthalmology and Visual Sciences, University of Illinois at Chicago Eye and Ear Infirmary, Chicago, IL; 4Department of Ophthalmology, Keck School of Medicine, University of Southern California, Los Angeles, CA *CR

215 — B0023 High-speed 1-μm Jones-matrix Multi-contrast Optical Coherence Tomography for Simultaneous 3D Doppler and Polarization Imaging. Young-Joo Hong1, M. Miura1, S. Makita1, Y. Yasuno1. 1Computational Optics Group, University of Tsukuba, Tsukuba, Japan; 2Ibaraki Medical Center, Tokyo Medical University, Ami, Japan; 3Computational Optics and Ophthalmology Group, Tsukuba, Japan *CR

* Refer to the Program Number in the Clinical Trial (CT) Registration Index. *CR Refer to the Program Number in the Commercial Relationships (CR) Index for Disclosures.


218 — B0026 Measurement of absolute velocity and flow of moving scatterers in retinal veins using 3-Doppler Optical Coherence Tomography. Richard Haindl, W. K. Traisichker, B. Baumann, M. Pincher, C. K. Hitzenberger. Center for Medical Physics and Biomedical Engineering, Medical University of Vienna, Vienna, Austria

219 — B0027 High-Speed Multi-Functional Retinal Optical Frequency Domain Imaging. Yongjoo Kim1, J. Park1, T. Park1, J. Ahn2,3, S. Woo4, C. Park4, W. Oh1. 1Mechanical Engineering, KAIST, Daejeon, Republic of Korea; 2Ophthalmology, Seoul National University College of Medicine, Seoul, Republic of Korea; 3Ophthalmology, SMG-SNU Boramae Medical Center, Seoul, Republic of Korea; 4Ophthalmology, Seoul National University Bundang Hospital, Seongnam, Republic of Korea

220 — B0028 Real-time acquisition and display of flow contrast in macula and ONH with speckle variance OCT. Jing Xu1, S. Han2, M. Cua1, M. Young2, A. Merkur3, A. Kirker2, A. Albani2, F. Forooghian1, P. Mackenzie2, M. V. Sarunici1. 1Engineering Science, Simon Fraser University, Burnaby, BC, Canada; 2Department of Ophthalmology and Visual Sciences, University of British Columbia, Vancouver, BC, Canada

221 — B0029 Angiography of Optic Disc Perfusion in Glaucoma with a 70 kHz Spectral OCT. Liang Liu, Y. Jia, J. C. Morrison, M. Parikh, B. Edmunds, D. Huang. Casey Eye Institute, Oregon Health and Science University, Portland, OR

222 — B0030 Optimization of phase-variance optical coherence tomography scanning parameters for retinal vasculature visualization. Dae Yu Kim1, J. V. Migacz2, J. Fingler1, R. J. Zawadzki1, D. M. Schwartz2, J. S. Werner2, S. Fraser1. 1Translational Imaging Center, University of Southern California, Los Angeles, CA; 2Ophthalmology and Vision Science, University of California Davis, Davis, CA; 3Ophthalmology, University of California San Francisco, San Francisco, CA *CR

223 — B0031 Label-free optical quantification of inner retinal oxygen metabolism. Conor Leahy1, H. Radhakrishnan1, J. L. Goldberg2, V. Srinivasan3. 1Biomedical Engineering, University of California, Davis, Davis, CA; 2Slaney Eye Center, University of California, San Diego, San Diego, CA

224 — B0032 Diagnosing choroidal neovascularization with optical coherence tomography angiography. Min Wang, G. Xu. Ophthalmology and Visual Science, Eye and ENT Hosp of Fudan Univ, Shanghai, China

225 — B0033 Novel automated algorithm of an OCT image analysis for choroidal vessels measurements; its validation. Ashutosh Richharia1, J. K. Chhablani1, S. T. Kakileti1, S. S. Channappayya1. 1Institute of Translational Research, Engineering & Advancement of Technology, L V Prasad Eye Institute, Hyderabad, India; 2Electrical Engineering, Indian Institute of Technology, Hyderabad, India; 3Electronics and Communication Engineering, Indian Institute of Technology, Guwahati, India

226 — B0034 Absolute retinal blood flow measurement with a dual-beam Doppler optical coherence tomography. Shuitang Jiao1, H. F. Zhang1, C. A. Puliafito2. 1Biomedical Engineering, Florida International University, Miami, FL; 2Biomedical Engineering, Northwestern University, Evanston, IL; 3University of Southern California, Los Angeles, CA

227 — B0035 Measurement of retinal vascular flow across small and large vessel sizes. J Ramella-Roman. 1Biomedical Engineering Department, Florida International University, Miami, FL; 2Herbert Wertheim College of Medicine, Florida International University, Miami, FL

228 — B0036 Evaluating Retinal Vascular Flow Characteristics from Fundus Images to Identify Quantitative Biomarkers for Diabetic Retinopathy. Richard D. Clark1,2, D. J. Dickrell1, D. Meadows2,1. 1University of Florida, Gainesville, FL; 2Computer Research, LLC, Gainesville, FL *CR

229 — B0037 The assessment of the reproducibility of manual vessel segmentation in fundus images. Boglarka E. Varga1, K. Laurik1,2, F. Pálya1, E. Tatr1, J. Horneger2,3, J. Nemeth1, A. Budai1,2, G. M. Somfai1. 1Department of Ophthalmology, Semmelweis University, Budapest, Hungary; 2Pattern Recognition Lab, University of Erlangen-Nuremberg, Erlangen, Germany; 3Erlangen Graduate School in Advanced Optical Technologies (SAOT), Erlangen, Germany

230 — B0038 The Assessment of Diabetic Retinopathy using Retinal Vessel Segmentation. Kornelia Lenke Laurik1,2, B. E. Varga1, F. Pálya1, E. Tatr1, J. Nemeth1, J. Horneger2,3, A. Budai1,2, G. M. Somfai1. 1Department of Ophthalmology, Semmelweis University, Budapest, Hungary; 2Pattern Recognition Lab, University of Erlangen-Nuremberg, Erlangen, Germany; 3Erlangen Graduate School in Advanced Optical Technologies (SAOT), Erlangen, Germany

231 — B0039 Detection of Perifoveal Capillary Network Using a Semi-Automated Algorithm. Zoi Kapsala1, A. Pallikaris2, V. Maniadis1, D. Moschandreas3, M. K. Tsilimbaris1,2. 1Ophthalmology-Research Acct, University of Crete, Heraklion, Greece; 2Institute of Vision and Optics, University of Crete, Heraklion, Greece; 3Department of Social Medicine, Faculty of Medicine, University of Crete, Heraklion, Greece

232 — B0040 Accurate Retinal Artery and Vein Classification using Local Binary Patterns. Michael H. Goldbaum, N. Hatami. Ophthalmology, University of California at San Diego, La Jolla, CA

233 — B0041 Automated Assessment of Retinal Vascular Abnormalities for Computer-assisted Screening of Retinopathies. Vinayak S. Joshi1, E. Barriga1,2, S. C. Nemeth1, W. Bauman3, P. Soliz1. 1Medical Image analysis, VisionQuest Biomedical LLC, Albuquerque, NM; 2Electrical and Computer Engineering, University of New Mexico, Albuquerque, NM; 3Retina Institute of South Texas, San Antonio, TX *CR

234 — B0042 Inter- and Intra-observer agreement of Newly Developed Semi-automated Software for Retinal Artery-Vein Nicking Quantification and Severity Grading. Alauddin Bhuiyan1, 2, U. Nguyen, R. Kawasakii, E. L. Lamooureaux1,2, P. Mitchell1, K. Ramamohanaro1, T. Y. Wong1, Y. Kanagasingam1. 1Australian E-Health Research Centre, CSIRO Computational Informatics, Commonwealth Scientific and Industrial Research Organization (CSIRO), Floreat, WA, Australia; 2Centre for Eye Research Australia, Royal Victorian Eye and Ear Hospital, The University of Melbourne, Melbourne, VIC, Australia; 3Department of Computer Science and Information Systems, The University of Melbourne, Melbourne, VIC, Australia; 4Singapore Eye Research Institute, National University of Singapore, Singapore, Singapore; 5Westmead Millennium Institute for Medical Research, University of Sydney, Sydney, NSW, Australia; 6DUKE-NUS, Office of Clinical Sciences, Duke-NUS, Singapore, Singapore
235 — B0043 Fluorescent probes for in vivo detection of oxidative stress within the eye. Megan Prunty1, M. H. Aung1, J. H. Boatright1, N. Murthy1, P. Thule1, M. T. Pardue1,2. Ophthalmology, Emory University, Decatur, GA; 2Department of Bioengineering, University of California-Berkley, Berkeley, CA; 3Biomedical Research, Atlanta VA Medical Center, Atlanta, GA; 4Rehabilitation R&D Center of Excellence, Atlanta VA Medical Center, Atlanta, GA

236 — B0044 Influence Of Selected Retinal Vessel Length On Dynamic Vessel Analyzer Output. Angelos Kalitezios, R. Heitmar. Optometry and Vision Sciences, Aston University, Birmingham, United Kingdom


243 — B0051 Short-Term Changes of Choroidal Thickness after Anti-Vascular Endothelial Growth Factor in Neovascular Age-Related Macular Degeneration. Jose G. Garcia-Garcia1,2, M. Perez-Lopez1, A. Serna-Gomez1,2, J. Ruiz-Moreno1,2. 1Ophthalmology, University Hospital Alcobate, Albacete, Spain; 2Fundacion Oftalmologica del Mediterraneo, Valencia, Spain; 3Ophthalmology, University of Castilla la Mancha, Albacete, Spain

244 — B0052 Central Choroidal Thickness Measured By Edi Oct In Subjects Under Chronic Treatment With Intravitreal Anti-VEGF. Claudiu Acosta1,2, C. Sardi1, J. Pelaez1, D. O’Neill, M. Gallego-Pinazo1. 1Ophthalmology, University of Valencia, Valencia, Spain; 2Ophthalmology, University of Castilla la Mancha, Albacete, Spain

249 — B0057 The changes in outer retinal microstructures at six months after onset of acute zonal occult outer retinopathy (AZOOR)-complex. Yoshitsugu Matsui1, H. Matsubara1, S. Ueno2, H. Ito1,3, H. Terasaki1,2, M. Kondo1. 1Ophthalmology, Mie Univ Grad School of Medicine, Tsu, Japan; 2Ophthalmology, Nagoya University Graduate School of Medicine, Nagoya, Japan

250 — B0058 Retinal and Choroidal Segmentation in Alport Syndrome by Swept-Source Optical Coherence Tomography. Rosa Dolz-Marcó1, P. Hernandez-Martinez2, M. Andreu-Fenoll1, N. Garcia-Marín3, S. Mrejen1,2, R. Gallego-Pinazo1. 1Ophthalmology, University and Polytechnic Hospital La Fe, Valencia, Spain; 2Clinical Investigation Center 503, Centre Hospitalier National Des Quinze-Vingts, Paris, France; 3Vitreous Retina Macula Consultants Of New York, New York, NY *CR

251 — B0059 Different angiographic findings of cosmetic facial filler-associated ophthalmic and retinal artery occlusion: Autologous fat vs. hyaluronic acid. Yong-Kyu Kim1, C. Jung2, S. Woo1, K. Park1. 1Ophthalmology, Seoul National University College of Medicine, Seoul National University Bundang Hospital, Seongnam, Republic of Korea; 2Radiology, Seoul National University College of Medicine, Seoul National University Bundang Hospital, Seongnam, Republic of Korea

252 — B0060 Classification of central retinal vein occlusion using ultra-widefield fluorescein angiography. Sara Vaz-Pereira1,2, G. De Salvo1,2, R. Smith1, R. Hamilton1,2,3. 1Department of Ophthalmology, Moorfields Eye Hospital NHS Foundation Trust, London, United Kingdom; 2Moorfields Eye Hospital, London, United Kingdom; 3Moorfields Eye Hospital NHS Foundation Trust and UCL Institute of Ophthalmology, London, United Kingdom *CR

253 — B0061 In vivo microscopic spatial characterization of foveal microvasculature in healthy human subjects. Moataz M. Razeen1, A. Gan1, N. Shah1, A. Pinhas1,2, R. Bavier1, C. L. Liu1,2, E. Cheang1, A. Dubra1, T. Y. Chui1, R. B. Rosen1,2. 1Department of Ophthalmology, New York Eye and Ear Infirmary, New York, NY; 2Icahn School of Medicine at Mount Sinai, New York, NY; 3Bronx High School of Science, Bronx, NY; 4Stuyvesant High School, New York, NY; 5Department of Ophthalmology, Medical College of Wisconsin, Milwaukee, WI; 6Department of Biophysics, Medical College of Wisconsin, Milwaukee, WI; 7Department of Ophthalmology, New York Medical College, Valhalla, NY *CR

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The Commercial Relationships (CR) Index for Disclosures and the Clinical Trial (CT) Registration Index are at arvo.org/amindices.
274 — B0082  **Outer Retinal Changes Associated with the RPGR Carrier Phenotype:** Insights from high-resolution imaging. Rola Ba-Abbad1,2, A. Pack1, J. Aboshiahi1, Y. N. Sulari1, A. Dubra3, A. Webster1, A. T. Moore1,2, A. Dubis1,2, J. Carroll3, M. Michaelides1,2, UCL Institute of Ophthalmology, London, United Kingdom; Moorfields Eye Hospital, London, United Kingdom; School of Medicine, University College London, London, United Kingdom; Institute of Optics, University of Rochester, Rochester, NY; Department of Ophthalmology, Medical College of Wisconsin, Milwaukee, WI; Department of Biophysics, Medical College of Wisconsin, Milwaukee, WI *CR

275 — B0083  **VESGEN Analysis of Fractal-Based Branching in Arterial and Venous Trees for Investigating Diabetic Retinopathy with Spectralis® Angiographic Imaging.** Krishnan Radhakrishnan1, P. A. Parsons-Wingerter1, K. V. Chalamb1, R. N. Mames3, C. Kay1, M. Grant1. Department of Preventive Medicine and Environmental Health, College of Public Health, University of Kentucky, Lexington, KY; Research and Technology Directorate, NASA Glenn Research Center, Cleveland, OH; Department of Ophthalmology, University of Florida, Jacksonville, FL; The Retina Center, Gainesville, FL; Department of Ophthalmology, Glick Eye Institute, Indiana University, Indianapolis, IN

276 — B0084  **Changes in retinal nonperfusion observed on ultra-widefield angiography in patients with retinal vein occlusion treated with ranibizumab.** Hongting Liu, T. A. Mir, O. R. Mitthivong, R. Sophie. Wilmer Eye Institute, Johns Hopkins, Baltimore, MD

277 — B0085  **Choroidal Thickness changes in β-Thalassemia Syndromes using Enhanced Depth Imaging Optical Coherence Tomography (EDI-OCT).** Eleonora Benatti1,2, L. Dell’Arte1,2, G. Barteselli1,2, F. Ferrari1, C. Mapelli1, F. Viola1,2, R. Ratiglia1,2. University of Milan, Milan, Italy; Fondazione IRCCS Ca Granda Ospedale Maggiore Policlinico, Milan, Italy; Shirley Eye Center UCSD, San Diego, CA

278 — B0086  **Imaging and Analysis of the Inner-Segment Ellipsoid Layer.** Timothy Holmes1, S. Larkin1, M. Dowing2, K. G. Csaky1,2, Lickenbrock Technologies, LLC, St. Louis, MO; Retina Foundation of the Southwest, Dallas, TX; Ophthalmology, University of Texas Southwest Medical Center, Dallas, TX *CR

279 — B0087  **Indirect Ophthalmoscopy:** Training with conventional hardware versus the Eyesi® indirect ophthalmoscopy simulator. Pankaj Singh, S. Deuchler, H. Schafer, S. Fassbender, T. Kohnen, F. H. Koch. VitreoRetinal Unit, Univ Eye Clinic Frankfurt/M - Germany, Frankfurt/Main, Germany

280 — B0088  **Multidisciplinary imaging of acute phlyctalic posterior placoid chorioretinitis: penicillin-treated cases versus penicillin-untreated cases.** Yujeong Kim, Y. Shin, B. Lee, H. Cho, H. Lim. Hanyang Medical Center, Seoul, Republic of Korea *CR

281 — B0089  **Three-dimensional imaging and reconstruction of GFAP-tagged photoreceptors after retinal tissue clarification.** Jutaro Nakamura1,2, Y. Chang1, G. Chun1, M. M. Campos1, R. N. Fariss1,3, T. Cogliati1, A. Swaroop4. NEI, NIH, Bethesda, MD; Ophthalmology, Yokohama City University, Yokohama, Japan; National Cheng Kung University, Tainan, Taiwan

282 — B0090  **Imaging characteristics of peripapillary intrachoroidal cavitation and associated macular complications.** Ta-Ching Chen, C. Yang, M. Chen, C. Yang, J. Sun, Y. Wei. Ophthalmology, National Taiwan University Hospital, Taipei City, Taiwan

283 — B0091  **Relationship between retinal volume and sensitivity during longitudinal follow-up: Early Markers Observational Study.** Ruth E. Hogg1, S. R. Sadda2, Z. Hu1, Y. Luo2, R. Silva1, G. Staurenghi1, U. Chakravarthy1. Center for Experimental Medicine, Queen’s University Belfast, Belfast, United Kingdom; Keck School of Medicine, University of Southern California, Los Angeles, CA; Ophthalmology Unit, Centro Hospitalar e Universitario Coimbra, Coimbra, Portugal; Department of Clinical Science “Luigi Sacco”, University of Milan, Milan, Italy *CR

284 — B0092  **Identification and Characterization of Pseudodrusen using Polarization-Sensitive Optical Coherence Tomography.** Magdalena Barahts1, F. G. Schlanitz1, P. K. Roberts2, S. Zott2, B. Baumann2, M. Pircher2, C. K. Hitzenberger2, U. Schmidt-Erfurth1. Department of Ophthalmology, Medical University of Vienna, Vienna, Austria; Center for Medical Physics and Biomedical Engineering, Medical University of Vienna, Vienna, Austria *CR


286 — B0094  **High-definition imaging of retinal lesions in age related macular degeneration by polarization sensitive OCT with retinal tracking.** Christoph K. Hitzenberger1, M. Sugita1, S. Zott1, B. Baumann1, P. K. Roberts2, C. Schmidt-Erfurth1. Center for Medical Physics and Biomedical Engineering, Medical University of Vienna, Vienna, Austria; Department of Ophthalmology and Optometry, Medical University of Vienna, Vienna, Austria; Canon Inc., Tokyo, Japan *CR

Exhibit/Poster Hall SA B0265-B0307

Sunday, May 04, 2014 8:30 AM-10:15 AM

Retina / Physiology/Pharmacology / Visual Psychophysics / Physiological Optics

110 Vitreomacular Interface and Management

Moderator: K Bailey Freund

287 — B0265  **Drawbridge elevation versus tangential separation of the inner retina as the mechanism of full thickness macular hole formation.** Wai H. Woon1, D. Greig1, M. D. Savage1, M. C. Wilson1, C. A. Grant1, F. Bishop1, B. Mokete1, C. T. Ngo2, L. A. Sullivan1. Dept Ophthalmology, St James’ Hospital, Leeds, United Kingdom; Dept Physics, University of Leeds, Leeds, United Kingdom; Dept Applied Mathematics, University of Leeds, Leeds, United Kingdom; Dept Engineering, University of Leeds, Leeds, United Kingdom; Dept Medical Engineering, University of Bradford, Bradford, United Kingdom; Dept Ophthalmology, University of Sarawak, Sarawak, Malaysia

288 — B0266  **Residual paravoveal nasal retinal thickening after macular hole surgery with internal limiting membrane peeling.** Kouichi Ohata, A. Sato, E. Fukui. Ophthalmology, Matsumoto Dental University, Shiojiri, Japan

289 — B0267  **Macular choriotiretinal membrane and macular traction syndrome: comparison with clinical, fluorescein angiographic and optical coherence tomographic findings.** June-Gone Kim1,2, Y. Kim1,2, D. Kim1,2. Ophthalmology, Univ of Ulsan College, Seoul, Republic of Korea; Ophthalmology, ASAN medical center, SEOUL, Republic of Korea

290 — B0268  **Influence of vitreomacular interface on anti-VEGF therapy using treat and extend treatment protocol for age-related macular degeneration.** Samuel K. Houston1,2, N. Rayses1,2, A. C. Ho1,2, C. D. Regillo1,2. Mid-Atlantic Retina, Philadelphia, PA; Wills Eye Hospital, Philadelphia, PA *CR


292 — B0270  **Full Thickness Macular Hole secondary to High Power, Handheld, Blue Laser: Natural History and Management Outcomes.** Nicola G. Ghazi1,2, S. Alsulaiman1. VitreoRetinal (KKESH), King Khalid Eye Specialist Hosp, Riyadh, Saudi Arabia; Ophthalmology, University of Virginia, Charlottesville, VA

* Refer to the Program Number in the Clinical Trial (CT) Registration Index.  *CR Refer to the Program Number in the Commercial Relationships (CR) Index for Disclosures.
293 — B0271 Clinical and Anatomic Outcomes of Patients Undergoing Surgery for Vitreofveal Traction. Christine Bokman1, M. A. Gonzalez2, H. W. Flynn3, W. Smiddy. 2University of Miami Miller School of Medicine, Miami, FL; 2Bascom Palmer Eye Institute, Miami, FL

294 — B0272 Resolution of Vitreomacular Traction Using Jctrea and its Potential Role in Diabetic Macular Edema. Bradley O'Neill, A. Shah1, J. M. Coney. 1St. Elizabeth Health Center, Youngstown, OH; 2Northeast Ohio Medical University, Rootstown, OH; 3Retina Associates of Cleveland, Beachwood, OH *


296 — B0274 Outer Band Reflectivity Changes on SD-OCT Following Intravitreal Ocriplasmin for Vitreomacular Traction (VMT) and macular holes (MH). Nathan C. Steinle, C. Quezada, M. Nasir, D. J. Pieramici, A. Castillan, R. F. See, S. Couvillion, D. Dhoot, M. Rabena, R. L. Avery. California Retina Consultants, Santa Barbara, CA

297 — B0275 Photoreceptor outer segment length and outer foveal thickness as predictive factors associated with visual outcome after vitrectomy for vitreomacular traction syndrome. Yusuke Ichiyama, H. Kawamura, M. Fujikawa, O. Sawada, Y. Saishin, M. Ohji. ophthalmology, Shiga University of Medical Science, Otsu, Japan


299 — B0277 Jctrea (ocriplasmin) as a treatment option for symptomatic vitreomacular traction with or without macular hole (<400 μm) - first clinical experience. Mathias M. Maier, S. Bonce, C. Frank, N. Feucht, C. Lohmann. Ophthalmology, Klinikum Rechts der Isar, Augenklinik, TUM, Munich, Germany

300 — B0278 Pneumatic Maculepxy: A Novel Approach for Treatment of Symptomatic Vitreomacular Traction. Calvin E. Meini1, C. K. Chan2. 1Ophthalmology, Retinal Consultants of San Antonio, San Antonio, TX; 2Ophthalmology, University of Texas Health Science Center, San Antonio, TX; 3Ophthalmology, Southern California Desert Retina Consultants, Palm Desert, CA; 4Ophthalmology, Loma Linda University, Loma Linda, CA *


303 — B0281 Does macular hole size affect visual outcome? Linda H. Kemp, P. Flavahan1, D. Yorston1, 2. 1Ophthalmology, Gartnavel General Hospital, Glasgow, United Kingdom; 2Ophthalmology, Tennent Institute, Glasgow, United Kingdom


306 — B0284 Spectral-Domain Optical Coherence Tomography Features and Predispocing to Macular Hole Development. Rodrigo Abreu, L. Sole, M. Marmol1, J. Nadal1. 1Ophthalmology, University Hospital of La Candelaria, Santa Cruz de Tenerife, Spain; 2Ophthalmology, Barraquer Institute, Barcelona, Spain

307 — B0285 Three-Dimensional Enhanced Imaging of the Vitreoretinal Interface in Eyes with Diabetic Retinopathy Using Swept-Source Spectral-Domain Optical Coherence Tomography. Mehreen Adhi, J. J. Liu, M. F. Kraus1, I. Grulkowski1, A. J. Witkin1, C. R. Bauml1, J. Hornegger, J. G. Fujimoto2, J.S. Duker2, N. K. Waheed1. 1Ophthalmology, New England Eye Center, Tufts University School of Medicine, Boston, MA; 2Research Laboratory of Electronics, Massachusetts Institute of Technology, Cambridge, MA; 3Pattern Recognition Lab and Development of Opthalm & Visual Science, Yale Univ Sch of Medicine, New Haven, CT; 4VR Vision Science, France; 5Istituto Clinico S.Anna, Verona, Italy


309 — B0287 A Retrospective Cohort Study In Patients With Diseases Of The Vitreomacular Interface (ReCoViT). Peter Stalmans1, B. Lescautwaert2, K. Blot2. 1Department of Ophthalmology, Universitaire Ziekenhuizen Leuven, Leuven, Belgium; 2Xinnetra Ltd., London, United Kingdom *


311 — B0289 Microstructural Macular Changes After Internal Limiting Membrane Peeling Observed In Spectral Domain Optical Coherence Tomography. Mariana Flores, C. Perez. Hospital Nuestra Señora de la Luz, Distrito Federal, Mexico

312 — B0290 Persistent Macular Holes after Vitrectomy Combined With Routine Peeling of the Internal Limiting Membrane (ILM). Lochan Bellamkonda1, K. Kishore1, 2. 1Illinois Retina Institute, Peoria, IL; 2Surgery, University of Illinois College of Medicine Peoria Campus, Peoria, IL

313 — B0291 Macular Pucker Lowers Contrast Sensitivity which Improves After Surgery. Justin Nguyen1, K. M. Yee1, 2, C. A. Wu1, 2, A. A. Sadun2, J. Sebag1, 2. VMR Institute, Huntington Beach, CA; 2Doheny Eye Institute, Los Angeles, CA

314 — B0292 An international multi-center investigation of macular holes: the European Vitreo-Retinal Society Macular Hole Study. Ron A. Adelmann1, B. Parolini1, Z. Michalewska2, D. Ducournau1. 1Ophthalm & Visual Science, Yale Univ Sch of Medicine, New Haven, CT; 2EVRS, Nanes, France; 3Istituto Clinico S.Anna, Verona, Italy

315 — B0293 The influence of cataract surgery on central choroid and vitreomacular interaction. Sandra Rezar, S. Sacu, K. Eibenerger, M. Georgopoulos, W. Bühl, C. Simader, U. Schmidt-Erfurth. Department of Ophthalmology and Optometry, Medical University of Vienna, Vienna, Austria *

316 — B0294 Predisposing factors and prognosis of postoperative foveal detachment following successful macular hole (MH) surgery. Athanasios Vachtsevanos1, 2, V. Lokovitis1, S. Asteriades1, A. Vakalis1, D. Koares1, S. Koukoula1, T. Paris1. 1OPHTHALMICA Eye Clinic, Thessaloniki, Greece; 2Eye Clinic “O Agios Dimitrios” General Hospital, Thessaloniki, Greece

317 — B0295 Long-Term Follow-Up Study on the Natural Progression of Lamellar Macular Holes. Jessica Lee, R. Mandiga1, L. J. Singerman, L. Rao1. 1Ophthalmology, Case Western Reserve University, Cleveland, OH; 2Retina Associates of Cleveland, Cleveland, OH; 3North Carolina Retina Associates, Raleigh, NC


319 — B0297 Intravitreal Ocriplasmin for Symptomatic Vitreomacular Adhesion. David Warrrow1, A. Patel2, J. Raevis3, M. Lai3. 1Retina Group of Washington, Greenbelt, MD; 2Ophthalmology, Georgetown University School of Medicine, Washington, DC; 3Ophthalmology, Medstar Washington Hospital Center, Washington, DC

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Sunday – Posters – 320 – 340

320 — B0298  Surgical versus Medical Management of the Recurrent Macular Hole with Cystoid Macular Edema. Ross B. Chod, L. Akduman. Ophthalmology, St. Louis University Eye Institute, Clayton, MO.


322 — B0300  Visual and Anatomic Outcome in Eyes with Idiopathic Juxtafoveal Macular Telangiectasia (MacTel) and Full Thickness Macular Holes Undergoing Surgical Repair. Poorav Patel1, C. J. Flaxel1, 2. Oregon Health and Science University, Portland, OR; 3Casey Eye Institute, Oregon Health and Science University, Portland, OR.

323 — B0301  Vitreomacular Adhesion: Clinical Course and Outcomes Managed by Initial Observation. Jonathan Tsui1, V. J. John1, H. W. Flynn1, W. Smiddy1, A. Carver1, R. Leonard2, H. Tabandeh1, D. S. Boyer1, M. H. Berrocal1. Bascom Palmer Eye Institute, Miami, FL; 4Ophthalmology, Dean McGee Eye Institute, Oklahoma City, OK; 5Ophthalmology, Retina Vitreous Associates Division of Retina, University of Iowa Hospitals and Clinics, Iowa City, IA; 6Queen, Kingston, ON, Canada.

324 — B0302  Preclinical Identification of Eyes at risk of Developing Idiopathic Macular Hole — An Update. Ana S. C. Silva1, J. Figueira1, 2, S. Simão1, N. Gomes1, C. Neves1, A. M. Silva1, N. Ferreira1, R. Bernardes1. 1IBILL, Faculty of Medicine at University of Coimbra, Coimbra, Portugal; 4Centre for New Technologies in Medicine, ABIII, Coimbra, Portugal; 5Ophthalmology Service, Coimbra University Hospital, Coimbra, Portugal; 6ABIII, Coimbra, Portugal; 7Braga Hospital, Braga, Portugal; 8North Lisbon Hospital Center, Lisbon, Portugal; 9St António Hospital, Porto Hospital Center, Porto, Portugal.

325 — B0303  Morphology and Microstructure by en face OCT of Cystoid Cavities in Full Thickness Macular Holes. Bruno Lumbroso1, C. Savastano1, 2, M. Rispoli1. 1Centro Oftalmológico Mediterraneo, Rome, Italy; 2Ophthalmology, Catholic University, Rome, Italy.


327 — B0305  Predictive factors for the spontaneous resolution of vitreomacular traction. David Almeida1, E. K. Chin1, J. C. Folk1, K. Rahim2, S. R. Russell1. 1Ophthalmology, Division of Retina, University of Iowa Hospitals & Clinics, Iowa City, IA; 2Queen, Kingston, ON, Canada.

328 — B0306  Comparison of the Red Reflex from Three Surgical Microscopes. Carl Chancy, J. Schwiegerling, J. Knight. College of Optical Sciences, University of Arizona, Tucson, AZ.


330 — C0101  Assessment of retinal structural and functional characteristics in eyes with autoimmune retinopathy. Nithya Rajagopalan1, K. E. Guinn1, M. A. Sadqi1, M. S. Hanout1, S. Sarwar2, J. Maya1, L. J. Zapata1, S. G. Coupland2, Q. Nguyen1, Y. Sepah1. Ocular Imaging Research and Technology in Medicine, AIBILI, Coimbra, Portugal; 5Braga Hospital, Braga, Portugal; 6Queen, Kingston, ON, Canada; 7St António Hospital, Porto Hospital Center, Porto, Portugal.

331 — C0102  Role of α-enolase Autoantibodies related to Rod-bipolar cell function in Non-paraneoplastic Autoimmune Retinopathy. Stuart G. Coupland1, 2, L. Bursztyn3, 4, J. Belrose3, G. Coupland1, 2, 4Coulpos, E. K. Chin1, J. C. Folk1. 1Coulpos, E. K. Chin1, J. C. Folk1, K. Rahim2, S. R. Russell1. 1Ophthalmology, Division of Retina, University of Iowa Hospitals & Clinics, Iowa City, IA; 2Queen, Kingston, ON, Canada.

332 — C0103  Scotopic and Photopic ERG Responses in Pediatric Patients with Usher Syndrome. Jena Tavormina1, R. M. Hansen2, 3, A. Moskovitz2, 2, H. L. Rehn1, 2, M. Kenna2, 2, A. Fulton1, 2. 1Ophthalmology, Boston Children’s Hospital, Boston, MA; 2Harvard Medical School, Boston, MA; 3Brigham and Women’s Hospital, Boston, MA; 4Otolaryngology, Boston Children’s Hospital, Boston, MA.

333 — C0104  Evaluation of retinal architecture in glaucoma patients using spectral-domain optical coherence tomography. Kathleen E. Guinn, N. Rajagopalan, P. Bracha, M. A. Sadiq, J. Maya, M. Ibraheem, S. Rai, V. Gulati, Q. Nguyen, Y. Sepah. Ocular Imaging Research and Reading Center, Stanley M. Truhlsen Eye Institute, University of Nebraska Medical Center, Omaha, NE.


335 — C0106  Chromatic Full-field Stimulus Threshold (FST) in Proliferative Diabetic Retinopathy. Andre Messias1, K. Messias1, R. S. Arcieri1, F. Sakamoto1, V. M. Castro1, 2, R. Jorge1. Ophthalmology, University of Sao Paulo, Ribeirao Preto, Brazil; 3Universitat of Tuebingen, Tuebingen, Germany.

336 — C0107  Pattern VER in Diabetic Patients with Good Visual Acuity. Vidhya Gunasekaran1, B. Kim1, K. Pham2, J. Nguyen2, E. Ross3, V. Nam2, S. E. Brodie1, G. Wu1. Ophthalmology, Aravind Eye Hospital, Madurai, India; 2University of California, Berkeley, Berkeley, CA; 3University of Southern California, Los Angeles, CA; 4University of Iowa College of Public Health, Iowa City, IA; 5Ophthalmology, Mount Sinai School of Medicine, New York City, NY.

337 — C0108  Alteration of Photopic Negative Response of Multifocal Electroretinogram elicited by seven hexagons in Patients with Glaucoma. Muneyoshi Kaneko1, 2, S. Machida1, Y. Hoshi1, D. Kurosaka1. 1Department of Ophthalmology, Iwate Medical University, Morioka, Japan; 2Department of Ophthalmology, Morioka Municipal Hospital, Morioka, Japan.

338 — C0109  Multifocal Electroretinogram Amplitudes are associated with Mean Ocular Perfusion Pressure in patients with Diabetes and Vascular Disease. Wendy W. Harrison, A. Benson, S. Fettik, A. Havens, E. Lyon, V. Yeveyenkov. Optometry, Midwestern Univ Arizona Coll of Optometry, Glendale, AZ.

339 — C0110  Cones structure and function related patterns in Usher syndrome patients. Ieva Siesioyraitė1, S. Mohand-Saïdi1, D. Dagostino1, K. E. Kotliar2, S. Miloudi3, J. A. Sahel1. 1INSERM, CIC 503, Institut de la Vision, Paris, France; 2University of Applied Sciences Biomedical Engineering, Juelich, Germany.


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341—C0112 Electroretinographic Oscillatory Potential and Flicker Responses in Pediatric Patients Taking Vigabatrin. Tara L. Favazzat1, T. Bowe1, E. A. Swanson1, A. Moskowitz1, R. M. Hansen1, A. Raghuram2, A. Fulton2, J. D. Akula1. 1Department of Ophthalmology, Boston Children’s Hospital, Boston, MA; 2Harvard Medical School, Boston, MA.

342—C0113 Electroretinography using a fiber electrode prototype in patients with retinal dystrophy. Josenistol P. Pereira1, D. M. Rocha1, S. E. Watanebe1, P. Y. Sacai1, S. Munoz1, S. R. Salomao1, A. Berezovsky1. Ophthalmology, Univ Federal de Sao Paulo, Sao Paulo, Brazil; 2Departamento de Salud Publica, Universidad de La Frontera, Temuco, Chile.

343—C0114 Frequency And Causes Of Negative Electroretinogram Over A 10-Year Period In A University Hospital In Brazil. Daniel M. Rocha, S. R. Salomao, S. E. Watanebe, J. M. Pereira, P. Y. Sacai, A. Berezovsky. Oftalmologia, Universidade Federal de Sao Paulo, Sao Paulo, Brazil.

344—C0115 Multiple Sclerosis And Neuromyelitis Optica: Analysis Of Multifocal Visual Evoked Potentials. Gustavo M. Amorim1, L. Almeida Fernandes1, L. Botelho1, Ditta Amorim1, 2, L. Almeida Fernandes1, 2, L. Botelho1, Ditta Amorim1, 2, L. Almeida Fernandes1, 2, L. Botelho1.


346—C0117 Retinal structure and function in Achromatopsia: the CNGA3 phenotype. Ditta Zobor1, F. Stanziale2, U. Kellner1, G. Rudolph1, B. Wissinger1, S. Koh1, E. Zemmert1. Institute for Ophthalmic Research, Centre for Ophthalmalogy, Tuebingen, Germany; 2Genetic Counseling, Coordinating Center of Rare Diseases, Bolzano, Italy; 3Rare Retinal Disease Center, Augenzentrum Siegburg, Siegburg, Germany; 4Department of Ophthalmology, University of Munich, Munich, Germany; 5Institute for Ophthalmic Research, Molecular Genetics Laboratory, Tuebingen, Germany.


348—C0119 The Effects of Non-Dilated and Dilated Pupil at Different Eccentricity on Multifocal Electroretinogram. Muhamed Syukri Mohamad-Rafiuddin, S. Rosli, A. Chen, W. Wan-Hamat. Optometry Department, Universiti Teknologi MARA (UiTM), Puncak Alam, Malaysia.

349—C0120 Intact extrastriate maps following V1 quarterfield lesion. Hiroshi Horiguchi1, Y. J. Liao1, B. A. Wandell1, J. Winawer1. 1Ophthalmology, Jikei University, School of Medicine, Tokyo, Japan; 2Ophthalmology, Stanford University Medical Center, Stanford, CA; 3Psychology, Stanford University, Stanford, CA; 4Psychology, NYU, New York, NY.

350—C0121 Visual evoked potentials (VEPs) to lateralized stimuli to measure the interhemispheric transfer time (IHTT). Ilie Cretu1, S. Milazzo1, 2, P. Betermiez1, M. Petitjean1. 1Department of Ophthalmology, University Hospital of Amiens, Amiens, France; 2University of Picardy Jules Vernes, Amiens, France; 3Service de Physiologie - Explorations Fonctionnelles, Hôpital Ambroise Paré, Boulogne-Billancourt, France; 4Department of Ophthalmology, Hospital of Abbeville, Abbeville, France.

351—C0122 Tachistoscope and Visual Working Memory in Sport-related Concussion. Jeffrey Bennett1, S. Doberstein2, D. Siemsen1, L. Galezio2. 1Opthalmology, Mayo Clinic, Rochester, MN; 2University of Wisconsin-La Crosse, La Crosse, WI.

Exhibit/Poster Hall SA C0123-C0154
Sunday, May 04, 2014 8:30 AM-10:15 AM
Retinal Cell Biology / Retina

112 RPE/Retina Cell Biology and Degeneration, I

Moderators: Sylvia B. Smith and Hongwei Ma

352—C0123 Optimization of Rod Photoreceptor Culture and Rod Outer Segment Isolation from a Single Canine Retina. Raghavi Sudharsan1, N. Dolgova1, M. H. Elliott2, W. A. Beltran1. 1School of Vet Medicine, University of Pennsylvania, Philadelphia, PA; 2Department of Ophthalmology, University of Oklahoma Health Sciences Center, Oklahoma City, OK.

353—C0124 Comprehensive characterization of retinal phenotypic changes in methylene tetrahydrofolate reductase (MTHFR) deficient mice: a model of hyperhomocysteinemia (HHcy). Shamu Markandi1, 2, A. Shannugam1, 2, A. Tawfik1, 2, P. Roon1, A. Saul1, 2, R. Rozen1, V. Ganapathy1, 2, S. B. Smith1, 2. 1Cellular Biology and Anatomy, Georgia Regents University, Augusta, GA; 2The James and Jean Culver Vision Discovery Institute, Georgia Regents University, Augusta, GA; 3Human Genetics and Pediatrics, McGill University, Montreal, QC, Canada.

354—C0125 Identification of (pro)renin receptor/Atp6ap2-binding proteins in the retina of adult mice. Atsuhiro Kanda, K. Noda, S. Ishida. Laboratory of Ocular Cell Biology and Visual Science, Department of Ophthalmology, Hokkaido University Graduate School of Medicine, Sapporo, Japan.

355—C0126 TESK1/Cofilin pathway controls primary cilia assembly by regulating actin dynamics and CP110 cap removal. Jongshin Kim, J. Kim. Graduate School of Medical Science and Engineering, KAIST, Daejeon, Republic of Korea.

356—C0127 Comparison of Basal Firing Patterns of rd1 mice Retinal Ganglion Cell (RGC) Spikes in Freshly-isolated and Retinal Explants. Yongsook Goo1, 2, K. Ahn1, 2, J. Kim1, 2. 1Physiology, Chungbuk National Univ Med School, Cheongju, Republic of Korea; 2Nano Artificial Vision Research Center, Seoul National University Hospital, Seoul, Republic of Korea.

357—C0128 Distinct profiles of abnormal ganglion cell activity in two forms of Leber’s congenital amaurosis (LCA): Implications for therapy. Steven F. Stasheff1, 2, K. N. Spalding2, F. R. Blodi3, M. Shankar4, S. Bhattarai1, 2, S. Thompson3, J. Bennicelli1, J. Bennett4, A. V. Drack1, 2. 1Pediatrics, Ophthalmology, Neuros & BME, Univ of Iowa-Children’s Hospital, Iowa City, IA; 2Program in Neuroscience, University of Iowa, Iowa City, IA; 3Pediatrics, University of Iowa, Iowa City, IA; 4Ophthalmology & Visual Science, University of Iowa, Iowa City, IA; 5The Stephen A. Wynn Institute for Vision Research, University of Iowa, Iowa City, IA; 6F.M. Kirby Center for Molecular Ophthalmology/Scheie Eye Institute, University of Pennsylvania and Children, Philadelphia, PA.


360—C0131 Organotypic Culture System for the Adult Canine Retina. Hsiang-Rong Tsai1, 2, Lukats1, A. Szabo1, C. D. Harman1, A. M. Komaromy1. 1Small Animal Clinical Sciences, Michigan State University, East Lansing, MI; 2Physiology, Michigan State University, East Lansing, MI; 3Human Morphology and Developmental Biology, Semmelweis University, Budapest, Hungary.

The Commercial Relationships (CR) Index for Disclosures and the Clinical Trial (CT) Registration Index are at arvo.org/amindices.
361 — C0132 Opposite roles of Mer TK ligands Gas6 and Protein S for RPE phagocytosis regulation. Celia Parimoni1, J. Chatagnon1, E. F. Nandrot1, 2. 1Therapeutics, INSERM, U968, UPMC Univ Paris 06, UMR S 968, Paris, France; 2CNRS, UMR 7210, Centre de Recherche Institut de la Vision, Paris, France

362 — C0133 Regulation of Ocular Functions by Dopamine and Melatonin. Gianluca Tosini, K. Baba. Pharmacology, Morehouse School of Medicine, Atlanta, GA

363 — C0134 Inhibition of αβ Crystallins Induces Mesenchymal to Epithelial Transition in RPE cells Through Down-regulation of Snail and Slug. Kojiro Ishikawa1, 2, K. Kannani1, C. Spece1, P. G. Sreekumar2, D. R. Hinton2. 1Arnold and Mabel Beckman Macular Research Center, Doheny Eye Institute, Los Angeles, CA; 2Ophthalmology and Pathology, University of Southern California, Los Angeles, CA

364 — C0135 Valproic Acid Induced Inhibition of Fibroblast Growth Factor 2 Synthesis in Pathology, University of Southern California, Los Angeles, CA


366 — C0137 Retinal Degeneration In Ccl2/ Daf1 Double-Deficient Mice. Minzhong Yu1, P. Bu2, B. A. Bell1, E. Boriushkin3, F. Lin4, J. Qiao5, G. Sturgill-Short6, 1, X. Yu5, S. X. Zhang5, N. S. Peachey1, 2. 1Cone Eye Institute, Cleveland Clinic Foundation, Cleveland, OH; 2Department of Ophthalmology, Loyola University Chicago, Maywood, IL; 3Department of Immunology, Cleveland Clinic Lerner College of Medicine, Cleveland, OH; 4Research Service, Cleveland Veterans Affairs Medical Center, Cleveland, OH; 5Departments of Ophthalmology and Biochemistry, SUNY-Buffalo and SUNY Eye Institute, Buffalo, OH


368 — C0139 Profile of N-Glycans in Human Vitreous. Saori Takahina1, 2, K. Noda1, M. Amano1, T. Ohashi3, Y. Dong4, S. Kinoshita1, 2, W. Saito1, 2, A. Kanda1, S. Nishimura1, 2, S. Ishida1, 2. 1Laboratory of Ocular Cell Biology and Visual Science, Hokkaido University Graduate School of Medicine, Sapporo, Japan; 2Department of Ophthalmology, Hokkaido University Graduate School of Medicine, Sapporo, Japan; 3Field of Drug Discovery Research, Faculty of Advanced Life Science, Graduate School of Life Sciences, Hokkaido University, Sapporo, Japan

369 — C0140 A newly recognized molecule in the Retinal Pigment Epithelium. Karina E. Guziewicz1, E. V. Dutrow1, K. Miyadera2, J. Meyer2, R. Singh1, K. Bozesz-Battaglia1, D. M. Gamm1, G. D. Aguirre1. 1Clinical Studies-Philadelphia, University of Pennsylvania, Philadelphia, PA; 2Waisman Center, Madison, WI; 3McPherson Eye Research Institute, Madison, WI; 4Department of Ophthalmology, University of Wisconsin, Madison, WI; 5Department of Biochemistry, University of Pennsylvania, Philadelphia, PA

370 — C0141 Differential Composition of Docosahexaenoic Acid and Very Long Chain Polysaturated Fatty Acids in Rod and Cone Photoreceptor Membranes. Martin-Paul G. Agbaga3, 4, D. K. Merriman1, R. S. Brush1, 5, T. Lydie1, S. M. Conley1, M. I. Naash6, R. E. Gavin7, J. V. Busilc8, R. E. Anderson1, 2. 1Ophthalmology, Univ of Oklahoma Hlth Sci Ctr, Oklahoma City, OK; 2Ophthalmology, Dean McGee Eye Institute, Oklahoma City, OK; 3McPherson Eye Research Institute, University of Wisconsin, Madison, WI; 4Physiology, Michigan State University, East Lansing, MI; 5Biochemistry & Molecular Biology, Michigan State University, East Lansing, MI; 6Chemistry, Michigan State University, East Lansing, MI

371 — C0142 Autophagy over the lifespan: using fetal, stem cell, and adult RPE cultures to model the pathogenesis of AMD. Katherine J. Davis1, 2, S. Pakneshan1, 2, P. Y. Zhao1, 2, H. Kefella1, K. A. Adelman1, 2, L. J. Rizzolo1, 2. 1Ophthalmology and Visual Science, Yale School of Medicine, New Haven, CT; 2Surgery, Yale School of Medicine, New Haven, CT

372 — C0143 Protective Effect of Photoreceptor Outer Segments Phagocytosis for Retinal Pigment Epithelial Cells by PGC-1α/ SIRT1. Murilo F. Roggia, Y. Noda, T. Shiraya, T. Ueta. Ophthalmology, University of Tokyo, Tokyo, Japan

373 — C0144 Inflammatory and neovascular markers identified by deep shotgun proteomic profiling of human retinal and choroidal vascular endothelial cells. Binoy Appukuttan1, P. A. Wilmarth2, Y. Pan1, L. L. David1, J. Smith1. 1Clinical & Molecular Medicine, Flinders Univ of South Australia - FU, Adelaide, SA, Australia; 2Biochemistry & Molecular Biology, Oregon Health & Science University, Portland, OR; 3Casey Eye Institute, Oregon Health & Science University, Portland, OR


375 — C0146 ERK1/2 signaling pathway is activated by complement serum in UV-POS pretreated ARPE-19 cells. Martin Busch1, S. Wasmuth1, A. Lommatzsch1, D. Puleikhoff2. 1Ophtha-Lab, Department of Ophthalmology at St. Franziskus Hospital, Muenster, Germany; 2Department of Ophthalmology at St. Franziskus Hospital, Muenster, Germany

376 — C0147 Effect of SPARC deletion on retinal neovascularization and capillary drop out in mouse model of ischemic retinopathy. Doaa Soebi1, K. Hussein1, N. Said1, K. Motamed1, M. Al-Shabrawy2, 3. 1Oral biology/Anatomy, Collage of dental medicine, Augusta, GA; 2Department of Ophthalmology and Vision Discovery Institute, Medical College of Georgia, Augusta, GA; 3Department of Radiation Oncology, University of Virginia School of Medicine, Charlottesville, VA; 4IGDRASOL, Irvine, CA

377 — C0148 ATF4 Deficiency Leads to Structural and Functional Preservation of T17M RHO Retina. Yogesh Bhootada, M. S. Gorbatyk. Vision Science, University of Alabama at Birmingham, Birmingham, AL

378 — C0149 Loss of mTORC1 & mTORC2 but not mTORC1 or mTORC2 leads to reduction in cone function. Shan Ma1, 2, A. Venkatesh1, C. Punzo1. 1Ophthalmology, University of Massachusetts Medical School, Worcester, MA; 2Ophthalmology, Tianjin Medical University Eye Hospital, Nankai, China

379 — C0150 Automated analysis of autofluorescent human RPE cell granules using structured illumination microscopy. Nī Celci, G. Best3, A. Bakuënis1, F. Schock1, C. Cremer2, J. Hesser1, S. Dithmar1. 1Ophthalmology, Hospital, Heidelberg, Germany; 2Kirschhoff Institute for Physics, University of Heidelberg, Heidelberg, Germany; 3Application Scientific Computing, University of Heidelberg, Heidelberg, Germany; 4Institute of Molecular Biology, University of Mainz, Mainz, Germany; 5Department of Radiation Oncology, University Medical Center, Mannheim, Germany

380 — C0151 Role of female sex hormones in collagen gel contraction mediated by retinal pigment epithelial cells. Tomoko Orita, K. Kimura, K. Sonoda. Ophthalmology, Yamaguchi University, Ube, Japan

381 — C0152 Atomic force microscopy (AFM) and fluorescence imaging of ARPE-19 cells subjected to sub-lethal oxidative stress. Tadeusz J. Sarna, M. Sarna1, 2, A. K. Pilat1, M. M. Olchawa1. 1Biophysics, Jagiellonian University, Krakow, Poland; 2Medical Physics and Biophysics, AGH University of Science and Technology, Krakow, Poland

383 — C0154  Synergistic interaction between endothelial cells and retinal pigment epithelium. Magali Saint-Geniez1,2, C. Spencer, S. Abend, K. McHugh1,2. Schepens Eye Research Institute, Mass Eye and Ear, Boston, MA; 1Department of Ophthalmology, Harvard Medical School, Boston, MA; 2Department of Biomedical Engineering, Boston University, Boston, MA

Exhibit/Poster Hall SA C0155-C0200
Sunday, May 04, 2014 8:30 AM-10:15 AM
Biochemistry/Molecular Biology / Retina

113 Retina/RPE: Biochemistry and Molecular Biology

Moderators: Nikolai Artemyev and Luminita I. Paraoan


385 — C0156  The effects of SIRT1 on hypoxia induced by cobalt chloride in human fetal retinal pigment epithelial cells. Huiming Zhang1,2, S. He1, C. Spee1, D. R. Hinton1. Pathology and Ophthalmology, Keck school of medicine at university southern California, Los Angeles, CA; 2Ophthalmology, Second Xiangya Hospital, Central South University, Changsha, China

386 — C0157  Inhibition of Rod Outer Segment ectopic FoF1-ATP synthase by polyphenolic phytochemicals: new Insights on Oxidative Stress-related Retinopathies. Isabella Panfoli1, D. Calzia1, F. Cacci1, L. Manni1, P. Degani1, S. Ravera1, M. Bartolucci1, P. Ramoino1, E. Traverso1. 1DIFAR, University of Genova, Genova, Italy; 2Biology Department, University of Padova, Padova, Italy; 3Molecular Mutagenesis and DNA Repair U.O., IRCCS AOU San Martino - IST, Genova, Italy; 4DISTAV, University of Genova, Genova, Italy; 5Clinica Oculistica-DINOGMI, University of Genova, Genova, Italy

387 — C0158  Apoptosis-induced compensatory proliferation in the UV-irradiated human conjunctival epithelium cells. Eiji Tomoyori1,2, Y. Udaka1, M. Tsuji1, A. Sasaki1, J. Kizaki1,2, K. Oguchi1. 1Pharmacology, Showa University School of Medicine, Tokyo, Japan; 2Ophthalmology, Showa University School of Medicine, Tokyo, Japan

388 — C0159  3-hydroxykynurenin concentration changes in retina after partial optic nerve crush and NMDA-induced RGC damage in rat. Tomasz Choragiewicz1,2, S. Thaler2, F. Schuettauf2, K. Wertejuk1, D. Nowakowska1, M. J. Koss1, T. Kocki1, A. G. Junemann1, W. A. Turski1, R. Rejda1,2,6. 1Department of General Ophthalmology, Medical University of Lublin, Lublin, Poland; 2Centre for Ophthalmology, University of Tuebingen, Tuebingen, Germany; 3University Eye Clinic, J W Goethe-Universitaet FFM, Frankfurt/Main, Germany; 4Department of Clinical Pharmacology and Toxicology, Medical University of Lublin, Lublin, Poland; 5Department of Ophthalmology, University of Erlangen-Nuernberg, Erlangen, Germany; 6Department of Experimental Pharmacology, PAS Medical Research Centre, Warsaw, Poland

389 — C0160  Possibility to use human recombinant hyaluronidase as adjuvant for chemical vitrectomy on porcine vitreous. Koichi Nishitsuka1, M. Narumi1, H. Yamashita1. Ophthalmology/Vis Sci, Yamagata University School of Med, Yamagata-shi, Japan

390 — C0161  Proteomic Profile of Plasma and Mucosal Samples from Patients with Stevens-Johnson Syndrome/Toxic Epidermal Necrolysis. Christine M. Mata1, J. Malalis1, D. Syed1, D. Kahn1, M. Mosier1, C. S. Bouchard1, J. Cunanan1, D. Hoppensteadt1, J. Fareed2, O. Iqbal3. 1Ophthalmology, Loyola University Medical Center, Maywood, IL; 2Pathology, Loyola University Medical Center, Maywood, IL; 3Surgery, Loyola University Medical Center, Maywood, IL

391 — C0162  Secreted Phospholipids of the Organ Cultured Cornea, Iris and Lens. Yousef A. Alghamdi1,2, M. Martinez1,2, F. Khattab1, S. K. Bhattacharyya1,2, R. K. Lee1,2. 1Ophthalmology, Bascom Palmer Eye Institute, Miami, FL; 2University of Miami Miller School of Medicine, Miami, FL

392 — C0163  Proteomic analysis of the interaction Fusarium solani- Staphylococcus aureus isolated from human keratitis in presence of antimicrobial agents. Antonio Bautista-Hernández1, J. Reyes-Grajeda1, M. Ortiz-Casas1, A. Rodriguez-Tovar1, C. Gaona-Juárez1, N. López-Espinosa1, H. Mejia-Lopez1, V. M. Bautista1. 1Microbiology and Ocular Proteomics, Instituto of Ophthalmology “Conde de Valenciana”, Mexico, Mexico; 2Medical Micology, Escuela Nacional de Ciencias Biológicas, Instituto Politécnico Nacional, Mexico, Mexico; 3Medical Proteomics, Instituto Nacional de Medicina Genómica, Mexico, Mexico

393 — C0164  iTRAQ-based quantitative proteomic analysis of tear fluid in rat penetrating keratoplasty model with acute corneal allograft rejection. Feifei Huang, J. Xu. ophthalmology, EENT hospital of Fudan University, Shanghai, China

394 — C0165  Proteomic analysis in pterygium. Sun Woong Kim1, T. Rhim2. 1Ophthalmology, Hando general hospital, Ansan, Republic of Korea; 2Bioengineering, Hanyang University, Seoul, Republic of Korea

395 — C0166  Region-Specific Phosphorylations in Age-related macular degeneration. O’Donnell Sylvester1, S. R. Sripathi1, F. Lamothe2, M. Bartoli1, P. S. Bernstein1, V. Jahng1. 1Petroleum Chemistry, American University of Nigeria, Yola, Nigeria; 2Ophthalmology, Johns Hopkins University, Baltimore, MD; 3Ophthalmology, Georgia Health Sciences University, Augusta, GA; 4Ophthalmology and Visual Sciences, University of Utah, Salt Lake City, UT

396 — C0167  Mouse embryonic fibroblast derived from Cep110 knockout mouse leads to aberrant elongation and defective segregation of centrosomes and failed to produce cilia. Sharda P. Yadav1, L. Dong1, A. Swaroop1. 1-NRL, National Eye Institute, National Institutes of Health, Bethesda, MD; 2Genetic Engineering Core, National Eye Institute, National Institutes of Health, Bethesda, MD


398 — C0169  Characterization of Autophagy-linked FYVE (Alfy) Protein in the Retina. Yuhong Wang1, A. Rajala2, M. Ranju-Bishop1, R. E. Anderson1,2, R. V. Rajala1,2. 1Ophthalmology, University of Oklahoma Health Sciences Center, Oklahoma City, OK; 2Cell Biology, University of Oklahoma Health Sciences Center, Oklahoma City, OK; 3Cell Biology/Physiology, University of Oklahoma Health Sciences Center, Oklahoma City, OK

399 — C0170  Quantification and comparison of VEGF-B in the vitreous of patients with diabetic ocular disease and a control group of patients with non-diabetic ocular disease. Joana Mesquita1, J. Castro Sousa1,2, A. S. Rocha1, F. Santos1, J. Monteiro1, L. Passarinho1, C. Tomaz1. 1Biochemistry, Centro de Investigação em Ciências da Saúde, Universidade da Beira Interior, Covilha, Portugal; 2Ophthalmology, Centro Hospitalar de Leiria-Pombal, Leiria, Portugal

400 — C0171  The role of Decorin in ocular ageing and disease. Felicity de Cogan, J. ONeill, R. J. Blanch, R. Scott, A. Logan. Clinical and Experimental Medicine, University of Birmingham, Birmingham, United Kingdom

401 — C0172  MERTK Interactions with Src Family Kinases in the Retinal Pigment Epithelium. Anna Ganios1, S. J. Shelby2, K. L. Feathers1, L. Jia1, D. A. Thompson1,2. 1Biological Chemistry, University of Michigan Medical School, Ann Arbor, MI; 2Ophthalmology and Visual Sciences, University of Michigan Medical School, Ann Arbor, MI

The Commercial Relationships (CR) Index for Disclosures and the Clinical Trial (CT) Registration Index are at arvo.org/amindices.
402 — C0173  Retinal iron accumulation despite an intact blood-retinal barrier in mice with high serum iron. Liangliang Zhao1,2, Y. Li2, D. Song3, Y. Song1, M. Theuri1, J. L. Dunaei1. 1Ophthalmology, The Second Hospital of Jilin University, Changchun, China; 2Ophthalmology, Scheie Eye Institute, Philadelphia, PA

403 — C0174  Soluble Adenylyl cyclase (sAC) in the retinal pigment epithelium plays a role in generating the light peak of the electrooculogram. Yong S. Lee1, M. Yu2, L. Marmortstein1,2, N. S. Peacheys1, A. D. Marmortstein2. 1Ophthalmology, Mayo Clinic, Rochester, MN; 2Ophthalmic Research, The Cleveland VA and the Cleveland Clinic, Cleveland, OH; 3The Cole Eye Institute, Cleveland, OH

404 — C0175  Genotyping strategy for congenital stationary night blindness (CSNB): conclusion from a comprehensive study and meta-analysis. Christina Zeitz1, I. Audo1,2. 1Institut de la Vision, Univ Pierre et Marie Curie Paris 6, INSERM, UMR_S968, CNRS, UMR_7210, Paris, France; 2CHNO, INSERM-DHOS CIC 503, Paris, France

405 — C0176  Whole exome sequencing identifies a new ciliary gene in autosomal recessive rod-cone dystrophy. Isabelle Audo1,2, S. El Shamieh1, M. Neullié3, A. Terray1, E. Orhan4, M. Mohnand-Said4, T. D. Leveillard5, O. Goureau5, J. A. Sahel1,2, C. Zeitz1. 1Institut de la Vision, Univ Pierre et Marie Curie Paris 6, Inserm UMR 968, CNRS UMR 7210, Paris, France; 2Inserm -DHOS Centre d’Investigation Clinique CIC503/CMR « dystrophies rétinennes d’origine génétique », Centre Hospitalier National d’Ophthalmologie des Quinze-Vingts, Paris, France

406 — C0177  Absence of GARP2 in mice leads to slowly progressive structural deficits in rod photoreceptors. Delores A. Davis1, M. L. Smith1, Y. Zhang1, A. F. Goldberg2, S. J. Pitter1,2. 1Department of Sciences, University of Alabama at Birmingham, Birmingham, AL; 2Eye Research Institute, Oakland University, Rochester Hills, MI; 3Vision Science Research Center, University of Alabama at Birmingham, Birmingham, AL

407 — C0178  Novel technique for sectioning a mouse retinal flat mount. Christopher M. Aderman1, Y. Sun1, Z. Shao1, J. Joyal1, L. Smith1. 1Ophthalmology, Children’s Hospital Boston, Boston, MA; 2Ophthalmology, University of California, San Francisco, San Francisco, CA

408 — C0179  The Spatial and Temporal Activation of the Retinal Insulin Receptor: Role of Grb14 and PTP1B. Raju V. Rajal1, A. Rajala1. 1Ophthalm/Dean McGee Eye Inst, Univ of Oklahoma Hlth Sci Ctr, Oklahoma City, OK; 2Physiology, Univ of Oklahoma Hlth Sci Ctr, Oklahoma City, OK

409 — C0180  Role of Sonkha Pathy’s, S. Chakrabarti1, S. Jalali1, R. Kekunnaya2, S. Thakur2, R. Budhraj2, T. Ramakrishna3, C. Mohan Rao4, I. Kaur5. 1Prof. Brien Holden Eye Research Centre, L V Prasad Eye Institute, Hyderabad, India; 2Smt. Kannuri Santhamma Centre for Vitreo Retinal Diseases, L V Prasad Eye Institute, Hyderabad, India; 3Jasti V Ramanamma Children’s Eye Care Centre, L V Prasad Eye Institute, Hyderabad, India; 4Centre for Cellular and Molecular Biology, Hyderabad, India

410 — C0181  Cysteine proteases expression and secretion by retinal pigmented epithelium (RPE). Umar Shariff1, J. Butler1, Y. C. Yang1, I. Grierson1, S. P. Harding2, L. I. Paraoan2. 1Eye and Vision Science, University of Liverpool, Liverpool, United Kingdom; 2Ophthalmology, Wolverhampton Med Inst-New Cross, Wolverhampton, United Kingdom

411 — C0182  The consequences of deglycosylation of intra-melanosomal domain of human tyrosinase. Monika B. Dolinska1, P. Backlund1, P. T. Wingfield1, E. Kovaleva2, E. Grajowska2, B. P. Brooks1, Y. V. Sergeev1. 1OGVFB, National Eye Institute, Bethesda, MD; 2National Institute of Child Health and Human Development, Bethesda, MD; 3National Institute of Arthritis and Musculoskeletal and Skin Diseases, Bethesda, MD; 4Chesapeake PERL, Savage, MD

412 — C0183  A fragment of netrin-1 is implicated in the induction of permeability in diabetic retinopathy. Khalil Miloudi1, S. Genest-Brucetta1, F. Binet1, G. Mawambo-Tagne1, A. Ceran1, A. Dejda1, F. Rezende3, T. Kennedy1, P. Sapieha1, 1Neurology, McGill University, Montreal, QC, Canada; 2Biochemistry, University of Montreal, Montreal, QC, Canada; 3Ophthalmology, University of Montreal, Montreal, QC, Canada; 4Medical biochemistry, Uppsala University, Uppsala, Sweden

413 — C0184  Fetal hemoglobin induction by monomethylfumarate: relevance to prevention and treatment of sickle cell retinopathy (SR). Wanwisa Promsot1, B. Li1, R. Veeranan-Karmegami1, L. Makala1, S. B. Smith1, V. Ganapathy2, B. S. Pace1, P. M. Martin3, 1Biochemistry and Molecular Biology, Georgia Regents University, Augusta, GA; 2Pediatrics, Georgia Regents University, Augusta, GA; 3Cellular Biology and Anatomy, Georgias Regents University, Augusta, GA; 4Ophthalmology, Georgia Regents University, Augusta, GA

414 — C0185  The Cyclophilin Domain of Ran-binding protein 2 (Ranbp2) Harbors a Cysteine Protease Inhibitory Domain in Photoreceptor Outer Segments. Houbin Zhang1, 2, C. Hanke3, 2, W. Baehr2. 1Sichuan Academy of Medical Sciences & Sichuan Provincial People’s Hospital, Chengdu, China; 2Ophthalmology, University of Utah, Salt Lake City, UT; 3Biochemistry and Biology, University of Potsdam, Potsdam-Golm, Germany

415 — C0186  The oral iron chelator deferiprone protects against iron overload-induced retinal degeneration in Hepcidin knockout mice. Delu Song1, L. Zhao2, Y. Li2, M. Hadziahmetovic1, Y. Song1, J. L. Dunaei1. 1Ophthalmology, Scheie Eye Institute, University of Pennsylvania, Philadelphia, PA; 2Department of Ophthalmology, University of California, Davis, CA

416 — C0187  The target enzyme-interfacing domain in photoreceptor guanylyl cyclase activating protein 1 (GCAP1). Igor V. Peshenko1, E. V. Olsheskya2, S. Genest1, J. Ames3, A. M. Dizhoor1. 1Pennsylvania College of Optometry, Salus University, Elkins Park, PA; 2Department of Chemistry, University of California, Davis, CA


418 — C0189  Analysis of the complex between transducin-a and UNC119 by Small Angle X-ray Scattering (SAXS). Pallavi Cheguru1, A. Majumder1, G. Kotes2, L. Gakhia2, N. Armetayo1. 1Molecular Physiology and Biophysics, University of Iowa, Iowa City, IA; 2Biochemistry, University of Iowa, Iowa City, IA

419 — C0190  Peripherin-2/rds Function for Outer Segment Structure. Andrew F. Goldberg1,2, M. N. Gary3, M. E. English, L. Ritter. 1Eye Research Institute, Oakland University, Rochester, MI; 2Department of Biological Sciences, Oakland University, Rochester, MI

420 — C0191  Retinitis Pigmentosa 2 regulates transport of isoprenylated proteins to photoreceptor outer segments. Houbin Zhang1,2, L. Jiang1, C. Hanke3, W. Baehr2. 1Sichuan Academy of Medical Sciences & Sichuan Provincial People’s Hospital, Chengdu, China; 2Ophthalmology, University of Utah, Salt Lake City, UT; 3Biochemistry and Biology, University of Potsdam, Potsdam-Golm, Germany

421 — C0192  Art3 rod-specific knockout displays RP-like rod photoreceptor degeneration. Christin Hanke1, H. Zhang1, C. Gerstner1, J. Frederick1, W. Baehr1. 1Ophthalmology, University of Utah, Salt Lake City, UT; 2Physical Biochemistry, University of Potsdam, Potsdam-Golm, Germany; 3Biology and Genetics, Sichuan Academy of Medical Sciences & Sichuan Provincial People’s Hospital, Chengdu, China

422 — C0193  Modulation of severity of RPGR-associated retinal degeneration in mice due to mutations in RPGR-interacting proteins. Linjing Li1, N. Kolu1, C. Ronquillo1, H. Khanna1, W. Baehr1. 1Ophthalmology, UMass Medical School, Worcester, MA; 2Department of Ophthalmology and Visual Sciences, John A. Moran Eye Center, Salt Lake City, UT

*CR Refer to the Program Number in the Commercial Relationships (CR) Index for Disclosures.
Cysteine targets multiple phototransduction components. Tomoki Isayama1, J. Wu3, V. Lee2, A. L. Zimmerman2, C. L. Makino1. 1Ophthalmology, Mass Eye & Ear Infirmary, Boston, MA; 2Molecular Pharmacology, Physiology and Biotechnology, Brown University, Providence, RI

Role of aCAMP in the Recovery of the Cone Photosensory in Zebrafish Larvae. Jared D. Chrispell, S. Osawa, E. R. Weiss. School of Medicine, Atlanta, GA; 2Biochemistry and Molecular Biology, Wright State University, Dayton, OH

Circadian regulated genes underlying retinal susceptibility and resistance to light-induced damage. Alison C. Ziesel1, D. T. Organisciak2, M. A. Chrenek1, P. Alison C. resis tense to light-induced damage. — C0196

Cell Biology and Physiology, University of North Carolina at Chapel Hill, Chapel Hill, NC

Metabolic Differences Between Light- and Dark-Adapted Mouse Retinas. Ellen R. Weiss1, S. Osawa1, S. Dhungan2, S. McRitchie2, S. Sumner2. 1Cell Biology & Physiology, The University of North Carolina at Chapel Hill, Chapel Hill, NC; 2RTI International, Research Triangle Park, NC

The response of the retinal pigmented epithelium to a novel, nanosecond laser, in vivo: comparison with a conventional continuous wave laser. Marzieh Tahmasbesh1,2, R. J. Casson1,2, G. Chidlow1,2, J. P. Wood3, M. J. Plunkett1. 1University of Adelaide, Adelaide, SA, Australia; 2South Australian Institute of Ophthalmology, Adelaide, SA, Australia; 3CRC.

Signaling Pathways Elicited By Light In Photoreceptor Nuclei From Bovine Retina. Paola M. Natalini1,2, M. Mateos3, N. Giusto4, M. Ilincita de Boschero1,2,3. 1Instituto de Investigaciones Biológicas de Bahía Blanca (INIBIBB), Bahía Blanca, Argentina; 2Universidad Nacional del Sur, Bahía Blanca, Argentina


Cysteine targets multiple phototransduction components. Tomoki Isayama1, J. Wu3, V. Lee2, A. L. Zimmerman2, C. L. Makino1. 1Ophthalmology, Mass Eye & Ear Infirmary, Boston, MA; 2Molecular Pharmacology, Physiology and Biotechnology, Brown University, Providence, RI

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The response of the retinal pigmented epithelium to a novel, nanosecond laser, in vivo: comparison with a conventional continuous wave laser. Marzieh Tahmasbesh1,2, R. J. Casson1,2, G. Chidlow1,2, J. P. Wood3, M. J. Plunkett1. 1University of Adelaide, Adelaide, SA, Australia; 2South Australian Institute of Ophthalmology, Adelaide, SA, Australia; 3CRC.

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**Exhibit/Poster Hall SA D0049-D0059**

Sunday, May 04, 2014 8:30 AM-10:15 AM

**Eye Movements / Strabismus / Amblyopia / Neuro-Ophthalmology**

**114 Amblyopia: Detection and Prevalence**

**Moderator: Bruce D. Moore**

**430 — D0049** Startup of an EU consortium for cost-efficiency optimization of population-based screening and development of EU screening guidelines. Huibert J. Simonsz1, F. Sloot2. 1Ophthalmology, Erasmus Medical Center, Rotterdam, Netherlands

**431 — D0050** Normative distribution of visual acuity and interocular difference in 3 to 6 year-old Chinese preschoolers: the Shenzhen Kindergarten Eye Study. Xinxing Guo1, X. Ding2, I. G. Morgan3, M. He4. 1Preventive Ophthalmology, Zhongshan Ophthalmic Center, Guangzhou, China; 2ARC Centre of Excellence in Vision Science and Research School of Biology, Australian National University, Canberra, ACT, Australia

**432 — D0051** Quality of eye screening examinations at Child Health Centers in the Netherlands assessed by semi-structured observations. Aya Sami1,2, H. Karaman2, F. Sloot2, T. Sjoerdsma3, J. Benjamins4, H. J. Simonsz1. 1Ophthalmology, Erasmus MC, Rotterdam, Netherlands; 2Orthoptics, University of Applied Sciences, Utrecht, Netherlands; 3Municipal Health Service, Amsterdam, Netherlands; 4Public Health Service Icare, Meppel, Netherlands

**433 — D0052** Prevalence of visual alterations in Italian children using Binocular refractometer and vision analyzer. Lucia V. Scorolli1,2, P. G. Limoli1, E. M. Vingolo3,4, D. Domanico1. 1Ophthalmology department, S.Lucia Hospital, bologna, Italy; 2DIMEC, University of bologna, bologna, Italy; 3Ophthalmology, S Orsola Malpighi Hospital Bologna, Bologna, Italy; 4Centro Studi Ipovisione Milano, CSIM, Milano, Italy; 5Ophthalmology, University of Rome La Sapienza, Rome, Italy; 6Ophthalmology, Ospedale di Latina Terracina, latina, Italy


**435 — D0054** Higher eccentricity of the LED source in photorefractometry extends the range of measurement to high ametropias. Mario Angi, O. M. Feuerman, A. Leonardi. Neurosciences, University of Padova, Padova, Italy

**436 — D0055** Photoscreening for Refractive Error and Strabismus With a Smartphone App. Joanna M. Vaughan1, T. Dale2, A. Choy3. 1Ophthalmology, Casey Eye Institute, OHSU, Portland, OR; 2Elks Children, Casey Eye Institute, OHSU, Portland, OR; 3Gobiivity Mobile Health, Inc., Aliso Viejo, CA

**437 — D0056** Prospective evaluation of autorefraction using the Spot and plusoptiX A09 vision screeners in children ages 12-30 months for the detection of amblyogenic risk factors. Jennifer D. Davidson, M. Peterseim, E. W. Cheeseman, R. Trivedi, C. Papa, C. L. Kraus. Storm Eye Institute, Charleston, SC

**438 — D0057** High Specificity and Accuracy of the Pediatric Vision Scanner in a Pediatric Primary Care Setting. Reed Jost1, D. Stager, Jr2, L. Diao3, S. Katz4, R. McDonald5, E. Birch6. 1Retina Foundation of the Southwest, Dallas, TX; 2Pediatric Ophthalmology & Adult Strabismus, Plano, TX; 3Plano Pediatrics, PA, Plano, TX; 4Ophthalmology, University of Texas Southwestern Medical Center, Dallas, TX

**439 — D0058** Comparison of visual acuity across pediatric tests. Nicola Anstic, S. Watkins, M. Thompson, B. Thompson, R. J. Jacobs, A. Collins. Optometry and Vision Science, University of Auckland, Auckland, New Zealand


**442 — D0061** Shining a Light on Drug Delivery: On-Demand Light-triggered Release of Payload in the Eye. Viet Anh Nguyen Huu1, J. Luo1, J. Zhu2, E. Mahmoud3, C. McFearin2, N. Fomina2, K. Zhang3, A. Almutairi1. 1Nanoengineering, University of California, San Diego, La Jolla, CA; 2Skaggs School of Pharmacy and Pharmaceutical Sciences, University of California, San Diego, La Jolla, CA; 3Institute for Genomic Medicine and Shirley Eye Center, University of California, San Diego, La Jolla, CA; 4Department of Pharmaceutics, Faculty of Pharmacy, Cairo University, Cairo, Egypt

The Commercial Relationships (CR) Index for Disclosures and the Clinical Trial (CT) Registration Index are at arvo.org/amindices.
443 — D0062 First Steps Towards A Drug-Eluting Intraocular Lens. Lampros Lampropgiannis1, 2, A. Karamitossou1, 2, S. Logothetidis1, V. Karagkiozaki1, M. Gioti2, S. Dimitrakos1, I. Tsipoulos1. 12nd University Eye Clinic, Aristotle University of Thessaloniki, Thessaloniki, Greece; 2Laboratory for Thin Films, Nanosystems and Nanometrology, Physics Department, Aristotle University of Thessaloniki, Thessaloniki, Greece

444 — D0063 Half-life of therapeutic molecules in the vitreous depends on molecular weight, vitreous network mesh size and eye size. Michael Moni1, M. Machack1. 1Advanced Quantitative Sciences, Novartis, Cambridge, MA; 2Advanced Quantitative Sciences, Novartis, Basel, Switzerland *CR


446 — D0065 Controlled Transcleral Dual-drug Delivery by a Polymeric Device Reduces Light-induced Retinal Damage. Nobuhiro Nagai1, H. Kaji1, Z. Kashkouli Nezhad1, K. Samped1, L. Sivata1, M. Nishizawa1, Y. Mashima1, T. Abe1. 1Graduate School of Medicine, Tohoku University, Sendai, Japan; 2Graduate School of Engineering, Tohoku University, Sendai, Japan; 3R-Tech Ueno, Tokyo, Japan *CR

447 — D0066 Transcleral diffusion and comparative ex vivo permeability of dorzolamide in canine, equine, porcine and rabbit sclera. Pamela Ko1, J. Moreno2, P. Wajjudi1, R. Meredith1, R. Carvalho1. 1Comparative Veterinary Ophthalmology, Eye Care for Animals, San Diego, CA; 2Translational Ophthalmology, 3T Ophthalmics Inc, Irvine, CA *CR

448 — D0067 Effect of low-intensity ultrasound on the transcleral delivery of serum protein. Jeong Hun Bae, H. Park, S. Shim, J. Kim. Department of Ophthalmology, Kangbuk Samsung Hospital, Sungkyunkwan University School of Medicine, Seoul, Republic of Korea

449 — D0068 Selective and sustained episcleral delivery of brimonidine: In vivo safety, toxicity and pharmacokinetics. Ricardo De Carvalho, P. Wajjudi, J. Moreno, C. Mendes, P. Ko, G. C. Matsutani. 3T Ophthalmics, Irvine, CA *CR

450 — D0069 Topical Delivery of Avastin to the Posterior Segment of the Eye in vivo using Annexin A5-associated Liposomes. Ben M. Davis1, E. M. Normandolo1, L. Guo1, P. OShea1, S. E. Moss1, S. Somavarapu1, M. Cordeiro1. 1Visual Neuroscience, UCL, London, United Kingdom; 2Cell biology, UCL, London, United Kingdom; 3School of Pharmacy, UCL, London, United Kingdom; 4Western Eye Hospital, London, United Kingdom; 5Cell Biophysics Group, University of Nottingham, Nottingham, United Kingdom *CR

451 — D0070 “An aqueous clear cyclopentolate-A topical drops for retinal delivery”. Kishore Cholka1, B. C. Gilger2, P. Velagaleeti2, L. S. Weiss3, A. K. Mitra4. 1Pharmaceutical Sciences, Univ of Missouri Kansas City, Kansas City, MO; 2Department of Clinical Sciences, North Carolina State University, Raleigh, NC *CR

452 — D0071 Evaluation of Timolol-loaded PLC microfilm in the treatment of ocular hypertensive monkeys. Tina Wong1,2, E. Liu2, A. Barathi1, S. Venkatraman1. 1Singapore Eye Research Institute, Singapore, Singapore; 2Ocular Therapeutic Engineering Centre, Nanyang Technological University, Singapore, Singapore *CR

453 — D0072 Plasma and ocular pharmacokinetic study comparing 3 µL micro-drop to typical 40 µL drop volume of timolol 0.5% in pigmented rabbits. Hans van der Heiden1,2, T. Amar1, W. F. Lichtena1. 1mu-Drop, Apeldoorn, Netherlands; 2ZAMB, Hospital Pharmacy, Tilburg, Netherlands; 3Iris Pharma, La Gaude, France *CR

454 — D0073 Hyaluronan-based ocular sustained delivery of Moxifloxacin (MX). Hee-Kyoun Lee1,2, M. Raffi3, B. Mann1, F. Knauer1, K. Godfrey1, P. Birostok2. 1University of Utah, Salt Lake City, UT; 2Jade Therapeutics, Salt Lake City, UT *CR

455 — D0074 Development of Phenylboronic Acid Containing Mucoadhesive Hydrogel Materials for Ophthalmic Drug delivery applications. Lina Liu, H. Sheardown. Chemical Engineering, McMaster University, Hamilton, ON, Canada *CR


457 — D0076 The Rate and Extent of Cyclopentolate Absorption is Formulation and Tissue Dependent following Topical Ophthalmic Administration. Mayssa Attar1, R. Graham1, L. Borbridge1, S. Neervannan1. 1Drug Safety Evaluation, Allergan, Irvine, CA; 2Pharmaceutical Development, Allergan, Irvine, CA *CR


459 — D0078 Novel natalmycin ocular drug delivery system enhanced the ocular penetration after topically applied to rabbits. Junjie Zhang1, L. Wang1, T. Zhou1, J. He1, H. Xia1, H. Zhang2, S. Sun2, X. Li2. 1Dpt of Pharmaceutical Science, Henan Eye Institute, Henan Eye Hospital, Zhengzhou, China; 2Henan Eye Institute, Henan Eye Hospital, Zhengzhou, China

460 — D0079 Semifuorinated alkanes as a liquid drug carrier system for topical ocular drug delivery. R Michael Dutescu1, C. Panih1, O. M. Merkel1, N. Schrage1. 1ACTO e V., Aachen, Germany; 2Ophthalmology, RWTH Aachen, Aachen, Germany; 3Pharmaceutical Science, Wayne State University, Detroit, MI

461 — D0080 Shear-thinning, associative, and mucoadhesive hydrogels for improved eyedrop formulations. sahar mokhtari, P. Sheikholeslami, N. Smeets, T. Hoare. Chemical Engineering, McMaster, Hamilton, ON, Canada

462 — D0081 A new gel formulation of topical cycstecaine for the treatment of corneal cystine crystals in cystinosis: The Cystadrops OCT-1 study. Antoine Labbe1, C. Baudouin1, G. Deschenes1, L. Coir1, M. Charbit2, G. Guest1, P. Niaudet3. 1Ophthalmology, Quinze-Vingts National Ophthalmology Hospital; Center for Clinical Investigation, INSERM 503, Paris, France; 2Ophthalmology, Ambroise Paré Hospital, AP-HP, Paris, France; 3Pediatric Nephrology, Necker-Enfants Malades Hospital, AP-HP, Paris, France; 4Pediatric Nephrology, Robert Debré Hospital, AP-HP, Paris, France *CR


467 — D0086 Bioengineered Delivery of Hydrophobic and Hydrophilic Compounds to Whole Retinal Layers. Junjing Lee1,2, J. Park1,2. 1Graduate School of Medical Science and Engineering, Korea Advanced Institute of Science and Technology, Daejeon, Republic of Korea; 2Biomaterial Engineering Laboratory, Department of Bio and Brain Engineering, Korea Advanced Institute of Science and Technology, Daejeon, Republic of Korea; 3KAIST Institute for Optical Science and Technology, Daejeon, Republic of Korea

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468 — D0087 DNA-based nanoparticles as potential drug carriers for the treatment of anterior segment diseases. Sven Schnichels1, J. de Vries1, L. Strudel2, M. Kwak2, J. Hofmann1, K. U. Bartz-Schmidt1, M. S. Spitzer1, A. Hermann1. 1University Eye Hosp Tuebingen, Centre for Ophthalmology Tuebingen, Tuebingen, Germany; 2Zernike Institute for Advanced Materials, University of Groningen, Groningen, Netherlands *CR

469 — D0088 ROS-responsive nanoparticles to extend the lifetime of anti-angiogenic drugs. Adah Almutairi1,2, V. Nguyen Huu1, J. Luo1, S. Patel1, C. de Gracia Lux1, K. Zhang1,1 Skaggs Sch Pharm & Pharm Sci, UC San Diego, La Jolla, CA; 1KACST-UCSD Ctr Eur Nanomed & Eng, UC San Diego, La Jolla, CA; 2Dept of NanoEngineering, UC San Diego, La Jolla, CA; Dept of Ophthalmology, UC San Diego, La Jolla, CA.

470 — D0089 Nanoparticles: A Novel Method of Intraocular Nitric Oxide Delivery. Jimmy Hu1, R. S. Chuck1,2, A. Friedman1, J. Friedman1, P. Nacharaju1, M. Navati1, W. Yao1,2, C. C. Zhang1,2, J. K. Lee1,2. 1Ophthalmology, Albert Einstein College of Medicine, Bronx, NY; 2Hankinf Eye Institute, Montefiore Medical Center, Bronx, NY *CR

471 — D0090 Photocurable Hydrogel Implants for the Extended Release of Bevacizumab for the Treatment of Age Related Macular Degeneration. Stuart Williams1, K. Herlt1, G. Owens1, J. Savage1, L. Gardner1, J. Tully1, B. Maynor1,2, T. Navratil1,2, B. R. Yerxa1,2. 1Envisia Therapeutics, Durham, NC; 2Liquidia Technologies, Morrisville, NC; 3Liquida Technologies, Morrisville, NC; 4North Carolina State University, Raleigh, NC *CR


474 — D0093 Development of injectable hydrogel based on catalyst-free click chemistry for controlled release of macromolecules - a formulation study for Avastin. Yu Yu1,2, Y. Chau1,2,1 Department of Chemical and Biomolecular Engineering, The Hong Kong University of Science & Technology, Hong Kong, China; 2Division of Biomedical Engineering, The Hong Kong University of Science & Technology, Hong Kong, China *CR

475 — D0094 Hydrogels for cell-based intra-vitreal drug delivery. Rinku Baid1, S. Bhaladhare1, N. Ravi1,2,1 Department of Ophthalmology and Visual Sciences, Washington University Medical School, St Louis, MO; 2Research, VA Health Care Systems, St. Louis, MO; 3Chemical Engineering, Washington University, St. Louis, MO

476 — D0095 Controlled and Extended Release of Difluprednate from Biodegradable Intracameral Implants Engineered using PRINT® Technology. Ayush Verma1, J. Kindig1, K. Sebastian1, J. Tully1, A. Garcia1, R. Robeson1, B. Maynor1,2, T. Navratil1,2, B. C. Gilger1, B. R. Yerxa1,2. 1Envisia Therapeutics, Morrisville, NC; 2Liquidia Technologies, Morrisville, NC; 3North Carolina State University, Raleigh, NC *CR

477 — D0096 Developing phosphotidyl choline polymers for ocular implantation. Athmar D. Habeeb1,2, A. Lockwood1,2, A. A. Hussain1, J. H. Wang1, M. Driver1,2, S. Brocchini1,2, P. Khaw1. 1National Institute for Health Research (NIHR) Biomedical Research Centre at Moorfields Eye Hospital NHS Foundation Trust and UCL Institute of Ophthalmology, London, United Kingdom; 2UCL School of Pharmacy, London, United Kingdom; 3Vertellus Biomaterials, Basingstoke, United Kingdom *CR

478 — D0097 A microinjection device for delivering in situ-gelling hydrogels for posterior segment drug delivery. Todd Hoare1, S. B. Campbell1, W. Wu2, J. Yang2, P. Selvaganapathy2. 1Chemical Engineering, McMaster University, Hamilton, ON, Canada; 2Mechanical Engineering, McMaster University, Hamilton, ON, Canada *CR

479 — D0098 Accurate Dose Delivery by Photocurable Hydrogel Implants for Ocular Drug Delivery. Todd Varney2, J. Rulander4, S. Johnston4, F. Lai4, K. S. Varney2, J. Rulander4, S. Johnston4, W. Yao1,2, C. C. Zhang1,2, J. K. Lee1,2. 1Ophthalmology, Albert Einstein College of Medicine, Bronx, NY; 2Hankinf Eye Institute, Montefiore Medical Center, Bronx, NY *CR

480 — D0099 A Shielded Needle to Prevent Bacterial Contamination During Intravitreal Injection. Tanvishri Jatla1, B. Sun1, A. Zagariya1, L. Lerner1,2, Y. I. Leiderman1. 1Ophthalmology and Visual Sciences, Duke University, Durham, NC; 2Duke University, Durham, NC *CR

481 — D0100 Continuous Wear Non-Invasive Device for Sustained Ocular Drug Delivery. Charles D. Leahy1,4, R. Gutner1, W. Varney2, J. Rulander1, S. Johnston1, F. Lai1, K. S. Crawford1, J. Ellis1,4, E. Ellis1,4,1Vista Scientific LLC, Andover, MA; 2New England College of Optometry, Boston, MA; 3PharmOcu, Andover, MA; 4University of Massachusetts Lowell-Massachusetts Medical Device Development Center, Lowell, MA *CR

482 — D0101 Safety Evaluation of Novel Drug Delivery Device, the Conjunctival Ring. Satoshi Kinoshita1,2, K. Noda1,2, S. Takashina1, Y. Dong1,2, I. Atsumi1, H. Obata1, T. Matsunaga1, T. Ohguchi1,2, A. Kanda1,2, S. Ishida1,2. 1Laboratory of Ocular Cell Biology and Visual Science, Hokkaido University Graduate School of Medicine, Sapporo, Japan; 2Ophthalmology, Hokkaido University Graduate School of Medicine, Sapporo, Japan; 3Toxicology Research Laboratory, Senju Pharmaceutical Co., Ltd., Kobe, Japan; 4Research Laboratories, SEED Co., Ltd., Konsu, Japan *CR

483 — D0102 Sustained clotrimazole release attenuates light-induced retinal damage through modulation of reactive oxygen species (ROS) and mitogen-activated protein kinases (MAPKs). Zahleb Kashiouli Nezhad1, N. Nagai1, K. Yamamoto1, H. Saya1, T. Nakazawa1, T. Abe1. 1Clinical Cell Therapy, United Centers for Advanced Research and Translational Medicine (ART), Tohoku University Graduate School of Medicine, Sendai, Japan; 2Japanese Society for Rehabilitation, Tokyo, Japan; 3Ophthalmology, Tohoku University Graduate School of Medicine, Sendai, Japan; 4Gene Regulation, Institute for Advanced Medical Research, School of Medicine, Keio University, Tokyo, Japan

484 — D0103 The long posterior ciliary arteries block circumferential flow in the suprachoroidal space of the rabbit eye. Bryce Chiang1, Y. C. Kim2, M. R. Prausnitz1,1. 1Wallace H. Coulter Department of Biomedical Engineering, Georgia Institute of Technology, Atlanta, GA; 2School of Chemical & Biomolecular Engineering, Georgia Institute of Technology, Atlanta, GA *CR


The Commercial Relationships (CR) Index for Disclosures and the Clinical Trial (CT) Registration Index are at arvo.org/amindices.
Exhibit/Poster Hall SA
Sunday, May 04, 2014 10:45 AM-11:45 AM
116 All Posters / Networking

* Refer to the Program Number in the Clinical Trial (CT) Registration Index. *CR Refer to the Program Number in the Commercial Relationships (CR) Index for Disclosures.
Hall SB
Sunday, May 04, 2014 12:00 PM-1:15 PM

117 ARVO/Alcon Keynote Series - Opening Keynote

Dr. Marshall will explain the ways in which curiosity-driven research can lead to outstanding new discoveries and paradigm shifts in science, taking examples from the Nobel Prizes. His favorite Nobel Laureates - Albert Einstein, Kary Mullis, Watson and Crick - are all excellent examples of how discoveries can be made outside the laboratory with little infrastructure in a relatively short time. His discovery of Helicobacter pylori, yet another more recent example of curiosity-driven research, has led to benefits for millions of people and potentially billions more in the 21st century.

487 — 12:00 How curiosity driven research can lead to the Nobel Prize. Barry Marshall. University of Western Australia, Crawley, WA, Australia
Cornea

118 Corneal Cell and Molecular Biology and Stem Cells

Moderators: Noriko Koizumi and Jodhbir S. Mehta

488 — A0077 SOX9 as a potential regulator of limbal epithelial cells. Johannes Menzel-Severing1, M. Zenkel1, N. Polisetti1, A. Mössner1, E. Sock1, F. E. Kruse1, U. Schlotzer-Schrehardt1. 1Ophthalmology, University of Erlangen-Nuremberg, Erlangen, Germany; 2Biochemistry, University of Erlangen-Nuremberg, Erlangen, Germany

489 — A0078 Alterations in the corneal nerve in type 2 diabetes: preventive effects of insulin-like growth factor-1 treatment. Hiroki Uno1, T. Hattori2, Y. Kamagari3, N. Suzuki3, S. Uno4, H. Takagi5. 1Ophthalmology, St Marianna Univ School of Med, Kawasaki, Japan; 2Ophthalmology, Tokyo Medical University, Tokyo, Japan; 3Immunology and Medicine, St. Marianna University School of Medicine, Kawasaki, Japan

490 — A0079 Role of Src-activating and signaling molecule (Srcasm) and Src-family tyrosine kinases (SFK) in Corneal Epithelial Wound Healing. Vivian Lee1, C. Marshall1, X. Yang1, M. D. Gober2, T. Dentchev3, J. T. Seykora4. 1Department of Ophthalmology, University of Pennsylvania, Philadelphia, PA; 2Department of Dermatology, University of Pennsylvania, Philadelphia, PA

491 — A0080 Chondrocyte-derived Extracellular Matrix Suppressed Migration of Human Pterygium Epithelial Cells through blocking the p38MAPK and PKC signaling pathway. JaeWook Yang1,2, H. Lee1, C. Kim1, Y. Lee1. 1Dept of Ophthalmology, InJe University Busan Paik Hosp, Busan, Republic of Korea; 2Ocular Neovascular Disease Research Center, Inje University Busan Paik Hospital, Busan, Republic of Korea

492 — A0081 Tracing the fate of limbal epithelial progenitor cells and their progeny in the murine cornea. Nick Di Girolamo1, S. Bobba1, V. Raviraj1, I. Slatopolska2, P. R. Nicovich2, G. M. Halliday1, D. Wakefield1, R. Whan1, G. Lyon3. 1School of Medical Sciences - Pathology, University of New South Wales, Sydney, NSW, Australia; 2Biomedical Imaging Facility, University of New South Wales, Sydney, NSW, Australia; 3Discipline of Dermatology, University of Sydney, Sydney, NSW, Australia

493 — A0082 Niche function of amniotic membrane stromal cells in corneal epithelial stem cell expansion. Wei Li1, J. Yang2, J. Jie3, Y. Qu1, T. Liu1, H. He1, L. Zhang2, S. Li4, Z. Liu5. 1Eye Inst & Xiamen Eye Ctr, Xiamen Univ Sch of Medicine, Xiamen, China; 2Fujian Provincial Key Laboratory of Ophthalmology and Visual Science, Xiamen, China

494 — A0083 Macrophage expressing oxidative stress marker play some role in lacrimal gland of chronic graft-versus-host disease. Yoko Ogawa, S. Shimmura, T. Suzuki, K. Kawai, K. Tsutoba. Department of Ophthalmology, Keio Univ School of Medicine, Shinjuku-Ku, Japan

495 — A0084 Use of the Viability Reagent PrestoBlue in Comparison with AlamarBlue and MTT to Assess the Health of Human Corneal Epithelial Cells. Manlong Xu1, D. J. McCanna1, J. G. Sivak1. 1Optometry and Vision Science, University of Waterloo, Waterloo, ON, Canada; 2Centre for Contact Lens Research, University of Waterloo, Waterloo, ON, Canada

496 — A0085 Identifying Chemical Correctors for the Folding Defect in Corneal Dystrophy-Causing Mutants of SLC4a11. Anthony M. Chiu1, J. Mandziuk3, J. R. Casey2, 1. 1Phsiology, University of Waterloo, Waterloo, ON, Canada; 2Optometry, University of Waterloo, Waterloo, ON, Canada

497 — A0086 The Role of Limbal Stromata in Corneal Epithelium Stem Cell Microenvironment. Pengxia Wan, M. Huang, Y. Liu, Z. Wang, cornea, Zhongshan Ophthalmic Center, Guangzhou, China

498 — A0087 In vitro effect of thrombospondin-1 in ocular surface epithelial cell lines. Laura Soriano-Romani1, L. Garcia-Posadas1, A. Lopez-Garcia1, L. I. Paraon2, Y. Diebold3. 1Ocular Surface Group, IOBA - University of Valladolid, Valladolid, Spain; 2Eye and Vision Science, University of Liverpool, Liverpool, United Kingdom

499 — A0088 Chitosan promoted the corneal epithelial wound healing via activation of ERK MAPK Pathway. Rui Cui1, 2, K. Li1, 2, Z. Liu1, 2. 1Eye Institute & Xiamen Eye Ctr, Xiamen Univ Sch of Medicine, Xiamen, China; 2Fujian Provincial Key Laboratory of Ophthalmology and Visual Science, Xiamen, China

500 — A0089 The Roles of Autophagy in Limbal Stem Cells for Post-ultraviolet Corneal Regeneration. Ying-Ting Chen1, A. Pollreisz2, S. Sukseres2, L. Eckhart2, F. Gruber2, U. Schmidt-Erfurth1. 1Ophthalmology, Medical University of Vienna, Vienna, Austria; 2Dermatology, Medical University of Vienna, Vienna, Austria

501 — A0090 Human limbal niche cell support epithelial stem cell through Stem Cell Factor pathway. Gui-Gang Li1, J. Wang1, X. Li1, S. C. Tseng1. 1R&D-Ocul Surface Ctr, TissueTech, Inc, Miami, FL; 2Ophthalmology, Tongji Hospital, Tongji Medical College, HUST, Wuhan, China

502 — A0091 Spherical cultivation of human limbal epithelial cells. Kazunari Higa1,2, H. Miyashita3, J. Shimazaki1,2, K. Tsutoba1,2, S. Shimmura1. 1Ophthalmology/Cornea center, Tokyo Dental College, Ichikawa general hospital, Ichikawa, Japan; 2Ophthalmology, Keio University School of Medicine, Shinjuku-ku, Japan

503 — A0092 Transcription Factor Brd4, a Potential Marker of Corneal Epithelial Stem Cells. Cheng Li1,2, Y. Xue1, W. Li1,2, Z. Liu1,2. 1Eye Institute of Xiamen University, Xiamen, China; 2Fujian Provincial Key Laboratory of Ophthalmology and Visual Science, Xiamen, China; 3School of Pharmaceutical Sciences of Xiamen University, Xiamen, China

504 — A0093 Structure and turnover rate of long-term cultured human limbal epithelial cell sheets. Hideyuki Miyashita, K. Tsutoba, S. Shimmura. Ophthalmology, Keio University School of Medicine, Shinjuku-ku, Japan

505 — A0094 Impact of keratocyte supernatant on epithelial cell migration and proliferation after corneal crossinglink (CXL). Ming-Feng Wu1, T. Stachon1, J. Wang1, X. Song1, A. Langenbucher1, B. Setz1, N. Szentmary1. 1Department of Ophthalmology, University Medical Center, Homburg/Saar, Germany; 2Experimental Ophthalmology, Saarland University, Homburg/ Saar, Germany

506 — A0095 Slurp1 Modulates Corneal Homeostasis by Scavenging the uPAR Ligand uPA. Sudha Swamythanan, S. K. Swamythanan. Ophthalmology, University of Pittsburgh, Pittsburgh, PA

507 — A0096 Mesenchymal Transition of Ex vivo Expanded Human Corneal Endothelial Cells is reversible. Jesinta Navaratnam1, E. Guilliksen1, V. Rajasekhar2, A. Noer1, M. Moe3, L. K. Drolsum1,2, B. Nicolaissen1,2, A. Shahdadfar1. 1Center for Eye Research, Oslo University Hospital, Oslo, Norway; 2Medicin, University of Oslo, Oslo, Norway; 3Memorial Sloan-Kettering Cancer Center, New York, NY

510 — A0099 Cytotoxicity of different drugs to limbal and conjunctival epithelial cells cultivated ex vivo. Renata R. Loureiro1, J. L. Covre2, B. Monteiro1, P. Bispo3, A. A. Lima Filho3, I. Kerkis3, J. A. Gomes3. 1Ophthalmology, UNIFESP, Sao Paulo, Brazil; 2Butantan, São Paulo, Brazil


512 — A1001CNTF Promotes Self-Renewal of Limbal Stem Cell and Accelerates Corneal Epithelial Wound Healing. Peng Chen, Q. Zhou. Shandong eye institute, Qingdao, China

513 — A1002 Conditioned media from Bone-Marrow derived Human Mesenchymal Stem Cells: Potential therapeutic role for Limbal Stem Cell Disease. Ali Nezamabadi1, B. Y. Milani2, F. Yousefimilani2, N. Afshar2, P. Hematti2, A. R. Djallalian1. 1University of Illinois at Chicago, Chicago, IL; 2Medicine, University of Wisconsin, madison, WI

514 — A1003 Cytotoxicity of antibiotics, antifungals and corticosteroids to human immature dental pulp stem cells cultivated ex vivo. Joyce L. Covre1, B. Monteiro1, R. R. Loureiro1, P. Bispo1, A. A. Lima Filho1, I. Kerkis2, J. A. Gomes3. 1Ophthalmology, UNIFESP, Sao Paulo, Brazil; 2Butantan, São Paulo, Brazil

515 — A1004 Limbal MicroRNAs Differentially Expressed in Normal and Diabetic Human Corneas. Mehrnoosh SaghiZadeh1, M. Winkler1, C. M. Dib3, J. Brown2, J. Tang2, L. Spurka1, A. V. Ljubimov1, V. Funi2, 3Biomedical Sciences/Ophthalmology, Cedars-Sinai Medical Center, Los Angeles, CA; 4Genomics Core, Cedars-Sinai Medical Center, Los Angeles, CA; 5David Geffen School of Medicine, University of California Los Angeles, Los Angeles, CA

516 — A1005 Gene Therapy of Limbal Cells Alleviates Wound Healing and Stem Cell Marker Abnormalities in Organ-Cultured Human Diabetic Corneas. Alexander V. Ljubimov1,2, C. M. Dib2, M. SaghiZadeh1. 1Regenerative Medicine Institute, Cedars-Sinai Medical Center, Los Angeles, CA; 2Medicine, UCLA, Los Angeles, CA

517 — A1006 Optimization of primary cultures of rabbit limbo-corneal cells for their use in preclinical experimentation in limbal deficiency. Noelia Andollo1, R. Hernández-Moya1, V. Freire1, J. A. Durán1, J. Etxebarria1. 1Cell Biology and Histology, School of Medicine and Dentistry, University of The Basque Country, BioCrues Health Research Institute, Leioa, Spain; 2Ophthalmology, School of Medicine and Dentistry, University of The Basque Country, BioCrues Health Research Institute, Leioa, Spain; 3R & D Dept., Instituto Clinico Quirurgico de Oftalmologia, Bilbao, Spain; 4Ophthalmology, University Hospital of Cruces, BioCrues Health Research Institute, Barakaldo, Spain

518 — A1007 Immunoglobulin superfamly cell adhesion molecules (IgCAMs) as novel surface markers of limbal epithelial progenitor cells. Friedrich E. Kruse1, N. Polisetti, J. Menzel-Severing, M. Zenkel, U. Schlötzer-Schrehardt. Department of Ophthalmology, University of Erlangen Nürnberg, Erlangen, Germany


520 — A1009 Human mesenchymal stem cells differentiate into corneal tissue of mouse. Almudena Velasco1, R. Martínez-Carrasco1, J. Aijón1, R. Lorenzo3, I. Sanchez-Abarca2, J. Perez-Simón2, C. Herrero2, C. del Cañizo2, E. Hernández-Galilea3. 1Cell Biology. INCyL.IBSAL, University Of Salamanca, Salamanca, Spain; 2Institute of Neuroscience of Castilla y León, Institute of Biomedicine Investigation of Salamanca, Salamanca, Spain; 3Department of Surgery, Ophthalmology Service, Hospital Universitario de Salamanca, Salamanca, Spain; 4Department of Hematology, Hospital Universitario Virgen del Rocio / IBIS/CSC/University of Seville, Seville, Spain; 5Department of Hematology, Hospital Universitario de Salamanca; University of Salamanca, Salamanca, Spain


523 — A1012 Generation of Induced Pluripotent Stem Cells from Normal and Keratoconus Corneal Fibroblasts using Viral- and Non-Viral Methods. Roy Joseph1, O. P. Srivastava1, R. R. Pfister2. 1Department of Vision Sciences, Univ of Alabama at Birmingham, Birmingham, AL; 2Eye Research Foundation, Birmingham, AL

524 — A0113 LIM Homeobox Domain 2 (Lhx2) identifies corneal stem cells and is required for corneal epithelial stem cell maintenance. Rachel Sartaj1, R. Chee1, A. Liu1, E. Fuchs2, M. I. Rohenblatt1. 1Dyson Vision Research Institute, Department of Ophthalmology, Weill Cornell Medical College, New York, NY; 2The Laboratory of Mammalian Cell Biology and Development, The Rockefeller University, New York, NY


526 — A0115 Induction of corneal endothelial cells from human pluripotent stem cells through derived neural crest like cells. Yoshinori Nakai1, M. Ueno1, H. Tanaka2, M. Fukuta2, M. Ikeya2, J. Toguchida2, S. Kinoshita1. 1Ophthalmology, Kyuoto Prefuctural University of Medicine, Kyoto, Japan; 2Center for iPSC Cell Research and Application, Kyoto University, Kyoto, Japan *CR


528 — A0117 Gene Expression in Human Corneal Endothelial Cells. Kaushali Thakore-Shah, S. X. Deng. UCLA, Jules Stein Eye Institute, UCLA, Los Angeles, CA

530 — A0166  Blinding In Patients With Normal Tension Glaucoma: A Hospital-Based Study. Daisuke Takegami, J. A. Rivera, A. Sawada, T. Yamanoto. Ophthalmology, Gifu University Graduate School of Medicine, Gifu, Japan

531 — A0167  Primary open-angle glaucoma patients have superactivated platelets: A sticky conundrum. Paulus V. Kaprjas, S. Forte, C. Wanderling, L. Walker, A. Grybauskas, J. R. Samples, B. Yue. Ophthalmology, Northwestern University Medical School, Chicago, IL

532 — A0168 AGONISTIC β2-ADRENERGIC RECEPTOR AUTOANTIBODIES IN OCULAR HYPERTENSION AND OPEN-ANGLE GLAUCOMA. Bettina Hohberger, M. Herrmann, F. Horn, F. E. Kruse, A. G. Juenemann. Ophthalmology, University Erlangen-Nuremberg, Erlangen, Germany; Laboratory for Cell Biology, University of Erlangen-Nürnberg, Erlangen, Germany

533 — A0169  A Correlation Between Primary Open Angle Glaucoma and Renal Function. Krishna Patel, D. Dwoork, S. Patel, N. Lamba, T. Patraniakos. Ophthalmology, University of Missouri Kansas City, Kansas City, MO; Ophthalmology, Cook County Health and Hospital Systems, Chicago, IL; Ophthalmology, Loyola University, Maywood, IL

534 — A0170  Therapeutic trend analysis of normal tension glaucoma cases in common Japanese clinics over a 7-year period. Kazuhiko Mori, Y. Ikeda, M. Ueno, K. Yoshii, S. Kinoshita. Ophthalmology, Kyoto Prefectural University of Med, Kyoto, Japan; Department of Medical Statistics, Kyoto Prefectural Univ of Med, Kyoto, Japan


536 — A0172  Usability of Glaucoma Medication Eye Droppers. Thomas E. Drew, J. S. Wolffsohn. Life and Health Sciences, Aston University, Birmingham, United Kingdom

537 — A0173  Squeezing generic latanoprost. Are they the same? Umaira Mulla, K. Wong, E. Tanner, D. Young, A. P. Rotchford. Ophthalmology, Tenen Institute of Ophthalmology, Glasgow, United Kingdom; Biomedical Engineering, University of Glasgow, Glasgow, United Kingdom; Mathematics and Statistics, University of Strathclyde, Glasgow, United Kingdom

538 — A0174  Analysis of Factors Affecting Nonadherence in Glaucoma Medication Utilization. Morgan L. Pansegrauel, M. Petroll, I. Dersu. Ophthalmology, University of Texas Southwestern Medical Center, Dallas, TX; Ophthalmology, Jones Eye Institute, University of Arkansas for Medical Sciences, Little Rock, AR; Ophthalmology, SUNY Downstate Medical Center, Brooklyn, NY; Biomedical Engineering, University of Texas Southwestern Medical Center, Dallas, TX

539 — A0175  Glaucoma Research on Adherence to Fixed Combination Eye drops in Japan (GRACE study): A First Report. Toyoaki Tsumura, Y. Suzuki, K. Kashiwagi, K. Yoshikawa, H. Suzumura, T. Maeda, R. Takeda, H. Saito, M. Araie. Fussa Hospital, Fussa, Japan; Department of Ophthalmology, University of Yamanashi, Chuo, Japan; Department of Ophthalmology, Tokai University Hachioji Hospital, Hachioji, Japan; Yoshikawa eye clinic, Machida, Japan; Suzumura eye clinic, Nakano, Japan; Maeda eye clinic, Shibuya, Japan; Faculty of Agriculture, Kinki University, Naka town, Japan; Kanto Central Hospital of The Mutual Aid Association of Public School, Seta, Japan

540 — A0176  Patient Adherence and Persistence with Topical Bimatoprost* 0.01% and Bimatoprost* 0.03%; an Analysis of Latanoprost Switchers. Jonathan W. Kowalski, J. Campbell, G. F. Schwartz, B. LaBounty. Global Health Outcomes Strategy & Res., Allergan Inc, Irvine, CA; Greater Baltimore Medical Center, Baltimore, MD; Wilmer Eye Institute, John Hopkins University, Baltimore, MD; Principled Strategies Inc., Encinitas, CA


542 — A0178  The role of the fourth drug in patients with glaucoma: is it worth it? Verena Juncal, F. A. Jorge, A. Paramos, T. S. Prata. Department of Ophthalmology and Visual Sciences, Paulista School of Medicine, Sao Paulo Hospital, Federal University of Sao Paulo, Sao Paulo, Brazil

543 — A0179  Clinical Significance of a Third or Fourth Anti-Glaucoma Eye Drop. Pengcheng Li, S. Park, G. Huang, J. M. Liebmann, R. Ritchi. Moise and Chella Saffer Advanced Ocular Imaging Laboratory, Einhorn Clinical Research Center, New York Eye and Ear Infirmary of the Mount Sinai Health System, New York, NY; Department of Ophthalmology, New York Eye and Ear Infirmary of the Mount Sinai Health System, New York, NY; Department of Ophthalmology, New York University School of Medicine, New York, NY

544 — A0180  Synergistic Effect of Once Daily Topical 0.03% Bimatoprost and 0.5% Timolol Maleate on Intraocular Pressure Reduction in Normal Beagles. Corbin Telford, B. C. Gilger, J. H. Salmon. North Carolina State University College of Veterinary Medicine, Raleigh, NC


547 — A0183  Switch from BAK-preserved to preservative-free latanoprost decreases anterior chamber flare in POAG patients. Philippe G. Kestelyn, D. De Bacquer, A. Stevens. Ophthalmology, University Ghent, Gent, Belgium; Public Health, University Ghent, Gent, Belgium

548 — A0184  Efficacy of Latanoprostene Bunod Ophthalmic Solution, 0.024%, in Lowering Intraocular Pressure Over 24-Hours in Normal Japanese Subjects (KRONUS). Makoto Arai, T. Ong, B. Scassellati-Fiorozili, Q. Ngumah, J. L. Vittitow, R. N. Weinreb. Kanto Central Hospitals, Mutual Aid Assoc of Public Sch Teachers, Setagaya-Ku, Japan; Ophthalmology, University of Tokyo School of Medicine, Tokyo, Japan; Clinical Affairs, Bausch & Lomb, Bridgewater, NJ; Ophthalmology and Hamilton Glaucoma Center, University of California, San Diego, La Jolla, CA

549 — A0185  Randomized Clinical Trial Of The Efficacy And Safety Of Preservative-free Tafufropst And Preservative-free Timolol In Patients With Open-angle Glaucoma (OAG) Or Ocular Hypertension (OHT) In India. Almira Chahi, R. Lupinacci, C. Baranak, W. Herring, Merck, North Wales, PA
550 — A0186  Efficacy and Tolerability of BAK-Free Travoprost in Patients With Open-Angle Glaucoma Previously on Latanoprost. Joao F. Lopes1, D. A. Hubatsch2. 1Chile University, Salvador Hospital, Santiago, Chile; 2Alcon Laboratories, Inc., Fort Worth, TX *CR, $

551 — A0187  24-hour diurnal intraocular pressure (IOP) evaluation in eyes with POAG or ocular hypertension treated with unoprostone isopropyl as measured in both the sitting and supine position. Alan L. Robin1, R. Ueno2,3. 1Ophthalmology & Intl Health, POAG or ocular hypertension treated with pressure (IOP) evaluation in eyes with Laboratories, Inc., Fort Worth, TX; 2Colegio Mexicano de Oftalmologia and Sociedad Mexicana de Oftalmologia, San Miguel Chapultepec, Mexico *CR, $

552 — A0188  Difference of intraocular pressure lowering effects among 3 Prostaglandin analogs for Korean glaucoma and ocular hypertension patients. Seung Jae Lee, Y. Kim, H. Kyung. Ophthalmology, National Medical Center, Seoul, Republic of Korea

553 — A0189  Comparison study of the intraocular-pressure reduction efficacy and safety between bimatoprost and latanoprost-timolol-fixed combination in Japanese open-angle glaucoma patients who switched from latanoprost. Yako Maruyama1, Y. Ikeda2,3, K. Mori1, M. Ueno1, H. Yoshikawa1, S. Kinoshita1. 1Ophthalmology, Kyoto Prefectural Univ of Med, Kyoto, Japan; 2Oike-Ganka Ikeda Clinic, Kyoto, Japan *CR, $

554 — A0190  Latanoprost prevents TGF-β2-induced collagen deposition and promotes contraction in trabecular meshwork cells. Georges Kalouche1,2, M. Bakria3, C. Boucher1, P. Avenet1, S. Melik-Parsadaniantz1, C. Leriche1, T. Debeir1, X. Vige1, C. Baudouin1, W. H. Rostene1, Institute of the Vision UMR 968 /INSERM/ UPMC, Paris, France; 2Sanofi Research & Development, Chilly-Mazarin, France; 3Sanofi Fovea, Paris, France *CR


556 — A0192  Subgroup Analysis of the IOP-Lowering Effect of Fixed-Combination Brinzolamide/Timolol 1%/0.2% in the 3-Month Study NCT01297517. Jason Bacharach1,2, D. A. Hubatsch1, H. Barnevey1. 1North Bay Eye Associates, Petaluma, CA; 2Glaucoma, California Pacific Medical Center, San Francisco, CA; 3Alcon Laboratories, Inc., Fort Worth, TX; 4Speciality Eyecare Centre, Seattle, WA *CR, $

557 — A0193  Efficacy and Tolerability of Switching to Brinzolamide/Timolol Fixed Combination From Brimonodine/Timolol Fixed Combination in Latin America. Arturo A. Allezandrin1, D. A. Hubatsch2, R. Alfaro3. 1University of Buenos Aires, Buenos Aires, Argentina; 2Alcon Laboratories, Inc., Fort Worth, TX; 3Cuelo Mexicoano de Oftalmologia and Sociedad Mexicana de Oftalmologia, San Miguel Chapultepec, Mexico *CR, $

558 — A0194  The effect of adrenergic and cholinergic agents on anterior scleral thickness and Schlemm’s canal in young healthy adults. Beata P. Sander, M. J. Collins, S. A. Read. School of Optometry, QUT, Kelvin Grove, QLD, Australia

559 — A0195  The neuroprotective protein Stanniocalcin-1 (STC-1) has ocular hypotensive properties in the human anterior segment organ culture model. Gavin W. Roddy, C. K. Bahler. Ophthalmology, Mayo Clinic, Rochester, MN


562 — A0198  Decorin, an anti-fibrogenic and fibrolytic glycoprotein, reduces established trabecular meshwork scarring and intraocular pressure and protects retinal function in a rat model of glaucoma. Lisa J. Hill1, R. J. Blanch1, B. Mead1, P. J. Morgan-Warren2, H. Botfield2, S. Mohamed3, R. Scott1, M. Berry1, W. Leadbeater1, A. Logan1. 1Neurotrauma and Neurodegeneration Section, University of Birmingham, Edgbaston, United Kingdom; 2Department of Ophthalmology, University Hospital Birmingham, Birmingham, United Kingdom

563 — A0199  Comparison of effect of oral lomerizine and methyclobalin on visual field defect in primary open angle glaucoma and normal tension glaucoma. Kazuyoshi Kitamura1, T. Chiba2, F. Mabuchi2, S. Kogure2, F. Kashiwagi3, S. Tsukahara1, K. Kashiwagi4. Ophthalmology, University of Yamanashi, Chuo, Japan; 2Kogure Eye Clinic, Showa, Japan; 3Kashiwagi Eye Clinic, Kofu, Japan

564 — A0200  Phase 2 of bamosiran (SYLO40012), a novel RNAi based compound for the treatment of increased intraocular pressure associated to glaucoma. Victoria Gonzalez1, K. Palamara2, K. Turman3, F. Muñoz4, J. Jordan1, J. Garcia1, F. Ussia1, A. Antor1, E. Gutierrez5, J. Moreno-Montanes6. Sylentis, Madrid, Spain; 2Institut Catala de Retina, Barcelona, Spain; 3Hospital Universitario Clinico San Carlos, Madrid, Spain; 4Hospital Universitario 12 de Octubre, Madrid, Spain; 5Clinica Universidad de Navarra, Pamplona, Spain; 6Hospital Universitario Ramon y Cajal, Madrid, Spain; 7Instituto de Oftalmologia Aplicada, Valladolid, Spain; 8East Tallinn Central Hospital, Tallinn, Estonia; 9Universitasieklinikum Freiburg, Freiburg, Germany; 10Eye Clinic Dr. Krista Turman, Tallinn, Estonia *CR, $

565 — A0201  Initial Clinical Evaluation of Safety, Tolerability and Pharmacodynamics of the Locally-Acting ROCK Inhibitor AMA0076. John Hall1, K. N. Sall1, J. H. Peace1, D. Day1, M. Tepedino1, J. Bacharch6, A. Zaman2, S. Mair3, S. Pakola4. 1Amakem NV, Diepenbeck, Belgium; 2Sall Research Medical Center Inc., Artesia, CA; 3United Medical Research Inst, Inglewood, CA; 4Coastal Research Associates, LLC, Roswell, GA; 5Cornerstone Clinical Research, High Point, NC; 6North Bay Eye Associates, Petaluma, CA; 7Nottingham University Hospitals NHS, Nottingham, United Kingdom; 8Quotient Bioresearch, Ruddington, United Kingdom; 9Clinical Development, Amakem NV, Diepenbeck, Belgium *CR, $


Exhibit/Poster Hall SA B0095-B0101
Sunday, May 04, 2014 1:30 PM-3:15 PM
Retina

120 Biomarkers and Retinal Disease

Moderators: Anita Agarwal and John W. Crabb

568 — B0095  The Difference in Response After 3 months of Anti-VEGF in wet AMD Correlates with Differences in Vitreous Protein Biomarkers. Bert M. Glaser1,2, T. M. Poulsen2, J. C. Hines3, S. M. Eckert4. 1National Retina Institute, Towson, MD; 2Ocular Proteomics, LLC, Baltimore, MD *CR
569 — B0096 Long-Term Differences in the Vitreous Proteome of wet AMD Anti-VEGF Responders versus Non-Responders During 12 months of Treatment. Joshua C. Hines, T. M. Poulsen, S. M. Ecker, B. M. Glaser. Ocular Proteomics, Baltimore, MD

570 — B0097 Changes in the Vitreous Proteome One Month Following Initial Anti-VEGF Treatment for Wet AMD Correlate with Treatment Response. Stephanie M. Ecker1,2, T. M. Poulsen1, J. C. Hines1,2, B. M. Glaser1,2. Ocular Proteomics, LLC, Baltimore, MD, National Retina Institute, Towson, MD *CR

571 — B0098 Level of alpha-b crystallin in vitreous of eyes with rhematogenous retinal detachment. Takayuki Baba, G. Bikbova, S. Yamamoto. Ophthalmology & Visual Science, Chiba Univ Grad School of Med, Chiba, Japan

572 — B0099 The immunocytochemical identification of subretinal fluid in patients with rhematogenous retinal detachment. Lukas Ricker1, E. La Heij2, A. Klijstra1. Dept. of Ophthalmology, Maastricht University Medical Center, Maastricht, Netherlands; Dept. of Ophthalmology, Jan van Goyen Medical Center, Amsterdam, Netherlands


574 — B0101 Candidate serum protein biomarkers of age-related macular degeneration (AMD). Tammy M. Martin1, M. L. Klein1, P. A. Wilmarth1, F. L. Ferris1, E. Y. Chew1, A. P. Reddy1, L. L. David1,2. Casey Eye Institute/Ophthalmology, Oregon Health & Science Univ, Portland, OR; Proteomics Shared Resources, Oregon Health & Science Univ, Portland, OR; Biochemistry & Molecular Biology, Oregon Health & Science Univ, Portland, OR; National Eye Institute, National Institutes of Health, Bethesda, MD; Devers Eye Institute, Legacy Research Institute, Portland, OR


578 — B0105 Aflibercept-Real life clinical data in the management of Wet age related macular degeneration (Wet AMD). Ajay K. Kotagiri1,2, J. S. Talks2, D. Varma1, R. Gupta1, A. Browning1, R. Kak1. Ophthalmology, Sunderland Eye Infirmary, Sunderland, United Kingdom; Ophthalmology, Newcastle Eye Centre, Newcastle upon Tyne, United Kingdom *CR

579 — B0106 Response of the retinal pigment epithelium (RPE) to antiangiogenic therapy in neovascular age-related macular degeneration (AMD). Christopher Schlütte1, M. Weiß1, B. Baumann2, M. Pircher3, C. K. Hiltenberg2, U. Schmidt-Erfurth1. Department of Ophthalmology, Medical University Vienna, Vienna, Austria; Center for Medical Physics and Biomedical Engineering, Medical University Vienna, Vienna, Austria *CR


581 — B0108 Are intravitreal injections with ultrathin 33G needles less painful? Freekie van Asten1, H. van Middendorp2, S. Verkerk2, M. Breukink1, C. C. Hoynig1, A. W. Evers1, B. J. Klevering1. Department of Ophthalmology, Radboud UMC, Nijmegen, Netherlands; Department of Medical Psychology, Radboud UMC, Nijmegen, Netherlands

582 — B0109 Plasma levels of PDGF-B in Patients with Neovascular AMD. Gerhard F. Kieselbach, C. Zehetner, R. Kirchmayr, M. T. Kralinger. Medical University, Innsbruck, Austria

583 — B0110 Optimal Incubation Period following Topical Anesthesia prior to Intravitreal Injections. Melvin Rabena, C. Quezada, J. Giust, M. Villanueva, L. Bone, D. J. Pieramici. California Retina Consultants, Santa Barbara, CA


585 — B0112 Risk Of Endophthalmitis In A Large Series (135,729 injections) Of Patients Treated With Intravitreal Anti-VEGF or Dexamethasone Injections. Ulrich Kellner1,2, R. Kölb-Keerl1, D. Engineer1, A. Kersten1, N. Körber1. Rare Retinal Disease Center, AugenZentrum Siegburg, MVZ ADTC Siegburg GmbH, Bonn, Germany; RetinaScience, Bonn, Germany; AOZ Niederreihn, Duesseldorf, Germany; Augencentrum Koeln, Koeln, Germany; Augenklinik Tausendfiensterhaus, Duisburg, Germany

586 — B0113 Systemic Pharmacokinetics Following Intravitreal Injections of Ranibizumab, Bevacizumab or Aflibercept in Patients with DME. Robert L. Avery1, A. Castellari1, N. Steinle1, D. Dhoot2, D. J. Pieramici1, R. F. See2, S. Couvillion1, M. Nasir1, K. Le1, J. Vischi1. California Retina Consultants, Santa Barbara, CA; Genetech, South San Francisco, CA *CR

587 — B0114 The effect of a “no talking” policy during intravitreal injection on post-injection endophthalmitis. Michael POLLIN, J. F. VANDER VELDE, S. GARG, J. HSU, RETINA, WILLS Eye Hospital, Philadelphia, PA

588 — B0115 Development of an innovative single-handed intra-ocular Drug Injector. Inigo Corcosetegui1, T. M. Suarez-Cortes2, X. Landaluce1. ICQO, Bilbao, Spain; BioOftalmik, Bilbao, Spain *CR

589 — B0116 Relationship of Posterior Vitreous Detachment to Frequency of Intravitreal Injection of Anti-Vascular Endothelial Growth Factor for Age-Related Macular Degeneration. Lisa J. Faia1,2, Ho3, M. T. Tresse1,2. Ophthalmology, William Beaumont - Oakland University School of Medicine, Rochester, MI; Retina, Associated Retinal Consultants, Royal Oak, MI *CR


591 — B0118 Poor Responders to Bevacizumab Pharmacotherapy in Age-Related Macular Degeneration and in Diabetic Macular Edema Demonstrate Increased Risk for Obstructive Sleep Apnea. Brooke Nesmith, M. Ihnen, S. Schaal. Ophthalmology, University of Louisville, Louisville, KY

592 — B0119 VEGF levels in serum and the outcome of intravitreal anti-VEGF treatment in neovascular age-related macular degeneration. Farshad Abedi, S. Wickremasinghe, A. Islam, R. H. Guynner. Centre for Eye Research Australia, University of Melbourne, The Royal Victorian Eye and Ear Hospital, East Melbourne, VIC, Australia *CR

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* Refer to the Program Number in the Clinical Trial (CT) Registration Index. *CR Refer to the Program Number in the Commercial Relationships (CR) Index for Disclosures.
593 — B0120  Systematic Review of Safety Across the Phase 2 and 3 Clinical Trials of Intravitreal Aflibercept Injection. Diana V. Do. Ophthalmology, TruHslen Eye Institute, University of Nebraska, Omaha, NE *CR, CR

594 — B0121  Plasma kallikrein (PKal) deficiency ameliorates the effects of vascular endothelial growth factor (VEGF) on retinal hyperpermeability and edema. Allen C. Clermont et al. 1, 2, Q. Zhou, N. Murugesan, W. Fickweller, E. P. Feener et al. 1. Beetham Eye Institute, Joslin Diabetes Center, Boston, MA; 2Vascular Complications, Joslin Diabetes Center, Boston, MA; 3Medicine, Harvard Medical School, Boston, MA

595 — B0122  Dynamic change of aqueous concentrations of VEGF and its soluble receptors during the treatment of aflibercept in patients with age-related macular degeneration. Akina Tanaka, H. Noma, R. Motohashi, T. Minezaki, K. Yasuda, M. Shimura. Ophthalmology, Tokyo Medical University Hachioji Medical Center, Hachioji, Japan


597 — B0124  Safety of Anti-VEGF Drugs on Cultured Corneal Endothelial Cells. Tatsujo Nagata, N. Miyamoto, H. Kondo. Ophthalmology UOEH, Univ of Occup & Environ Health, Kitakyuusu, Japan


599 — B0126  Mitochondrial Membrane Potential Response of Retinal Pigment Epithelium Cells In Vitro to Anti-VEGF Agents: Ranibizumab, Bevacizumab, Aflibercept and Ziv-aflibercept. Deepika Malik, J. Caceres del Carpio, Y. Kim et al. 1, M. Mohamed Moustafa, K. Thaker, T. Patel, S. R. Bababeggy, C. M. Kenney, B. Kuppermann. Ophthalmology, Gavins Herbert Eye Institute, University of California, Irvine, CA; Eulji University, Seoul, Republic of Korea *CR


601 — B0128  In Silico Mechanistic Model for Understanding Intravitreal Dosing Frequency of Anti-VEGF Therapies. Tom Wilde, V. Damian. DMPK - Modeling and Translational Biology, GlaxoSmithKline, King of Prussia, PA *CR

602 — B0129  Correlation between changes in visual acuity and time in age-related macular degeneration. Juan Pablo Real, S. Palma, G. Granero, C. P. Juarez, J. D. Luna Pinto. 1Department of Farmaciac-, Facultad de Ciencias Quimicas-Universidad Nacional de Cordoba, Argentina. UNITETà(CONICET), Cordoba, Argentina; Ophthalmology, Centro Privado de Ojos RomagosàA - Fundación VÉR, Cordoba, Argentina

603 — B0130  Curcumin inhibits both hypoxia-induced VEGF up regulation in retinal pigment epithelium cells and angiogenesis of choroidal vascular cells. Dario H. Vasquez 2, M. Diaz 2, C. Sanhueza 2, E. Castiglione 2, I. Gonzalez 2, R. Valenzuela 2, G. Owen 2, L. Leyton 2, 3. BNI, University of Chile, Santiago, Chile; 2Ophthalmology, University of Chile, Santiago, Chile; 3Physiology Department, Universidad Catolica, Santiago, Chile; 3Biomedical Research Consortium Chile, Biomedical Research Consortium Chile, Santiago, Chile; 3Cell Communication Lab, University of Chile, Santiago, Chile

604 — B0131  Efficacy and Safety of Intravitreal Aflibercept Injection (IAI) for Treatment of Macular Edema Secondary to Branch Retinal Vein Occlusion (BRVO): 24-Week Results of the VIBRANT Study. David S. Boyer. Ophthalmology, Retina Vitreous Assoc Med Group, Los Angeles, CA *CR


606 — B0133  Efficacy and safety of ranibizumab 0.5 mg in patients with visual impairment due to macular edema secondary to central retinal vein occlusion: Design and baseline characteristics of the CRYSTAL study. Francesco Boscia,1 H. Gerding,2 I. A. Pearce3, S. Priglinger2, R. Tadayoni4, J. Han4, G. Lambrou4, W. Stubbings5, J. M. Mone6,1 Department of Ophthalmology, University of Sassari, Sassari, Italy; University of Muenster, Muenster, Germany; Royal Liverpool University Hospital, Liverpool, United Kingdom; Akh Linz - General Hospital, Krankenhausstr 9, Austria; Hospital Lariboisiere, Paris, France; Novartis Pharma, Basel, Switzerland; Novartis Pharma, Basel, Switzerland; Novartis Pharma, Basel, Switzerland; Barcelon Macula foundation, Barcelona, Spain *CR, CR

607 — B0134  Ranibizumab ±adjunctive laser vs laser in patients with visual impairment due to macular edema secondary to branch retinal vein occlusion (BRVO): Design and baseline characteristics of the BRIGHTER study. Heinrich Gerding, F. Boscia, J. M. Mone5, S. Priglinger, R. Tadayoni4, J. Han4, G. Lambrou4, W. Stubbings5, I. A. Pearce3. University of Muenster, Muenster, Germany; University of Sassari, Sassari, Italy; Barcelon Macula foundationa, Barcelona, Spain; AKh Linz - General Hospital, Krankenhausstr 9, Austria; Hospital Lariboisiere, Paris, France; Novartis Pharma AG, Basel, Switzerland; Novartis Pharma AG, Basel, Switzerland; Novartis Pharma AG, Basel, Switzerland; Royal Liverpool University Hospital, Liverpool, United Kingdom *CR


609 — B0136  Retreatment protocol evaluation for macular edema secondary to Retinal Vein Occlusion. Carlo Gandolfi, S. Donati, M. Al Oum, R. Vacciguerra, M. Bianchi, C. Azzolini. Dept. of Surgical and Morphological Sciences - Section of Ophthalmology, University of Insibria, Varese, Italy

610 — B0137  Intensive intravitreal treatment with methotrextate for refractory cystoid macular edema secondary to intraocular inflammation: a small case series. Maria K. Genevtesiz1, A. Karydis1, E. Shao1, V. Menezos1, S. R. Taylor2,1. Eye Department, Royal Surrey County Hospital NHS Foundation Trust, Guildford, United Kingdom; Imperial College London, London, United Kingdom; Institut Catala de Retina, Barcelona, Spain

611 — B0138  Intravitreal Ranibizumab in the treatment of refractory pseudophakic cystoid macular edema following cataract surgery. Ramon Dominguez Fernandez1, A. Govere1, F. Lagoa2, R. Lorente1. Ophthalmology, CHU Ourense, Ourense, Spain; Biostatistics, CHU Ourense, Ourense, Spain
Moderators: Elizabeth R. Gaillard and Donita Garland


613 — B0140 Effect of the 402H Cfh Variant on the Response to Chronic and Acute Retinal Oxidative Stress, and on the Accumulation and Phenotype of Subretinal Microglia. Bogale Aredo1, T. Li1, X. Chen1, K. Zhang1, B. Zhao1, Y. He1. R. Ufret-Vincenty1. Ophthalmology, UT Southwestern Medical Center, Dallas, TX; 2The People’s Hospital of Hai Nan, Hai Kou, China

614 — B0141 Bv8 expression and Anti-VEGF Refractoriness in Patients with Neovascular Age-Related Macular Degeneration (nvAMD). Timothy R. Catchpole1, K. G. Csaky1.1, Retina Fdn of the Southwest, Dallas, TX; 2Ophthalmology, UT Southwestern Medical Center, Dallas, TX *CR

615 — B0142 VEGF Overexpression As A Possible Molecular Mechanism Of Tachyphylaxis Induction After Treatment With Intravitreal Bevacizumab And Ranibizumab. Ricardo Japassiou, M. Fusco, S. Allodi. State University of Rio de Janeiro, Rio de Janeiro, Brazil

616 — B0143 PARK7 DJ1 silenced by siRNA inhibits uveal melanoma cell proliferation. Maria Santiago-Varela1, M. F. Bande1, M. Blanco1, P. Mera1, C. Capeans1, M. Pardo1, A. Pineiro-Ces1. 1Unit of Ocular Oncology- Servicio de Oftalmologia, Hospital Médico Quirúrgico de Conxo, Santiago de Compostela, Spain; 2Grupo Obedisómica; Laboratorio de endocrinologia molecular y celular. Instituto de investigación sanitaria (SERGAS), Santiago de Compostela, Spain

617 — B0144 Protective role of the cannabinoid receptor system in A2E-mediated photo-toxicity to retinal pigment epithelium (RPE) cells in an in-vitro model of age-related macular degeneration (AMD). Shimon Ben-Shabat, S. Hauner, M. Cohen, E. Beit-Yannai. Department of Clinical Biochemistry and Pharmacology, Faculty of Health Sciences, Ben-Gurion University of the Negev, Beer Sheva, Israel

618 — B0145 Wnt Modulators in the Aqueous Humor are Associated with Severity of Outer Retinal Damage in Patients with Neovascular AMD. Hyewon Chung1, K. Park2, A. Choi3, S. Woo4, J. Yoon1. 1Ophthalmology, Konkuk Univ School of Medicine, Konkuk University Medical Center, Seoul, Republic of Korea; 2Ophthalmology, Seoul National Univ College of Medicine, Seoul National University Bundang Hospital, Seongnam, Republic of Korea

619 — B0146 The photoreceptor damage induced by blue light emitting diode light and the involvement of oxidative stress. Yoshihki Kuse, K. Ogawa, K. Tsuruma, M. Shimazawa, H. Har. Department of Biofunctional Evaluation, Gifu Pharmaceutical University, Gifu, Japan


621 — B0148 Edaravone, a free radical scavenger, inhibits laser-induced choroidal neovascularization in mice by reducing the oxidative stress. Tomomi Masuda, S. Takata, K. Tsuruma, M. Shimazawa, H. Har. Gifu Pharmaceutical University, Gifu, Japan

622 — B0149 The role of cell-to-cell interaction through extracellular microvesicles, microRNA, and exosomes in deregulated functions of retinal pigment epithelium and macrophages. Atsushi Muka1, J. Yamada1,4, H. Hatanaka1, Y. Yamagishi1, K. Nagata1, M. Ueno1, J. Hamuro1, S. Kinoshi1. 1Ophthalmology, Kyoto Prefectural University of Medicine, Kyoto, Japan; 2Ophthalmology, Meiji University of Integrative Medicine, Kyoto, Japan *CR

623 — B0150 A novel mechanism for initiation of sub-RPE deposits. Richard B. Thompson1, V. Reffatto1, J. Bundy1, J. Flinn1, A. Lanzirilli1, E. Jones1, D. McPhail1, S. Ratuf2, A. C. Bird2, I. Lengyel3. 1Dept Biochemistry and Molecular Biology, University of Maryland School of Medicine, Baltimore, MD; 2Institute of Ophthalmology, University College London, London, United Kingdom; 3Dept of Surgery and Cancer, Imperial College London, South Kensington, London, United Kingdom; 4Dept of Psychology, George Mason University, Fairfax, VA; 5Center for Advanced Radiation Sources, The University of Chicago, Chicago, IL; 6Department of Materials, Imperial College London, South Kensington, London, United Kingdom *CR

624 — B0151 Correlation of Long-chain Polyunsaturated Fatty Acids (LC-PUFAs) in Serum, RBC and Fat with Very-long-chain Polyunsaturated Fatty Acids (VLC-PUFAs) in Human Retina. Aruna Goruppu1, A. Liu, P. S. Bernstein. Department of Ophthalmology and Visual Sciences, Moray Eye Center, Salt Lake City, UT

625 — B0152 Aβ deposition and senescent RPE cells are found in the retinas of SAMPs mice. Lining Cao1, F. Wang1,2, C. Liu1, H. Wang1, J. Yao1, C. Sun1. 1Department of Ophthalmology, Ninth People’s Hospital, Affiliated of Tongji University, School of Medicine, Shanghai, China; 2Eye institute, Tongji University, Shanghai, China

626 — B0153 Regulation of the innate immune response glycoprotein complement factor H (CFH; chr1q32) in age-related macular degeneration (AMD) and sporadic Alzheimer’s disease (AD) by a novel NF-kB-sensitive, miRNA-146a- and miRNA-155-mediated genetic switch. Walter J. Lukiw1,2, S. Bhattacharjee3, P. Alexandrov2, B. Jones1, J. M. Hill1,4, Y. Zhao1,2, P. Dua. 1Neuroscience & Ophthalmology, Louisiana State Univ Hlth Sci Ctr, New Orleans, LA; 2Neurogenetics, Russian Academy of Medical Sciences, Moscow, Russian Federation; 3Health Information Management, Louisiana Technical University, Ruston, LA; 4Departments of Microbiology and Pharmacology, Louisiana State University Health Science Center, New Orleans, LA; 5Center for Translational Injury Research, University of Texas Health Sciences Center, Houston, TX

627 — B0154 The role of melanin in protecting the skin and the retina from light damage: A comparative biological framework for Age-Related Macular Degeneration. Kim T. Le1, J. Schachter2, M. G. Quigley3. 1Ophthalmology, McGill, Montreal, QC, Canada; 2Dermatology, McGill, Montreal, QC, Canada

628 — B0155 Use of ARPE-19 cell line as an in-vitro model for age related macular degeneration. Fatema Alarashed1,2, A. Bennett1, I. Kerr1, A. Foss1, 1school of biomedical science, The university of nottingham, Nottingham, United Kingdom; 2Immunology Unit, Kuwait ministry of health, Kuwait, Kuwait; 3Nottingham University Hospitals NHS Trust, University of nottingham, Nottingham, United Kingdom

629 — B0156 Determining the Influence of AMD Phenotype/Genotype on the RPE Stress Response. Marcia Terluk1, M. C. Ebeling1, H. Roehrich1, R. J. Kappahn1, K. Goode1,2, C. M. Kenney1, S. Attilano1, S. Montezuma1, D. A. Ferrington1. 1Department of Ophthalmology and Visual Neurosciences, University of Minnesota, Minneapolis, MN; 2Minnesota Lions Eye Bank, University of Minnesota, Minneapolis, MN; 3Gavin Herbert Eye Institute, University of California-Irvine, Irvine, CA

630 — B0157 The signal sequence of AMD-related variant Cystatin C is not sufficient for mistrafficking to mitochondria. Alessandro Riccio1,2, M. Jackson1, W. Hunziker2, L. I. Paraoan1. 1Eye and Vision Science, University of Liverpool, Liverpool, United Kingdom; 2Institute of Molecular and Cell Biology, A*STAR, Singapore, Singapore
123 Retinal diseases in the aged eye

Moderators: Mingguang He and Roberta McKean-Cowan

637 — C0047 Retinal Vascular Parameters in Dengue Fever. Tun Kuan Yeo1, D. C. Lye1, L. Tun1, L. Li1, H. Huang2, C. Cheung3, V. Gan1, Y. Leov1, S. C. Teoh4. 1Tan Tock Seng Hospital, Singapore, Singapore; 2Singapore Eye Research Institute, Singapore, Singapore

638 — C0048 Depression and anxiety in patients with advanced stage of retinitis pigmentosa. Sainohira Mayumi1, 2, T. Yamashita1, 2, T. Sakamoto1, K. Miyata2. 1Ophthalmology, Eye Hospital, Miyakonojou, Japan; 2Miyata Atomic Bomb Survivor Study.


640 — C0050 Retinal microvascular abnormalities and nerve fiber layer defect in MRI-defined cerebral stroke. li zhangle1, 2, J. Zhang1, 2, F. Yan1, 2, Q. You1, 2, L. Xu1, 2, J. B. Jonas1, 3. 1Beijing Institute of Ophthalmology, Beijing, China; 2Ophthalmology, Beijing Tongren Hospital, Beijing, China; 3Universitätsmedizin Mannheim, Medical Faculty Mannheim, Heidelberg University, Mannheim, Germany, Mannheim, Germany

641 — C0051 Evolution of demographies of patients treated with intravitreal injections of ranibizumab in the real-life on a 5 years period. Arnaud George, J. Bellamy, M. Boequenet. Ophthalmologie, Clinique Sainte Jeanne Darc, Saint-Brieuc, France

642 — C0052 Real-World Utilization Data Over 4 Years Of Ranibizumab Injections For The Treatment Of Wet Age-Related Macular Degeneration In Canada. John R. Gonder1, B. Davies2, N. Zaour2. 1Ophthalmology, Ivey Eye Institute, London, ON, Canada; 2Novartis Pharmaceuticals Canada Inc., Dorval, QC, Canada

643 — C0053 The Swedish Macula Register - results, adverse events and safety in intravitreal injections. Inger Westborg1, 2, S. Albrecht1, G. Bjärnhall1, 2, E. Granström2, J. Johannson1, N. Karlsson1. 1Clinical Science Ophthalmology, Umeå University, Umeå, Sweden; 2Makularegisteret, Eye Net Sweden/RC Syd, Karlskrona, Sweden

644 — C0054 Risk characteristics of the combined geographic atrophy and choroidal neovascularisation phenotype in age-related macular degeneration. celine saade1, B. Ganti1, M. Marmor1, 2, K. Freund1, 2, T. Smith1. 1Department of ophthalmology, New York University school of medicine, New York, NY; 2Department of ophthalmology, Vitreous Retina Macula Consultants NY, New York, NY; 3population health, NYU school of medicine, new york, NY; 4environmental medicine, NYU school of medicine, new york, NY *CR

645 — C0055 Atomic Bomb Radiation Exposure and the Prevalence of Age-related Macular Degeneration: the Hiroshima-Nagasaki Atomic Bomb Survivor Study. Katsumasa Itakura1, 2, I. Takahashi1, 3, M. Yanagi1, 2, K. Neriishi1, 2, K. Shigematsu1, 3, T. Y. Wong1, 2, Y. Kiuchi1. 1Centre for Eye Research Australia, Royal Victorian Eye and Ear Hospital, University of Melbourne, Melbourne, VIC, Australia; 2Ophthalmology and Visual Science, Hiroshima University, Hiroshima, Japan; 3Clinical studies, Radiation Effect Research Foundation, Hiroshima, Japan; 4Statistics, Radiation Effect Research Foundation, Hiroshima, Japan; 5Public Health, Yamagata University Faculty of Medicine, Yamagata, Japan; 6Aichi Medical University, Aichi Medical University, Aichi, Japan; 7Centre for Vision Research, Westmead Millennium Institute, University of Sydney, Sydney, NSW, Australia; 8Singapore Eye Research Institute, Yong Loo Lin School of Medicine, National University of Singapore, Singapore, Singapore

646 — C0056 Incidence of CNV in Asymptomatic Fellow Eyes of Patients with Neovascular AMD. Abdollahi R. Bhavsar. Retina Center, Minnesota, Minneapolis, MN

647 — C0057 Correlation of the Geographical Distribution of Drusen in the Human Macula in the Irish Nun Eye Study (INES). Vittorio Silvestr1, E. Moore2, S. Lui1, S. Giuliana1. 1Northern Ireland Clinical Research Network (NICRN), Belfast Health and Social Care Trust, Belfast, United Kingdom; 2Ophthalmology, Belfast Health and Social Care Trust, Belfast, United Kingdom; 3Centre for Experimental Medicine, Queen’s University Belfast, Belfast, United Kingdom

649 — C0059 Sudden Visual Loss and Cardiovascular Risk Factors in African Americans: the Jackson Heart Study. Paul Greenberg1,2, A. Chen1,2, J. Liu1, W. Wu1. 1Ophthalmology Section, VA Medical Center, Providence, RI; 2Division of Ophthalmology, Alpert Medical School, Brown University, Providence, RI; 3Jackson Heart Study, University of Mississippi Medical Center, Jackson, MS; 4Cardiology Section, VA Medical Center, Providence, RI; 5Department of Medicine, Alpert Medical School, Brown University, Providence, RI

650 — C0060 Circulating omega-3 fatty acids and neovascular age-related macular degeneration. Benedicte Merlé1, P. Benlian2,3, N. Puche1, A. Bassols1, C. DelCourt4,5, E. H. Souied1. 1Ophthalmology Department Hôpital Intercommunal de Créteil, Créteil, France; 2APHP Saint-Antoine Hospital, Endocrinology and Metabolic Disease Department, Paris, France; 3Lille 2 University, School of Medicine, Department of Biochemistry and molecular biology, Lille, France; 4Laboratoire Bausch+Lomb, Montpellier, France; 5INSERM, Centre INSERM U897-Epidemiologie et Biostatistiques, Bordeaux, France; 6Univ, Bordeaux, ISPED, Bordeaux, France

651 — C0061 Prevalence of Age-related Macular Degeneration in Portugal: the Coimbra Eye Study - Report 1. Ines P. Marques1, M. Cachulo1,2, I. Lains3, J. Figueira1, C. Lobo1, S. Nunes1, M. Costa1, V. Rodrigues2, R. Silva2,3. 1Ophthalmology, AIBILI, Coimbra, Portugal; 2Faculdade de Medicina da Universidade de Coimbra, Coimbra, Portugal; 3CRIJO, Centre Hospitalier Universitario de Coimbra, Coimbra, Portugal

652 — C0062 Patient Behaviors and Risk Factors for Age-Related Macular Degeneration: Findings from the Behavioral Risk Factor Surveillance System. Andrew A. Moshfighi1,2, J. Vaziri1, D. M. Moshfighi1. 1Retina Associates Of Kentucky, Lexington, KY; 2Ophthalmology, Retina Service, Bascom Palmer Eye Institute, Palm Beach Gardens, FL; 3Byers Eye Institute At Stanford, Stanford University School Of Medicine, Palo Alto, CA

653 — C0063 Demographic, Clinical, Angiographic and Tomographical Characteristics of Patients with Exudative Age-Related Macular Degeneration at Presentation in Costa Rica. Dhariana Acon, L. Wu. Instituto Cirugía Ocular, San Jose, Costa Rica

654 — C0064 Associations of cardiovascular risk factors with age-related macular degeneration in Asians: Pooled analysis from 5 population-based studies. Youchan Shin1, P. Ong1, G. C. Cheung1, J. Wang1,4, Mitchell1, E. Tai1, T. Y. Wong1, C. Cheng1,2. 1Singapore Eye Research Institute, Singapore National Eye Centre, Singapore; 2Department of Ophthalmology, National University of Singapore and National University Health System, Singapore; 3Centre for Vision Research, University of Sydney, Sydney, ACT, Australia; 4Centre for Eye Research Australia, University of Melbourne, Royal Victorian Eye and Ear Hospital, Melbourne, VIC, Australia; 5Department of Medicine, National University of Singapore and National University Health System, Singapore

655 — C0065 Association between vitamin D and age-related macular degeneration: the Alienor study. Audrey Cougnard-Gregoire1, B. Merlé1, J. Korobelnik1,2, M. Rougière1, M. Delfer1,2, M. Le Goff1, J. Dartigues1, P. Barberget-Gateau1, C. DelCourt1. 1Univ. Bordeaux, INSERM, ISPED, Centre INSERM U897-Epidemiologie-Biostatistique, F-33000 Bordeaux, France; 2Service d’Ophtalmologie, CHU de Bordeaux, F-33000 Bordeaux, France

656 — C0066 Quality of life of patients suffering from exudative age-related macular degeneration and treated by intravitreal injections and its predictors: The EQUATE Study. Sahbi Rouissi1,2, E. Matmaros1, F. Maurel2, X. Le Clic1, R. Blanco-Gravito5, E. H. Souied5, N. Puche1. 1Ophthalmology, University of Autònoma de Madrid, Madrid, Spain; 2Laboratoire Bausch+Lomb, Montpellier, France; 3Laboratoire de Biostatistique, CHU Cochin, Université Pierre et Marie Curie, Paris, France; 4Centre de Recherche en Environment et Santé, Inserm U1075, Paris, France; 5INSERM, Centre INSERM U944-Epidemiologie, Lyon, France

657 — C0067 Impact of Change in Retinal Thickness on Refractive Error in the Comparison of Age-related Macular Degeneration Treatments Trials (CATT). Jiayan Huang1, G. Ying1, M. G. Maguire1, R. A. Stone1, D. F. Martin2. 1Ophthalmology, University of California, San Francisco; 2Cataract and Refractive Surgery, Stanford University School Of Medicine, Palo Alto, CA

658 — C0068 Optical Coherence Tomography grading of AMD lesions. Ada Hooghart1,2, G. H. Buitendijk1,2, A. Hofman1,3, J. R. Vingerling1,2, J. Korbelenik1, C. C. Klaver1,2. 1Epidemiology, Erasmus Medical Center, Rotterdam, Netherlands; 2Ophthalmology, Erasmus Medical Center, Rotterdam, Netherlands; 3Netherlands Consortium for Healthy Aging, Netherlands Genomics Initiative, the Hague, Netherlands; 4Ophthalmology, CHU Bordeaux University Hospital, Bordeaux, France


660 — C0070 Enhanced peripheral grading categories for ultra-wide field imaging in the Reykjavik Eye Study. Daniela I. Florea1,2, J. Lengyel1, F. Jonasson1,4, T. Peto1. 1UCL Institute of Ophthalmology, University College London, London, United Kingdom; 2Granada University, Granada, Spain; 3Landspitali University Hospital, Reykjavik, Iceland; 4Faculty of Medicine University of Iceland, Reykjavik, Iceland; 5NIHR Biomedical Research Centre at Moorfields Eye Hospital NHS Foundation Trust and UCL Institute of Ophthalmology, London, United Kingdom

661 — C0071 Prevalence of Age-Related-Macular-Degeneration in north of France. Perrine Durieux, P. Labalette, J. Roulaud. department of ophthalmology, Huriex, Lille, France

662 — C0072 AMD with submacular hemorrhage: new insights from a population-based study. Gerard F. McGowan1, D. Steel2, D. Yorston1. 1Ophthalmology, Tennents Inst of Ophthalm, Glasgow, United Kingdom; 2Sunderland Eye Infirmary, Sunderland, United Kingdom

663 — C0073 Tobacco Combustion and Orally Delivered Tobacco in Macular Degeneration. Mark W. Swanson. Optometry, Univ of Alabama at Birmingham, Birmingham, AL

664 — C0074 Indocyanine Green Angiography For Type 1 Choroidal Neovascularization In AMD. Franck Lalloum1, M. Leveziel1, G. Queques1, O. Semoun1, N. Puche2, J. Zerbi2, J. Tilleul2, E. H. Souied1. 1Department of Ophthalmology, CHU Créteil, Créteil, France; 2Department of Ophthalmology, Chu Pitié-Salpêtrière, Paris, France

665 — C0075 Awareness and knowledge of age related macular degeneration (AMD) in a clinic population. Roy Tan, A. Laude. National Health Group; Tan Tock Seng Hospital, Singapore, Singapore

666 — C0076 Soluble isoform of Flt1 differentiates those with neovascular AMD from those with early AMD. Hironori Uehara1, C. Mamalis1, R. E. Hogg2, U. Chakravartty3, B. Ambati4. 1Ophthalmology, John A. Moran Center/University of Utah, Salt Lake City, UT; 2’C for Vascular & Vision Sciences, Queens University of Belfast, Belfast, United Kingdom

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686 — C0096 Racial Disparities in Ancillary Testing for Common Retinal Diseases. Neil Farbman1, N. Talwar2, K. H. Nwanyanwu3, N. D. Chinskey4, J. D. Stein5. 1Department of Ophthalmology and Visual Sciences, Kellogg Eye Center, University of Michigan, Ann Arbor, MI; 2Center for Statistical Consultation and Research, University of Michigan, Ann Arbor, MI; 3Illinois Eye and Ear Infirmary, University of Illinois College of Medicine at Chicago, Chicago, IL.

687 — C0097 Medical Malpractice Claims Resulting From Retinal Conditions and Procedures: A 10-Year Review. Kelly Laurenti1, P. Weber2, J. E. Kim1. 1Medical College of Wisconsin, Milwaukee, WI; 2Ophthalmic Mutual Insurance Company, San Francisco, CA *CR


690 — C0100 Screening for Endogenous Fungal Eye Disease: Prospective Implications From A Retrospective Series. Shaguin Dhaiviwal1, L. B. Potts1, J. Kim1, J. Smart1, R. H. Rosai2, A. Hochhalter1, J. Song2, K. Lai2. 1Texas A&M Health Science Center College of Medicine, Temple, TX; 2Eye Institute, Scott & White, Temple, TX


694 — C0237 Contrasting Foveal Specialization in Disorders Associated with Foveal Hypoplasia. Melissa A. Wilk1, B. Higgins1, R. F. Cooper3, D. H. Scocles4, K. E. Stepien2, C. Summers2, A. Dubra2, D. M. Costakos2, J. Carroll1. 1Cell Biology, Neurobiology, & Anatomy, Medical College of Wisconsin, Milwaukee, WI; 2Ophthalmology, Medical College of Wisconsin, Milwaukee, WI; 3Biomedical Engineering, Marquette University, Milwaukee, WI; 4Biomedical Engineering, University of Rochester, Rochester, NY; 5Ophthalmology & Visual Neurosciences, University of Minnesota, Minneapolis, MN; 6Pediatrics, University of Minnesota, Minneapolis, MN; 7Biophysics, Medical College of Wisconsin, Milwaukee, WI *CR

695 — C0238 Viability of human fetal retina/ RPE sheets after 4 days cold storage. Magdalene J. Seiler1, G. Nistor2, N. D. Radtke1, R. B. Aramant1. 1Anatomy & Neurobiology, Univ of California, Irvine, Irvine, CA; 2California Stem Cell Inc., Irvine, CA; 3Retina Vetreous Resource Center, Louisville, KY *CR

696 — C0239 In vivo retinal development using hand held ultra-high resolution spectral domain optical coherence tomography in premature and full term infants. Samirah Anwar1, A. Patel2, H. Lee2, F. A. Proudlock1, J. Cusack1. 1Anatomy & Neurobiology, University of Wisconsin, Madison, WI; 2Department of Ophthalmology, University Hospitals of Leicester, Leicester, United Kingdom.

697 — C0240 Microphthalmia-associated Transcription Factor (MITF) affects optic vesicle cell proliferation and retinal pigment epithelium maturation in human ES cell (hESC) cultures. Anna Petelinska1, E. Capowski1, S. Howden1, S. L. Wright2, I. Pinilla Lozano2, K. Wallace3, E. Clark4, J. Phillips1, D. M. Gammi1. 1University of Wisconsin-Madison, Madison, WI; 2Morgridge Institute for Research, Madison, WI; 3Department of Ophthalmology and Visual Sciences, University of Wisconsin-Madison, Madison, WI; 4McPherson Eye Research Institute, Madison, WI; 5Ophthalmology, University Hospital Lozano Blesa, Zaragoza, Spain; 6IIS Aragon, Aragon Health Sciences Institute, Zaragoza, Spain

698 — C0241 Prenatal and Postnatal Nutrient Effects in Neonatal Rat Growth and Retinal Development. Yuta Saito, E. Ozawa, H. Takahashi. Ophthalmology, Showa University, Tokyo, Japan

699 — C0242 Cc2d2a is utilized in assembling subdiscal appendages required for ciliogenesis. Shobi Veleri. Neurolbl-Neurodegen & Repair Lab, NEI, Bethesda, MD

700 — C0243 Fishing for evolutionarily conserved Pax6 eye enhancers in mice. Jena Chojnowski1, J. Lakowski1, K. Johnson1, J. D. Lauderdale1. 1Cellular Biology, University of Georgia, Athens, GA; 2Neurosciences & Mental Health, University College London, London, United Kingdom.

701 — C0244 The Effect of Titanium Dioxide Nanoparticles on the Developing Retina. Yuhao Li1, Y. Wang1, Z. He1, Y. Fang1, Y. Xu1, Y. Chen1. 1Department of Pathology, Nankai University School of Medicine, Tianjin, China; 2State Key Laboratory of Medicinal Chemical Biology, College of Chemistry, Nankai University, Tianjin, China

703 — C0246 Transcriptional Activation Differs Significantly Between the Two Isoforms of Isl1. Amanda G. Kautzman, I. E. Whitney, B. E. Reese. Neuroscience Research Institute, University of California Santa Barbara, Santa Barbara, CA


705 — C0248 Midkine-a protein localization in the embryonic and adult retina of the zebrafish. Travis D Cruz, E. Gramage, P. F. Hitchcock. Ophthalmology and Visual Sciences, University of Michigan, Ann Arbor, MI


707 — C0250 ICK ciliary kinase is essential for ciliogenesis in retinal/neuronal progenitors and regulation of ciliary protein transport at the ciliary tip. Takahisa Furukawa, T. Chaya, Y. Omori. Molecular and Developmental Biology, Inst for Protein Rsrch, Osaka & JST, CREST, Osaka, Japan

708 — C0251 The role of interleukin-33 expression in retinal tissue. Jobu Sugita1, Y. Asada1, H. Kawano1, N. Ebihara1, A. Murakami1, S. Nakae2, A. Matsuda2. ophthalmology, Laboratory of Ocular Atopic Diseases, Juntendo University Graduate School of Medicine, Tokyo, Japan; 3ophthalmology, Department of Ophthalmology, Juntendo University Graduate School of Medicine, Tokyo, Japan; 4ophthalmology, Frontier Research Initiative, Institute of Medical Science, University of Tokyo, Tokyo, Japan

709 — C0252 Ecptic BMP4 alters Neural Retina and Retinal Pigmented Epithelium Specification. Vijay K. Kalaskar1, J. D. Lauderdale1. 1Biomed & Health Sciences Inst, University of Georgia, Athens, GA; 2Cellular Biology, University of Georgia, Athens, GA

710 — C0253 Hedgehog signaling regulates cell movements underlying choroid fissure formation. Kristen Kwan, E. Wirick. Human Genetics, University of Utah, Salt Lake City, UT

* Refer to the Program Number in the Clinical Trial (CT) Registration Index. *CR Refer to the Program Number in the Commercial Relationships (CR) Index for Disclosures.
711 — C0254  Laminin β2 and γ3 Chains Regulate Retinal Progenitor Cell Division Polarity. Dimitri Serjanov1, 2, G. Bachay1, 2, D. D. Hunter1, 2, W. J. Brunk2, 3. 1Ophthalmology, SUNY Downstate Medical Center, Brooklyn, NY; 2SUNY Eye Institute, Brooklyn, NY

712 — C0255  Increased dendritic branching in direction selective retinal ganglion cells in nob1 mice. Hung-Ya Tu1, 2, A. Bang1, A. R. McQuiston4, C. Chiao2, 3, C. J. Chen1. 1Institute of Molecular Medicine, National Tsing Hua University, Hsinchu, Taiwan; 2Department of Life Science, National Tsing Hua University, Hsinchu, Taiwan; 3Institute of Systems Neuroscience, National Tsing Hua University, Hsinchu, Taiwan; 4Department of Anatomy and Neurobiology, Virginia Commonwealth University, Richmond, VA; 5Department of Biochemistry and Molecular Biology, Virginia Commonwealth University, Richmond, VA

713 — C0256  Characterization of Retinal Structure and Function in Mice Carrying Ezh2 Deficiency Specifically in Retinal Ganglion Cells. Lin Cheng1, 2, H. Yu, 2, N. Yan, 3, H. Zhou1, D. Chen1. 1Institute of Clinical Pharmacology, Central South University, Changsha, China; 2Schepens Eye Research Institute, Department of Ophthalmology, Harvard Medical School, Boston, MA; 3Department of Ophthalmology and Ophthalmic Laboratories, West China Hospital, Sichuan University, Chengdu, China

714 — C0257  Expression and role of classical cadherins in the mammalian retina. Irina De la Huerta1, 2, X. Duan1, M. Yamagata1, J. R. Sannes2. 1Ophthalmology, University of California San Francisco, San Francisco, CA; 2Center for Brain Science and Department of Molecular and Cellular Biology, Harvard University, Cambridge, MA

715 — C0258  Differential Cell Adhesion in Organization of the Cone Synapse. Peter G. Fuerst1. 1Biology, University of Idaho, Moscow, ID; 2WWAMI Medical Education Program, University of Idaho, Moscow, ID

716 — C0259  Abnormal synaptic transmission between photoreceptors and bipolar cells in DHDDS mice. Rong Wen1, B. L. Lam1, Z. Guan2, Z. Wang2, N. Wang2, Y. Chen2, Y. Li1. 1Bascom Palmer Eye Institute, University of Miami, Miami, FL; 2Biochemistry, Duke University Medical Center, Durham, NC

717 — C0260  Identification of early retinal bipolar cell-specific genes. Ko Park1, J. A. Brzezinski1, T. Eliseeva1, K. Jones1. 1Ophthalmology, Unversity of Denver, Aurora, CO; 2Biochemistry and Molecular Genetics, University of Colorado School of Medicine, Aurora, CO

718 — C0261  Genomic Control of Horizontal Cell Regularity. Patrick W. Keeley1, 2, B. E. Reese1, 2, 3. 1Neuroscience Research Institute, Univ of California, Santa Barbara, Santa Barbara, CA; 2Molecular, Cellular, and Developmental Biology, Univ of California, Santa Barbara, Santa Barbara, CA; 3Psychological and Brain Sciences, Univ of California, Santa Barbara, Santa Barbara, CA

719 — C0262  The BHLH transcription factors Ascl1a and NeuroD function in a regulatory feedback loop with the Notch pathway to regulate proliferation of photoreceptor progenitors. Scott M. Taylor2, K. Alvarez-Delfin3, C. Saade4, J. M. Fadool2, P. F. Hitchcock5. 1Ophthalmal & Visual Sciences, University of Michigan, Ann Arbor, MI; 2Biological Science, Florida State University, Tallahassee, FL

720 — C0263  The pon1 enhancer activates transcription in the zebrafish green, red and blue cone photoreceptors. Wei Fang1, 2, X. Wei1, 2. 1Department of Ophthalmology, University of Pittsburgh School of Medicine, Pittsburgh, PA; 2Department of Developmental Biology, University of Pittsburgh School of Medicine, Pittsburgh, PA

721 — C0264  Immunocytochemical analysis of misplaced rhodopsin-positive cells in the developing rodent retina. Klaudia Szabo1, A. Szabo1, A. Enzsoly1, A. Szel1, Lukáts1. 1Human Morphology & Dev Biol, Semmelweis University, Budapest, Hungary; 2Department of Ophthalmology, Semmelweis University, Budapest, Hungary

722 — C0265  F-Spondin, a Neuronal Guidance Molecule and a Regulator of Amyloid Beta Generation is Expressed Discretely in a Subset of Cone Photoreceptors within the Retina. Rupalatha Maddala1, P. Ferreira2. 1Ophthalmology, Duke University Medical Center, Durham, NC; 2Department of Ophthalmology & Cell Biology, Duke University Medical Center, Durham, NC

723 — C0266  An analysis of photoreceptor basal body positioning in zebrafish with mutations in cytoplasmic Dynnein 1 and Dynactin. Joseph Fogerty, B. D. Perkins. Cole Eye Institute, Cleveland Clinic, Cleveland, OH


725 — C0268  EGRI deletion partially rescues the abnormalities of β1-integrin null lenses. Yichen Wang, A. Terrell, M. K. Duncan. Biological Sciences, University of Delaware, Newark, DE

726 — C0269  Expression of CHIP and Ubc5 in lens epithelial cells enhances ubiquitin-dependent protein degradation. Shuhong Jiang1, 2, L. Lyu1, Z. Liu1, A. Taylor2, F. Shang3. 1USDA Human Nutrition Research Center on Aging, Tufts University, Boston, MA; 2Department of Ophthalmology, The People’s Hospital of Baaoan Shenzhen, Southern Medical University, Shenzhen, China

727 — C0270  Increase of Apoptosis in the Lenses of Foxe3 Mutant Mice. Louis Zhang, L. W. Reneker. Ophthalmology, University of Missouri, Columbia, MO

728 — C0271  PARP-1 in the human lens: a story of life and death. Andrew J. Smith1, R. P. Bowater1, J. R. Reddan2, M. Wormstone1. 1School of Biological Sciences, University of East Anglia, Norwich, United Kingdom; 2Oakland University, Rochester, MI

729 — C0272  Chaperone-independent mitochondrial translocation, oxidative stress protection and prevention of apoptosis by αβ-crystallin. Bettina Teng1, R. S. McGrealf2, D. Chau3, L. A. Brennan, M. Kantorow4. 1Biomedical Sciences, Florida Atlantic University, Boca Raton, FL; 2Department of Ophthalmology & Visual Sciences, Albert Einstein College of Medicine, New York, NY

730 — C0273  Characterizing the diffusion of molecules in the anterior lens capsule using fluorescence recovery after photobleaching (FRAP). Vivian M. Sueiras1, V. T. Moy2, N. M. Ziebarth1. 1Biomedical Engineering, College of Engineering, University of Miami, Coral Gables, FL; 2Physiology and Biophysics, Miller School of Medicine, University of Miami, Miami, FL

731 — C0274  Expression of a mutant Cx46 leads to changes in lens fiber ultrastructure. Sarah M. El-Khazendar1, R. K. Zolotoski1, V. M. Berthoud2, P. J. Minogue3, E. C. Beyer4. 1Illinois College of Optometry, Chicago, IL; 2University of Chicago, Chicago, IL


733 — C0276  Non-human primate lenses display the cortical remodeling zone. M J. Costello1, A. Mohamed2, K. O. Gilliland3. 1Cell Biology & Physiology, University of North Carolina, Chapel Hill, NC; 2Prof. Brien Holden Eye Research Centre, LV Prasad Eye Institute, Hyderabad, India; 3Cell Biology & Physiology, University of North Carolina, Chapel Hill, NC; 4Biochemistry, Vanderbilt University School of Medicine, Nashville, TN; 5Biochemistry, Vanderbilt University School of Medicine, Nashville, TN

Exhibit/Poster Hall SA C0267-C0293

Sunday, May 04, 2014 1:30 PM-3:15 PM

Lens

125 Lens cell biology and structure

Moderator: Kirsten J. Lampi


The Commercial Relationships (CR) Index for Disclosures and the Clinical Trial (CT) Registration Index are at arvo.org/amindices.
734 — C0277 The Non-angiogenic Effects of Anti-Vascular Endothelial Growth Factor Monoclonal Antibody (Bevacizumab) on Lens Epithelial Cells. Jong Hwa Jun1, W. Sohn2, Y. Lee3, S. Chang4, J. Kim5. Ophthalmology, School of Medicine, Dongsan Medical Center, Keimyung University, Daegu, Republic of Korea; 3, 4, 5, Ortho Biochemistry, School of Dentistry, HBJR, Kyungpook National University, Daegu, Republic of Korea

735 — C0278 A web-resource of curated lens gene regulatory networks reveals the interplay of diverse pathways in ocular development and disease. Deepit Anand1, D. Djordjevic2, S. Smith1, J. K. Ho3, S. A. Lachke5. 1Department of Biological Sciences, Center for Bioinformatics and Computational Biology, University of Delaware, Newark, DE; 2Center for Bioinformatics & Computational Biology, University of Delaware, Newark, DE; 3Department of Ophthalmology and Visual Sciences, Washington University, St. Louis, MO; 4Department of Ophthalmology, Dokkyo Medical University, Tochigi, Japan; 5Molecular Biosciences, Institute for Cellular and Molecular Biology, University of Texas at Austin, Austin, TX

736 — C0279 Investigation of Caprin2 (RNG140 RNA granule protein 140) function in mouse lenses. Soma Dashi1, C. Dang2, D. C. Beebe2, S. A. Lachke1. 1Department of Biological Sciences, University of Delaware, Newark, DE; 2Center for Bioinformatics & Computational Biology, University of Delaware, Newark, DE; 3Department of Ophthalmology and Visual Sciences, Washington University, St. Louis, MO

737 — C0280 The mechanism of lens regeneration. Weiju Wu1, N. Lois2, S. Richards3, C. Saunter4, R. Quinlan5. 1Biological and Biomedical Sciences, Durham University, Durham, United Kingdom; 2Queen’s University of Belfast, Belfast, United Kingdom; 3Biophysical Sciences Institute, Durham University, Durham, United Kingdom

738 — C0281 Aging and Oxidative Stress-Induced Dysregulation of LEDGF Gene in Lens Epithelial Cells and Lenses Released by Sulforaphane Through Epigenetic Reprogramming. Bhavana Chhunchha1, E. Kubo2, D. P. Singh1. 1Ophthalmology & Visual Sciences, Univ of Nebraska Medical Center, Omaha, NE; 2Ophthalmology, Kanazawa Medical University, Sendai, Japan

739 — C0282 Reprogramming Lens Mesenchymal Cells to Induced Pluripotent Stem Cells. Katie L. Bales, R. Joseph, O. P. Srivastava. University of Alabama Birmingham, Birmingham, AL

740 — C0283 DNA methylation activity of Dnmt3a and Dnmt3b is not essential for normal mouse lens development. Thanh Hoang, E. K. Horowitz, B. R. Chaffee, D. G. Brune, S. E. Rosalez, B. D. Wagner, M. L. Robinson. Department of Biology, Miami University, Oxford, OH

741 — C0284 Formation of a second lens in the zebrafish occhiolinocollagen4a5 mutant. Owen Lawrence1, M. Aose2, T. Linbo1, R. Tittle1, P. Serrikrakul1, D. W. Raible2, J. M. Gross3, J. I. Clark1, 2. 1Biological Structure, University of Washington, Seattle, WA; 2Ophthalmology, University of Washington, Seattle, WA; 3Ophthalmology, Dokkyo Medical University, Tochigi, Japan; 4Molecular Biosciences, Institute for Cellular and Molecular Biology, University of Texas at Austin, Austin, TX

742 — C0285 Protein Serine/Threonine Phosphatases Dephosphorylate p53 at Multiple Sites and Negatively Regulates Its Ability on Lens Differentiation. Xiangcheng Tang1, 2, F. Liu1, Z. Luo1, W. Ji1, W. Hu3, X. Hu1, Y. Liu1, D. W. Li1, 2. 1Zhongshan Ophthalmic Center, Sun Yat-sen University, Guangzhou, China; 2Ophthalmology & Visual Sciences, University of Nebraska Medical Center, Omaha, NE

743 — C0286 Molecular characterization of mouse lens epithelial cell lines and their applicability to study lens RNA granules. Anne Terrell1, S. Waters3, C. Dang1, D. C. Beebe2, S. A. Lachke1. 1Department of Biological Sciences, University of Delaware, Newark, DE; 2Center for Bioinformatics & Computational Biology, University of Delaware, Newark, DE; 3Department of Ophthalmology and Visual Sciences, Washington University, St. Louis, MO

744 — C0287 Substructure of the germinative zone of the mouse lens. Steven Bassnett, Y. Shi. Ophthal & Vis Science, Washington Univ Sch of Med, Saint Louis, MO

745 — C0288 Characterization of lens defects in mouse mutants of bZIP transcription factors MafG and MafK. Smriti A. Agrawal1, A. Kakrana2, J. I. Clark1, 2. 1Biological Structure, University of Washington, Seattle, WA; 2Ophthalmology, University of Washington, Seattle, WA; 3Center for Bioinformatics & Computational Biology, University of Delaware, Newark, DE; 4Department of Electrical Engineering, University of Delaware, Newark, DE; 5Department of Ophthalmology, Dokkyo Medical University, Tochigi, Japan

746 — C0289 Inhibitory roles of Sprouty and Spped on FGF-induced lens cell proliferation and fiber differentiation. Guannan Zhao1, 2, C. Bailey3, F. J. Lovicu1, 2, J. W. McAvoy2. 1The University of Sydney, Sydney, NSW, Australia; 2Save Sight Institute, Sydney, NSW, Australia; 3Centenary Institute, Sydney, NSW, Australia

747 — C0290 Digital mini-shadowphotogrammetric system for morphometric analysis of ex-vivo crystalline lenses: Pilot study on human lenses. Ashik Mohamed1, H. A. Durkee2, R. C. Augusteyn3, 4, R. Urs5, V. Hernandez6, A. Bernali, F. Manns7, A. Ho1, 2, J. A. Parel1, 3, V. S. Sangwan4, 5. 1Prof. Brien Holden Eye Research Centre, L V Prasad Eye Institute, Hyderabad, India; 2School of Optometry and Vision Science, University of New South Wales, Sydney, NSW, Australia; 3Ophthalmic Biophysics Center, Bascom Palmer Eye Institute, University of Miami Miller School of Medicine, Miami, FL; 4Brien Holden Vision Institute and the Vision Cooperative Research Centre, Sydney, NSW, Australia; 5Department of Ophthalmology, Columbia University Medical Center, New York, NY; 6Department of Biomedical Engineering, University of Miami College of Engineering, Coral Gables, FL

748 — C0291 MRI Measurement of Choroidal Stretching Alleviated by Cataract Surgery. Lawrence M. Sirenk1, S. A. Sirenk1, B. S. Tjan2, K. L. Lu3, S. Guo4, L. Wener5. 1MRI Research Inc, Middleburg Heights, OH; 2Psychology, University of Southern California, Los Angeles, CA; 3Doheny Laser Vision Center, University of Southern California, Los Angeles, CA; 4Institute of Ophthalmology and Visual Science, UMDNJ-New Jersey Medical School, Newark, NJ; 5Ophthalmology, University of Utah/Moran Eye Center, Salt Lake City, UT

749 — C0292 Metrology of the zonular apparatus of human and non-human primates using fluorescent confocal microscopy: A pilot study. Jean-Marie A. Parel1, 2, H. A. Durkee2, S. P. Kelly1, E. Arrieta1, M. C. Aguilar1, Y. Shi1, S. Bassnett1. 1Ophthalmic Biophysics Center, Bascom Palmer Eye Institute, University of Miami Miller School of Medicine, Miami, FL; 2Vision Cooperative Research Centre, Brien Holden Vision Institute, UNSW, Sydney, NSW, Australia; 3Ophthalmology and Visual Science, Washington University School of Medicine in St. Louis, St. Louis, MO

750 — C0293 The reversibility of lens-softening acromyosin inhibitors. Gah-Jone Won1, D. S. Fudge2, V. Choh1. 1School of Optometry and Vision Science, University of Waterloo, Waterloo, ON, Canada; 2Integrative Biology, University of Guelph, Guelph, ON, Canada

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**Moderator: T. Rowan Candy**

751 — C0312 Enhancing coarse-to-fine stereo vision by perceptual learning: An asymmetric transfer across spatial frequency spectrum. Thomas H. Wu1, A. Craven1, T. Tran1, K. Tran1, K. So1, D. M. Levi1,2, R. W. Li1,2. 1School of Optometry, University of California-Berkeley, Berkeley, CA; 2 Helen Wills Neuroscience Institute, University of California-Berkeley, Berkeley, CA

752 — C0313 Interoocular acuity differences alter the size tuning function of stereopsis. Ka Yee So1, T. Tran1, A. Craven1, K. Tran1, T. H. Wu1, D. M. Levi1,2, R. W. Li1,2. 1School of Optometry, University of California-Berkeley, Berkeley, CA; 2 Helen Wills Neuroscience Institute, University of California-Berkeley, Berkeley, CA

753 — C0314 A Correlation Study between the Novel Stereo Vision Perception Test (StereoViPer Test) and the Frisby Test for Measuring Distance Stereopsis. Jie Tong1,4, J. Paulus4,4, B. Eschöfer4,4, M. Schmidt4,4, M. Lochmann4, G. Michelson5,1. 1Interdisciplinary Centre for ophthalmic Preventive Medicine and Imaging (IZPI), Friedrich-Alexander University Erlangen-Nuremberg, Erlangen, Germany; 2 Institute of Photonic Technology, Friedrich-Alexander University Erlangen-Nuremberg, Erlangen, Germany; 3 Pattern Recognition Lab, Friedrich-Alexander University Erlangen-Nuremberg, Erlangen, Germany; 4 Graduate School in Advanced Optical Technologies (SAOT), Friedrich-Alexander University Erlangen-Nuremberg, Erlangen, Germany; 5 Faculty of Physical Education, Yunnan Agricultural University, Kunming, China

754 — C0315 The Correlation Between a Dynamic Stimulus and Accomodation or Vergence Responses in Open-Loop Conditions During Infancy. T. Rowan Candy1, T. L. Roberts2, E. Babinsky1, V. Manh1. 1Optometry, Indiana University, Bloomington, IN; 2Optometry, University of Houston, Houston, TX; 3Ophthalmology, Seattle Children’s Hospital, Seattle, WA

755 — C0316 New system based on HMD to objectively and automatically assess visual function and to perform visual therapy. Juan Carlos Onategui Parra1, J. Pujol2, R. Borrás García1, A. Sánchez-Magán1, J. Marcos Muñoz2. 1CIV - Óptica y Optometría, Universitat Politècnica de Catalunya, Terrassa, Spain; 2 CUD - Óptica i Optometria, Universitat Politècnica de Catalunya, Terrassa, Spain; 3Davalor Salud, Pamplona, Spain *CR

756 — C0317 The effect of vertical yoked prism on horizontal heterophoria. Lisa Asper1, A. Leung, C. Tran, C. Suttle, K. Watt. School of Optometry and Vision Science, University of New South Wales, Sydney, NSW, Australia


**Moderator: Uri Polat**


759 — D0002 Spatial Contrast Sensitivity is Associated with Human Responsivity to Pain. Michele E. Mercer1, G. L. Smith1, P. A. Sheppard1, J. R. Butler1, N. R. Pelley1, R. J. Adams1,2. 1Psychology, Memorial University, St John’s, NF, Canada; 2Pediatrics, Memorial University, St John’s, NF, Canada

760 — D0003 Photopic and scotopic spatio-temporal contrast sensitivity function in adult zebrafish. Nadine Hollbach1,2, C. Tappeiner2, A. Jazwinski1, V. Enzmann2, M. Tschopp1,2. 1Ophthalmology, University Hospital of Basel, Basel, Switzerland; 2Ophthalmology, University Hospital of Bern, Inselspital, Bern, Switzerland; 3Biologie, University of Fribourg, Fribourg, Switzerland


762 — D0005 qCSF in Clinical Applications: Efficient Characterization and Classification of Contrast Sensitivity Functions in Aging. Wuli Jia1,2, F. Yan1,2, F. Hou3, Z. Lu1,2, C. Huang1. 1Key Laboratory of Behavioral Science, Institute of Psychology, Chinese Academy of Sciences, Beijing, China; 2University of Chinese Academy of Sciences, Beijing, China; 3Laboratory of Brain Processes (LOBES), Departments of Psychology, The Ohio State University, Columbus, OH, OH *CR

763 — D0006 Quick measurements of contrast sensitivity in the peripheral visual field. Robert Rosén1,2, L. Lundstrom1, A. Venkataraman2, S. Winter2, P. Unso1. 1R&D, Abbott Medical Optics, Groningen, Netherlands; 2Applied Physics, Royal Institute of Technology, Stockholm, Sweden *CR

764 — D0007 Low Amounts of Scattering Reduce Central as well as Peripheral Contrast Sensitivity. Linda Lundstrom1, R. Rosén1, M. Van der Moor1, P. Unso1, P. A. Pier1. 1Biomedical & X-Ray Physics, KTH, Royal Institute of Technology, Stockholm, Sweden; 2Applied Research, Abbott Medical Optics Groningen BV, Groningen, Netherlands *CR

765 — D0008 The effect of Omega-3 status on contrast sensitivity in healthy middle-aged Norwegians. Terese Olsen1, T. Langaas1, P. J. Bøe2, S. J. Gilson1, R. Baraas1. 1Optometry and Visual Science, Buskerud and Vestfold University College, Kongsberg, Norway; 2Department of Ophthalmology, Scheepens Eye Research Institute, Boston, MA

766 — D0009 Aging affects gain but not internal noise in the visual system. Fangfang Yan1, F. Hou2, G. Chen1, Z. Lu1, C. Huang1. 1Key Laboratory of Behavioral Science, Institute of Psychology, Chinese Academy of Sciences, Beijing, China; 2Laboratory of Brain Processes (LOBES), Departments of Psychology, The Ohio State University, Columbus, OH *CR

767 — D0010 Psychophysical temporal contrast sensitivities for modulation of the four photoreceptor types using the silent substitution paradigm at different retinal illuminances. Cord R. Huchzermeyer, J. Kremers. Department of Ophthalmology, University Erlangen-Nuremberg, Erlangen, Germany

768 — D0011 Spatial and Temporal Vision Across Retinal Eccentricity: Individual Variation. Russell J. Adams1,2, S. M. Scott1, J. R. Drover2, M. E. Mercer1. 1Psychology & Pediatrics, Memorial University, St John’s, NF, Canada; 2Psychology, Memorial University, St John’s, NF, Canada

769 — D0012 Small and Large Field Blur Adaptation: Foveal and Peripheral Contrast Sensitivity Changes. Abinaya Priya Venkataraman1, L. Lundstrom, S. Winter, P. Unso1. 1Biomedical & X-Ray Physics, KTH, Royal Institute of Technology, Stockholm, Sweden
770 — D0013 Comparisons of contrast sensitivity functions measured by two different qCsf Implements. Fang Hou, Z. Lu. Psychology, the Ohio State University, Columbus, OH *CR

771 — D0014 Effect of luminance noise on contrast threshold for individual Sloan letters. Cierra Hall1,2, R. Bhagat1, S. Wang1, J. McAnany1,2. Ophthalmology, University of Illinois at Chicago, Chicago, IL; 2Bioengineering, University of Illinois at Chicago, Chicago, IL

772 — D0015 Numerical Clusters: a novel method to measure near reading acuity and speed. Emanuel Goncalves, P. Schor. unifesp, Sao Paulo, Brazil *CR

773 — D0016 Design and Validation of a Logarithmic Chinese Reading Acuity Chart. Linjuan Cong1, C. Yu1, L. Liu1. 1School of Brain and Cognitive Science, Beijing Normal University, Beijing, China; 2Department of Psychology and Peking-Tsinghua Center for Life Sciences, Peking University, Beijing, China; 3School of Optometry, University of Alabama at Birmingham, Birmingham, AL

774 — D0017 Near visual acuity is reduced for brief presentation time and improves after practice. Maria Lev1, Y. Oren1,2, A. Sterkin1,3, U. Polat1,3. 1Faculty of Medicine, Goldschleger Eye Research Institute, Sheba Medical Center, Tel Hashomer, Tel-aviv university, Tel-aviv, Israel; 2School of Optometry, University of California, UC Berkeley, CA; 3Glassesoff, New York, NY *CR

775 — D0018 Contribution of head movements to gaze shift towards peripheral visual targets. Guillaume L. Giraudet1, A. Poirier1, A. Tousignant1, J. Faubert1. 1Psychophysics & Visual Perception Lab, Universite de Montreal, Montreal, QC, Canada; 2R&D, Essilor Canada, Montreal, QC, Canada *CR

776 — D0019 Tolerance to blur and visual activities and vision quality questionnaire. Richard Legras, D. Rio. Optometry, Labaroire Aimé Cotton, CNRS, Université Paris-Sud, Orsay, France

777 — D0020 Single Beam Frequency Flickering Analysis of the Stiles-Crawford Effect of the First Kind. Benjamin Lochocki, B. Voehnsen. AOI Group, School of Physics, University College Dublin, Dublin, Ireland

778 — D0021 How could a fixation target be perceptually stabilized in the presence of fixational eye movements? Frank Schaeffel1, T. Euler2, Z. Hafed3. 1Section Neurobiology of the Eye, Ophthalmic Research Institute, Tuebingen, Germany; 2Centre for Integrative Neuroscience, Ophthalmic Research Institute, Tuebingen, Germany; 3Centre for integrative Neuroscience, University of Tuebingen, Tuebingen, Germany

779 — D0022 How does ageing affect visual short-term memory for identifying objects in their spatial locations? Shahina Pardhan1, R. Sapkota1, I. van der Linde1,2. 1Vision and Eye Research Unit (VERU), Anglia Ruskin University, Cambridge, United Kingdom; 2Computing and Technology, Anglia Ruskin University, Cambridge, United Kingdom

780 — D0023 The effect of spatial frequency on accommodation of myopes and emmetropes in near-detection threshold conditions. Jingjing Xu1, Z. Zheng1,2, H. Chen1,2, B. Drobe1,2. 1School of Ophthalmology and Optometry, Wenzhou Medical University, Wenzhou, China; 2WEIRC, WMU-Essilor International Research Centre, Wenzhou Medical University, Wenzhou, China; 3R&D Optics, Essilor, Shanghai, China


782 — D0025 Vision improvement in pilots with presbyopia. Uri Polati1,2, Y. Levy1, A. Sterkin1,2, Y. Oren1, M. Lev1, M. Fried1, R. Doron1, L. Levian1, R. Porkoy1, B. Gordon1. 1Faculty of Medicine, Tel Aviv University, Tel Aviv, Israel; 2GlassesOff Inc., New York, NY; 3Israel Defense Forces, Air Force, Tel Hashomer, Israel; 4School of Optometry and Helen Wills Neuroscience Institute, UC Berkeley, Berkeley, CA *CR

783 — D0026 The effects of fluocinolone and lorazepam on visual perceptual learning in healthy adults. Alice K. Lagas1,2, C. M. Stinear1,2, W. D. Byblow1,2, B. R. Russett1,2, R. R. Kydd1,2, B. Thompson1,2. 1Optometry and Vision Science, University of Auckland, Auckland, New Zealand; 2Centre for Brain Research, University of Auckland, Auckland, New Zealand; 3School of Medicine, University of Auckland, Auckland, New Zealand; 4Department of Sport and Exercise Science, University of Auckland, Auckland, New Zealand; 5Department of Psychological Medicine, University of Auckland, Auckland, New Zealand; 6School of Pharmacy, University of Auckland, Auckland, New Zealand

784 — D0027 Perceptual Learning Improves Neural Processing in Myopic Vision. Jing Xi1, F. Yan1, J. Zhou1, Z. Lu1, C. Huang1. 1Key Laboratory of Behavioral Science, Institute of Psychology, Chinese Academy of Sciences, Beijing, China; 2McGill Vision Research, Department of Ophthalmology, McGill University, Montreal, QC, Canada; 3Center for Cognitive and Behavioral Brain Imaging, Arts and Science, Department of Psychology, Ohio State University, Columbus, OH


786 — D0029 Top-Down Effects on Categorizing Incomplete Complex Scenes. Beliz Hazan1, D. Kurlyo1,2, Z. Baran1, N. Bowens1. 1Psychology Program, Graduate Center of CUNY, New York, NY; 2Experimental Psychology, Hacettepe University, Ankara, Turkey; 3Psychology, Brooklyn College, New York, NY

787 — D0030 A Spatial Vision Modeling Approach for Predicting Photostress Recovery Times. Leon N. McLin1, P. Smith1, H. M. Ahmed2, T. J. Baker1, P. V. Garcia2, B. J. Novar1, M. T. Aaron1. 1111th Human Performance Wing/RHDO, Air Force Research Laboratory, JBSA Fort Sam Houston, TX; 2TASC, Inc., JBSA Fort Sam Houston, TX

788 — D0031 Discriminating amblyopia from myopia based on interocular inhibition. Chang-Bing Huang1, W. Jia1, Z. Lu1. 1Institute of Psychology, CAS, Beijing, China; 2Departments of Psychology, The Ohio State University, Columbus, OH *CR

789 — D0032 Evaluation of the Visual Function in Interventional Radiology Personnel. Filipe de Oliveira1, R. Pannunzio1, K. Donomai3, M. B. Freitas2, J. F. Sartori1, L. S. Goncalves1, P. Schor1, P. Y. Sacai1. 1Ophthalmology and Visual Sciences, Universidade Federal de Sao Paulo, Sao Paulo, Brazil; 2Biomedical Informatics, Universidade Federal de Sao Paulo, Sao Paulo, Brazil; 3Universidade Federal de Sao Paulo, Sao Paulo, Brazil

790 — D0033 Visual Perception and Visual Memory Differences between Asperger Syndrome and High Functioning Autism. Elaine C. Zach1,2, D. F. Ventura1,2. 1Experimental Psychology, Sao Paulo University, Sao Paulo, Brazil; 2Center for Applied Neuroscience (NAPNA), Sao Paulo University, Sao Paulo, Brazil

*CR Refer to the Program Number in the Commercial Relationships (CR) Index for Disclosures.
791 – 805 – Sunday – Posters

Exhibit/Poster Hall SA D0034-D0048

Sunday, May 04, 2014 1:30 PM-3:15 PM

Eye Movements / Strabismus / Amblyopia / Neuro-Ophthalmology

128 Amblyopia: Neural Mechanisms and Treatment

Moderator: Chang-Bing Huang

791 — D0034 The assessment of morphological changes in the retina in amblyopia using optical coherence tomography imaging segmentation. Erika Tatrai1, A. Szegi1, A. Szamosi1, P. Vargha2, Z. Nagy1, J. Nemeth1, D. DeBuc3, G. M. Somfai1. 1Department of Ophthalmology, Semmelweis University, Budapest, Hungary; 2Cardiovascular Centre, Semmelweis University, Budapest, Hungary; 3Bascom Palmer Eye Institute, University of Miami Miller School of Medicine, Miami, FL *CR

792 — D0035 Macular choroidal thickness in unilateral amblyopic children. Jinling Xu, X. Yu. Eye Hospital of Wenzhou Medical University, Wenzhou, China

793 — D0036 Effect of optical correction on retinal and choroidal thickness in children with anisohypermetropic amblyopia. Tomo Nishi, N. Ogata. Department of Ophthalmology, Nara Medical University, Kashihara, Japan


795 — D0038 Visuomotor adaptation to lateral image displacement using wedge prisms in anisometropic amblyopia. Jaime C. Sklar1, 2, H. C. Gottz2, 1, M. Chandrakumar1, A. M. Wong1, 4. 1Department of Neuroscience and Mental Health, Hospital for Sick Children, Toronto, ON, Canada; 2Institute of Medical Science, University of Toronto, Toronto, ON, Canada; 3Department of Ophthalmology and Vision Sciences, Hospital for Sick Children, Toronto, ON, Canada; 4Department of Ophthalmology and Vision Sciences, University of Toronto, Toronto, ON, Canada


797 — D0040 Monocular and Binocular Contrast Sensitivity Functions as Clinical Outcomes in Amblyopia. Luis A. Lesmes1, M. Kwong1, 2, Z. Lu1, M. Dorn1, 2, A. Miller1, D. G. Hunter1, 2, M. Kazlas1, 2, P. J. Bex1. 1Adaptive Sensory Technology, Boston, MA; 2Schepens Eye Research Institute, Massachusetts Eye and Ear Infirmary, Boston, MA; 3Department of Ophthalmology, Harvard Medical School, Boston, MA; 4Department of Ophthalmology, Boston Children’s Hospital, Boston, MA; 5Department of Psychology, Ohio State University, Columbus, OH *CR

798 — D0041 The effect of Bangerter filters on binocular summation in anisometropic amblyopia. Zidong Chen1, J. Li1, B. Thompson2, R. Hess3, D. Deng4, M. Yu1. 1State Key Laboratory of Ophthalmology, Zhongshan Ophthalmic Center, Sun Yat-Sen University, Guangzhou, China; 2Department of Optometry and Vision Science, The University of Auckland, Auckland, New Zealand; 3Department of Ophthalmology, McGill University, Montreal, QC, Canada; 4Department of Psychology, University of British Columbia, Vancouver, BC

799 — D0042 Binocular combination of second-order stimuli in normals and amblyopes. Jiawei Zhou1, R. Liu2, Y. Zhou2, R. Hess1. 1Ophthalmology, McGill University, Montreal, QC, Canada; 2University of Science and Technology of China, Hefei, China

800 — D0043 Dichoptic training improves contrast sensitivity in adults with amblyopia. Jinrong Li1, D. P. Spiegel1, 2, R. Hess1, Z. Chen1, D. Deng1, L. Chan1, M. Yu1, B. Thompson2. 1State key lab of Ophthalmology, Zhongshan Ophthalmic Center, Guangzhou, China; 2Optometry and Vision Science, Faculty of Science, University of Auckland, Auckland, New Zealand; 3Department of Ophthalmology, McGill University, Montreal, QC, Canada; 4School of Optometry, The Hong Kong Polytechnic University, Hong Kong, China *CR

801 — D0044 The use of selective serotonin reuptake inhibitors to treat amblyopia in adulthood. Benjamin Thompson1, 2, A. K. Lagas1, 2, C. M. Stinear3, 1, W. D. Byblow4, 2, B. R. Russel2, 1, R. R. Kydd5, 4. 1Optometry and Vision Science, University of Auckland, Auckland, New Zealand; 2Centre for Brain Research, University of Auckland, Auckland, New Zealand; 3School of Medicine, University of Auckland, Auckland, New Zealand; 4School of Pharmacy, University of Auckland, Auckland, New Zealand; 5School of Psychological Medicine, University of Auckland, Auckland, New Zealand *CR


Further Improvement in visual acuity with contacts lenses in previously treated anisometropic amblyopia. Jennifer S. Fogt. Pediatric Ophthalmology Associates, Columbus, OH

804 — D0047 Visual Outcomes in Pediatric Open Globe Trauma with Early Amblyopia Therapy. Iris S. Kassem1, E. Z. Oltra1, S. Salar1. 1Ophthalmology and Visual Sciences, University of Illinois at Chicago, Chicago, IL; 2Ophthalmology, UCLA Jules Stein Eye Institute, Los Angeles, CA

This session is dedicated to review recent updates on ultra-high resolution ophthalmic imaging. Three of 5 speakers provide cutting edge in-vitro methods to investigate cellular scale ocular architectures which also include intra-cellular architectures. Two speakers summarize recent in-vivo modality of cellular-scale imaging. This session provides a variety of recent development of high-resolution imaging modalities from fundamental research level to clinical level.

**Moderators: David Huang and Gadi Wollstein**

- **1:30** Introduction
- **1:52** Intrinsic Nonlinear Optical Signal in Retinal Nerve Fibers Sensitive to Microtubule Integrity. Hyungsik Lim. Physics, Hunter College, CUNY, New York, NY
- **2:26** Adaptive optics scanning light ophthalmoscopy: thinking outside the pinhole. Alfredo Dubra. Ophthalmology, Medical College of Wisconsin, Milwaukee, WI *CR
- **2:43** In vivo high-resolution polarization imaging of the macula. Donald T. Miller. School of Optometry, Indiana University, Bloomington, IN *CR

This workshop is part of what is now an annual series co-sponsored by the ARVO Publications Committee and the MIT Committee. The focus of this workshop will be on the concept of “earned authorship”, i.e., what qualifies a person to be listed as an author, and how to appropriately give credit where credit is due to those who have contributed to studies submitted for publication. It will include an overview of the topic, followed by a focused lecture on “honorary” (a.k.a. “gift”) authorship, and then a presentation on other practices to avoid, such as the “minimum publishable unit”.

**Moderators: Steven J. Fliesler and Michael H. Elliott**

- **1:30** Introduction - Steven Fliesler
- **1:35** Earned Authorship: Giving Credit Where Credit is Due. Steven J. Fliesler. 1Research Service, Veterans Administration Western New York Healthcare System, Buffalo, NY; 2Ophthalmology and Biochemistry, University at Buffalo, and SUNY Eye Institute, Buffalo, NY
- **2:05** “Honorary” and “Ghost” Authorship. Leonard Levin. Ophthalmology, McGill Univ and Univ Wisconsin, Montreal, QC, Canada *CR
- **2:25** Minimum Publishable Unit (MPU) and Other Deviations. Subhabrata Chakrabarti. Brien Holden Eye Research Centre, L.V. Prasad Eye Institute, Hyderabad, India
- **2:40** Panel - Q & A

This workshop focuses on animal models used in preclinical studies. The emphasis is on criteria for selecting appropriate animal models, advantages and/or limitations of different animal models used in modeling ocular disease or drug delivery, and regulatory issues that researchers should consider in selecting and using animal models in pre-clinical and translational research.

**Moderators: Deborah C. Otteson and Carol B. Toris**

- **1:30** Introduction by Deborah Otteson
- **1:35** Animal models for preclinical studies of age-related macular degeneration. Chi-Chao Chan. Immunopath Sect, Lab of Immunol, National Eye Institute, National Institutes of Health, Bethesda, MD
- **1:52** Animal models for preclinical studies of glaucoma. Claude Burgoyne. 1Optic Nerve Head Research Laboratory, Devers Eye Institute, Portland, OR; 2Department of Ophthalmology, Oregon Health Sciences University, Portland, OR
- **2:09** Animal models for pre-clinical studies of drug delivery. Balamurali Ambati. Ophthalmology, University of Utah, Salt Lake City, UT
- **2:43** Regulatory Issues related to preclinical animal research. Pierre-Paul Elena. Iris Pharma, La Gaude, France *CR
Sunday Workshops/SIGs

S 320GH
Sunday, May 04, 2014 1:30 PM-3:00 PM
**133 EVER/ARVO Workshop: Corneal Cross-linking**

*Moderators: Philippe G. Kestelyn and Carina Koppen*

— 1:30  Modifications of biophysical properties of the cornea after corneal crosslinking. Eberhard Spoerl. Ophthalmology, University of Dresden, Dresden, Germany

— 1:48  Long-term results of cross-linking in pediatric and adult patients. Dan Epstein. Ophthalmology, Universitaets Spital Zurich, Zurich, Switzerland

— 2:06  Current perspectives on transepithelial cross-linking. Carina Koppen. Antwerp University Hospital, Belgium, Belgium

— 2:24  The effect of corneal cross-linking on the penetration of topical drugs. Beatrice E. Frueh. Ophthalmology, Univ of Bern Inselspital, Bern, Switzerland


S 330CD
Sunday, May 04, 2014 1:30 PM-3:00 PM
**134 Pre-Clinical Drug Discovery: Using [cro’s](#) to Speed Development and Reduce Conflict of Interest**

Once a breakthrough discovery has been made, what are the next steps? Whether de-risking an asset to increase the potential for out licensing or forming a company and becoming an entrepreneur, the drug development process is very different from academic research. Recruiting a team of experienced professionals will significantly accelerate the process of moving an idea from the laboratory to a beneficial therapy for patients. This workshop will concentrate on pre-clinical development in preparation for INDO submission and will describe some of the expertise available through contract research organizations (CRO’s). An effort will be made to concentrate on the process of using CRO’s through examples and not just provide a list of services offered by each speaker.

*Moderators: Jeff Jamison and Kenneth J. Mandell*

— 1:30  Ocular Pharmacokinetics, It’s Not A Mickey Mouse Process. Steven J. Weber. PharmOptima LLC, Portage, MI; Port 58 Consulting, Kalamazoo, MI **CR**

— 1:42  Pre-clinical pharmacology, reproducing results offsite without giving up technology. Jeff Jamison. CEO Ophthy-DS, Inc., Mattawan, MI **CR**

— 1:54  Toxicology Testing and Good Laboratory Practice Regulations. William J. Brock. Nonclinical Pharmacology, Toxicology, Otsuka Inc., Rockville, MD

— 2:06  The Academic CRO: working as a business while maintaining independence. Catherine Bowes Rickman. Ophthal & Cell Biology, Associate Professor Duke University, Durham, NC **CR**


— 2:30  Round table

S 330EF
Sunday, May 04, 2014 1:30 PM-3:00 PM
**135 VSS Symposium at ARVO**

Vision Sciences Society members will present recent results on cortical influences on eye movements, integrating work from human observers and non-human primates.

*Moderator: Anthony M. Norcia*

— 1:30  The mechanisms responsible for guiding and controlling gaze shifts. Jeffrey D. Schall. Department Psychology, Vanderbilt University, Nashville, TN

— 2:00  The role of prediction and expectations in the planning of smooth pursuit and saccadic eye movements. Eileen Kowler. Department of Psychology, Rutgers University, Piscataway, NJ

— 2:30  Gaze Control without a Fovea. Bosco S. Tjan. Department of Psychology, USC, Los Angeles, Los Angeles, CA

The Commercial Relationships (CR) Index for Disclosures and the Clinical Trial (CT) Registration Index are at arvo.org/amindices.
136 RPE barrier, does it matter? – SIG

Moderators: Zsolt Ablonczy and Yun-Zheng Le

The barrier function of the RPE has been under-investigated. In this SIG, panelists will discuss the potential mechanisms for RPE barrier alteration in AMD and diabetic retinopathy and methodologies to study the RPE barrier.

— 1:30 SIG Organizer. Yun-Zheng Le. Medicine and Harold Hamm Diabetes Center, Univ of Oklahoma Hlth Sci Ctr, Oklahoma City, OK. *CR

— 1:30 SIG Organizer. Zsolt Ablonczy. Medical University of South Carolina, Charleston, SC

— 1:30 New models of diabetic eye disease. Zsolt Ablonczy. Medical University of South Carolina, Charleston, SC

— 1:30 Role of Insulin and EGF in Regulating the RPE Barrier. Bela Anand-Apte. Cleveland Clinic Lerner College of Medicine, Case Western Reserve University, Cleveland, OH

— 1:30 Compromised RPE barrier integrity in AMD. M Elizabeth Hartnett. Moran Eye Center, Univ of Utah, Salt Lake City, UT

— 1:30 The RPE barrier in embryonic stem cell-derived RPE monolayers developed for therapy of AMD. David R. Hinton. Keck School of Medicine USC, Los Angeles, CA

— 1:30 Genetic tools to study RPE barrier and imaging RPE barrier breakdown in diabetic rodents. Yun-Zheng Le. Univ of Oklahoma Hlth Sci Ctr, Oklahoma City, OK

137 New insights into the role of nitric oxide signaling in glaucoma – SIG

Moderators: Emmanuel S. Buys and William Stamer

Genetic association studies and animal models implicate impaired NO-cGMP signaling in the development of glaucoma. This SIG will review current knowledge and discuss the potential of targeting the NO-cGMP pathway as a treatment strategy for glaucoma.

— 1:30 SIG - Organizer. Emmanuel S. Buys. Anesthesia, Massachusetts General Hospital, Harvard Medical School, Boston, MA. *CR

— 1:30 Soluble guanylate cyclase: a therapeutic target for Primary Open Angle Glaucoma. Emmanuel S. Buys. Harvard Medical School, Boston, MA

— 1:30 Using mouse models to study role of nitric oxide in conventional outflow regulation. W Daniel Stamer. Duke University School of Medicine, Durham, MD

— 1:30 The role of impaired nitric oxide signaling in primary open angle glaucoma. Louis R. Pasquale. Harvard Medical School, Boston, MA

— 1:30 Where, how, why NO affects aqueous humor outflow. Paul L. Kaufman. Ophthalmology and Visual Sciences, University of Wisconsin Medical School, Madison, WI


138 Microglia in the Aging Retina: Can aging changes in retinal microglia contribute to age-related retinal disease? – SIG

This SIG explores the topic of how age-related changes in the structure and function of retinal microglia relate to age-related retinal diseases with neuroinflammatory features such as AMD and diabetic retinopathy. This follows up on a microglia-themed SIG at ARVO 2013 with a special focus on age-related microglial changes.

— 1:30 SIG - Organizer. Wai T. Wong. Unit on Neuron-Glia Interactions, National Eye Institute, Bethesda, MD

— 1:30 Introduction: Relationship between microglial aging in the retina and retinal disease. Wai T. Wong. National Eye Institute, Bethesda, MD

— 1:30 How microglia age in the retina: Changes in phenotypes and functions. Heping Xu. National Eye Institute, Bethesda, MD

— 1:30 Age-related microglial changes and their relationship with AMD. Florian Sennlaub. National Eye Institute, Bethesda, MD

— 1:30 Age-related microglial changes and their relationship with diabetic retinopathy. Paul G. McMenamin. National Eye Institute, Bethesda, MD

— 1:30 Factors driving the microglial aging process - potential for microglial rejuvenation/therapeutic considerations? Thomas Langmann. National Eye Institute, Bethesda, MD

* Refer to the Program Number in the Clinical Trial (CT) Registration Index. *CR Refer to the Program Number in the Commercial Relationships (CR) Index for Disclosures.
Sunday Workshops/SIGs

S 320AB
Sunday, May 04, 2014 1:30 PM - 3:00 PM

139 New understanding about extracellular matrix turnover and its contribution to material properties – SIG

Moderators: Abbot F. Clark and Gunther R. Schlunck

Extracellular matrix (ECM) remodeling is key to tissue homeostasis, aberrant tissue function and regeneration. The new and emerging techniques to study ECM turnover and material properties that can be imported in vision research will be discussed.

— 1:30 SIG - Organizer. Haiyan Wang. Shanghai Jiao Tong University, Shanghai, China
— 1:30 Introduction. Sherif Elsobky. UCL, London, United Kingdom
— 1:30 Introduction. Haiyan Wang. Shanghai Jiao Tong University, Shanghai, China
— 1:30 Role of Matricellular Proteins in Trabecular Meshwork Extracellular Matrix Regulation and IOP Control. Douglas J. Rhee. Case Western Reserve University, Cleveland, OH
— 1:30 Tissue-based imaging and 3D analysis of matrix proteins in the human trabecular meshwork. James C. Tan. UCLA, Los Angeles, CA
— 1:30 Modulation of the extracellular matrix during corneal wound healing: A biomechanical perspective. Vijaykrishna Raghunathan. University of California Davis, Davis, CA

S 320CD
Sunday, May 04, 2014 1:30 PM - 3:00 PM

140 Understanding cone degeneration in retinitis pigmentosa and associated disorders – SIG

This session focuses on understanding the pathogenesis of cone photoreceptors during retinal degeneration. Speakers in this session will present exciting findings on the pathogenesis of cone dysfunction and novel therapeutic modalities to rescue cone degeneration.

— 1:30 Retinitis pigmentosa 2 (RP2) protein regulates cone outer segment extension in mice. Hemant Khanna. Univ of Massachusetts Medical School, Worcester, MA
— 1:30 Implication of Insulin Receptor Signaling in Cone Degeneration. Raju V. Rajala. University of Oklahoma Health Sciences Center, Oklahoma City, OK
— 1:30 Plasticity of the outer retina following photoreceptor degeneration and regeneration in zebrafish. James M. Fadool. Florida State University, Tallahassee, FL
— 1:30 CNTF improves outcome of cone-directed gene therapy. Andras M. Komaromy. Michigan State University, East Lansing, MI
— 1:30 Saving Cone Photoreceptors function in Retinal Degenerative Diseases. José-Alain Sahel. Pierre & Marie Curie Medical School, Paris, France

S 330GH
Sunday, May 04, 2014 1:30 PM - 3:00 PM

141 The Aging Eye – SIG

Moderators: Kazuo Tsubota and Rajendra S. Apte

There is growing interest in exercise, nutritional factors and well-being, including blue light issues, and their impact on eye diseases. This SIG will focus on lifestyle intervention based on evidence for these aspects. Exciting new research data and potential mechanisms will be presented and discussed.

— 1:30 SIG - Organizer. Kazuo Tsubota. Ophthalmology, Keio Univ School of Medicine, Shinjuku-ku, Japan *CR
— 1:30 Vitamin D and the Eye: Anti-inflammatory Mediator. Rose Y. Reins. University of Houston, Houston, TX
— 1:30 Protective Effects of Aerobic Exercise on Retinal Degeneration. Machelle T. Pardue. Emory University, Atlanta, GA
— 1:30 Metabolism in the Aging Retina and Vision. Rajendra S. Apte. Washington University School of Medicine, St. Louis, MO
— 1:30 Blue Light Issue in the Aging Eye. Kazuo Tsubota. Keio Univ School of Medicine, Shinjuku-ku, Tokyo, Japan

The Commercial Relationships (CR) Index for Disclosures and the Clinical Trial (CT) Registration Index are at arvo.org/amindices.
S 331A-D
Sunday, May 04, 2014 1:30 PM-3:00 PM

142 A Report from the TFOS International Workshop on Contact Lens Discomfort – SIG

Moderators: David A. Sullivan, Mark D. Willcox and Jason J. Nichols

Contact lens discomfort (CLD) is the leading cause of patient dissatisfaction with and discontinuation of contact lens wear. This SIG will present the conclusions and recommendations of the recent 18-month long CLD Workshop, sponsored by the Tear Film & Ocular Surface Society (TFOS).

— 1:30 Introducer. Jason J. Nichols. University of Houston, Houston, TX
— 1:30 Definition & classification. Kelly K. Nichols. University of Houston, Houston, TX
— 1:30 Epidemiology. Kathryn Dumbleton. CCLR School of Optometry, University of Waterloo, Waterloo, ON, Canada
— 1:30 Neurobiology of discomfort & pain. Fiona Stapleton. School Optometry and Vision Science, University of New South Wales, Wales, United Kingdom
— 1:30 Contact lens interactions with the ocular surface & adnexa. Nathan Efron. Queensland University of Tech, Queensland, QLD, Australia
— 1:30 Contact lens interactions with the tear film. Jennifer P. Craig. University of Auckland, Auckland, New Zealand
— 1:30 Contact Lens materials, design & care. Lyndon W. Jones. University of Waterloo, Waterloo, Cambodia

*X Refer to the Program Number in the Clinical Trial (CT) Registration Index. *CR Refer to the Program Number in the Commercial Relationships (CR) Index for Disclosures.
The Oberdorfer Minisymposium will honor a prominent, leading researcher in the field of valuation of health for economic evaluation and preference-based measures of health. Speakers will present evidence on the performance of health economic outcome measures in patients with low vision. The presentations will cover the applications of various measurement tools used in health economics research for low vision, and findings from previous studies involving patients with visual impairment. In addition, speakers will propose new future areas to explore in the evaluation of the impact of vision loss and interventions for the visually-impaired, including aspects of low vision care that fall outside of the traditional remit of cost-utility analysis.

**Moderators:** Benjamin Thompson and Jonathan M. Holmes

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<th>Session</th>
<th>Title</th>
<th>Speaker(s)</th>
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<td>812</td>
<td>3:30</td>
<td>Fixation Stability and Fixational Eye Movements in Amblyopia</td>
<td>Susana T. Chung, G. Kumar, R. W. Li, D. M. Levi</td>
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<td>814</td>
<td>4:00</td>
<td>Unmasking potential mapping plasticity in amblyopic vision</td>
<td>Zhong-Lin Lu, Zh. Zhou, L. Li, P. Zhang, J. Xi, Y. Zhou, C. Huang</td>
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<td>816</td>
<td>4:30</td>
<td>Binocular iPad treatment of amblyopia leads to lasting improvement of visual acuity</td>
<td>Simone L. Li, R. Jost, S. Morale, D. Stager, L. Dao, D. Stager, E. Birch, Crystal Charity Ball Pediatric Vision Evaluation Center, Retina Foundation of the Southwest, Dallas, TX; Pediatric Ophthalmology &amp; Center for Adult Strabismus, Dallas, TX; Pediatric Ophthalmology &amp; Adult Strabismus, Plano, TX; Department of Ophthalmology, University of Texas Southwestern Medical Center, Dallas, TX</td>
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823 — 4:30 Change in the rate of progression after filtration surgery: incidence and characteristics. Alfonso Anton-Lopez1,2, E. Ayala1, J. Reñones2, G. Amosa3, R. Vidal1, A. Morilla-Grasa3, I. Gosenda1, J. Moreno-Montanes1. 1Institut Catala De Retina, Barcelona, Spain; 2Ophthalmology, Parc Salut Mar, Barcelona, Spain; 3Ophthalmology, Universidad de Navarra, Pamplona, Spain. *CR


825 — 3:15 Quiescent Retinal Glia are Protective, but their Activation Increases Vulnerability to Acute RGC Injury. In Vivo. Malia M. Edwards1, S. D. McLeod1, I. A. Bhutto1, A. Hardin2, J. Seddon2, G. A. Lutty1. 1Wilmer Eye Institute, Johns Hopkins University School of Medicine, Baltimore, MD; 2Ophthalmology, Tufts University School of Medicine, Boston, MA

826 — 3:30 Idiopathic glial blooms in aged human retina. Malia M. Edwards1, S. D. McLeod1, I. A. Bhutto1, A. Hardin2, J. Seddon2, G. A. Lutty1. 1Wilmer Eye Institute, Johns Hopkins University School of Medicine, Baltimore, MD; 2Ophthalmology, Tufts University School of Medicine, Boston, MA

827 — 3:45 Energy deprivation alters Müller cells ability to protect retinal ganglion cells. Miriam Kolko1,2, A. Toft-Kehler1, R. Vohra1, S. Iswariyaraja1, D. Skytt2. 1Neuroscience and Pharmacology, University of Copenhagen, Copenhagen, Denmark; 2Ophthalmology, Roskilde University Hospital, Roskilde, Denmark.

828 — 4:00 Wnt-signaling and the formation of Muller glia-derived progenitor cells in the chick retina. Donika Gallina, L. N. Steffenson, A. J. Fischer. Neuroscience, The Ohio State University, Columbus, OH

829 — 4:15 Metabolic changes associated with Muller cells in a transgenic rabbit model of retinal degeneration. Rebecca L. Pfeiffer, B. W. Jones, R. E. Marc. Ophthalmology, Moran Eye Center at the University of Utah, Salt Lake City, UT. *CR

830 — 4:30 Hedgehog-signaling stimulates the formation of Müller glia-derived retinal progenitors. Levi Todd, A. J. Fischer. The Ohio State University, Columbus, OH

831 — 4:45 PTEN/mTor-signaling and the formation of Müller glia-derived retinal progenitors. Chris Zelinka, Z. A. Goodman, W. A. Bishop, A. J. Fischer. Neuroscience, Ohio State University, Columbus, OH

832 — 3:15 Improved visual function in patients with choroideremia undergoing subretinal gene therapy. Robert E. MacLaren1,2, M. Grøppe1, A. R. Barnard1, T. Toltzheimova3, P. P. Cremers2, G. C. Black4, A. Lotery5, S. M. Downes1,2, A. Webster1, M. C. Seabara1,2. 1Nuffield Laboratory of Ophthalmology, University of Oxford, Oxford, United Kingdom; 2Oxford Eye Hospital, Oxford University Hospitals NHS Trust, Oxford, United Kingdom; 3Moorfields Eye Hospital, London, United Kingdom; 4Institute of Ophthalmology, University of London, United Kingdom; 5Department of Genetics, University of Manchester, Manchester, United Kingdom; 6Clinical and Experimental Sciences, Faculty of Medicine, University of Southampton, Southampton, United Kingdom; 7Instituce de Ciencias Medicas, Universidad de Lisboa, Lisbon, Portugal; 8Department of Human Genetics, Radboud University Medical Centre, Nijmegen, Netherlands. *CR

833 — 3:30 AAV-mediated gene therapy in Dystrophin-Dp71 deficient mice leads to blood-retinal barrier permeability restoration. Ophelie Vacca1, B. El Mathari1, M. Darche1, P. Barbe1, D. V. Schaffer1, J. G. Flannery1, J. A. Sahel1,2, R. Tadayoni1,2, D. Dalkara1, A. Rendon1. 1Institut de la Vision/INSERM/UPMC Univ Paris 06/ CNRS/CHNO des Quinze-Vingts, Paris, France; 2Fondation Ophthalmologique Adolphe de Rothschild, Paris, France; 3UC Berkeley, Helen Wills Neuroscience Institute, Berkeley, CA; 4University of California at Berkeley, Department of Chemical Engineering, Department of Bioengineering, and Helen Wills Neuroscience Institute, Berkeley, CA; 5Ophthalmology Dept, Hôpital Lariboisière, AP-HP, Univ Paris Diderot, Paris, France.

834 — 3:45 Gene therapy on patient-specific stem cell lines with MFRP defect. Yao Li1, W. Wu1, Y. Tsai1, H. Hua2, T. Nagasaki1, I. H. Maumencee1, L. A. Yamuzzi1, Q. V. Hoang1, D. Egl1, S. H. Tsang1. 1Ophthalmology, Columbia University, New York, NY; 2Department of Pediatrics and Naomi Berrie Diabetes Center, Columbia University, New York, NY; 3Illinois Eye and Ear Infirmary, University of Illinois at Chicago, Chicago, IL; 4New York Stem Cell Foundation, New York, NY; 5Department of Pathology and Cell Biology, Columbia University, New York, NY.


836 — 4:15 Gene Therapy For Mitochondrial Disease: Are We Ready? Rajeshwari D. Kolikondla1, H. Yu1, H. Yuan1, V. Porciatti1, W. W. Hauswirth1, T. J. Conlon1, L. Renner1, M. Neuringer1, C. Detrisac1, J. Guy1. Ophthalmology, Bascom Palmer Eye Institute, Miami, FL; 2Department of Ophthalmology, University of Florida, College of Medicine, Gainesville, FL; 3Department of Molecular Genetics and Microbiology, University of Florida, College of Medicine, Gainesville, FL; 4Oregon Health and Science University, Beaverton, OR; 5Charles River Pathology Associates, Chicago, IL. *CR

837 — 4:30 Development and Evaluation of Cone-Specific Promoters in Non-human Primates for Gene Therapy of Congenital Cone Diseases Including Achromatopsia. Guo-jie Ye1, E. Budzynski2, P. Sonnentag2, M. Nork5,4, N. Sheibani1,4, S. L. Boye1, W. W. Hauswirth1, J. D. Chulay1. 1AGTC, Alachua, FL; 2Covance Laboratories Inc, Madison, WI; 3University of Wisconsin, Madison, WI; 4OSOD, LLC, Madison, WI; 5University of Florida, Gainesville, FL. *CR

838 — 4:45 Disease-based promoter selection for retinal gene therapy. Gustavo D. Aguirre1, S. Genni1, A. M. Komaromy2, K. E. Guziewicz2, W. A. Beltran1. 1Clinical Studies, Univ of Penn Sch Veterinary Med, Philadelphia, PA; 2College of Veterinary Medicine, Michigan State University, East Lansing, MI.
Moderators: Virginie J. Verhoeven and Srishti Kothari

3:15 — 3:30
Meta-analysis of Genome-Wide Association Studies in Multiethnic Asians Identifies Two Loci for Age-Related Nuclear Cataract. Ching-Yu Cheng1,2, J. Liao1,2, X. Su1,2, P. Chen1, P. Mitchell1, T. Aung1,2, J. Wang1, B. Jonas1, Y. Teo1, T. Y. Wong1,2. Singapore Eye Research Institute, Singapore, Singapore; 1Department of Ophthalmology, National University of Singapore and National University Health System, Singapore, Singapore; 2Department of Ophthalmology, National University of Singapore and National University Health System, Singapore, Singapore; 3Saw Swee Hock School of Public Health, National University of Singapore, Singapore, Singapore.

3:15 — 3:45
Effect sizes of myopia-related genes on ocular biometry in childhood and later in life. Willem Tideman1,4, J. Polling1,2, V. W. Jaddoe1,3, A. Hofman1, J. R. Vingerling1,2, V. J. Verhoeven1,2, C. C. Klaver1,2. Ophthalmology, ErasmusMC, Rotterdam, Netherlands; 3Epidemiology, ErasmusMC, Rotterdam, Netherlands; 4Pediatries, ErasmusMC, Rotterdam, Netherlands.

3:45 — 4:00
Visual Acuity is Reduced at One Year in Infants with Neonatal Physiological Jaundice. William V. Good1, V. Bhutani1, C. Hour1, T. Slager1, R. Wong1, K. Lewis1, C. Ahlfors1, A. M. Norcia1,2. Smith-Kettlewell Eye Research Institute, San Francisco, CA; 3Ophthalmology, Smith-Kettlewell Eye Research Institute, San Francisco, CA; 4Pediatries, Stanford University School of Medicine, Palo Alto, CA; 5Psychology, Stanford University School of Medicine, Palo Alto, CA; 6Pediatries, California Pacific Medical Center, San Francisco, CA.

4:00 — 4:15
Development of refractive errors - what can we learn from retinal dystrophies? Michelle Hendriks1, V. J. Verhoeven1,2, G. H. Buitendijk1, J. Polling1, M. A. Meester-Smout1, L. I. van den Born1, C. C. Klaver1,2. Ophthalmology, Erasmus Medical Center, Rotterdam, Netherlands; 3Epidemiology, Erasmus Medical Center, Rotterdam, Netherlands; 7The Rotterdam Eye Hospital, Rotterdam, Netherlands.

4:15 — 4:30
Risk of Elevated Intraocular Pressure (IOP) in Pediatric Non-infectious Uveitis. Srishti Kothari1,2, M. Pistilli1, C. Foster2,4, H. Sen2, E. B. Suhler2,4, J. E. Thorne5,6, D. A. Jabs6,7, R. B. Nussenblatt1, J. T. Rosenbaum5,6, J. H. Kempen1,2. The Massachusetts Eye Research and Surgery Institute, Cambridge, MA; 3The Scheie Eye Institute, Department of Ophthalmology, The Perelman School of Medicine, University of Pennsylvania, Philadelphia, PA; 4Center for Preventive Ophthalmology and Biostatistics, Department of Ophthalmology, The Perelman School of Medicine, University of Pennsylvania, Philadelphia, PA; 1Department of Ophthalmology, Harvard Medical School, Boston, MA; 2Department of Ophthalmology, Oregon Health and Science University, Portland, OR; 3Department of Medicine, Oregan Health and Science University, Portland, OR; 4Laboratory of Immunology, National Eye Institute, Bethesda, MD; 5Portland Veteran’s Affairs Medical Center, Portland, OR; 6Department of Ophthalmology, The Johns Hopkins University School of Medicine, Baltimore, MD; 7The Department of Epidemiology, The Johns Hopkins University Bloomberg School of Public Health, Baltimore, MD; 8The Department of Ophthalmology, Icahn School of Medicine at Mount Sinai, New York, NY; 9Department of Medicine, Icahn School of Medicine at Mount Sinai, New York, NY.

4:30 — 4:45

4:45 — 4:55

849 — 850
149 Ocular Tumors: Experimental therapeutics

Moderators: Tatiana Milman, Deepak P. Edward and Jacob Pe’er

3:15 — 3:30
Sensitivity and Resistance of Uveal Melanoma (UM) cells to PKC inhibition: Role of the Steroid Receptor Coactivator (SRC)-3, Vassiliki Poulaki1, S. Chew2, B. W. O’Malley3, N. Mitsiades5, 1VA Boston Hlthcare Sys, Ophthalmology, Boston University, Boston, MA; 2Medicine, Baylor College of Medicine, Houston, TX; 3Molecular and Cellular Biology, Baylor College of Medicine, Houston, TX.

3:30 — 3:45
Inhibition of STAT3 suppresses growth of retinoblastoma. Dong Hyun Jo1,2, J. Kim1,2, S. Yoo1, Y. Yu1, J. Kim1,2. Fight against Angiogenesis-Related Blindness (FARB) Laboratory, Clinical Research Institute, Seoul National University Hospital, Seoul, Republic of Korea; 2Department of Biomedical Sciences, College of Medicine, Seoul National University, Seoul, Republic of Korea; 3Tumor Microenvironment Research Center, Global Core Research Center, Seoul National University Hospital, Seoul, Republic of Korea; 4Department of Advanced Education for Clinician-Scientists, College of Medicine, Seoul National University, Seoul, Republic of Korea; 5Department of Ophthalmology, College of Medicine, Seoul National University, Seoul, Republic of Korea.

3:45 — 4:00

3:15 — 3:30
Introduction

846 — 8:55
NFKB Inhibition in Uveal Melanoma - construction of a new delivery system. Shahar Frenkel1,2, A. Honigman2, J. Pe’er1, Ophthalmology, Hadassah-Hebrew University Medical Center, Jerusalem, Israel; 2Biochemistry and Molecular Biology, IMRIC, The Hebrew University-Hadassah Medical School, Jerusalem, Israel.

845 — 4:45

842 — 4:00
Visual Acuity is Reduced at One Year in Infants with Neonatal Physiological Jaundice. William V. Good, V. Bhutani, C. Hour, T. Slager, R. Wong, K. Lewis, C. Ahlfors, A. M. Norcia. Smith-Kettlewell Eye Research Institute, San Francisco, CA; Ophthalmology, Smith-Kettlewell Eye Research Institute, San Francisco, CA; Pediatries, Stanford University School of Medicine, Palo Alto, CA; Psychology, Stanford University School of Medicine, Palo Alto, CA; Pediatries, California Pacific Medical Center, San Francisco, CA.

841 — 3:45

839 — 8:49
148 Shedding light on mechanisms - genetics and beyond

Moderators: Virginie J. Verhoeven and Srishti Kothari

3:15 — 3:30
Genome-wide Mega-Analysis on Myopia and Refractive Error in CREAM and 23andMe. Virginie J. Verhoeven, P. G. Hysi, R. Wojciechowski, Q. Fan, A. K. Kiefer, C. C. Klaver, C. J. Hammond, N. Eriksson. Ophthalmology/Epideimiology, Erasmus Medical Center, Rotterdam, Netherlands; Singapore Eye Research Institute, Singapore National Eye Centre, Singapore, Singapore; Department of Twin Research and Genetic Epidemiology, King’s College London School of Medicine, London, United Kingdom; Inherited Disease Research Branch, National Human Genome Research Institute, US National Institutes of Health, Baltimore, MD; Epidemiology, Johns Hopkins Bloomberg School of Public Health, Baltimore, MD; Saw Swee Hock School of Public Health, National University Health Systems, National University of Singapore, Singapore, Singapore; 23andMe, Mountain View, CA.
850 — 4:15 Pharmacologic Targeting of Skp2 in Retinoblastoma. Xiaoliang L. Xu1,3, T. Cardozo2, D. Huf3, D. Cobrinik2, D. H. Abramson1, S. Jhanwar2. 1Department of Pathology, Memorial Sloan Kettering Cancer Center, New York, NY; 2Ophthalmic Oncology Service, Memorial Sloan Kettering Cancer Center, New York, NY; 3Sloan-Kettering Institute, Memorial Sloan-Kettering Cancer Center, New York, NY; 4Department of Biochemistry and Molecular Pharmacology, New York University, New York, NY; 5The Saban Research Institute, Children’s Hospital Los Angeles, University of South California, Los Angeles, NY; 6New York Eye and Ear Infirmary, New York Medical College, New York, NY


S 330GH

Sunday, May 04, 2014 3:15 PM-5:00 PM

Immunology/Microbiology

150 Microbial Pathogenesis

Moderators: Lbachir BenMohamed and Holly L. Rosenzweig

852 — 3:15 Is immunity a function for chromatin? Mihaela Gadjeva, Q. Shan. Medicine, BWH, HMS, Boston, MA

853 — 3:30 Bacterial Antigen Challenge Promotes Solubilization of Keratin 6A Filaments And Generation of Keratin-Derived Antimicrobial Peptides (KDAMPs) in Human Corneal Epithelial Cells. Priscilla Hsu-Mei Too1,2, T. Lee2, C. Tami1,2. 1Ophthalmic Research, Cleveland Clinic Lerner Research Institute, Cleveland, OH; 2Optometry, University of California, Berkeley, Berkeley, CA *CR

854 — 3:45 Murine Cytomegalovirus Lacking the m45 Protein Does Not Induce Retinitis in the Injected Eye of Immunosuppressed Mice Following Supraciliary Inoculation. Ming Zhang1, B. Marshall2, J. Mo3, S. S. Atheron1. 1Department of Cellular Biology & Anatomy, Georgia Regents University, Augusta, GA; 2Vision Discovery Institute, Georgia Regents University, Augusta, GA

855 — 4:00 Identifying new targets of viral regulatory protein ICP0 in herpes simplex virus type-1 (HSV-1) keratitis. David Shahnazaryan1,2, E. Lazzari2, J. Ni Gabham2, C. Jefferies2, C. Murphy1. 1Cornea and anterior segment, Royal Victoria Eye and Ear Hospital, Dublin, Ireland; 2Molecular and Cellular Therapeutics, Royal College of Surgeons in Ireland, Dublin, Ireland

856 — 4:15 IL-1R is essential for neutrophil recruitment, while TLR2 is essential for neutrophil mediated killing of Staphylococcus aureus during endophthalmitis. Meredith S. Gregory-Ksander, W. J. Vincent, M. Crane, S. McGuire. Scheepens Eye Research Institute, Massachusetts Eye and Ear Infirmary, Harvard Medical School, Boston, MA

857 — 4:30 Neutralization of TNP-a significantly impairs corneal lymphangiogenesis in response to HSV-1 infection. Katie M. Hudson1, M. Zheng1, D. J. Carri1,2. 1Ophthalmology-Dean McGee Eye Institute, University of Oklahoma Health Sciences Center, Oklahoma City, OK; 2Microbiology and Immunology, University of Oklahoma Health Sciences Center, Oklahoma City, OK

858 — 4:45 Temporal transcriptome and systems biology analysis to identify key pathways and hub genes in experimental Staphylococcus aureus endophthalmitis. Ashok Kumar1, P. Singh1, M. K. Bhasin1,2. 1Ophthalm & Anatomy/Cell Biology, Wayne State Univ/Kresge Eye Inst, Detroit, MI; 2Bioinformatics and Systems Biology Center, Harvard Medical School, Boston, MA

S 331A-D

Sunday, May 04, 2014 3:15 PM-5:00 PM

Cornea

151 Contact Lens

Moderators: Robin L. Chalmers and Fiona Stapleton


860 — 3:30 Compatibility of Melamine-coated Antimicrobial Contact Lenses with Contact Lens Care Solutions. Mark D. Wilcox1, D. Dutta1,2. 1School Optometry and Vision Science, Univ of New South Wales, Sydney, NSW, Australia; 2Brien Holden Vision Institute, Sydney, NSW, Australia *CR

861 — 3:45 Water Content of Soft-Contact-Lens-Material Hydrogels. Thomas J. Dursch1, F. Nguyen1, T. Sells1, Y. Oh1, J. M. Prausnitz1, C. J. Radke1,2. 1Chemical and Biomolecular Engineering, University of California, Berkeley, CA; 2Vision Science Group, University of California, Berkeley, CA


863 — 4:15 Comparison of soft contact lens comfort using three contact lens materials and four contact lens solutions. David A. Bernsten1, S. B. Hickson-Curran2, L. W. Jones3, J. H. Mathew4, A. A. Mirzad4, P. B. Morgan5, M. Schulze6, J. J. Nichols7. 1The Ocular Surface Institute, College of Optometry, University of Houston, Houston, TX; 2Johnson and Johnson Vision Care, Jacksonville, FL; 3Centre for Contact Lens Research, School of Optometry, University of Waterloo, Waterloo, ON, Canada; 4EuroLenses Research, Faculty of Life Science, University of Manchester, Manchester, United Kingdom *CR, ∗


Hall SB

Sunday, May 04, 2014 3:15 PM-5:00 PM

Retina

152 CNV Management

Moderators: James C. Folk and Andrew Lotery

865 — 3:15 Influence of SNPs Associated with Age-related Macular Degeneration (AMD) on the Phenotype of Neovascular Lesions in the Comparison of AMD Treatments Trials (CATT). Maureen G. Maguire1, S. A. Hagstrom2, G. Ying1. 1Ophthalmology, University of Pennsylvania, Philadelphia, PA; 2Cole Eye Institute, Cleveland Clinic, Cleveland, OH *CR, ∗

866 — 3:30 Visual Acuity Response Pattern and Prediction in the Comparison of AMD Treatments Trials (CATT). Gui-Shuang Ying1, M. G. Maguire1, J. Huang1, D. F. Martin1. 1Ophthalmology, University of Pennsylvania, Philadelphia, PA; 2Ophthalmology, Cleveland Clinic, Cleveland, OH *CR, ∗

867 — 3:45 Visual acuity by responder status in the IVAN clinical trial. Andrew Lotery1, L. Scott1, S. P. Harding1, B. Reeves1, C. Rogers1, U. Chakravarty1. 1Faculty of Medicine, University of Southampton, Southampton, United Kingdom; 2Ophthalmology - Eye Unit, Southampton General Hospital, Southampton, United Kingdom; 3Clinical Trials and Evaluation Unit, University of Bristol, Bristol, United Kingdom; 4Department of Eye and Vision, University of Liverpool, Liverpool, United Kingdom; 5Institute of Clinical Science, The Queen’s University of Belfast, Belfast, United Kingdom *CR, ∗

*CR Refer to the Program Number in the Commercial Relationships (CR) Index for Disclosures.

87
868 — 4:00  Structure-function correlation of optical coherence tomography features and visual outcome in a fixed and a PRN regimen in neovascular AMD. Christian Simader1, S. M. Waldstein1, M. L. Larsen1, P. Mitchell1, G. Stauvengh1, G. J. Jaffe1, U. Schmidt-Erfurth2. * Vienna Reading Center, Dept. of Ophthalmology, Medical University of Vienna, Vienna, Austria; 1Dept. of Ophthalmology, Herlev Hospital, University of Copenhagen, Herlev, Denmark; 1Clinical Ophthalmology, University of Sydney, Sydney, NSW, Australia; 2Dept. of ENT and Ophthalmology, University of Milan, Milan, Italy; 2OCT Reading Center, Duke University School of Medicine, Durham, NC; 2Dept. of Ophthalmology, Medical University of Vienna, Vienna, Austria. *CR, ▶

869 — 4:15  Predictors of the Number of Injections among Patients Treated PRN with Ranibizumab or Bevacizumab in the Comparison of AMD Treatments Trials (CATT). Daniel F. Martin1, G. Ying2, J. Huang2, M. G. Maguire2. * Cole Eye Institute, Cleveland Clinic, Cleveland, OH; 1Ophthalmology, University of Pennsylvania, Philadelphia, PA. *CR, ▶

870 — 4:30  Comparing the effectiveness of bevacizumab to ranibizumab in patients with exudative age-related macular degeneration. BRAMD. Ann-Sofie M. Schauwvlieghe1, G. Dijkman1, J. M. Hooymans2, F. D. Verbraak1, 1, M. G. Dijkstra1, T. Peto1, J. R. Vingerling1, 1, C. Hoyng1, R. O. Schlingemann1, 1, 2. 1Ophthalmology, Academic Medical Center, University of Amsterdam, Amsterdam, Netherlands; 2Netherlands Institute for Neurosciences, Amsterdam, Netherlands; 1Biomedical Engineering and Physics, Academic Medical Center, University of Amsterdam, Amsterdam, Netherlands; 2Ophthalmology, University Medical Center Groningen, Groningen, Netherlands; 1Ophthalmology, Radboud University Medical Centre, Nijmegen, Netherlands; 1Ophthalmology, Erasmus Medical Center, Rotterdam, Netherlands; 2Epidemiology, Erasmus Medical Center, Rotterdam, Netherlands; 1Ophthalmology, Leiden University Medical Centre, Leiden, Netherlands; 1The NIHR Biomedical Research Centre, Moorfields Eye Hospital NHS Foundation Trust and UCL Institute of Ophthalmology, London, United Kingdom; 2Clinical Research Unit, Academic Medical Center, University of Amsterdam, Amsterdam, Netherlands. *CR, ▶

871 — 4:45  Alterations in serum vascular endothelial growth factor after intraocular administration of antiVEGF drugs, is there an association with safety outcomes? Usha Chakravarthy1, C. Rogers1, B. Reeves1, L. Scott2, S. P. Harding3, S. M. Downes4, A. Lotery5. 1Ctr for Vascular & Vision Sciences, Queens University of Belfast, Belfast, United Kingdom; 2Clinical Trials and Evaluation Unit, Bristol Heart Institute, Bristol, United Kingdom; 3Department of Eyes and Vision, University of Liverpool, Liverpool, United Kingdom; 4Ophthalmology, Oxford University Hospitals, Oxford, United Kingdom; 5Clinical and Experimental Sciences, University of Southampton, Southampton, United Kingdom. *CR, ▶

The Commercial Relationships (CR) Index for Disclosures and the Clinical Trial (CT) Registration Index are at arvo.org/indices.
872 — A0052 A Smartphone Application to Predict Post-DSAEK Refractive Shift. David Kuo1, R. Y. Hwang2, N. A. Afshari1. 1Cornea & Refractive Surgery, University of California, San Diego, La Jolla, CA; 2Ophthalmology, Vanderbilt University, Nashville, TN


874 — A0054 Prospective, randomized comparison of different topical corticosteroids regimens in the first year following endothelial keratoplasty. Marianne O. Price1, T. Tourtas2, B. O. Bachmann3, F. E. Kruse1, F. W. Price1. 1Cornea Res Fdn of America, Indianapolis, IN; 2Price Vision Group, Indianapolis, IN; 3University of Erlangen, Erlangen, Germany *CR

875 — A0055 Descemet’s Membrane Dissection for Endothelial Keratoplasty Using the Lubniewski Micro Needle. Sonya Bamba, A. Hong, A. J. Huang, A. Lubniewski, Ophthalmology, Washington University, St. Louis, MO

876 — A0056 Immediate and early postoperative intraocular pressure measurements after Descemet’s Membrane Endothelial Keratoplasty (DMEK). Tisha P. Stainfelt1, W. Sansanayudh2, C. Cursiefen1. 1Ophthalmology, University of Cologne, Cologne, Germany; 2Ophthalmology, Phramongkutklao Hospital, Bangkok, Thailand

877 — A0057 Experimental evaluation of the novel ENDOJECT TM injector for the implantation of Descemet’s membrane into the anterior chamber during DMEK. Kathrin Rossler1, B. O. Bachmann1, J. Armitage2, T. Tourtas3, U. Schlotzer-Schrehardt4, V. Dockhorn3, E. Hohl5, F. E. Kruse1. 1Department of Ophthalmology, University of Erlangen-Nuernberg, Erlangen, Germany; 2Bristol Eye Hospital, University of Bristol, Bristol, United Kingdom; 3Medicel AG, Wolhalden, Switzerland *CR

878 — A0058 Impact of pre-cutting DSAEK tissue on clinical outcomes. Michael O’Gallagher, M. R. Wilkins. Moorfields Eye Hospital, London, United Kingdom

879 — A0059 An Assessment of the Accuracy and Cut-Failure Rates of Eye Bank-cut Corneas for Use In Endothelial Keratoplasty: A Comparison of Outcomes Between 2010 and 2013. Lee Katzman1, Y. M. Khalifa2, C. Hoover3, B. H. Jeng1. 1Ophthalmology, University of Maryland School of Medicine, Bethesda, MD; 2Ophthalmology, University of Rochester Medical Center, Rochester, NY; 3Sightlife, Seattle, WA *CR


881 — A0061 Smoothing it Out: A Proposed Method for Donor Graft Orientation in Descemet’s Membrane Endothelial Keratoplasty. Nina Nordgren1, J. Fullerton2, S. Mukhtar1, G. Stevenc3. 1Ophthalmology, VCU Medical Center, Richmond, VA; 2Eye Care Center of Virginia, Richmond, VA

882 — A0062 Six-Month Clinical Outcomes of Our Initial 30 Stromal Sided S-Stamped Descemet Membrane Endothelial Keratoplasty (DMEK) Cases. Peter B. Veldman1, Z. Mayko2, M. D. Straiko1, M. A. Terry1. 1Cornea Service, Devers Eye Institute, Portland, OR; 2Lions VisionGift, Portland, OR


884 — A0064 The Association Between Transient Interface Space on Intraoperative OCT and Temporal Interface Opacity following DSAEK Surgery. Viral Juthani, J. P. Ehlers, J. Gushe. Ophthalmology, Cole Eye Institute, Cleveland Clinic Foundation, Cleveland, OH *CR


886 — A0066 Descemet’s Stripping Automated Endothelial Keratoplasty (DSAEK): Dislocation and Failure Rates-one surgeon’s first 245 cases. Lucy A. Bailey2,3, E. A. Groenendaal1, E. M. Florakis1, G. J. Florakis1. 1College of Physicians & Surgeons, Columbia University, New York, NY; 2Edward S. Harkness Eye Institute, Columbia University, New York, NY; 3Harvard School of Public Health, Boston, MA; 3Binghamton University, Binghamton, NY


888 — A0068 Projecting DSAEK Graft Thickness: Grafts up to 140 μm preoperatively predictably become ultrathin (100 μm). Zachary Mayko1,2, C. van Zy1, M. D. Straiko, M. A. Terry. 1Lions VisionGift, Portland, OR; 2Ophthalmology, Devers Eye Institute, Portland, OR *CR

889 — A0069 Learning Curve in Descemet’s Membrane Endothelial Keratoplasty (DMEK): Early Complications and 6 Month Results. Lloyd M. Cuzzo, J. C. Lee, N. Shami. Ophthalmology, USC Eye Institute/University of Southern California Keck School of Medicine, Los Angeles, CA

890 — A0070 Endothelial Cell Loss After Descemet’s Stripping Automated Endothelial Keratoplasty in Glaucoma Patients With Glaucoma Drainage Devices. Nina Ni1,2, B. J. Sperling1, S. B. Hannush1,2. 1Wills Eye Hospital, Philadelphia, PA; 2Jefferson Medical College of Thomas Jefferson University, Philadelphia, PA; 3Cataract and Cornea Associates, Langhorne, PA

891 — A0071 Outcome after Descemet Membrane Endothelial Keratoplasty (DMEK) during a one surgeon learning curve converting from DSAEK. Christoph Holtmann, K. Spaniol, I. Neumann, D. Savinova, K. Lisa, G. Geerling. Ophthalmology, University of Duesseldorf, Duesseldorf, Germany

892 — A0072 Higher-Order Aberrations after Endothelial Keratoplasty: Comparison of DMEK and “thin” DSAEK. Julia C. Talajic1, C. van Zy1, M. D. Straiko1, Z. Mayko1,2, M. A. Terry1. 1Ophthalmology, Devers Eye Institute, Portland, OR; 2Lions VisionGift, Portland, OR


896 — A0076 Draft Rejection Rate and Draft Failure Rate of PKP vs DSAEK: A Systematic Review. Zarique Z. Akanda1, A. Naeem1, E. Russell1, J. Belrose1, W. Hodge1. 1Ophthalmology, Western University, London, ON, Canada; 2Medical Library, St. Joseph’s Health Care, London, ON, Canada

*CR Refer to the Program Number in the Commercial Relationships (CR) Index for Disclosures.
897—A0249 In vivo examination of lamina cribrosa microarchitecture and optic nerve head morphology in normal human eyes with age. Amitabha S. Bhakta1, N. Sredar2, D. Marrelli3, H. M. Queener4, J. Porter1. 1College of Optometry, University of Houston, Houston, TX; 2Department of Computer Science, University of Houston, Houston, TX; 3Engineering Technology, University of Houston, Houston, TX; 4Department of Computer Science, University of Houston, Houston, TX. *CR

898—A0250 Examining in vivo changes in predominant lamina cribrosa beam orientation in experimental glaucoma using an automated approach. Nripun Sredar1, K. M. Ivers2, N. B. Patel1, L. Q. Shen1. 1Computer Science, Univ of Houston, Houston, TX; 2College of Optometry, University of Houston, Houston, TX; 3Engineering Technology, University of Houston, Houston, TX; 4Department of Computer Science, University of Houston, Houston, TX. *CR

899—A0251 Association between focal lamina cribrosa defects and the parameters of optic disc deformation in glaucomatous eyes with high myopia. Yugo Kimura1, M. Hangai1, T. Akagi1, M. Yoshikawa1, H. Yamada1, T. Hasegawa1, K. Suda1, H. O. Ikeda1, N. Yoshimura1, 1Ophthalmology, Grad Sch of Med, Kyoto Univ, Kyoto, Japan; 2Ophthalmology, Saitama Medical School Hospital, Saitama, Japan. *CR

900—A0252 Imaging the Lamina Cribrosa using Spectral Domain OCT Enhanced Depth Imaging and Swept Source OCT in Open Angle Glaucoma Patients. Elise Taniguchi1, N. Sangal2, E. Lee1, T. Kim1, R. N. Weinreb2, 1Ophthalmology, Seoul National University Bundang Hospital, Seongnam, Republic of Korea; 2Ophthalmology, Hamilton Glaucoma Center, University of California, Sandiego, CA. *CR

901—A0253 Evaluation of lamina cribrosa thickness using spectral-domain optical coherence tomography in ocular hypertension. Jong Chul Han1, D. Choi2, Y. Kwun3, C. Kee. Samsung Medical Center, Seoul, Republic of Korea

902—A0254 Clinical Optic Disc Findings Associated With Focal Lamina Cribrosa Defects in Glaucoma. Mohammed B. Khalil1, S. Park2, P. Li1, C. C. Teng1, J. M. Liebmann3, R. Ritch1, Moise and Chella Safra Advanced Ocular Imaging Laboratory, New York Eye & Ear Infirmary of the Mount Sinai Health System, New York, NY; 2Department of Ophthalmology, New York Medical College, Valhalla, NY; 3Department of Ophthalmology, New York University School of Medicine, New York, NY. *CR

903—A0255 In vivo imaging of lamina cribrosa defects in eyes with distinct patterns of glaucomatous retinal nerve fiber layer damage. KoEun Kim1, J. Jeoung1, Y. Kim1, B. Seol1, K. Park1, D. Kim1, 1Ophthalmology, Seoul National University College of Medicine, Seoul, Republic of Korea; 2Ophthalmology, Seoul National University Hospital, Seoul, Republic of Korea

904—A0256 Comparison of the anterior lamina cribrosa insertion in patients with open angle glaucoma and healthy subjects. Kyoung Min Lee1, E. Lee1, T. Kim1, R. N. Weinreb2, 1Ophthalmology, Seoul National University College of Medicine, Seoul, Republic of Korea; 2Ophthalmology, Hamilton Glaucoma Center, University of California, Sandiego, CA. *CR

905—A0257 Investigating the relationship between focal lamina cribrosa defects and myopia using swept-source optical coherence tomodraphy (SS-OCT). Bo Ram Seol1, J. Jeoung1, Y. Kim1, K. Park1, D. Kim1. Seoul National University College of Medicine, Seoul, Republic of Korea

906—A0258 Anterior lamina cribrosa morphometrics in myopic glaucoma. Sieun Lee1, S. Han2, M. Young1, P. Mackenzie1, M. Beg1, M. V. Sarunic1. 1School of Engineering Science, Simon Fraser University, Burnaby, BC, Canada; 2Ophthalmology and Visual Science, University of British Columbia, Vancouver, BC, Canada


908—A0260 Defects of the lamina cribrosa in myopic eyes with and without glaucoma. Atsuya Mikita1, Y. Ikuno1, T. Asai1, S. Usui1, K. Nishida1. Ophthalmology, Osaka University Graduate School of Medicine, Saita, Japan. *CR

909—A0261 Assessment of Lamina cribrosa related parameters for the diagnosis of glaucoma and prediction of progression. Kyung Rim Sung1, I. Hahn1, H. Chung1. Ophthalmology, Asan Medical Center, Seoul, Republic of Korea

910—A0262 In vivo changes in local lamina cribrosa microarchitecture and optic nerve head structure in early experimental glaucoma. Kevin M. Ivers1, N. Sredar2, N. B. Patel1, L. Rajagopalan1, H. M. Queener1, R. S. Harwerth1, J. Porter1. 1College of Optometry, University of Houston, Houston, TX; 2Department of Computer Science, University of Houston, Houston, TX. *CR

911—A0263 In Vivo Three-Dimensional Lamina Cribrosa (LC) Microarchitecture in Healthy Subjects Using Adaptive Optics Spectral-Domain Optical Coherence Tomography (AO-SD-OCT). Zach Nadler1, B. Wang2, G. Wollstein3, D. D. Ferguson1, A. Patel1, D. X. Hammer1, H. Ishikawa2, I. A. Sigal2, L. Kagemann2, J. S. Schuman2. 1UPMC Eye Center, Ophthalmology and Visual Science Research Center, Department of Ophthalmology, University of Pittsburgh School of Medicine, Pittsburgh, PA; 2Department of Bioengineering, Swanson School of Engineering, University of Pittsburgh, Pittsburgh, PA; 3Physical Sciences Inc., Andover, MA; 4Center for Devices and Radiological Health, Food and Drug Administration, Silver Spring, MD. *CR

912—A0264 Visibility of the Lamina Cribrosa Using OCT: A Comparison of Devices and Techniques. Nicholas G. Strouthidis1, S. Acharyya1, T. A. Tur2, R. Husain3, B. A. Haaland3, W. Xin1, J. M. Mari4, S. Perera4, T. Aung3, M. J. Grant5. 1NIHR Biomedical Research Centre at Moorfields Eye Hospital NHS Foundation Trust and UCL Institute of Ophthalmology, London, United Kingdom; 2Singapore Eye Research Institute, Singapore, Singapore; 3Centre for Quantitative Medicine, Duke NUS Graduate Medical School, Singapore, Singapore; 4Singapore National Eye Centre, Singapore, Singapore; 5Department of Statistics and Applied Probability, National University of Singapore, Singapore, Singapore; 6Department of Medical Physics and Bioengineering, UCL, London, United Kingdom; 7Department of Biomedical Engineering, National University of Singapore, Singapore, Singapore. *CR

913—A0265 In vivo Visualization of Posterior Lamina Cribrosa (LC) using SD-OCT Validated with Histology. HUONG TRAN1, B. Wang2, N. Jan1, G. Wollstein3, M. A. Smith1, L. Kagemann2, H. Ishikawa2, J. S. Schuman3, E. Tyler-Kabara1, I. A. Sigal1. 1Bioengineering, University of Pittsburgh, Pittsburgh, PA; 2UPMC Eye Ctr/Eye and Ear Inst/Ophthal, University of Pittsburgh School of Medicine, Pittsburgh, PA; 3Neurological Surgery, University of Pittsburgh, Pittsburgh, PA. *CR

914—A0266 A Comparison of Measuring Methods for Anterior Lamina Cribrosa Surface Depth. Je Hyun Seo1, T. Kim2, R. N. Weinreb1. 1Department of Ophthalmology, Pusan Nat, Yangsan, Republic of Korea; 2Ophthalmology, Seoul National University College of Medicine, Seoul National University Bundang Hospital, Seongnam, Republic of Korea; 3Hamilton Glaucoma Center and Department of Ophthalmology, University of California San Diego, La Jolla, CA. *CR


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916 — A0268 Does optic nerve head(ONH) remodeling precedes retinal nerve fiber layer(RNFL) thinning in glaucoma patients? Guihua Xu, C. K. Leung. Division of Ophthalmology & Visual Science, The Chinese University of Hong Kong, Hong Kong, China *CR

917 — A0269 Computer-Aided Diagnosis: Screening for Glaucomatous Defect on Red-Free Fundus Photography using Polarimetric Techniques. Jinho Lee1, J. Lee2, K. Park1, J. Kim. 1Department of Ophthalmology, Seoul National University Hospital, Seoul, Republic of Korea; 2Graduate School of Convergence Science and Technology, Seoul National University, Seoul, Republic of Korea

918 — A0270 Choroidal Vessel Cross-Sectional Area Before and After Trabeculectomy. Angelique Pillar, O. Saeedi. Ophthalmology, University of Maryland, Baltimore, MD


920 — A0272 Anterior Segment Enhanced-Depth Imaging Optical Coherence Tomography for Imaging the Lamina cribrosa Ex Vivo. Sung Chul Park1,2, T. Milman3, P. Mahadeshwar4, L. L. Chien4, J. M. Liebmann5, R. Ritch1,2. ‘Moise and Chella Safra Advanced Ocular Imaging Laboratory, Einhorn Clinical Research Center, New York Eye and Ear Infirmary of the Mount Sinai Health System, New York, NY; ‘Department of Ophthalmology, New York Medical College, Valhalla, NY; ‘Department of Pathology, New York Eye and Ear Infirmary of the Mount Sinai Health System, New York, NY; ‘Department of Ophthalmology, New York University School of Medicine, New York, NY *CR


922 — A0274 Inter-eye Differences in Bilaterally Myopic Patients with Unilateral Normal-tension Glaucoma. Won Hyuk Oh1, Y. Kong1, S. Kim1. ‘Ophthalmology, Sanggye Paik Hospital, Seoul, Republic of Korea; ‘Kong Eye Clinic, Seoul, Republic of Korea; ‘Ophthalmology, Seoul National University Boramae Hospital, Seoul, Republic of Korea

923 — A0275 Factors Associated with Anterior Chamber Volume and Iris Volume in Pigment Dispersion Syndrome. Ruojin Ren1, C. C. Teng1, S. Park2, M. Liu3, L. Lu4, V. G. De Moraes1, J. M. Liebmann1, R. Ritch1,2. ‘Moise and Chella Safra Advanced Ocular Imaging Laboratory, Einhorn Clinical Research Center, New York Eye and Ear Infirmary of the Mount Sinai Health System, New York, NY; ‘Department of Ophthalmology, New York Medical College, Valhalla, NY; ‘Department of Ophthalmology, New York University School of Medicine, New York, NY *CR

924 — A0276 Agreement between gonioscopy and ultrasound biomicroscopy in the assessment of the anterior chamber angle, before and after laser peripheral iridotomy. Claudia Cortes Alcocer1, M. Mayorquin-Ruiz1, J. Jimenez-Roman1. ‘Glaucoma, APEC, Mexico City, Mexico; ‘Ultrasound, APEC, Mexico City, Mexico

925 — A0277 Changes in anterior segment morphometry of iris bombé before and after laser peripheral iridotomy in patients with uveitic secondary glaucoma. Wakako Ikegawa, T. Suzuki, S. Mizoue, Y. Ohashi. Ophthalmology, Eihime University School of Medicine, Toon, Japan


927 — A0279 Visualization of Aqueous Outflow Structures with Spectralis Spectral-Domain Optical Coherence Tomography in the Living Human Eye. Yohko Murakami1, S. Yousefi2, A. Marvasti3, C. Bowd2, R. N. Weinreb4, A. S. Huang1. ‘Ophthalmology, University of Southern California, Los Angeles, CA; ‘Hamiton Glaucoma Center, University of California, San Diego, San Diego, CA *CR

928 — A0280 Anterior Segment Imaging-based Subgrouping of Primary Angle Closure Glaucoma. Monisha E. Nongpiur1,2, T. Gong1, H. Lee1, M. Lob1, S. Perera1, M. He1, T. Aung1,2. ‘Glaucoma, Singapore Eye Research Institute, Singapore, Singapore; ‘Singapore National Eye Centre, Singapore, Singapore; ‘State Key Laboratory of Ophthalmology, Zhongshan Ophthalmic Center, Sun Yat-sen University, Guangzhou, China; ‘Ophthalmology, Yong Loo Lin School of Medicine, National University of Singapore, Singapore, Singapore

929 — A0281 Characterizing Angle Landmarks with Anterior Segment Optical Coherence Tomography. Eric L. Crowell1,2, M. E. Gold3, A. Chuang4, L. Baker1, R. M. Feldman1,2, N. P. Bell1,2, L. S. Bleden1,2. ‘Ruiz Department of Ophthalmology and Visual Science, The University of Texas Medical School at Houston, Houston, TX; ‘Robert Cizik Eye Clinic, Houston, TX *CR

930 — A0282 Trabecular-Iris Circumferential Volume in Normal Open Angle Eyes Using Swept Source Fourier Domain Anterior Segment Optical Coherence Tomography. Mohammed Rigi1, D. Nguyen1, L. S. Bleden1, N. P. Bell1, L. Baker1, A. Chuang4, R. M. Feldman1,2. ‘Robert Cizik Eye Clinic, Houston, TX; ‘Glaucoma Service, South Texas Veterans Health Care System, San Antonio, TX; ‘Ruiz Department of Ophthalmology and Visual Science, The University of Texas Medical School at Houston, Houston, TX *CR

931 — A0283 Use of a Novel Anterior Segment Swept-Source Optical Coherence Tomography in Assessing Iris and Iridocorneal Angle Structures. Ahmad Najafi1,3, S. Park1,2, J. M. Liebmann1, R. Ritch1,2. ‘Moise and Chella Safra Advanced Ocular Imaging Laboratory, New York Eye and Ear Infirmary of the Mount Sinai Health System, New York, NY; ‘Ophthalmology, New York Medical College, New York, NY, New York City, NY; ‘Ophthalmology, New York University School of Medicine, New York City, NY

932 — A0284 Comparison of time domain anterior segment OCT with swept source OCT for angle imaging. Baskaran Mani1, C. Yau2, S. Ho1, T. A. Tun3, S. Perera1, T. Aung1,2. ‘Glaucoma, Singapore Eye Research Institute, Singapore, Singapore; ‘Ophthalmology, Yong Loo Lin School of Medicine, National University of Singapore, Singapore, Singapore

933 — A0285 Repeatability and Comparison of Anterior Chamber Angle Assessment Tests. Peter Campbell1, R. Agarwal1, T. Redmond2, K. Lim1, B. Evans1,3. ‘Ophthalmology, St Thomas’ Hospital, London, United Kingdom; ‘Institute of Optometry, London, United Kingdom; ‘Faculty of Health and Social Care, London South Bank University, London, United Kingdom; ‘Cardiff Centre for Vision Sciences, School of Optometry and Vision Sciences, Cardiff University, Cardiff, United Kingdom *CR

934 — A0286 Anterior segment structural analysis with optical coherence tomography in primary congenital glaucoma. Rita Anjos, L. vieira, M. Cardoso, A. Vicente, L. Pinto, C. Ferreira, A. Xavier, V. Maduro, C. Brito. centro hospitalar lisboa central, Lisboa, Portugal

935 — A0287 Iridocorneal angle changes measured by anterior segment optical coherence tomography in narrow angle patients after phacoemulsification with intraocular lens implantation. Jose A. Hernandez-Vargas, J. Jimenez-Arroyo, M. Escalante-Castañon, M. Garcia-Huerta, J. Jimenez-Roman. Glaucoma, Assoc Para Evitar la Cegua en Mexico, IAP, Mexico, Mexico

936 — A0288 Anterior chamber biometrics and intraocular pressure dynamics following cataract extraction in glaucoma patients. Fernha S. Ali1, S. Moghimi1, D. T. Barbosa1, G. Huang2, S. C. Lin1. ‘Ophthalmology, University of California San Francisco, San Francisco, CA; ‘Ophthalmology, Nanchang Eye Hospital, Nanchang, China

*CR Refer to the Program Number in the Commercial Relationships (CR) Index for Disclosures.

938 — A0290  The compatibility of the location of scleral spur in the observation of anterior segment optical coherence tomography and histological examination. Teruhiko Hanamakai, T. Higashida, T. Sakurai, N. Ishida. Ophthalmology, Japanese Red Cross Medical Ctr, Shibuya-Ku, Japan; 3Center of Education, Tokyo University of Science, Suwa, Japan; 1Shida Eye Clinic, Joetsu, Japan


940 — A0292  Evaluation and Comparison of Novel Anterior Chamber Angle Metrics Using Two Spectral Domain OCT Devices. Moritz Niemeyer, K. Marion, S. R. Sadda, V. Chopra, K. Marion, O. Dahlen Imaging Center, Doheny Eye Institute, Los Angeles, CA; 3Department of Ophthalmology, Keck School of Medicine, University of Southern California, Los Angeles, CA *CR


942 — A0294  Anterior segment OCT and confocal microscopy can be predictive of the bleb failure of a new minimally invasive glaucoma surgery technique, the XEN implant (Aqueous)? Giulia Consolandi, A. M. Fea, C. Lavia, G. Pignata, P. Cannizzo, F. Gallozzi, R. Spinetta, T. Rolle, F. M. Grignolo. Università degli Studi di Torino, Torino, Italy

943 — A0295  Evaluation of Bleb Birefringence after Glaucoma Surgery using Anterior Segment Polarization-Sensitive Optical Coherence Tomography. Shinichi Fukuda, S. Beheregayar, D. Kasaragod, K. Ishii, Y. Yasuno, T. Oshika, Y. Yamada, P. Labalette, J. Rouland. Ophthalmology, University of Lille, Lille, France; 3Biostatistics, University Hospital, Lille, France

944 — A0296  Prospective investigation of filtering bleb by three-dimensional anterior-segment optical coherence tomography. Toshihiro Inoue, S. Kojima, A. Fukushima, N. Kei-Ichi, H. Tanihara. Department of Ophthalmology, Kumamoto Univ, Faculty of Life Sci, Kumamoto, Japan


946 — A0298  Analysis of visual field defect according to RNFL thickness in Korean glaucoma patients. Youngdon Kim, S. Lee, H. Kyung. Ophthalmology, National Medical Center, Seoul, Republic of Korea

947 — A0299  Structural and functional differences in Glaucoma Patients with Disc Haemorrhage. Gillian Teh, Y. Chin, S. Perera, T. T. Aung, C. Y. Cheung, T. Aung, T. Y. Wong, M. Baskaran, Singapore National Eye Centre, Singapore, Singapore; 3Singapore Eye Research Institute, Singapore, Singapore; 4Ophthalmology, Yong Loo Lin School of Medicine, National University of Singapore, Singapore, Singapore; 5Duke-NUS Graduate Medical School, National University of Singapore, Singapore, Singapore

948 — A0300  Correlation Between Peripapillary Choroidal Thickness Measurements and Visual Field Status in Glaucomatous Patients. Paula Borba, V. G. Prado, I. Matsubara, A. Paranhos, R. M. Vessani, E. Prata. Department of Ophthalmology and Visual Sciences, Paulista School of Medicine, São Paulo Hospital, Federal University of São Paulo, São Paulo, Brazil

949 — A0301  Association between Peripapillary choroidal thickness and visual field progression in Normal tension glaucoma. Jinyoung Rhee, K. Choi. Ophthalmology, Ewha Womans University School of Medicine, Seoul, Republic of Korea


954 — A0306  Effect of Myopia on Retinal Nerve Fibre Layer Thickness Measurements by Cirrus HD Optical Coherence Tomography. Divya Singh, M. Pathak, T. Dada. Ophthalmology, Dr R.P.Centre for Ophthalmic Sciences, All India Institute Of Medical Sciences, New Delhi, India; 2Biostatistics, All India Institute Of Medical Sciences, New Delhi, India


957 — A0309 Imaging of temporal retinal nerve fiber trajectory with Transsection Fiber Analysis. Fumi Tanabe1, C. Matsutomo1, S. Okuyama1, S. Takada1, T. Numata1, T. Kayazawa1, M. Eura1, S. Hashimototio1, E. Koike2, Y. Shimomura1. Ophthalmology, Kinki University Faculty of Medicine, Osaka-Sayama, Japan; 2 Ophthalmology, Kinki University Faculty of Medicine, Sakai Hospital, Sakai-city, Japan

958 — A0310 Structural alterations in early open angle glaucoma patients with localized visual field defects. Monica Mosca, A. Rossi, R. Sala, R. Ratiglia. Eye Clinic Fondazione IRCCS Policlinico Milano, Milan, Italy

959 — A0311 Retinal Ganglion Cells Count and Structure/Function Correlation in Glaucoma. Giovanni Milano1, 2, P. Distante1, A. Verticchio Vercellino1, 2, S. Lanteri1, 2, M. Raimondi1, 2, M. Rolando1, 2, C. Tinelli2. University Eye Clinic, University of Pavia, Pavia, Italy; 2 Ophthalmology, Fondazione IRCCS Policlinico San Matteo, Pavia, Italy

960 — A0312 High resolution perimeter with 0.5 degree interval and its correspondence to GCL+IPL thickness. Takuya Numata1, C. Matsutomo1, S. Okuyama1, S. Takada1, F. Tanabe1, S. Hashimoto1, M. Eura1, T. Kayazawa1, E. Arimura-Koike2, Y. Shimomura1. Ophthalmology, Kinki Univ Faculty of Medicine, Osaka-Sayama City, Japan; 2 Ophthalmology, Kinki Univ Faculty of Medicine, Sakai Hospital, Sakai City, Japan


962 — A0314 The structure-function relationship in glaucoma is only marginally strengthened by improving visual field and retinal nerve-fiber layer thickness measurements. Shonraj Ballae Ganeshrao1, 2, A. Turpin1, J. Denny1, 2, A. M. McKendrick1. 1 Optometry and Vision Sciences, The University of Melbourne, Melbourne, VIC, Australia; 2 University of Queensland, School of Optometry and Vision Science Systems, University of Melbourne, Melbourne, VIC, Australia

963 — A0315 Enhanced Structure-Function Relationship in Glaucoma with an Anatomically and Geometrically Accurate Neuroretal Rim Measurement. Vishva M. Danturebandara1, 2, G. P. Sharpe1, D. M. Hutchinson1, J. Denny1, 2, M. T. Nicolet3a, A. M. McKendrick1, A. Turpin1, B. C. Chauhan1. 1 Ophthalmology and Visual Sciences, Dalhousie University, Halifax, NS, Canada; 2 Optometry and Vision Sciences, The University of Melbourne, Melbourne, VIC, Australia; 3 Computing and Information Systems, The University of Melbourne, Melbourne, VIC, Australia

964 — A0316 Reducing variability of visual field sensitivities in glaucoma through spatial filtering. Lisha Deng, S. K. Gardiner, S. Dmirel. Devers Eye Institute, Legacy Research Institute, Portland, OR

965 — A0317 Improving structure-function relationship by optimizing mathematical retinal nerve fiber layer models on perimetric data. Koenraad A. Vermeiren, N. S. Erler1, 2, S. R. Bryant1, 2, P. H. Eilers3, E. M. Leijser4, H. G. Lemijn1. 1 Rotterdam Ophthalmic Institute, Rotterdam Eye Hospital, Rotterdam, Netherlands; 2 Erasmus Medical Center, Rotterdam, Netherlands; 3 L-Biostat, KU Leuven, Leuven, Belgium; 4 Glaucoma Service, Rotterdam Eye Hospital, Rotterdam, Netherlands.

966 — A0318 Individualised Structure-Function Mapping: Influence of Variability in Clinical Measurements of Anatomy on Mapping Resolution. Jonathan Dennis1, 2, A. M. McKendrick1, A. Turpin1. 1 Optometry & Vision Sciences, University of Melbourne, Melbourne, VIC, Australia; 2 Computing & Information Systems, University of Melbourne, Melbourne, VIC, Australia

967 — A0319 Measurement of the Hypotenuse of the Optic Disc Cusp with Spectral Domain Optic Coherence Tomography Enhanced Depth Imaging compared with Standard Automated Perimetry. Fabio Lavinsky1, 2, C. Z. Benfica1, N. Castoldi1, J. Lavinsky1, P. A. Mello2. 1 Ophthalmology, Department of Ophthalmology, Federal University of Rio Grande do Sul, Brazil; 2 Porto Alegre, Brazil; 3 Department of Ophthalmology and Visual Sciences, Paulista School of Medicine, Sao Paulo Hospital, Federal University of Sao Paulo.; 4 Sao Paulo, Brazil

968 — A0320 Structure-Function Relationships between Macular Retinal Thickness using HRT3 and Standard Automated Perimetry. Georges Farantzos1, D. Kourkoutas1, T. Paraskevopoulos2, A. Karamaounas3, N. Karamaounas3, G. Triantafylloupolous3, M. Lygeros1. 1 First Department of Ophthalmology, Medical School, National and Kapodistrian University of Athens, Athens, Greece; 2 Department of Ophthalmology, Glaucoma Unit, 401 Hellenic Army General Hospital, Athens, Greece; 3 Medical School, University of Patras, Patras, Greece

969 — A0321 Association between Macular Thickness and Glaucomatous Visual Field Defect Testing. Brandon DeCaluwe1, 2, A. Shukairy1, 2, S. Nageri2, N. Farley4, 1, B. Hughes2, 2, C. Kim2. 1 Kresge Eye Institute, Detroit, MI; 2 Wayne State University School of Medicine, Detroit, MI

970 — A0322 Topographical correlation between macular layer thickness and clock-wise circumpapillary retinal nerve fiber layer in patients with normal tension glaucoma. Kazuko Omokada, Y. Shiga, S. Tsuda, Y. Yokoyama, T. Nakazawa. Ophthalmology, Tohoku University Graduate School of Medicine, Sendai-shi, Japan


972 — A0324 Defining the structure-function horizontal meridian of the human macula in glaucoma. Daniel Lemel1, 2, P. J. DeMarco1, J. D. Nussdorf1, 2. 1 Department of Ophthalmology, Ochsner Clinic Foundation, New Orleans, LA; 2 University of Queensland, School of Medicine, Brisbane, QLD, Australia; 3 Psychology and Brain Sciences, University of Louisville, Louisville, KY

973 — A0325 Asymmetry Analysis of Macular Retinal Layers for Diagnosis of Early Glaucoma in Highly Myopic Eyes. Hiroshi Yamada1, M. Hangai1, N. Nakano1, Y. Kimura1, T. Akagi1, H. O. Ikeda1, N. Yoshimura1. Kyoto university, Kyoto, Japan; 2 Saitama medical university, Saitama, Japan

974 — A0326 Structural function relationships in the glaucomatous macula comparing 10-2 and 24-2 visual fields. James Z. Zhang1, 2, A. J. Tatham1, C. Bowl1, F. A. Medeiros1, C. Zhang1, 2, R. N. Weinreb1, L. M. Zangwill1. Hamilton Glaucoma Center and Department of Ophthalmology, University of California San Diego, San Diego, CA; 2 Department of Ophthalmology, The First Affiliated Hospital, Harbin Medical University, Harbin, China

975 — A0327 Increasing structure function correlation in glaucoma patients through segmentation of the macular ganglion cell layer. Livia M. Brandao1, A. A. Ledolter2, M. Monhart1, A. Schützau1, A. M. Palmowski-Wolfe1. 1 Department of Ophthalmology, University of Basel, Basel, Switzerland; 2 Department of Ophthalmology, Medical University of Vienna, Vienna, Austria; 3 Carl Zeiss Meditec, Feldbach, Switzerland

976 — A0328 Retinal Nerve Fiber Layer Thickness Field and Corresponding Functional Loss in Glaucoma. Jean-Claude Mwanza1, A. D. Weibel1, J. L. Warren2, D. L. Budenz2. 1 Ophthalmology, Univ of North Carolina at Chapel Hill, Chapel Hill, NC; 2 Biostatistics, University of North Carolina at Chapel Hill, Chapel Hill, NC

977 — A0329 Relationship Between Within-eye Asymmetry of Relative Afferent Pupillary Defect with Pupillography and Ganglion Cell Complex Thickness by Optical Coherence Tomography in Asymmetric Glaucoma. Takeshi Ono, N. Ozbeki, D. Shiba, K. Yuki, K. Tsubota. Keio university, Tokyo, Japan

*CR Refer to the Program Number in the Clinical Trial (CT) Registration Index. *CR Refer to the Program Number in the Commercial Relationships (CR) Index for Disclosures.
980 — A0332 Correlation Between In Vivo Laminar And Pre-Laminar Tissues Measurements And Visual Field Status In Glaucomatous Patients, Vitor G. Prado, P. Borba, I. Matsubara, A. Paranhas, R. M. Vessani, T. S. Prata. Ophthalmology, Federal Univ of Sao Paulo, Sao Paulo, Brazil; *Mayo Clinic, Jacksonville, FL

981 — A0333 Progression of Glaucoma in a multicentre cohort of patients. Scena Nambiar1,2, A. Cree1, J. Gibson2, S. Sivaprasad1, A. Jacob1, A. MacLeod1, G. Monen1, J. Kirwan1, S. Ennis1, A. Lotery1, 4. 1Faculty of Medicine, University of Southampton, Southampton, United Kingdom; 2Centre for Biological Sciences, University of Southampton, Southampton, United Kingdom; 3Department of Ophthalmology, University Hospital, Aarhus C, Denmark; 4Department of Ophthalmology, School of Medicine, University of Alabama, Birmingham, AL. *CR

982 — A0334 Spatial Relationship Between Structural and Functional Glaucoma Progression in Extended Long-Term Cohort. Dingle Foote1, G. Wollstein1, D. Narendran1, Y. Ling1,2, R. A. Bilionick1,2, H. Ishikawa1,2, L. Kagemann1,2, C. Mattey2, J. G. Fujimoto1,2, J. Schuman1,2. 1UPMC Eye Center, Eye and Ear Institute, Ophthalmology and Visual Science Research Center, Department of Ophthalmology, University of Pittsburgh School of Medicine, Pittsburgh, PA; 2Department of Biostatistics, Graduate School of Public Health, University of Pittsburgh, Pittsburgh, PA; 3Department of Electrical Engineering and Computer Science, Massachusetts Institute of Technology, Cambridge, MA; 4New England Eye Center, Tufts Medical Center, Boston, MA; 5Department of Electrical Engineering and Computer Science, Massachusetts Institute of Technology, Cambridge, MA. *CR

983 — A0335 Heidelberg Retina Topograph Topographic Change Analysis in Progressing and Stable Eyes: Jagannath Nayak1, C. Bowd2, F. A. Medeiros3, R. N. Weinreb4, J. M. Liebmann5, C. A. Girkin5, L. M. Zangwill5, 1Hamilton Glaucoma Center, Department of Ophthalmology, University of California, San Diego, La Jolla, CA; 2New York University School of Medicine, New York, NY; 3Department of Ophthalmology, Einhorn Clinical Research Center, New York Eye and Ear Infirmary, New York, NY; 4School of Medicine, University of Alabama, Birmingham, AL. *CR


985 — A0337 Recognizing glaucomatous defect patterns and detecting progression from visual field measurements using Gaussian mixture model and expectation maximization.Siamak Yousefi1, M. H. Goldbaum1, F. A. Medeiros1, L. M. Zangwill1, R. N. Weinreb1, C. A. Girkin1, J. M. Liebmann1,2, C. Bowd1. 1Department of Ophthalmology, Hamilton Glaucoma Center, University of California at San Diego, La Jolla, CA; 2Department of Ophthalmology, New York University School of Medicine, New York, NY; 3Einhorn Clinical Research Center, New York Eye and Ear Infirmary, New York, NY; 4Department of Ophthalmology, School of Medicine, University of Alabama, Birmingham, AL. *CR

986 — A0338 Prediction Accuracy of a Novel Dynamic Structure-Function Model for Glaucoma Progression. Rongrong Hu1, 2, I. Marin-Franch1, L. Racette1. 1Eugene and Marilyn Glick Eye Institute, Indiana University, Indianapolis, IN; 2Department of Ophthalmology, Zhejiang University, College of Medicine, First Affiliated Hospital, Hangzhou, China; 3Grupo de Investigacion en Optometria (GIO), Universitat de Valencia, Burjassot, Spain

987 — A0339 Assessment of Glaucoma Progression Using the Dynamic Structure-Function Model with Permutation Analysis. Lyne Racette1, R. Hu1, 2, I. Marin-Franch1. 1Eugene and Marilyn Glick Eye Inst, Indiana University, Indianapolis, IN; 2Department of Ophthalmology, Zhejiang University, College of Medicine, First Affiliated Hospital, Hangzhou, China; 3Optics Department, Universitat de Valencia, Burjassot, Spain

988 — A0340 Assessment of Age Effect in Structural and Functional Glaucoma Progression Analysis. Yu-Ying Liu1, H. Ishikawa1,2, G. Wollstein1, R. A. Bilionick1,2, J. G. Fujimoto1,2, C. Mattey2, J. S. Duker1, J. S. Schuman1,2, J. M. Rehg1. 1College of Computing, Georgia Institute of Technology, Atlanta, GA; 2UPMC Eye Center, Eye and Ear Institute, Ophthalmology and Visual Science Research Center, Department of Ophthalmology, University of Pittsburgh School of Medicine, Pittsburgh, PA; 3Department of Bioengineering, Swanson School of Engineering, University of Pittsburgh, Pittsburgh, PA; 4Department of Biostatistics, Graduate School of Public Health, University of Pittsburgh, Pittsburgh, PA; 5Department of Electrical Engineering and Computer Science, University of California at San Diego, La Jolla, CA; 6New England Eye Center, Tufts Medical Center, Boston, MA. *CR

989 — A0341 Forecasting Retinal Nerve Fiber Layer Thinning and Visual Field Decay in Glaucoma. Manoj Pathak1,2, S. K. Gardiner1, S. Demirel1, 2Devers Eye Institute, Legacy Research Institute, Portland, OR; 3Discoveries In Sight Laboratories, Devers Eye Institute, Portland, OR

990 — A0342 The role of short-term and long-term intraocular pressure fluctuation on the development and progression of glaucoma. Esther M. Hoffmann1, J. Koenig1, A. Contier1, K. Merz1, N. Pfeiffer1. 1Dept of Ophthalmology, University of Alabama, Birmingham, AL; 2Department of Epidemiology an Biostatistics, University Medical Center, Mainz, Germany; 3Dept of Epidemiology an Biostatistics, University Medical Center, Mainz, Germany

Exhibit/Poster Hall SA A0380-A0414
Sunday, May 04, 2014 3:15 PM-5:00 PM
Cornea

156 Corneal Dystrophies and Genetics

Moderator: Sanjay V. Patel

991 — A0380 Corneal Endothelial Cell Density in Ametropic Children and Adolescents. Nicholas Faron1, J. Hockett1, L. Ytchesen2, 3. 1Ophthalmology, Washington Univ Sch of Med, St Louis, MO; 2Pediatrics, Washington Univ Sch of Med, St Louis, MO

992 — A0381 Endothelial Cell microRNA Expression in a Mouse Model of Fuchs Dystrophy. Mario Matthaei1, 2, L. Kallay1, C. Cursiefen1, A. J. Jun1. 1Wilmer Eye Institute, Johns Hopkins University, Baltimore, MD; 2Dept. of Ophthalmology, University of Cologne, Cologne, Germany

993 — A0382 Fuchs’ endothelial dystrophy: Hydration control. Esben Nielsen, J. Hjortdal1, A. Ivarsen. Ophthalmological department, Aarhus University Hospital, Aarhus C, Denmark
994 — A0383  Evaluation of the central and peripheral corneal endothelial cells in patients with Fuchs' Endothelial Corneal Dystrophy. Hiroko Nakagawa, T. Inatomi, S. Kinoshita. Ophthalmology, Kyoto Prefectural Univ of Med, Kyoto, Japan


996 — A0385  Selecting Fuchs Patients for Drug Trials Involving Endothelial Cell Migration. Atsuko Fujii1,2, W. Chamberlain3, M. Azuma1,2, R. T. Shearer1, 1Laboratory of Ocular Sciences, Senju Pharmaceutical Co, Ltd, Portland, OR; 2Department of Ophthalmology, Oregon Health & Science University, Portland, OR; 3Department of Integrative Biosciences, Oregon Health & Science University, Portland, OR. *CR


998 — A0387  Bullous keratopathy after anterior chamber phakic intraocular lens: description and descemnet membrane endothelial keratoplasty (DMEK) management. Alexandre Portmann, J. Guedary, M. Muraine. Ophthalmology, CHU, Rouen, France


1000 — A0389  TGFBI, CHST6 and Gelsolin gene expression in male patients with stromal corneal dystrophies. Johanna Gonzalez1,2, A. J. Ramirez-Miranda2, S. Hernandez-da Mota1, J. C. Zenteno1. 1Toronto Western Hospital, Toronto, ON, Canada; 2Research Department, Ophthalmology Institute “Fundacion Conde de Valenciana, I.A.P.”, Mexico City, Mexico; 3Unidad Oftalmologica Clinica David, Mexico, Mexico

1001 — A0390  Metabolic defects and oxidative stress in keratoconus. Dimitrios Karamichos1, J. Hjortdal2, A. E. Hutechon1, J. M. Asara1, J. D. Zieske2. 1Ophthalmology, Dean McGee Eye Institute, University of Oklahoma Health Sciences Center, Oklahoma City, OK; 2Ophthalmology, Schepens Eye Research Institute/Massachusetts Eye and Ear and Harvard Medical School, Boston, MA; 3Division of Signal Transduction/ Mass Spectrometry Core, Beth Israel Deaconess Medical Center, Harvard Medical School, Boston, MA; 4Ophthalmology, Aarhus University Hospital, Aarhus C, Denmark

1002 — A0391  Association of CHRD1L1 Mutations with X-linked Megalocornea and Megalocornea-Mental Retardation (MMR) Syndrome. Sek Shir Cheong1, A. Davidson1, V. Plagnol1, J. B. Rudde1, H. All2, J. C. Gardner1, J. M. Hertz1, D. T. Pilz2, S. T. Juft3,4, A. J. Hardcastle1. 1Institute of Ophthalmology, University College London, London, London, United Kingdom; 2Genetics Institute, University College London, London, United Kingdom; 3Department of Ophthalmology, Centre for Eye Research, University of Melbourne, Victoria, VIC, Australia; 4Moorfields Eye Hospital, London, United Kingdom; 5Department of Clinical Genetics, Odense University Hospital, Odense, Denmark; 6Institute of Medical Genetics, University Hospital of Wales, Cardiff, United Kingdom

1003 — A0392  Comprehensive Assessment of Genetic Variants within TCF4 in Fuchs Corneal Dystrophy. Keith H. Baratz1, R. A. Allef1, J. A. Kocher2, B. W. Eckloff3, E. J. Atkinson1, S. Baheti1, S. Middha1, S. V. Patel1, E. D. Wieben1. 1Ophthalmology, Mayo Clinic, Rochester, MN; 2Biochemistry and Molecular Biology, Mayo Clinic, Rochester, MN; 3Health Sciences Research - Biomedical Statistics and Informatics, Mayo Clinic, Rochester, MN; 4Medical Genome Facility, Mayo Clinic, Rochester, MN. *CR


1005 — A0394  CTG18.1 Trinucleotide Repeat Expansion of TCF4 Gene in Fuchs’ Endothelial Corneal Dystrophy. Ahmed Z. Soliman1,2, X. Gong1, I. Hussain1, C. Xing1, V. V. Mootha1,2. 1Ophthalmology, UT Southwestern Medical Center, Dallas, TX; 2Ophthalmology, Cairo University, Cairo, Egypt; 3McDermott Center for Human Growth and Development/Center for Human Genetics, UT Southwestern Medical Center, Dallas, TX

1006 — A0395  Posterior Amorphous Corneal Dystrophy is Caused by a Deletion of Small Leucine-rich Proteoglycans on Chromosome 5. Anthony J. Aldave1, M. Kim1, R. F. Frausto1, G. Rosenwasser2, E. M. Stone1. 1Cornea Service, CHS/UCLA, Los Angeles, CA; 2The Central Pennsylvania Eye Institute, Hershey, PA; 3Ophthalmology, The University of Iowa Hospitals and Clinics, Iowa City, IA


1008 — A0397  Inhibitory effect of tranilast on transforming growth factor betaxexpression in corneal fibroblasts derived from granular corneal dystrophy type II. Hye Young Kwak1,2, H. Lee1,2, K. Seo1,2, H. Lee1,2, E. Kim1,2, T. Kim1,2. 1The Institute of Vision Research, Department of Ophthalmology, Yonsei University College of Medicine, Seoul, Republic of Korea; 2Yonsei Dystrophy Research Institute, Yonsei University College of Medicine, Seoul, Republic of Korea. *CR

1009 — A0398  Phenotype of a Potential New Corneal Endothelial Dystrophy in the Middle East. Ashley Behrens1,2, H. Alkatami. 1King Khaled Eye Specialist Hospital, Riyadh, Saudi Arabia; 2Ophthalmology, Johns Hopkins Wilmer Eye Inst, Baltimore, MD

1010 — A0399  Expression studies of keratoconus corneal buttons reveal abnormalities in the regulation of extracellular matrix and adhesion molecules. Yelena Bykhovskaya1,2, H. P. Makarenkov1, Y. S. Rabinowitz1. 1Regenerative Medicine Institute, Cedars-Sinai Medical Center, Los Angeles, CA; 2Department of Cell and Molecular Biology, The Scripps Research Institute, La Jolla, CA; 3Cornea Genetic Eye Institute, Beverly Hills, CA

1011 — A0400  Identifying the role of matrix metalloproteinases in the pathomechanism of TGFBI Arg124Cys related Lattice Corneal Dystrophy Type I. Johnny E. Moore1, D. G. Courtney1, S. D. Atkinson1, E. Maurizi1, A. M. Nesbit1, G. Pellegrini1, D. T. Azar1, I. W. McLear1, T. C. Moore1,2. 1School of Biomedical Sciences, University of Ulster, Coleraine, United Kingdom; 2Dermatology and Genetic Medicine, University of Dundee, Dundee, United Kingdom; 3Centre for Regenerative Medicine, University of Modena and Reggio Emilia, Modena, Italy; 4Department of Ophthalmic and Visual Sciences, University of Illinois College of Medicine at Chicago, Chicago, IL

1012 — A0401  Identification of Candidate Genes for a Corneal Dystrophy of Bowman Layer Not Associated with a TGFBI Mutation. Derek J. Le, R. F. Frausto, A. J. Aldave. Stein Eye Institute, Los Angeles, CA

1013 — A0402  Novel ZEB1 mutations and associated posterior polymorphous corneal dystrophy phenotypes. Petra Liskova1,2, L. Dudakova1, A. E. Davidson1, S. Kalasova1, A. J. Hardcastle1, S. T. Juft1,4. 1Laboratory of the Biology and Pathology of the Eye, Institute of Inherited Metabolic Diseases, First Faculty of Medicine, Charles University in Prague and General University Hospital in Prague, Prague, Czech Republic; 2Department of Ophthalmology, First Faculty of Medicine, Charles University in Prague and General University Hospital in Prague, Prague, Czech Republic; 3UCL Institute of Ophthalmology, London, United Kingdom; 4Moorfields Eye Hospital NHS Foundation Trust, London, United Kingdom
1014 — A0403 Expression and characterization of the proline mutants in the 4th FAS1P domains of TGFβPβP associated stromal corneal dystrophies. Elavazhagan Murugan1, R. Lakshminarasayan1, A. Venkatraman1, V. Mouvel1, R. W. Beuerman1, J. S. Mehta1. 1Tissue Engineering and Stem Cell Group, Singapore Eye Research Institute, Singapore, Singapore; 2Singapore National Eye Centre, Singapore, Singapore; 3Department of Ophthalmology, Yong Loo Lin School of Medicine, National University of Singapore, Singapore, Singapore; 4Department of Clinical Sciences, Duke-NUS Graduate Medical School, Singapore, Singapore; 5School of Biological Sciences, Nanyang Technological University, Singapore, Singapore


1016 — A0405 Hereditary Benign Intraepithelial Dykeratosis in a Native American Tribe. Terri L. Young1, S. W. Tompson1, K. N. Whisenhunt1, Q. DeGroot1, K. Quw1, X. Luo1, A. A. Afshari1. 1Ophthalmology, Duke University, Durham, NC; 2Neurosciences and Behavioral Disorders, Duke-National University of Singapore Graduate Medical School, Singapore, Singapore; 3Ophthalmology, University of California, San Diego, San Diego, CA

1017 — A0406 Loss of Ion Transport along with Unfolded Protein Response in Late Onset FEDC. Supriya Jalimarada1, D. G. Ogando1, C. L. Springs2, R. D. Deitch1. 1School of Optometry, Indiana University, Bloomington, IN; 2School of Medicine, Indiana University, Indianapolis, IN; 3Midwest Eye Institute, Indianapolis, IN

1018 — A0407 Role of proacetal proteolysis in the pathogenesis of macular corneal dystrophy. Eszter Szlai1, K. Kaamirinta2, L. Modis Jr.1, A. Berta1, A. Smedowski1, J. Viiri1, W. Wowra1, D. Dobrovolski1, E. Wyglega1, S. Selszeghy1. 1Department of Ophthalmology, University of Debrecen, Medical and Health Science Center, Debrecen, Hungary; 2Department of Ophthalmology, Institute of Clinical Medicine, University of Eastern Finland, Kuopio, Finland; 3Department of Ophthalmology, Kuopio University Hospital, Kuopio, Finland; 4Ophthalmology Clinic, District Railway Hospital, Katowice, Poland; 5Department of Anatomy, Histology and Embryology, University of Debrecen, Medical and Health Science Center, Debrecen, Hungary

1019 — A0408 Association of common variants in TCF4 and PTPRG with Fuchs’ corneal dystrophy: A meta-analysis. Li Jia Chen1, L. Lau1, M. Ma1, V. Jhanji1, C. Pang1, A. Young1, 2. 1Ophthalmology & Visucal Sciences, The Chinese University of Hong Kong, Hong Kong, Hong Kong; 2Ophthalmology & Visual Sciences, Prince of Wales Hospital, Hong Kong, Hong Kong

1020 — A0409 Neuropeptide levels in normal cornea and in keratocous. Marta Sacchetti1, V. Scortic1, F. Mantelli1, A. Pocobelli1, A. Lambiase1, S. Bonini1. 1Cornea and Ocular Surface Unit, IRCCS Ospedale San Raffaele Milano, Milan, Italy; 2Ophthalmology, University of Magna Graecia, Catanzano, Italy; 3IRCCS GB Bietti Eye Foundation, Rome, Italy; 4Azienda Ospedaliera S Giovanni Addolorata, Rome, Italy; 5Campus Bio-Medico University, Rome, Italy *CR

1021 — A0410 En face spectral domain optical coherence tomography (SD-OCT) for corneal dystrophies. Wajedne Ghoulai1, R. Tahir Joutei Hassan1, H. Liang1, E. Brasnu1, A. Labbe1, C. Baudouin1. 1Department III, XV-XX National Ophthalmology Hospital, Paris, France; 2Clinical Investigation Center (CIC) INSERM 503, Quinze-Vingts National Ophthalmology Hospital, Paris, France; 3Department of Ophthalmology, Ambrose Paré Hospital, APHP, University of Versailles, Boulogne, France; 4INSERM U 968, UMR S 968, CNRS, UMR 7210, 45, Institut de la Vision, UPMC University, Paris 06, Paris, France; 5Department of Ophthalmology, Robert Debré Hospital, Reims, France *CR

1022 — A0411 Cononal confocal microscopy following conventional, transepithelial by iontophoresis, and accelerated corneal collagen cross-linking procedures for keratocous. Nacim Bouheraoua1, L. Jouve1, M. El Sanharawi1, O. Sandali1, P. Loriat1, C. Temstet1, E. Basli1, V. Borderie1, L. Laroche1. 1CHNO XXY, Paris, France; 2Pierre & Marie Curie University Paris 06, Paris, France; 3Inserr M U 968, Institut de la Vision, Paris, France

1023 — A0412 High-throughput NGS of 60 Genes Involved in Inherited Corneal Disorders. Xinjeng Wang1, D. Nie1, A. Turner1, K. Mitoma1, S. Kawasaki1, K. Nishida1. 1Tissue Engineering and Stem Cell Group, Singapore Eye Research Institute, Singapore; 2Ophthalmology, University of “Magna Graecia”, Catanzaro, Italy; 3IRCCS GB Bietti Eye Foundation, Rome, Italy; 4Azienda Ospedaliera S Giovanni Addolorata, Rome, Italy; 5Campus Bio-Medico University, Rome, Italy *CR

1024 — A0413 Analysis of Superficial Deposit Depth in Granular Corneal Dystrophy Type 2 Using Spectral-Domain Optical Coherence Tomography. Takeshi Nakao, N. Maeda, H. Mitamura, H. Fujimoto, Y. Oie, T. Soma, S. Koh, M. Tsujikawa, S. Kawasaki, K. Nishida. 1Ophthalmology, Osaka University Graduate School of Medicine, Suita, Japan

1025 — A0414 Triplet repeat primed PCR assay to genotype the CTCG18.1 trinucleotide repeat polymorphism in TCF4. Imran Hussain1, A. Tewari1, G. W. Abrams. Ophthalmology, Kresge Eye Institute, Wayne State University, Detroit, MI

1026 — B0164 RBP4 Induces Inflammation in Human Retinal Capillary Endothelial Cells by a TLR4-Dependent Mechanism. TJ Hollingsworth, M. Du, K. M. Farjo. Physiology, University of Oklahoma Health Sciences Center, Oklahoma City, OK

1027 — B0165 Salutary Effect of Fenofibrate on Diabetic Retinopathy via Inhibiting Oxidative Stress-mediated Wnt Pathway Activation. Qiuping Liu1, J. Li1, Z. Liu1, J. Ma2. 1Affiliated Eye Hospital of Nanchang University, Nanchang, China; 2Xiamen Eye Institute, Xiamen, China; 3Department of Physiology, OUHSC, Oklahoma city, OK

1028 — B0166 Increased purine metabolism in the human diabetic retina implicates monosodium urate (MSU)- mediated inflammatory effects in diabetic retinopathy. Babak Baban1, F. Lamo2, A. Montemarti1, G. Parisi1, S. Shaw2, G. Ripandelli4, A. Repossi5, F. Facchiano1, M. Bartoli2. 1Oral Biology, Georgia Regents University, Augusta, GA; 2Ophthalmology, Georgia Regents University, Augusta, GA; 3Experimental Medicine and Pathology, University of Rome La Sapienza, Rome, Italy; 4IRCCS Fondazione GB Bietti, Rome, Italy; 5Istituto Superiore di Sanita, Rome, Italy; 6Divisione Oculistica, Ospedale San Carlo di Nancy -IDI, Rome, Italy

1029 — B0167 Analysis of Neurotrophins in Patients with Diabetic Retinopathy. Hemang K. Pandya, A. Tewari, G. W. Abrams. Ophthalmology, Kresge Eye Institute, Wayne State University, Detroit, MI

1030 — B0168 Modulation of cytokine trans-signaling by microRNA-21 (miR-21)-mediated regulation of TACE/ADAM17 in the diabetic retina. Manuela Bartoli1, F. Lamo1, S. Shaw1, D. Gutseaev2, B. Baban1. 1Ophthalmology, Georgia Health Sciences University, Augusta, GA; 2Oral Biology, Georgia Regents University, Augusta, GA; 3Anesthesiology, Georgia Regents University, Augusta, GA

1031 — B0169 Tissue-Specific Regulatory Mechanisms of Retinal Protein Synthesis by Akt and mTOR pathways. Thomas W. Gardner, M. K. Losiewicz, S. F. Abcouwer, P. E. Fort. Ophthalmology, Kellogg Eye Ctr Univ of Michigan, Ann Arbor, MI *CR

Exhibit/Poster Hall SA B0164-B0185
Sunday, May 04, 2014 3:15 PM-5:00 PM
Biochemistry/Molecular Biology

157 Diabetic Retinopathy

Moderators: Azza B. El-Remessy and Krysten M. Farjo
1032 — B0170  PD-1 involved in the development of proliferative diabetic retinopathy by mediating activated-induced apoptosis rather than Th1 and Th2 response. Qianli Meng1, M. Fang2, H. Guo1, L. Wang2, L. Zhang1, Y. Cui1. 1Department of Ophthalmology, Guangdong General Hospital, Guangdong Eye Institute, Guangzhou, China; 2Hanen Eye Institute, Henan Eye Hospital, Zhengzhou, China


1034 — B0172  Aqueous Growth Factors in Proliferative Diabetic Retinopathy inhibit migration of Endothelial Progenitor Cells (CD34+). Wenhua Li1, S. Balayia1, M. Grant2, K. Chalam1. 1Department of ophthalmology, University of Florida College of Medicine, Jacksonville, FL; 2Eugene and Marilyn Glick Eye Institute, Indianapolis, IN

1035 — B0173  Nrf2 protein content is reduced after extended dark adaptation in retinas of diabetic rats. Zeinab Nasralah1, R. Hobbs2, F. N. Bhatti3, A. J. Barber1. 1Ophthalmology, Penn State College of Medicine, Hershey, PA; 2Ophthalmology, Moran Eye Institute, University of Utah, Salt Lake City, UT; 3Pediatrics, Dean McGee Eye Institute, Oklahoma University Health Sciences Center, Oklahoma City, OK

1036 — B0174  High-mobility group box-1 modulates the expression of inflammatory and angiogenic signaling pathways in diabetic retina. Ghulam Mohammad. Ophthalmology, King Saud University, Riyadh, Saudi Arabia

1037 — B0175  Investigate the expression of Th17 cell associated cytokines in tears of patients with dry eye syndrome. Ke Wang1, X. Tan2. 1Jiangsu Institute of Nuclear Medicine, Wuxi, China; 2Wuxi No.2 hospital, Wuxi, China

1038 — B0176  Regulation of Inflammatory Cytokine and Growth Factor Secretion in Retinal Microglia. Kun-Cher Chang1, 2, D. V. LaBarbera1, J. M. Petrasch1, 2. 1Ophthalmology, Univ of Colorado Denver, Aurora, CO; 2Pharmaceutical Science, Univ of Colorado Denver, Aurora, CO


1040 — B0178  microRNA-146A Inhibits Thrombin-induced NF-κB Activation and Subsequent Inflammatory Responses in Human Retinal Endothelial Cells. Shunbin Xu1, C. Cowan2, J. O’Donnell3, H. Lunn2. 1Ophthalmology and Anatomy & Cell Biology, Wayne State University, Detroit, MI; 2Pharmacology, Rush University Medical Center, Chicago, IL

1041 — B0179  Tonicity Response Element Binding Protein (TonEBP) is associated with neuronal cell death in the Experimental Diabetic Retinopathy. Inyoung Chung1, Y. Han1, H. Kim2. 1Ophthalmology, Gyeongsang National University Hospital, Jinju, Republic of Korea; 2Ophthalmology, Inje university, Busan Paik Hospital, Busan, Republic of Korea

1042 — B0180  First Global Assessment of Circulating microRNAs as Diagnostic and Prognostic Biomarkers for Diabetic Retinopathy. nurliza khaliddin1, 2, T. A. Kamalden1, 2, A. M. Khan1, 2, S. Abu Yazid1, 2, R. Chow1, 2, S. Dass3. 1Ophthalmology, University of Malaysia, Kuala Lumpur, Malaysia; 2UM Eye Research Center, University of Malaysia, Kuala Lumpur, Malaysia; 3Department of Pharmacology and Molecular Sciences, John Hopkins, Baltimore, MD; 4Centre for Bioinformatics, Perdana University, Serdang, Malaysia; 5Department of Pathology, John Hopkins, Baltimore, MD

1043 — B0181  Impaired Akt phosphorylation in response to high insulin in human RPE cells. Khasim Syedi1, 2, P. J. Marin1, M. E. Marin Castano1. 1Osteopathic Medicine, Nova Southeastern University, Davie, FL; 2Ophthalmology, Bascom Palmer Eye Institute, Miami, FL; 3Polytechnic University of Valencia, Valencia, Spain


1045 — B0183  Modulating p75NTR Prevents ProNGF- And Diabetes-Induced Acellular Capillaries Via Suppression of NFRF Nuclear Translocation. Ahmed Y. Shanab1, 2, B. A. Mysona1, 2, S. Matragoon1, 2, M. Clendenning1, 2, A. B. El-Remesy1, 2. 1Prog in Clin & Exprmntl Translatio, Thera, University of Georgia, Augusta, GA; 2Vision Discovery Institute, Georgia Regents University, Augusta, GA

1046 — B0184  The micro-RNA mir-146b-3p controls diabetic retinal inflammation by suppressing adenosine deaminase-2. Ahmed Elsherbini1, S. Fulzele1, S. Ahmad3. 1Ophthalmology Department, Georgia Regents University, Augusta, GA; 2Program in Clinical and Experimental Therapeutics, University of Georgia, Augusta, GA; 3Department of Biological Sciences, Rabegh College of Science & Arts-King Abdulaziz University, Rabegh, Saudi Arabia

1047 — B0185  Increased Concentrations of Periostin in the Vitreous of Proliferative Diabetic Retinopathy Patients with Tractional Retinal Detachment. Ric Takahashi1, 2, Y. Sassa1, 2, Y. Yoshida1, Y. Saeki1, 2, T. Mitsuake1, 2, T. Ishibashi1, T. Kono1. 1Ophthalmology, Fukuoka University Chikushin Hospital, Fukuoka, Japan; 2Ophthalmology, Fukuoka University, Fukuoka, Japan; 3Ophthalmology, Kyushu University, Graduate School of Medical Sciences, Fukuoka, Japan

Exhibit/Poster Hall SA B0186-B0208

Sunday, May 04, 2014 3:15 PM-5:00 PM

Physiology/Pharmacology / Retina

158 The Diabetic Retina: physiology and pharmacology

Moderators: Claudia Bucolo and Danielle Desjardins

1048 — B0186  RPE barrier dysfunction is an early complication in the diabetic eye. Zsolt Ablonczy1, D. Desjardins1, M. Dahrouj2, Y. Liu1, K. Sambamurti3, S. Husain1, C. E. Crosson1. 1Ophthalmology, Medical University of South Carolina, Charleston, SC; 2Neurosciences, Medical University of South Carolina, Charleston, SC

1049 — B0187  Retinal Acidosis at an Early Stage of Diabetes in the Rat. Andrey V. Dmitriev1, D. Henderson2, J. C. Lau1, R. A. Linsenmeier2, 1Dept of Biomedical Engineering, Northwestern University, Evanston, IL; 2Neurobiology Department, Northwestern University, Evanston, IL

1050 — B0188  Role of Inflammatory CCR2 Monocytes in Early Stage Diabetic Retinopathy. Alexander A. Veensra1, T. Kern1. 1Pharmacology, Case Western Reserve University, Cleveland, OH; 2Medicine (Endocrinology), Case Western Reserve University, Cleveland, OH; 3Stokes Veterans Administration Medical Center, Cleveland, OH

1051 — B0189  The quinic acid derivative KZ-41 prevents glucose-induced apoptosis in retinal endothelial cells (RECs) via enhanced P13 kinase signaling. Ryan Yates1, 2, H. He1, J. J. Steinle2, J. J. Toutouchian1, D. Miller1. 1Pharmacuetical Sciences, UTHSC College of Pharmacy, Memphis, TN; 2Ophthalmology, UTHSC College of Medicine, Memphis, TN

*CR Refer to the Program Number in the Commercial Relationships (CR) Index for Disclosures.
1052 — B0190 Neuroprotective and Antioxidant Effects of a PPAR-alpha Agonist in Diabetic Retinopathy. Elizabeth P. Moran1, L. Ding2, R. Cheng2, Z. Wang2, Q. Chen2, Y. Takahashi2, J. Ma1,2,3. 1Cell Biology, Univ of Oklahoma Health Sciences Center, Oklahoma City, OK; 2Physiology, University of Oklahoma Health Sciences Center, Oklahoma City, OK; 3Harold Hamm Oklahoma Diabetes Center, Oklahoma City, OK


1054 — B0192 Epigenetic changes in melanin-Mediated Cytoprotection against Hyperglycemic Injury in Müller Cells. Tingting Jiang, Q. Chang, G. Xu. Eye and ENT Hospital, Fudan University, Shanghai, China


1056 — B0194 Inhibition of ALR2 and AGE formation by ellagic acid: Prevention or treatment of diabetic cataract and retinopathy. G. Bhanuprakash Reddy1, G. Raghu1, P. Methenna1, C. Akileswari1, P. Suryanarayana1, J. M. Petras2. 1Biochemistry, National Institute of Nutrition, Hyderabad, India; 2Ophthalmology, University of Colorado, Aurora, CO

1057 — B0195 The G-Protein Coupled Retceptor P2Y2 is Upregulated in the Diabetic Rat Retina. Possible Role in Diabetic Retinopathy. Juan E. Gallo1,2, J. Mancini1,3, G. Marcocci1,2. 1Biochemistry, National Institute of Health, Milan, Italy; 2Faculty of Medical Science, University of Fukui, Fukui, Fukui, Japan; 3School of Medicine, Public University of the Incarnate Word, San Antonio, TX; 4Rosenberg School of Optometry, University of the Texas Health Science Center at San Antonio, San Antonio, TX; 5Department of Ophthalmology & Visual Science, University of Texas Health Science Center, Houston, Houston, TX

1058 — B0196 Effect of Fenofibrate in Hyperglycemic Mice Retina: Role of downstream Inflammatory Cytokines in Diabetic Retinopathy. Veluchamy A. Barathi1,2, Y. Sia Wey1, C. D. Luu1, T. Y. Wong1,2, S. S. Chaurasia3, E. L. Lamoureux1,2. 1Translational Pre-Clinical Model Platform, Singapore Eye Research Institute, Singapore, Singapore; 2Retina, Singapore Eye Research Institute, Singapore, Singapore; 3Department of Ophthalmology, Yong Loo Lin School of Medicine, National University of Singapore, Singapore, Singapore; 4Centre for Eye Research Australia, University of Melbourne, Melbourne, VIC, Australia; 5Ophthalmology Academic Clinical Research Program, DUKE-NUS Graduate Medical School, Singapore, Singapore

1059 — B0197 Anti-inflammatory and anti- apoptotic effects of α-melanocyte stimulating hormone in early diabetic retina. Xiaorong Li, Y. Zhang, L. Zhang, X. Zhang, X. Liu, L. Zhang. Retina, Tianjin Medical Univ Eye Hospital & Eye Institute, Tianjin, China

1060 — B0198 Effect Of Ranirestat, A New Aldose Reductase Inhibitor, On Diabetic Retinopathy In Sd Tats. Fumihiko Toyoda1, A. Kakehashi2, H. Takano3, N. Kinoshita4, M. Shimmura-Tomita1, A. Ota1, Y. Tanaka1, T. Matsumoto2, J. Tsuji2. 1Department of Ophthalmology, Jichi Medical University, Saitama Medical Center, Saitama, Japan; 2Drug Development Research Laboratories, Dainippon Sumitomo Pharma Co., Ltd, Osaka, Japan *CR

1061 — B0199 Emixustat Hydrochloride for the Potential Treatment of Diabetic Retinopathy (DR). Susan H. Henry1, C. Bavi1, K. Lieu1, A. Pashko1, C. Diamond2, K. Mitsu3, J. C. Lau2, R. A. Linsenmeier1, D. J. Calcinski1, K. Kubota1. 1Acucela Inc, Bothell, WA; 2Northwestern University, Evanston, IL; 3Vanderbilt University Medical Center, Nashville, TN *CR


1063 — B0201 In Vivo Evaluation of Retinal and Choroidal Structure in a Mouse Model of Long-Lasting Diabetes. Effect of Treatment with Citicoline. Ilaria Zucchiatti1, S. Maestrini1, C. Preziosa1, V. Capuano1, A. Spinello1, D. Gabbellini1, R. Lattanzio1, F. Bandello1, G. Zerbini2. 1Department of Ophthalmology, Scientific Institute San Raffaele, Milan, Milano, Italy; 2Complications of Diabetes Unit, Division of Metabolic and Cardiovascular Science, Scientific Institute San Raffaele, Milan, Milano, Italy *CR

1064 — B0202 Avastin Continuous Low Rate Infusion through Minipump Limited Diabetic Retinopathy in Poorly Controlled Diabetic SD Rats. Chunzhi Dou1, W. Chen1, S. Wu1, X. Zhang1, S. Gu1, T. Dou1. 1Chen Eye Center, Norcross, GA; 2Ophthalmology, Norman Bethune Medical School, Changchun, China; 3Surgery, Norman Bethune Medical School, Changchun, China; 4Endocrinology, Dehui County Hospital, Dehui, China; 5Pharmacology, Indiana University, Indianapolis, IN

1065 — B0203 New Oral Therapy for Diabetic Macular Edema by Fidarestat. Atsushi Nakajima1, N. Kato1, T. Jomori1, Y. Akagi2. 1Sanwa Kagaku Kenkyusho Co., Ltd, Nagoya, Japan; 2Faculty of Medical Science, University of Fukui, Fukui, Japan *CR

1066 — B0204 The characterization of natural products from E. Officinalis as aldose reductase inhibitors and potential lead therapeutics against diabetic eye disease. Daniel V. LaBarbera1,2, H. Ali1, L. Li1, K. Chang2, G. Reddy2, B. Shieh2, J. M. Petrash1,3. 1Pharmaceutical Sciences, University of Colorado AMC, Aurora, CO; 2Ophthalmology, University of Colorado Anschutz Medical Campus, Aurora, CO

1067 — B0205 Evidence of Decreased Dopamine Receptor-Mediated Control of Gap Junction Coupling in the Inner Nuclear Layer of the Diabetic Ins2Akita Mouse Retina. Rene C. Renteria1, N. Akimov2, Z. Zhang3, C. Ribelayga4, M. Pyarlai1, L. A. Fortepiani. 1Department of Physiology, The University of Texas Health Science Center at San Antonio, San Antonio, TX; 2Rosenberg School of Optometry, University of the Incarnate Word, San Antonio, TX; 3Department of Ophthalmology & Visual Science, University of Texas Health Science Center, Houston, Houston, TX

1068 — B0206 Effect of oral administration of alpha-lipoic acid, vitamin B1, vitamin B2 and rutinose on contrast sensitivity in patients with type 1 and 2 diabetes. Anna Gebek1, E. Serkes-Minuth1, D. Raczyńska1, M. K. Oseka1. 1Department of Ophthalmology, Medical University of Gdańsk, Gdańsk, Poland; 2Ofta Sp. z o.o., Warsaw, Poland *CR


1070 — B0208 Correlation of retina circulation and blood pressure before and after panretinal photocoagulation for diabetic retinopathy. Naoko Onizuka, M. Uematsu, K. Suzuma, T. Kitaoka. Ophthalmology, Nagasaki University, Nagasaki-shi, Japan

Exhibit/Poster Hall SA B0209-B0264
Sunday, May 04, 2014 3:15 PM-5:00 PM
Retina

159 Retinal detachment and allied diseases

Moderator: James T. Handa
1072 — B0210  Contrast Sensitivity and Optical Coherence Tomography Finding following Epiretinal Membrane Surgery. Yoshimi Sugiura, F. Okamoto, Y. Okamoto, T. Hiraoka, T. Oshika. Department of Ophthalmology, Faculty of Medicine, University of Tsukuba, Tsukuba, Ibaraki, Japan


1074 — B0212  Prevalence of Epiretinal Membranes Imagined by OCT in Eyes that Underwent Pars Plana Vitrectomy with or without Scleral Buckle Placement for Repair of Primary Rhegmatogenous Retinal Detachment. Valentina Franco-Cardenas, V. Gonzalez, V. Morales-Canton. Retina, Asociacion Para Evitar la Ceguera en Mexico 1AP, Mexico City, Mexico

1075 — B0213  RhoA Signaling in a Live Pig Model of Retinal Detachment. Jianfeng Wang1, M. Zarbin2, I. Sugino1, I. Whitehead1, E. Townes-Anderson1. 1Neurology and Neurosciences, Rutgers - New Jersey Medical School, Newark, NJ; 2Institute of Ophthalmology & Visual Science, Rutgers - New Jersey Medical School, Newark, NJ; 3UH Cancer Center, Rutgers - New Jersey Medical School, Newark, NJ

1076 — B0214  Pneumatic retinopexy for psuedophachygmatogenous retinal detachment. Jennifer Ling1, F. Sali1, A. Eller1. 1Ophthalmology, UPMC Eye Center/ University of Pittsburgh, Pittsburgh, PA; 2Ophthalmology, Tripler Army Medical Center, Honolulu, HI

1077 — B0215  Association between SNPs of COL2A1 and rhegmatogenous retinal detachment. Haoyu Chen1, W. Chen1, J. Chen1, Q. Chen1, W. Chen2, C. Pang1, 1Joint Shantou International Eye Center, Shantou, China; 2the Chinese University of Hong Kong, Hong Kong, Hong Kong

1078 — B0216  Relationship between Metamorphopsia and Foveal Microstructure after Rhegmatogenous Retinal Detachment Surgery. masahiko hasumi, F. Okamoto, Y. Sugiura, Y. Okamoto, T. Oshika. University Hospital of Tsukuba, Tsukuba, Japan

1079 — B0217  Clinical patterns of perfused central retinal vein occlusion: the initial presence of perivenuclar whitening shifts the balance between disc and macular edema. Michel Paques1, A. Pienn1, 2, J. Girmens1. 1Clinical Investigation Center 503, Quinze-Vingts Hospital, INSERM, Paris, France; 2Ophthalmology, Hospital, Nice, France

1080 — B0218  Full Thickness Macular Hole Development After Rhegmatogenous Retinal Detachment Repair. Charles C. Wykoff1, 2, D. Croft1, E. Chen1, 2, T. P. Wong1, 2, D. M. Brown1, 2. 1Retina Consultants of Houston, Houston, TX; 2Weill Cornell Medical College, Houston Methodist Hospital, Houston, TX

1081 — B0219  Dasatinib inhibits contraction of Müller and RPE cells on type I collagen gel assay. Rintaro Tsukahara1, 2, K. Umazume2, 1, K. McDonald1, H. Goto2, H. J. Kaplan1, S. Tamiya1. 1Ophthalm & Vis Science, University of Louisville, Louisville, KY; 2Ophthalmology, Tokyo Med Univ, Tokyo, Japan

1082 — B0220  Relationship Between Aniseikonia and Visual Function after Rhegmatogenous Retinal Detachment Surgery. Fumiki Okamoto, Y. Sugiura, Y. Okamoto, T. Hiraoka, T. Oshika. Department of Ophthalmology, University of Tsukuba, Tsukuba, Ibaraki, Japan

1083 — B0221  Different results between young and old age in seleral buckling for rhegmatogenous retinal detachment. Sung Who Park, I. Byon, J. E. Lee. Ophthalmology, Pusan national university hospital, Busan, Republic of Korea

1084 — B0222  Metamorphopsia after vitrectomy for macula-off rhegmatogenous retinal detachment. Hirofumi Morita, H. Kondo. Ophthalmology, University of Occupational and Environmental Health, Japan, Kitakyushushi, Japan


1087 — B0225  Postoperative refractive outcome change of combined phacoemulsification and pars plana vitrectomy in rhegmatogenous retinal detachment. Kwan Hyuk Cho, S. Kwon. ophthalmology, Hallym sacred heart hospital, An-yang, Republic of Korea


1089 — B0227  BAX and BCL-2 genes in patients with Retinal Detachment with and without Proliferative Vitreroretinopathy. The Retina 4 project. Lucia Gonzalez-Buenada1, S. Pastor1, 2, I. Rodriguez-Hernandez2, 1, J. Rojas1, R. Gonzalez-Sarmiento1, 2, J. Pastor1. 1Instituto de Oftalmobiologia Aplicada (IOBA), University of Valladolid, Valladolid, Spain; 2Unidad de Medicina Molecular, University of Salamanca, Salamanca, Spain; 3Instituto de Biologia Molecular y Celular del Cancer (IBMCC), Consejo Superior de Investigaciones Científicas (CSIC), Instituto de Investigacion Biomédica de Salamanca (IBSAL), University of Salamanca, Salamanca, Spain

1090 — B0228  Changes in Outer Retinal Structure Following Closed Globe Blunt Ocular Trauma. John Flatter1, 2, D. H. Scoles2, R. F. Cooper1, Y. N. Sula1, M. R. Goldberg1, W. A. Wirosztko1, K. E. Stepien1, T. B. Connor1, A. Dubra1, 2, J. Carroll1, 2. 1Ophthalmology, Medical College of Wisconsin, Milwaukee, WI; 2Biomedical Engineering, University of Rochester, Rochester, NY; 3Biomedical Engineering, Marquette University, Milwaukee, WI; 4Institute of Optics, University of Rochester, Rochester, NY; 5Biophysics, Medical College of Wisconsin, Milwaukee, WI; 6Cell Biology, Neurobiology, and Anatomy, Medical College of Wisconsin, Milwaukee, WI

1091 — B0229  Traumatic Retinal Detachments in Operation Iraqi Freedom and Operation Enduring Freedom from 2002–2010. James Weightman1, M. Colyer1, 2, D. Chun1, 2, E. Weichel1, 2. 1Ophthalmology, Walter Reed National Military Medical Center, Bethesda, MD; 2Surgery, Uniformed Services University of Health Sciences, Bethesda, MD; 3Georgetown University School of Medicine, Washington, DC

1092 — B0230  In Vivo and In Vitro Feasibility Studies of Intracocular Use of FocalSeal® to Close Retinal Breaks in Porcine and Rabbit Eyes. Sujin Hoshii1, F. Okamoto1, Y. Kaji1, M. Arai1, T. Hirose1, T. Oshika1. 1Department of Ophthalmology, Institute of Clinical Medicine, University of Tsukuba, Tsukuba, Japan; 2Department of Ophthalmology, Arai Eye Clinic, Fukuoka, Japan; 3The Schepens Eye Research Institute, Harvard Medical School, Boston, MA

1093 — B0231  TGF-β1 Induced Epithelial-Mesenchymal Transition in RPE cell is Mediated by TAK-1 Activation. Zeey Dvashi, M. Goldberg1, A. Pollack. ophthalmology, kaplan Medical Center, Rehovot, Israel

1094 — B0232  Efficacy of Preoperative Intravitreal Bevacizumab for Diabetic Triangular Retinal Detachment Repair. Sean Tsao, S. Rashid. Department of Ophthalmology and Visual Sciences, Montefiore Medical Center, Albert Einstein School of Medicine, Bronx, NY

*CR Refer to the Program Number in the Commercial Relationships (CR) Index for Disclosures.
1095 — B0233 Subfoveal choroidal thickness is not correlated with retinal sensitivity but with age in the fellow eye of patients with neovascular age-related macular degeneration. Elizabeth Pearce1, 2, E. Yang2, J. Harvey2, M. Richardson1, S. Sivaprasad1, V. Chong1. 1Department of Ophthalmology, King's College Hospital, London, United Kingdom; 2Oxford Eye Hospital, Oxford University Hospitals, Oxford, United Kingdom

1096 — B0234 Acquired optic nerve pit with cystoid macular edema treated with barrier laser. Robert Prinzi, H. Gao, Henry Ford Hospital, Detroit, MI

1097 — B0235 Development of an in vitro model of proliferative vitreoretinopathy using iPSC-RPE. Whitney Greene1, 2, A. Muniz1, 2, A. J. Johnson1, H. H. Wang1. 1Ocular Trauma, United States Army Institute of Surgical Research, San Antonio, TX; 2National Research Council, San Antonio, TX

1098 — B0236 Pneumatic retinopexy for retinal detachment occurring after prior scleral buckle or pars plana vitrectomy. Yasha Modi, J. Townsend, A. Epstein, W. Smiddy, H. W. Flynn. Ophthalmology, Bascom Palmer Eye Institute, Miami, FL *

1099 — B0237 Pars Plana Vitrectomy with Juxtappilary Laser Photocoagulation (JLP) Versus without JLP for the Treatment of Optic Disc Pit Maculopathy: Functional and Anatomic Outcomes. Sulaiman Alsulaiman1, M. Abouaamoh1, A. Mousa2, V. Gupta1, J. Arevalo1, 2. 1Retina, King Khaled Eye Specialist Hospital, Riyadh, Saudi Arabia; 2Ophthalmology Department, King Abdulaziz University Hospital, Riyadh, Saudi Arabia; 3Retina division, Wilmer Eye Institute, Johns Hopkins University, Baltimore, MD

1100 — B0238 Changes in Retinal Function and Structure Following Intravitreal Anti-Vascular Endothelial Growth Factor (Anti-VEGF) Treatment for Diabetic Macular Edema. Monique V. Sousa1, A. Nepomuceno1, A. Messias1, R. Jorge1, I. U. Scotti1. 1Ophthalmology, Ribeirao Preto Medical School, University of Sao Paulo, Ribeirao Preto, Brazil; 2Ophthalmology and Public Health Sciences, Penn State College of Medicine, Hershey, PA *

1101 — B0239 Residual Cone Structure in Achromatopsia: Implications for Gene Therapy. Christopher S. Langlo1, D. H. Scoles2, G. A. Fishman1, D. M. Gamm4, M. Struck5, J. Jiang2, A. Dubra3, J. Carroll1, 2. 1Cell Biol, Neurobiol, Anatomy, Medical College of Wisconsin, Milwaukee, WI; 2Biomedical Engineering, University of Rochester, Rochester, NY; 3The Chicago Lighthouse for People Who Are Blind or Visually Impaired, Chicago, IL; 4Ophthalmology and Visual Sciences, University of Wisconsin, Madison, WI; 5McPherson Eye Research Institute, University of Wisconsin, Madison, WI; 6Ophthalmology, Oregon Health and Science University, Portland, OR; 7Ophthalmology, Medical College of Wisconsin, Milwaukee, WI; 8Biophysics, Medical College of Wisconsin, Milwaukee, WI *CR

1102 — B0240 Imaging Cone Structure in Autosomal Dominant Cone Rod Dystrophy Caused by GUCY2D Mutations. Clinton Warren1, D. H. Scoles2, D. Dubis3, J. Aboshiha3, A. Duber4, M. Michaelides5, D. P. Han6, J. Carroll1, 2, A. Dubra3, 4. 1Ophthalmology, Medical College of Wisconsin, Milwaukee, WI; 2Biomedical Engineering, University of Rochester, Rochester, NY; 3Moorfields Eye Hospital and University College London Institute of Ophthalmology, London, United Kingdom; 4Cell Biology, Neurobiology and Anatomy, Medical College of Wisconsin, Milwaukee, WI; 5Biophysics, Medical College of Wisconsin, Milwaukee, WI *CR

1103 — B0241 27-gauge system for primary vitrectomy to treat rhegmatogenous retinal detachment. Anderson Teixeira1, 2, F. Rezende3, C. Salaroli1, 3. 1Ophthalmology, Medical College of Wisconsin, Milwaukee, WI; 2Biomedical Engineering, University of Sao Paulo, Sao Paulo, Brazil; 3Retina, King Khaled Eye Specialist Hospital, Riyadh, Saudi Arabia; 4Retina division, Wilmer Eye Institute, Johns Hopkins University, Baltimore, MD

1104 — B0242 Transplantation of c-kit positive / SSEA-1 negative human retinal progenitor cells into the subretinal space of mice. Cahui Jiang, C. Fu, G. Peng, Z. Yin. Department of Ophthalmology, Chinese PLA General Hospital, Beijing, China

1105 — B0243 Evolution of vitreoretinal modification after posterior vitreous detachment (PVD) and clinical management. Jennifer Cattaneo, V. Viganò, L. Cerri, S. Donati, C. Azzolini. Dept. of Surgical and Morphological Sciences - Section of Ophthalmology, University of Insubria, Varese, Italy

1106 — B0244 Autophagy in retinal detachment is mediated by hypoxia-inducible factor. Shameka J. Shelby, P. S. Angadi, D. N. Zacks. Ophthalmology & Visual Sciences, Unuv of Michigan Kellogg Eye Center, Ann Arbor, MI

1107 — B0245 IL-6 response to Edn2 stimulation in Muller cells. Pavan S. Angadi, S. J. Shelby, D. N. Zacks. Ophthalmology, University of Michigan Kellogg Eye Center, Ann Arbor, MI

1108 — B0246 Visual and Anatomical Outcomes in Congenital Glaucoma-Related Rhegmatogenous Retinal Detachment. Ramzi M. Al Jadaib1, A. Al Hadlaq2, N. G. Ghazi2. 1Research, King Khalid Eye Specialist Hospital, Riyadh, Saudi Arabia; 2Ophthalmology, University of Virginia, Charlottesville, VA; 3Retina, King Khalid Eye Specialist Hospital, Riyadh, Saudi Arabia

1109 — B0247 An analysis of spectral domain optical coherence tomography features that influence conversion to neovascular age-related macular degeneration in high-risk patients. Gary Yao1, L. Jagan1, S. Sharma1, 2. 1Ophthalmology, Queen’s University, Kingston, ON, Canada; 2Epidemiology, Queen’s University, Kingston, ON, Canada *CR

1110 — B0248 Outcomes of Sustained Perfluoro-octane Tamponade for Retinal Detachment Associated with Giant Retinal Tear. Dustin Pomerleau1, 2, M. Tan2, 3, J. Lock2, T. Isaac2, I. McAllister1, 2. 1Medical Retina & Vitreoretinal Surgery, Retina Center of Maine, Portland, ME; 2Department of Ophthalmology, Royal Perth Hospital, Perth, WA, Australia; 3Centre for Ophthalmic and Visual Science, Lions Eye Institute, Perth, WA, Australia

1111 — B0249 Coloboma associated retinal detachment: characteristics, surgical management, and outcomes. Priyanka Kumar, J. E. Sears. Cole Eye Institute, Cleveland Clinic, Cleveland, OH

1112 — B0250 Outcomes of Retinal Detachment Repair After Scleral Laceration. David C. Reed, A. Juhn, N. Rayess, J. Hsu, A. Chiang. Wills Eye Hospital, Philadelphia, PA

1113 — B0251 Premacular Vitreous Pocket and Traction of the Vitreous Trigger the Maculopathy Associated with Optic Disc Pit. Tadashi Yokoi, S. Nishina, N. Azuma. Ophthalmology and Laboratory of Cell Biology, Natl Center for Child Hlth and Dev, Setagaya-ku, Japan

1114 — B0252 The role of thrombin in proliferative vitreoretinopathy. Jeroen Bastiaans1, J. C. van Meurs2, V. C. Mulder2, P. M. Van Hagen2, H. Hooijkaas3, W. A. Dik1. 1Immuno, Erasmus MC, Rotterdam, Netherlands; 2Rotterdam Eye Hospital, Rotterdam, Netherlands

1115 — B0253 Derivation of traceable and transplantable photoreceptors from mouse embryonic stem cells. Sarah Decembrini1, U. Koch1, F. Radtke2, A. P. Moulin2, Y. Arsenijevic1. 1Unit of Gene Therapy & Stem Cell Biology, Jules-Gonin Eye Hospital, University of Lausanne, Lausanne, Switzerland; 2École Polytechnique Fédérale de Lausanne, Institut Suisse de Recherche Expérimentale sur le Cancer, Lausanne, Switzerland; 3Eye Pathology Laboratory, Jules-Gonin Eye Hospital, University of Lausanne, Lausanne, Switzerland
1116 — B0254 Refractive Outcome after Combined Cataract Surgery and Vitrectomy in Patients with Retinal Detachments. Enikeo Bukaty, C. I. Falkner-Radler, E. Smretschnig, K. Krepler, J. Spörli, S. Binder. Rudolf Foundation Hospital, Vienna, Austria

1117 — B0255 Fas Apoptotic Inhibitory Molecule 2 (Faim2) prevents retinal detachment induced photoreceptor apoptosis. Mercy D. Pawar, B. Busov, J. Yao, Q. Zheng, D. N. Zack, C. G. Besirli. University of Michigan, Ann Arbor, MI

1118 — B0256 Morphology function analysis in drusenoid pigment epithelial detachment. Christoph R. Clemens, F. Alten, F. Heiduschka, N. Eter. Ophthalmology, University Eye Hospital, Muenster, Germany *CR


1122 — B0260 Retinal Pigment Epithelial Changes on Wide-Field Fundus Autofluorescence and Swept-Source Optical Coherence Tomography Imaging After Successful Retinal Detachment Surgery. Kenneth Yau, M. Gil Martinez, S. Pastor, Y. Antoniou, T. Ivanova, A. Jalil, J. Vallejo-Garcia, S. Charles, R. Mclaughlan, P. E. Stanga, Ophthalmology, Manchester Vision Regression (MVR) Lab at NIHR/Wellcome Trust Manchester CRF and Manchester Royal Eye Hospital, Manchester, United Kingdom; Manchester Academic Health Science Centre and Centre for Ophthalmology and Vision Research, Institute of Human Development, University of Manchester, Manchester, United Kingdom *CR


1125 — B0263 Successful Globe Salvage In “Inoperable” Rhexogenous Retinal Detachment: Retrospective Study Of Ten Cases. Hugo Quiroz-Mercado, G. Salcedo, J. L. Olson, N. Mandava, S. C. Oliver. Ophthalmology, Denver Health Medical Center, Denver, CO; Rocky Mountain Lions Eye Institute, University of Colorado School of Medicine, Aurora, CO


Exhibit/Poster Hall SA C0001-C0046
Sunday, May 04, 2014 3:15 PM-5:00 PM
Retina / Genetics / Visual Psychophysics / Physiological Optics

160 Other macular disease imaging and surgery

Moderator: Francesco Bandello


1130 — C0004 Pars Plana Vitrectomy and 2 mg Triamcinolone Acetonide for Macular Edema due to Epiretinal Membrane. Gian S. Pierozzi, T. L. Albuquerque, A. F. Bordon, M. C. Martins. Retina e Vitreo, Hospital Oftalmologico de Sorocaba, Sorocaba, Brazil *

1131 — C0005 Assessment of functional and microstructural changes of photoreceptors after oral steroid treatment for acute zonal occult outer retinopathy by using microperimetry and spectral domain optical coherence tomography. Yukiko Makiyama, S. Ooto, A. Uji, N. Yoshimura. Kyoto University Graduate School of Medicine, Kyoto, Japan; VRM consultants of New York, New York, NY

1132 — C0006 Relationship between Retinal Lesions and Inward Choroidal Bulging in Vogt-Koyanagi-Harada Disease. Yoshikatsu Hosoda, A. Uji, M. Hangaï, S. Morooka, K. Nishijima, N. Yoshimura. Ophthalmology and Visual Sciences, Kyoto University Graduate School of Medicine, Kyoto, Japan; Department of Ophthalmology, Saitama Medical School, Saitama, Japan

1133 — C0007 Prognostic factors for visual acuity after surgery of idiopathic epiretinal macular membrane. Jae Seung Jeong, Y. Kim, H. Chin. Department of Ophthalmology, Inha University School of Medicine, Incheon, Republic of Korea

1134 — C0008 Pars Plana Vitrectomy Epiretinal Membrane Peeling Surgery in Eyes with 20/50 or better visual acuity. Brian Lehpmere, P. Carvounis. Cullen Eye Institute, Baylor College of Medicine, Houston, TX


1136 — C0010 Spectral-domain optical coherence tomography findings in Alström Syndrome. Vikas Khetan, G. Dotan, J. D. Marshall, E. Affeli, D. George, A. V. Levin. Ocular Oncology & Vitreoretina, Sankara Nethralaya, Chennai, India; Fellow, Ocular Genetics, Wills eye Institute 840, Walnut Street, Philadelphia, PA; Senior Imaging Specialist, Biopigen, Morrisville, NC; Head, Dept of Imaging, Wills eye Institute 840, Walnut Street, Philadelphia, PA; The jackson Laboratory, Bar harbor, ME *CR


*CR Refer to the Program Number in the Commercial Relationships (CR) Index for Disclosures.
1138 — C0012 Early retinal toxicity diagnosis by OCT in patients under Chloroquine or Hydroxychloroquine treatment. Claudia Recillas-Gispert, A. Macias, V. De Leon. Ophthalmology, INCNMSZ, Mexico City, Mexico

1139 — C0013 Prospective, multicenter determination of visual acuity agreement between the standard Early Treatment of Diabetic Retinopathy Study (ETDRS) chart and a handheld ETDRS equivalent. Ehsan Rahimi1,2, S. Reddy1, F. C. DeCroo1,2, M. A. Khan1, D. S. Boyer1, P. G. Gupta1,2, C. D. Regillo1,2, J. A. Haller1. 1Ophthalmology, Wills Eye Hospital, Philadelphia, PA; 2Retina, Mid Atlantic Retina, Plymouth Meeting, PA; 3Retina, Retina-Vitreous Associates Medical Group, Los Angeles, CA.

1140 — C0014 The prognostic value of multifocal electroretinogram and optical coherence tomography in panretinal photocoagulation. Ying Zhu, K. Wang, G. Xu. Ophthalmology, Eye and ENT Hospital of Fudan University, Shanghai, China

1141 — C0015 Correlations between functional data using microperimetry and anatomical parameters in high myopia. Miguel A. Zapata1, A. Zaben2, J. Garcia-Arumi1. 1Ophthalmology, Hospital Vall Hebron, Barcelona, Spain; 2Optipunt, Figueres, of the Basque Country (UPV/EHU), Bilbao, Spain.

1142 — C0016 Relationship with Vision and Characteristics of X-linked Juvenile Retinoschisis in Fourier Domain Optical Coherence Tomography. Joo Yong Lee1, H. Yang1, J. Lee2, Y. Yoon2, J. Kim1. 1Ophthalmology, University of Ulsan, College of Medicine, Asan Medical Center, Seoul, Republic of Korea; 2Statistics, University of Ulsan, College of Medicine, Asan Medical Center, Seoul, Republic of Korea.

1143 — C0017 Multifocal Electroretinogram (mfERG), Spectral-Domain Optical Coherent Tomography (SD-OCT), Fundus Autofluorescence (FAF) and Humphrey Visual Fields (HVF) in Early Detection of Pseudociliosteroid Retinal Toxicity. Inna V. Glybina, Claudia Recillas-Artaraz1, 2, A. Arteaga-Betina1, A. Ugarte2, G. Ruiz-Irastorza1, 2, T. Lencerhundi1, B. Pernas2, A. Fonollola1. 1Ophthalmology, Hospital universitario de Cruces, Bilbao, Spain; 2Autoimmune Diseases Research Unit., Hospital universitario de Cruces, Bilbao, Spain; 3Ophthalmology, University of the Basque Country (UPV/EHU), Bilbao, Spain; 4Medicine, University of the Basque Country (UPV/EHU), Bilbao, Spain.


1145 — C0019 Analysis of spectral domain Optical Coherence Tomography findings in patients with Systemic Lupus Erythematosus on Hydroxychloroquine therapy. Joseba Artaga1, A. Artegabeitia1, A. Ugarte2, G. Ruiz-Irastorza1, 2, T. Lerchundi1, B. Pernas2, A. Fonollola1. 1Ophthalmology, Hospital universitario de Cruces, Bilbao, Spain; 2Autoimmune Diseases Research Unit., Hospital universitario de Cruces, Bilbao, Spain; 3Ophthalmology, University of the Basque Country (UPV/EHU), Bilbao, Spain; 4Medicine, University of the Basque Country (UPV/EHU), Bilbao, Spain.

1146 — C0020 Effect of internal limiting membrane peeling adjunct to vitrectomy for macular edema: systematic review of literature and meta-analysis. Takuya Nakajima, T. Ueta, Y. Noda. Ophthalmology, University of Tokyo, Bunkyo-ku, Tokyo, Japan


1148 — C0022 Intraoperative Spectral Domain Optical Coherence Tomography Characterization of Inner Retinal Abnormalities during Macular Surgery and the Relationship to Preoperative and Postoperative Morphology. Philipp J. DeSouza1, V. Tai2, M. B. Sevilla2, Tran-Viet J. M. Migacz2, A. J. Atti3, P. Hahn2, C. A. Toth1. 1Duke University School of Medicine, Durham, NC; 2Ophthalmology, Duke University Eye Center, Durham, NC; 3Biomedical Engineering, Duke University, Durham, NC.

1149 — C0023 Surgical outcome of macular holes formed after vitrectomy. Haruhiko Yamada. 1Ophthalmology, Kansai Medical University, Hirakata, Japan; 2Ophthalmology, Yamada Eye Clinic, Sakai, Japan.

1150 — C0024 Clinical Significance of Inner Nuclear Layer Cystic Changes After Internal Limiting Membrane Peeling For Epiretinal Membrane. Eliona D. Gavazi1, R. Dolz-Marco1,2, Q. V. Hoang1, R. Gallego-Pinzano1, S. Chang1. 1Duke Eye Institute, Department of Ophthalmology, Columbia University Medical Center, New York, NY; 2Unit of Macula, Department of Ophthalmology, University and Polytchnic Hospital La Fe, Valencia, Spain.


1152 — C0026 Outcomes of Macular Hole Retinal Detachment in Highly Myopic Eyes. Malek A. AlRobaian1, N. G. Ghazi2, A. S. AlKharaish1. 1Ophthalmology, KKEStH, Riyadh, Saudi Arabia; 2Ophthalmology, University Of Virginia, Charlottesville, VA; 3Ophthalmology, King Saud University, Riyadh, Saudi Arabia.

1153 — C0027 Swelling and dimpling of inner retinal layer after internal limiting membraNe peeling: multimodal assessment. STAIN study. Sebastien Guigou1,2, S. Pommier2, P. Merite2, H. Rouhette2, F. Meyer2. 1CIR Henri Duffaut, Avignon, France; 2P 1.5, Mougins, France


1156 — C0030 Visual and Anatomical Outcomes of Epiretinal Membrane Peeling After Previous Primary Retinal Detachment Repair. Christina W. Ng1, N. Gregori1,2, S. Moysidis1, W. Shi1, W. Smiddy1, H. W. Flynn1. 1Retina, Bascom Palmer Eye Inst/Univ of Miami, Miami, FL; 2Department of Ophthalmology, Miami Veterans Affairs Hospital, Miami, FL.


1159 — C0033 Stereopsis and the Optical Coherence Tomography Findings Following Epiretinal Membrane Surgery. Hiroki Watanabe, F. Okamoto, Y. Sugiyura, Y. Okamoto, T. Oshika. Tsukuba University Faculty of Medicine, Tsukuba, Japan.

1160 — C0034 The relationship between a ‘Dissociated optic nerve fibre layer’ appearance and the extent of retinal and vitreous ‘debris’ on internal limiting membrane following surgery for idiopathic macular holes. David Steel1, C. Dinah1. 1Sunderland Eye Infirmary, Sunderland, United Kingdom; 2Institute of Genetic Medicine, University of Newcastle, Newcastle Upon Tyne, United Kingdom.

1161 — C0035 Treatment of macular hole with retinal detachment in high myopia by the inverted internal limiting membrane flap technique. Yasutaka Onoda1, T. Shiba1, K. Sawada2, Y. Hori1, T. Maeno1. 1Ophthalmology, Toho University Sakura Medical Center, Sakura, Japan; 2Ophthalmology, Asagiri Hospital, Akashi, Japan.

Sunday – Posters – 1163 – 1183

1163 — C0037  The Role of Internal Limiting Membrane Peeling During Surgical Repair of Diabetic Trabecular Retinal Detachments as Prophylaxis for Epiretinal Membrane Formation. Zachary M. Robertson, O. M. Houghton. Ophthalmology, University of North Carolina, Chapel Hill, NC  

1164 — C0038  Analysis Retinal Layers in Patients with Epiretinal Membranes Using Spectral Domain Optical Coherence Tomography (OCT). Ajay E. Kuriyan, D. DeBue, W. Smiddy. Bascom Palmer Eye Institute, Univ of Miami/Miller School of Medicine, Miami, FL  

1165 — C0039  Retinal anatomical features after vitrectomy for idiopathic epiretinal membrane as seen on spectral-domain optical coherence tomography. Sun Young Lee, L. C. Olmos. Ophthalmology, USC, Los Angeles, CA  

1166 — C0040  Visual Function in Patients with Type 1 Idiopathic Macular Telangiectasia. Rie Ofusa, Y. Sugira, F. Okamoto, Y. Okamoto, T. Oshika. Department of Ophthalmology, Faculty of Medicine, Tsukuba University, Tsukuba, Japan  

1167 — C0041  Improvement Of Neuroretinal Function Over The Treatment Course Of Exudative Age-Related Macular Degeneration. Umit Inan, M. Karadas, S. Inan, M. Dogan, G. Yavas, T. Kusbeci. Ophthalmology, Kocatepe University Medical School, Afyon, Turkey  

1168 — C0042  Autologous Transplantation of the Internal Limiting Membrane for Refractory Macular Holes. Yuki Morizane1, F. Shiraig1, S. Kimura1, M. Hosokawa1, Y. Shiod1, T. Kazawa1, M. Hosogi1, Y. Shirakata1, T. Okanouchi1. Ophthalmology, Okayama Univ Graduate School of Medicine, Okayama, Japan; 2Ophthalmology, Kagawa University Faculty of Medicine, Miki-cho, Japan; 3Ophthalmology, Kurashiki Medical University, Kurashiki, Japan  

1169 — C0043  Pars plana vitrectomy with or without internal limiting membrane peeling for the repair of primary rhegmatogenous retinal detachment. Tommaso Micelli Ferrari1, L. Micelli Ferrari1, M. Lorusso1, M. Leozappa1, S. Ciani1. 1UOC Oculistica, Ente Ecclesiastico “F Miuili” Acquaviva, Bari, Italy; 2Università degli studi di Bari, Bari, Italy  


1174 — C0202  Dual inhibition of angiopoietin-2 and vascular endothelial growth factor-A with Crossmab RG7716 suppressed laser-induced choroidal neovascularization in a non-human primate model. Gemini C. Cheung1, V. A. Barathi1, B. Tun1, S. Yeo1, P. Gan1, C. Nyein1, J. Regula2, G. Hartman3. 1Singapore Eye Research Institute, Singapore, Singapore; 2Pharma Research and Early Development, Hoffmann La Roche, Basel, Switzerland  

1175 — C0203  Optimizing Biodegradable Scaffolds for Developing iPS Cell Derived RPE Tissue. Vladimir Khristov1, J. Hartford1, Q. Wan2, M. R. Lotfi1, K. J. Miyagishima1, A. Mammishis1, J. Amaral1, S. S. Miller2, J. Davis1, K. Bharti1. 1Unit on Ocular Stem Cell and Translation Research, National Eye Institute, National Institutes of Health, Bethesda, MD; 2Section on Epithelial and Retinal Physiology and Disease, National Eye Institute, National Institutes of Health, Bethesda, MD; 3Laboratory of Retinal Cell and Molecular Biology, National Eye Institute, National Institutes of Health, Bethesda, MD  


1177 — C0205  AAV2.Flit23k Intraocular Inhibits VEGF and CNV in Mice. Xiaohui Zhang, H. Uehara, S. Das, A. Bolner, B. Ambati. Moran Eye Center, University of Utah, Salt Lake City, UT  

1178 — C0206  Effective targeting of the P13K/Akt/mTOR pathway: A promising therapeutic option for the treatment of ocular neovascularization/inflammation/oedema. Temitope Sasore, B. N. Kennedy. Conway Institute of Biomolecular and Biomedical Science, University College Dublin, Dublin, Ireland  

1179 — C0207  Localized RPE removal with a loop instrument in rabbits. Boris V. Stanzale1, F. Thielges2, Z. Liu3, N. Braun4, W. Wongsawad1, L. S. Somboonthanakij1, R. Brinken1, F. G. Holz1. Ophthalmology, University of Bonn, Bonn, Germany; 2Southwest Eye Hospital, the Third Military Medical University, Chongqing, China; 3Geuder AG, Heidelberg, Germany; 4Ophthalmology, Wat Raiking Hospital, Wat Raiking, Thailand  

1180 — C0208  Characterization of a spontaneous neovascular mouse model. Eiichi Hasegawa1, D. Husain1, B. Chang2, D. G. Vavvas3, R. J. D Amato4, J. W. Miller4, K. M. Connor1. 1Angiogenesis Laboratory, Department of Ophthalmology, Massachusetts Eye & Ear Infirmary, Harvard Medical School, Boston, MA; 2The Jackson Laboratory, Bar Harbor, ME; 3Department of Surgery, Vascular Biology Program, Boston Children's Hospital, Harvard Medical School, Boston, MA  


1182 — C0210  Response to supplementation with lutein and zeaxanthin in subjects with familial history of AMD: the LIMPIA Study. Marie-Noelle Delyfer1,2, M. B. Rouger1, C. P. Garcher1, H. Savel1, G. Chene1, S. Etheve1, W. Schalch1, C. DelCourt1, J. Korobelnik1,2. 1Ophthalmology, Hospital Pellegrin, Bordeaux, France; 2Univ. Bordeaux, ISPED, Centre INSERM U897-Epidemiologie-Biostatistique, Bordeaux, France; 3INSERM U897-Epidemiologie-Biostatistique, INSERM, Bordeaux, France; 4Service d’Ophthalmologie, CHU de Dijon, Dijon, France; 5Pôle de Santé Publique, Unité de soutien méthodologique à la recherche clinique et épidémiologie (USMR), CHU de Bordeaux, Bordeaux, France; 6Research and Development, DSM Nutritional Products, Kaiseraugst, Switzerland  

1183 — C0211  Investigating a link between photodegradation of bisretinoid and cross-linking of protein. Janet R. Sparrow1, J. Zhou2, K. Ueda3. 1Ophthalmology and pathology, Columbia University, New York, NY; 2Ophthalmology, Columbia University, New York, NY  

* Refer to the Program Number in the Clinical Trial (CT) Registration Index.  *CR Refer to the Program Number in the Commercial Relationships (CR) Index for Disclosures.
1184 — C0212 Histopathological characterization of different lesion types of polyoidal choroidal vasculopathy in HTRA1 transgenic mice. Alex Jones, S. Kumar, S. Wang, Z. Berrioscho, Y. Fu. Ophthalmology, University of Utah, Salt Lake City, UT


1186 — C0214 Choroidal neovascularization can help photoreceptors to survive in late AMD. Antje K. Bieseisier, M. Julien, U. Schraermeyer. Section of Experimental Vitreoretinal Surgery, Center for Ophthalmology Tuebingen, Tuebingen, Germany


1188 — C0216 AAV Mediated Expression of Human PRELP inhibits Complement Activation, Choroidal Neovascularization and Deposition of Membrane Attack Complex in Mice. Marco T. Birke, E. Lipo, M. Adhi, K. Birke, R. Kumar-Singh. Ophthalmology, Tufts University, Boston, MA

1189 — C0217 Progressive dysfunction of the retinal pigment epithelium and retina due to increased VEGF-A levels. Alexander G. Marneros1, M. Dahrjou2, Z. Ablonczy1. Massachusetts General Hospital/Harvard Medical School, Boston, MA; 2Medical University of South Carolina, Charleston, SC


1191 — C0219 The Fc fragments of Bevacizumab or IVIG suppress choroidal neovascularization. shengjian li, N. Kerur, S. Bogdanovich, R. Yasuma, Y. Kim, T. Mizutani, A. Bastos-Carvalho, J. Ambati. Department of Ophthalmology and Visual Sciences, University of Kentucky, Lexington, KY

1192 — C0220 Sorsby Fundus Dystrophy S156C-TIM3 mutation promotes angiogenesis and choroidal neovascularization via a FGF receptor-1 signaling pathway. Jian H. Qi1, H. Stoehr2, B. Anand-Apte1. 1Ophthalmic Research, Cole Eye Institute, Cleveland Clinic Lerner College of Medicine at CWRU, Cleveland, OH; 2Institute of Human Genetics, University of Regensburg, Regensburg, Germany


1194 — C0222 Intravitreal (IVT) injection exacerbates murine choroidal neovascularization (CNV) area by a MYD88 dependent mechanism. Elizabeth Fassbender, Y. Qiu, S. Shen, A. Woolfenden, A. Delpero, Y. Kim, B. D. Jaffe, S. H. Poor. Ophthalmology, Novartis Institutes for Biomedical Research, Cambridge, MA

1195 — C0223 Pathophysiological roles of endogenous calcitonin gene-related peptide in mouse model of laser-induced choroidal neovascularization. Yuichi Toriyama1,2, Y. Iesato1,2, A. Imai1,2, Y. Ichikawa-Shindo1,2, A. Kamiyoshi1, T. Sakurai1, T. Shindo1, T. Murata1. 1Department of Ophthalmology, Shinshu University School of Medicine, Matsumoto, Nagano, Japan; 2Department of Cardiovascular Research, Shinshu University Graduate School of Medicine, Matsumoto, Nagano, Japan

1196 — C0224 Lacking Smad3 attenuates development of Argon laser-induced CNV in mice. Hiroki Iwanishi, T. Sumioka, Y. Okada, O. Yamanaka, S. Saika. Ophthalmology, Wakayama Medical University, Wakayama-City, Japan

1197 — C0225 Ultrastructural Evaluation of Retinal Neovascular Proliferation in Rats with Advanced Light-Induced Retinal Degeneration. Leandro B. Teixeira1,3, M. Fallor, N. J. Volpe, R. Mirza. Northwestern University, CHICAGO, IL

1198 — C0226 PAMP Stimulation of Macrophages Promotes Neovascular Remodeling in Experimental Choroidal Neovascularization. Priyatham S. Mettu1, P. Saloupis1, S. W. Cousins1,2. 1Ophthalmology/Duke Eye Center, Duke University School of Medicine, Durham, NC; 2 Immunology, Duke University School of Medicine, Durham, NC

1199 — C0227 Functional role of TLR in choroidal neovascularization. Yin Shan Eric Ng1,4, M. Ju1, D. Iwata1, R. Foxton1, S. Bunker1, M. Belich2, G. Gough1, P. S. Adamsion1, D. T. Shima2. 1Ocular Biology and Therapeutics, UCL Institute of Ophthalmology, London, United Kingdom; 2Biopharmaceuticals R&D, GlaxoSmithKline, Stevenage, United Kingdom; 3Ophthalmic Discovery Performance Unit, GlaxoSmithKline, Stevenage, United Kingdom; 4Vascular Biology, The Schepens Eye Research Institute, Boston, MA

1200 — C0228 Effect of Intravitreal Imatinib on Laser-induced Rat Model of Choroidal Neovascularization. Homayoun Nikkhah1,2, H. Ahmadieh1, R. Nourinia3, M. Rezaei Kanavi1, B. Hosseini2, M. Oveis1, N. Sadeghi1, S. Khandaghy Meybodi1, M. Rahimi2, M. Yaseni1. 1Ophthalmology, Shahid Beheshti University of Medical Sciences, Tehran, Islamic Republic of Iran; 2Ophthalmic Research Center, Shahid Beheshti University of Medical Sciences, Tehran, Islamic Republic of Iran; 3Department of Drug and Food Control, School of Pharmacy, Tehran University of Medical Sciences, Tehran, Islamic Republic of Iran

1201 — C0229 Therapeutic Effect of IB1302, a bispecific Fc-fusion protein, on Age-related Macular Degeneration. Jing Wang1, Q. Liu1, Q. Wang1, X-Dong1, J. Li1, M. Yu1, Y. Luo1. 1State Key Laboratory of Ophthalmology, Zhongshan Ophthalmic Center, Sun Yat-sen University, Guangzhou, China; 2Innoven Biologics, Inc., Suzhou, China

1202 — C0230 Role of netrin-4 in a Mouse Model of Choroidal Neovascularization. Christina Nuernberg1, S. V. Klein1, N. Kociok1, A. B. Maier1, N. Reichhart1, W. J. Brunkert2, O. Strauss1, M. Kochi1, A. M. Joussen1. 1Department of Ophthalmology, University Medicine Berlin, Berlin, Germany; 2Department of Cell Biology and Ophthalmology, SUNY Downstate Medical Center, New York City, NY; 3Department of Biochemistry II, University of Cologne, Cologne, Germany

1203 — C0231 PRI-724 Significantly Reduces Retinal Fibrosis in Models of CNV and PVR. Andy Whitlock1, R. Farjo2, G. P. Lewis1, S. K. Fisher1, G. Luna1, T. Odagami1, T. Inada1, H. Kouji1. 1Pre-Clinical, Ora, Andover, MA; 2EyeCRO LLC, Oklahoma City, OK; 3Neuroscience Institute, University of California, Santa Barbara, CA; 4Pmison Pharma, Ltd, King of Prussia, PA

1204 — C0232 Validation of a Rabbit Model of Choroidal Neovascularization Induced by a Subretinal Injection of FGF-LPS. Tim T. Lam1, P. Miller1, S. Howard1, T. Nork1. 1Metabolism, Covance laboratories, Madison, WI; 2OSOD, Madison, WI

1205 — C0233 Evidence for Anti-Retinal Auto-Antibodies (AAbs) in the Complement Factor H Chimeric Transgenic (Cfh-Tg) Mouse Model of Age-Related Macular Degeneration (AMD). Alessandro Iannaccone1, A. H. Alhathem1, N. Lenchik1, F. Giorgianni1, D. D. New1, S. Beranova-Giorgianni1, I. Gerling1, R. Ufer-Ventinet1,4, M. Radic1. 1Ophthalmology/Hamilton Eye Institute, Univ Tennessee Health Sci Ctr, Memphis, TN; 2Medicine/Endocrinology, Univ Tennessee Health Sci Ctr, Memphis, TN; 3Pharmaceutical Sciences, Univ Tennessee Health Sci Ctr, Memphis, TN; 4Ophthalmology, UT Southwestern Medical Center, Dallas, TX; 5Neuroscience, UT Southwestern Medical Center, Dallas, TX; 6Microbiology, Immunology and Biochemistry, Univ Tennessee Health Sci Ctr, Memphis, TN
1206 — C0294 Targeted Deletion of the Murine GPR48 Gene Decreases Lens Epithelial cells Resistance to Oxidative Stress and Induces Age-Related Cataract Formation. Qiang Hou, J. Zhu, L. Tu. School of Ophthalmology and Optometry, Eye Hospital, Wenzhou Medical University, Wenzhou, Zhejiang, China


1208 — C0296 Congenital cataract: functional effects of three CRYBB2 amino acid changes. Sarah J. Garnai, D. M. Reed, F. J. Giblin, H. S. Pawar. 'Ophthalmology & Visual Sciences, University of Michigan, Ann Arbor, MI; 3Eye Research Institute, Oakland University, Rochester, MI


1210 — C0298 Influence of difference between Asian and Western facial contours on ocular UV exposure. Hiroshi Sasaki, N. Hatsu saka, N. Shibata, S. Shibata, Y. Kurihara, C. Tsai, E. Kubo. Kanazawa Medical University, Ishikawa, Japan


1212 — C0300 Goji berry effects on cataract development in ultraviolet light-irradiated bovine lenses. Vivian Choh, C. Ding, G. Won, A. Richard. School of Optometry and Vision Science, University of Waterloo, Waterloo, ON, Canada


1214 — C0302 Establishment of a lens epithelial monolayer culture system for the study of glau thionate transport. Xiaojun Fan, J. Whitson, V. M. Monnier, U. Hopfer. Pathology, Case Western Reserve Univ, Cleveland, OH; 3Physiology and Biophysics, Case Western Reserve University, Cleveland, OH; 4Biochemistry, Case Western Reserve University, Cleveland, OH

1215 — C0303 Broccoli consumption alleviates protein aggregation in cataract. Annie Abraham, S. S. Girija. Department of Biochemistry, University of Kerala, Kariavattom Campus, Thiruvananthapuram, India

1216 — C0304 Properties of Membranes Derived from the Total Lipids Extracted from the Clear and Cataractous Human Lenses of 61- to 70-Year-Old Donors. Laxman Mainali, M. Raguz, W. J. O'Brien, W. K. Subczynski. 1Biophysics, Medical College of Wisconsin, Milwaukee, WI; 2Medical Physics and Biophysics, University of Split, Split, Croatia

1217 — C0305 A Chinese pedigree with retinitis pigmentosa accompanied with characteristic complicated anterior subcapsular cataract. Mingxing Wu, M. Hou, R. Wen. Cataract, Zhongshan Ophthalmic Center, Guangzhou, China; 3Bascom Palmer Eye Institute, Miami, FL

1218 — C0306 Development of Pseudophakic Model in Young Non-Human Primates. Ewa Budzynski, V. Bantseev, C. Schuetz, F. Zhong, C. Farman, L. B. Teixeira, R. R. Dubielzig, M. Struck, E. Bentley, E. Thackaberry. 1Covance Laboratories, Madison, WI; 2Safety Assessment, Genentech Inc., South San Francisco, CA; 3Ocular Services on Demand (OSOD), Madison, WI; 4School of Veterinary Medicine, University of Wisconsin, Madison, WI; 5Department of Ophthalmology and Visual Sciences, University of Wisconsin, Madison, WI

1219 — C0307 The Jagged/Notch pathway is involved in TGFβ2-mediated epithelial-mesenchymal transition of human lens epithelial cells and rat anterior subcapsular cataract. Xiaoyun Chen, W. Xiao, S. Y. E. Liu. State Key Laboratory of Ophthalmology, Zhongshan Ophthalmic Center, Sun Yat-Sen University, Guangzhou, China


1222 — C0310 Tropomyosin Regulation of Stress Fiber Formation and EMT in Lens Epithelial Cells. Eri Kubo, H. Osada, N. Shibata, E. Kiyokawa, H. Sasaki, D. P. Singh. 1Dept of Ophthalmology, Kanazawa Medical University, Kakegno, Japan; 2Dept of Ophthalmology, Anamizu General Hospital, Ishikawa, Japan; 3Dept of Ophthalmology and Visual Sciences, University of Nebraska Medical Center, Omaha, NE

1223 — C0311 Study of hydrophilic intraocular lenses coated with polyethylene glycol using human lens epithelial cells. Magda Hata Viveiros, R. T. Soares, M. S. Omodei, C. A. Rainho, N. C. Cruz, S. A. Schellini, A. L. Rodrigues. 1Department of Ophthalmology, Universidade Estadual Paulista “Julio de Mesquita Filho” - UNESP de Botucatu, Botucatu, Brazil; 2Department of Control and Automation Engineering, Universidade Estadual Paulista - UNESP, Campus Experimental de Sorocaba, Sorocaba, Brazil; 3Department of Genetics - Institute of Biosciences, Universidade Estadual Paulista - UNESP de Botucatu, Botucatu, Brazil
The recent evolution of molecular genetics has advanced research in vision and ophthalmology, including inherited and degenerative retinal diseases, glaucoma, oncology, and pathology. These innovative molecular genetic methodologies now assist in all aspects of patient care, from diagnosis and genetic counseling, to treatment. This symposium will update the audience on current molecular genetic techniques: next generation sequencing (NGS), gene expression profiling (GEP), multiplex ligation-dependent probe amplification (MLPA), genome wide association studies (GWAS), array comparative genomic hybridization (aCGH), and siRNA-based methodologies and their application to the clinical practice.

**Moderators: Tatjana Milman, William J. Brunken and Ludwig M. Heindl**

— 5:15 **2014 Ludwig von Sallmann Clinician-Scientist Award Presentation**


1225 — 5:39 **Next generation sequencing in inherited retinal disease**, Eric Pierce. Ophthalmology, Harvard Medical School, Massachusetts Eye and Ear Infirmary, Boston, MA

1226 — 5:58 **Gene expression profiling of epiretinal membranes from patients with proliferative diabetic retinopathy and proliferative vitreoretinopathy**, Shigeo Yoshida. Ophthalmology, Kyushu University Graduate School of Medical Sciences, Fukuoka-shi, Japan

1227 — 6:17 **Molecular genetic prognostic methods in uveal melanoma**, Sarah E. Coupland. Dept. of Molecular and Clinical Cancer Medicine, University of Liverpool, Liverpool, United Kingdom


1229 — 6:55 **Ocular Infections: Morphology to Molecular Diagnosis**, Geeta K. Vemuganti. School of Medical Sciences, University of Hyderabad, Hyderabad, India