



April 28, 2019

8:00 - 9:45am. *AMD anti-VEGF II.*

Location: West Exhibition Hall.

[Abstract #112 - A0293.](#) [Poster #A0293.](#)

High-dose high-frequency aflibercept for recalcitrant neovascular age-related macular degeneration (2-year follow up)

Amador M, Jhingani M, Meshi A, Dans K, Lin T, Cavichini Cordeiro M, **Freeman WR**

8:00 - 9:45am. *AMD anti-VEGF II.*

Location: West Exhibition Hall.

[Abstract #A0253 - A0285.](#) [Poster #A0266.](#)

10-year mortality and clinical outcomes in patients with neovascular age-related macular degeneration treated with intravitreal anti-VEGF injections

Young SL, Anderson M, **Borooah S**, Ambrecht AM, Cackett PD

8:00 - 9:45am. *AMD anti-VEGF II.*

Location: West Exhibition Hall.

[Abstract #74 - A0254.](#) [Poster #A0254.](#)

Factors associated with extended remission in neovascular age-related macular degeneration on pro re nata treatment protocol

Lin T, Dans K, Kilic Muftuoglu I, Meshi A, Amador M, **Cheng L, Freeman WR**

1:00 - 2:45pm. *VClinical and epidemiological aspects of infection.*

Location: West Exhibition Hall.

[Abstract #874 - B0352.](#) [Poster #B0352.](#)

Cryptococcal choroiditis in the absence of cryptococcal meningitis: a novel clinical description

Spencer D, Yarmohammadi A, Toomey C, Ofstad T, **Freeman WR**

1:00 - 2:45pm. *AMD therapies (excluding anti-VEGF).*

Location: West Exhibition Hall.

[Abstract #A0232 - A0252.](#) [Poster #A0250.](#)

Generation of adeno-associated virus vector for RPE delivery of secretory antibody fragment

Shaw P, Lu Z, Lin V, May A, Wang Z

1:00 - 2:45pm. *Melanoma: Immunotherapy, Genomics, New Strategies.*

Location: West Exhibition Hall.

[Abstract #B0207 - B0240.](#) [Poster #B0239.](#)

Frequency of Mismatch Repair Gene Mutations in Uveal Melanoma

Toomey C, Phou S, Fraser K, Bakhoun M, Thorson J, **Korn BS, Kikkawa DO, Goldbaum MH, Lin JH**

1:00 - 2:45pm. *Mechanistic and translational study of retinal degeneration and uveitis.*

Location: West Exhibition Hall.

[Abstract #771-B0249.](#) [Poster #B0249.](#)

Kinetics of the retinal microglial response to optic nerve injury

Walsh J, **Weinreb RN, Skowronska-Krawczyk D**

3:00 - 4:45pm. *Emerging AMD Therapeutics.*

Location: East 8&15

[Abstract #971. PAPER SESSION.](#)

Phase 2b study of brimonidine DDS: potential novel treatment for geographic atrophy

Freeman WR, Francesco B, Souied EH, Guymer RH, Garg S, Chen FK, Rich RM, Holz FG, Li Y, Kerr K, Lopez FJ

April 29, 2019

8:15 - 10:00am. *Imaging Science and Vision Assessment.*

Location: West Exhibition Hall.

[Abstract #A0102 - A0116. Poster #A0108.](#)

Comparison of high magnification module for spectralis to adaptive optics scanning laser Ophthalmoscopy

Bartsch DG, Amador M, Dans K, Jhingan M, Cavichini Cordeiro M, **Freeman WR**

8:15 - 10:00am. *Imaging: posterior segment, clinical.*

Location: West Exhibition Hall.

[Abstract #1544 - A0304. Poster #A0304.](#)

Choroidal vascularity index in myopia

Jhingan M, Dans K, Cavichini Cordeiro M, **Bartsch DG**, Amador M, Chhablani J, **Freeman WR**

8:15 - 10:00am. *Glaucoma Genetics.*

Location: West Exhibition Hall.

[Abstract #1620-A0500. Poster #A0500.](#)

Mixed effects models indicate several SNPs within the CNTNAP2 gene increase rate of glaucoma related visual field loss

Athanas-Crannel A, Christopher M, Choi Y, Chan A, **Zangwill LM**, Liebmann JM, Girkin CA, Feldman RM, Taylor KD, Rotter JI, Dubiner H, **Ayyagari R**, Schork N, **Weinreb RN**

11:15am - 1:00pm. *OCT - Clinical Applications II.*

Location: West Exhibition Hall.

[Abstract #1885-A0276. Poster #A0276.](#)

Effect of body position on anterior chamber angle dimensions assessed by anterior segment optical coherence tomography

Penteado R, Xu B, Yang D, Proudfoot J, Susanna R, **Weinreb RN**

11:15am - 1:00pm. *Mendelian Genetics and Animal Models of Retinal Disorder.*

Location: West 217-219.

[Abstract #1757. PAPER SESSION.](#)

Detection and validation of the involvement of novel mutations in MERTK in recessive retinal degeneration using WGS and hiPSC-RPEs

Biswas P, **Borooah S**, Voronchikhina M, Matsui H, **Wahlin KJ**, Frazer K, **Ayyagari R**

11:15am - 1:00pm. *Molecular mechanisms of retinal function in health and disease.*

Location: East Ballroom C.

[Abstract #1738. PAPER SESSION.](#)

Inhibition of NF- κ B signaling modulates epithelial to mesenchymal transition in human stem cell-derived retinal pigment epithelial cells

Sripathi SR, Hu MW, Cheng J, Liu M, Duan Y, Wan J, Yang X, Mertz JL, Berlinicke C, Maruotti J, **Wahlin KJ**, Esumi N, Qian J, Zack DJ

11:15am - 1:00pm. *Drug delivery, drug and gene delivery system.*

Location: East 2/3.

[Abstract #1704. PAPER SESSION.](#)

Scleral permeation of co-administered episcleral drugs

Cheng L, Lu P, **Liu J**, **Freeman WR**, Huffman K, Xiao Y, Landeros S

1:15 - 2:45pm. *Aging as a factor in eye diseases-SIG.*

Location: East Ballroom C.

[SIG.](#)

Aging as a factor in eye diseases

Skowronska-Krawczyk D, Palczewski K, **Afshari NA**, Menko AS, Swaroop A, **Skowronska-Krawczyk D**

1:15 - 2:45pm. *Health disparities, social justice and vision research - SIG.*

Location: West 217-219.

[SIG.](#)

Health disparities, social justice and vision research

Eghrari AO, Collins ME, Sommer A, **Afshari NA**, Wolle MA, Moshiri A, Eghrari AO, Collins ME

4:00 - 5:45pm. *Visual Fields, Psychophysics, and Electrophysiology.*

Location: West Exhibition Hall.

[Abstract #2478-A0642. Poster #A0642.](#)

Agreement between compus fundus automated perimetry and Humphrey field analyzer measurements

Ghahari E, **Bowd C**, **Zangwill LM**, Proudfoot J, Penteado R, Hou H, **Weinreb RN**

4:00 - 5:45pm. *Neuroprotection.*

Location: Harbour Ballroom.

[Abstract #2255. PAPER SESSION.](#)

MAP4K4 and GSK-3 pathways complement DLK/LZK signaling to control cell death and axon degeneration in retinal ganglion cells

Patel AK, Mitchell K, Hansen BS, Berlinicke C, Broyer R, Zack DJ, **Welsbie DS**

April 30, 2019

8:45 - 10:30am. *OCTA in AMD/DR/Glaucoma/Ischemia.*

Location: West Exhibition Hall.

[Abstract #3004 - A0347](#). [Poster #A0347](#).

Confusion matrix evaluation of the clinical utility of oct angiography in amd-associated Choroidal neovascularization

Cavichini Cordeiro M, Dans K, Jhingan M, Amador M, **Bartsch DG**, **Nudleman E**, **Freeman WR**

8:45 - 10:30am. *OCTA in AMD/DR/Glaucoma/Ischemia.*

Location: West Exhibition Hall.

[Abstract #3038-A0381](#). [Poster #A0381](#).

Association of superficial and deep macula vessel density with past visual field progression in glaucoma

Moghimi S, **Zangwill LM**, Hou H, Proudfoot J, Penteadó R, Kyung H, Haft M, Li A, Ghahari E, **Bowd C**, **Weinreb RN**

8:45 - 10:30am. *OCTA in AMD/DR/Glaucoma/Ischemia.*

Location: West Exhibition Hall.

[Abstract #3044-A0387](#). [Poster #A0387](#).

Diagnostic accuracy of OCTA vessel density and OCT tissue thickness measurements using machine learning

Bowd C, **Belghith A**, **Zangwill LM**, **Goldbaum MH**, Christopher M, Ghahari E, Hou H, Moghimi S, Penteadó R, **Weinreb RN**

8:45 - 10:30am. *OCTA in Healthy/Aging Eyes.*

Location: West Exhibition Hall.

[Abstract #3066-A0409](#). [Poster #A0409](#).

Age-related optic nerve head and retinal microvasculature dropout varies by race

Moghadam M, Lee JH, **Weinreb RN**, Voora R, **Bowd C**, Proudfoot JA, Moghimi S, Penteadó R, Hou H, Ghahari E, Manalastas PIC, Christopher M, **Belghith A**, **Zangwill LM**

8:45 - 10:30am. *Animal Models for Visual Disease and Restoration.*

Location: West Exhibition Hall.

[Abstract #3112 - A0503](#). [Poster #A0503](#).

Retinal and optic nerve dysfunction in PS19 tau transgenic mice

Chao DL, **Lin JH**, Castillejos D, Chiang K, Hiramatsu N, Chen A, Koo E

8:45 - 10:30am. *Aqueous humor Dynamics and IOP.*

Location: West Exhibition Hall.

[Abstract #3189-B0363](#). [Poster #B0363](#).

Human scleral fibroblast steroid-response and cellular migration inhibition

Bogarin T, Saraswathy S, Barron E, Zheng JJ, **Weinreb RN**, Huang A

11:45am - 1:30pm. *Highlights of OCT angiography.*

Location: East Ballroom C.

[Abstract #3281](#). [PAPER SESSION](#).

Progressive ganglion cell complex thickness and vessel density loss in healthy, pre-perimetric glaucoma and primary open angle glaucoma eyes

Hou H, Moghimi S, **Zangwill LM**, Proudfoot J, Penteadó R, Ghahari E, Kyung H, **Bowd C**, Li A, Lee JH, Yang D, **Weinreb RN**

11:45am - 1:30pm. *Non-Melanoma, Non-Retinoblastoma Intraocular Pathology & Retinopathy.*
Location: West Exhibition Hall.

[Abstract #A0577 - A0594.](#) [Poster #A0583.](#)

Morphology of retinal pathologic prion protein (prp) deposits in sporadic creutzfeldt-jakob disease (scjd) patients

Yarmohammadi A, Goodwill V, Sigurdso C, **Goldbaum MH, Savino P, Lin JH**

11:45am - 1:30pm. *Tumors: Eyelids, Orbit, Ocular Surface, Conjunctiva, and Ocular Adnexa.*

Location: West Exhibition Hall.

[Abstract #A0595 - A0627.](#) [Poster #A0627.](#)

Temporal artery biopsy length does not affect rate of positive diagnosis in temporal arteritis: a retrospective review of 107 cases

Men C, McKnight T, Challa BS, **Korn BS, Kikkawa DO, Lin JH**

11:45am - 1:30pm. *Stem Cells and Retinal Organoids: Development.*

Location: West Exhibition Hall.

[Abstract #3331-A0020.](#) [Poster #A0020.](#)

The role of microRNAs in human retinogenesis

Jones MK, Chow M, Kambli NK, **Wahlin KJ**

2:45 - 4:30pm. *Visual Impairment - Assistive Devices and Rehabilitation.*

Location: West Exhibition Hall.

[Abstract #B0072 - B0103.](#) [Poster #B0072.](#)

Long-term quality of life assessment of severely visually impaired individuals after using the Aira assistive technology system

Park K, Nguyen BJ, Luo S, Kim J, **Chao DL**

May 1, 2019

8:15 - 10:00am. *Retinal Degeneration.*

Location: East 8 & 15.

[Abstract #4206. PAPER SESSION.](#)

Unfolded protein response regulator, *atf6*, is essential for stress survival in cone Photoreceptors

Chiang WC, Bi X, Kroeger H, Landeros S, **Cheng L, Lin JH**

8:15 - 10:00am. *OCTA in Ocular, Cerebral and Systemic Diseases/Disorders.*

Location: West Exhibition Hall.

[Abstract #4529-A0514. Poster #A0514.](#)

Reduced retinal microvasculature with increasing axial length and older age in healthy myopic and non-myopic eyes

Lee JH, Voora R, **Weinreb RN**, Moghadam M, **Bowd C**, Proudfoot J, Moghimi S, Penteado R, Hou H, Ghahari E, Manalastas PIC, Christopher M, **Belghith A, Zangwill LM**

10:15am - 12:00pm. *Retinal disease screening and risk factors.*

Location: West 220.

[Abstract #4800. PAPER SESSION.](#)

Smartphone-based retinal imaging to characterize early functional retinal vascular changes in diabetic retinopathy

Cheung CY, Wang YM, **Liu JHK**, Lai KHW, Chang R, Wong TY

10:15am - 12:00pm. *Neuroprotection.*

Location: West Exhibition Hall.

[Abstract #4863-A0184. Poster #A0184.](#)

Gene regulation dynamics induced by the protein kinase inhibitor, SBJ-051 associated with neuroprotection in light-induced photoreceptor cell death

Kim BJ, Wang J, Masuda T, Liu M, Nair R, Qian J, **Welsbie DS**, Bannister T, Spicer T, Scampavia L, Trainor G, Trainor A, Zack DJ

10:15am - 12:00pm. *Biochemical and molecular mechanisms of age-related macular degeneration.*

Location: West Exhibition Hall.

[Abstract #4896 - A0217. Poster #A0217.](#)

Regulation of HTRA1 activity by CTRP5 may underlie the pathology of Late Onset Retinal Degeneration (L-ORD)

Chekuri A, Zientara-Rytter K, **Borooah S**, Voronchikhina M, Soto-Hermida A, Stanton C, Matsui H, D'Antonio M, **Shaw P**, Goodsell DS, Frazer K, Hayward C, Subramani S, **Ayyagari R**

10:15am - 12:00pm. *Neuroprotection.*

Location: West Exhibition Hall.

[Abstract #A0184 - A0210. Poster #A0198.](#)

Intravitreal injection of novel small molecule proteostasis regulators activates the Unfolded Protein Response in murine retina

Castillejos D, Carvajal C, Grandjean J, Aguilar E, Ouchi A, Chiang WC, Wiseman L, **Lin JH**

10:15am - 12:00pm. *Biochemical and molecular mechanisms of age-related macular degeneration.*

Location: West Exhibition Hall.

[Abstract #4897 - A0218](#). [Poster #A0218](#).

HTRA1 is increased in Bruch's membrane/choroid in a mouse model of L-ORD

Garland D, Chekuri A, Chavali V, Suk J, **Borooah S, Ayyagari R**

10:15am - 12:00pm. *Corneal Cell and Molecular Biology.*

Location: West Exhibition Hall.

[Abstract #5085 - B0219](#). [Poster #B0219](#).

Characterization of human iPSC-derived corneal endothelial cells

Zhao J, Afshari NA

10:15am - 12:00pm. *Macular Diseases Excluding AMD.*

Location: West Exhibition Hall.

[Abstract #5030 - A0493](#). [Poster #A0493](#)

Characterizing two novel mouse models of Ctrp5/C1qtnf5 to understand disease mechanism in late-onset retinal degeneration

Borooah S, Voronchikhina M, Chekuri A, Chavali V, Suk J, Alapati A, **Bartsch DG**, Khan NW, Jablonski MM, **Ayyagari R**

10:15am - 12:00pm. *Stem Cells and Organoids.*

Location: East 11/12.

[Abstract #4762](#). **PAPER SESSION.**

Cone photoreceptors fail to form in atf6-related achromatopsia retinal organoids

Kroeger H, Chiang WC, Nguyen A, **Lin JH**

3:00 - 4:45pm. *Healthcare Delivery.*

Location: West Exhibition Hall.

[Abstract #5458 - B0349](#). [Poster #B0349](#).

Cost-effectiveness analysis of endonasal dacryocystorhinostomy using markov modeling

Hu JQ, Men C, **Afshari NA, Korn BS, Kikkawa DO**

3:00 - 4:45pm. *Imaging I.*

Location: West Exhibition Hall.

[Abstract #5550-B0441](#). [Poster #B0441](#).

Beta and gamma parapapillary atrophy (ppa) zone areas in myopic eyes with and without Glaucoma

Voora R, Moghadam M, Lee JH, **Bowd C**, Proudfoot J, Moghimi S, Manalastas PIC, Christopher M, Liebmann JM, Girkin CA, **Weinreb RN, Belghith A, Zangwill LM**

3:00 - 4:45pm. *Imaging II.*

Location: West Exhibition Hall.

[Abstract #5600-B0491](#). [Poster #B0491](#).

Deep learning models predict visual function from macula thickness map

Christopher M, **Belghith A, Bowd C**, Fazio MA, **Goldbaum MH, Weinreb RN**, Girkin CA, Liebmann JM, **Zangwill LM**

3:00 - 4:45pm. *Imaging II.*

Location: West Exhibition Hall.

[Abstract #5605-B0496](#). [Poster #B0496](#).

Longitudinal changes in optical coherence tomography angiography (OCTA) vessel density and thickness in glaucoma eyes with focal lamina cribrosa defects

Proudfoot JA, Suh MH, **Weinreb RN**, **Bowd C**, Manalastas PIC, Ghahari E, Moghimi S, Penteadó R, Hou H, **Zangwill LM**

3:00 - 4:45pm. *Imaging I.*

Location: West Exhibition Hall.

[Abstract #5548-B0439](#). [Poster #B0439](#).

Novel macular Bayesian deviation map for differentiation between healthy and glaucoma eyes

Zangwill LM, Medeiros FA, **Weinreb RN**, **Belghith A**

3:00 - 4:45pm. *Imaging I.*

Location: West Exhibition Hall.

[Abstract #5522-B0413](#). [Poster #B0413](#).

OCTA-measured vessel density and RNFL thickness in glaucomatous eyes with and without optic disc hemorrhage

Kyung H, Ghahari E, Moghimi S, Hou H, Penteadó R, Manalastas P, **Bowd C**, **Zangwill LM**, **Weinreb RN**, Proudfoot J

3:00 - 4:45pm. *Medical education, training, and EHR implementation.*

Location: West Exhibition Hall.

[Abstract #B0375 - B0403](#). [Poster #B0395](#).

Impact of electronic health record implementation on clinical workflows for ophthalmology trainees

Gali HE, Baxter SL, Huang AE, Millen M, El-Kareh R, **Nudleman E**, **Robbins SL**, **Heichel C**, **Camp AS**, **Korn BS**, **Lee JE**, **Kikkawa DO**, Longhurst CA, Chiang MF, Hribar M, Ohno-Machado L

3:00 - 4:45pm. *Medical education, training, and EHR implementation.*

Location: West Exhibition Hall.

[Abstract #5505 - B0396](#). [Poster #B0396](#).

Time-motion analysis of paper-based clinical workflows in a multi-specialty academic ophthalmology practice

Baxter SL, Gali HE, Huang AE, Millen M, El-Kareh R, **Nudleman E**, **Robbins SL**, **Heichel C**, **Camp AS**, **Korn BS**, **Lee JE**, **Kikkawa DO**, Longhurst CA, Chiang MF, Hribar M, Ohno-Machado L

3:00 - 4:45pm. *AMD and Antiangiogenic agents.*

Location: West Exhibition Hall.

[Abstract #5393-B0089](#). [Poster #B0089](#).

Sustained neuroprotective effect of novel A β aggregation modulator GAL-101 shown in dry AMD and glaucoma models with transient peak concentration using eye drops

Russ H, Parsons C, Barkana Y, Pearlman AL, Heier JS, Levin LA, **Weinreb RN**, Liebmann JM

6:15 - 7:45pm. *Wnt Signalling and regenerative medicine for retinal vascular disease - SIG.*

Location: East Ballroom C.

[SIG](#).

Wnt Signalling and regenerative medicine for retinal vascular disease

Trese MT, Smith L, Drenser KA, **Nudleman E**, Antonetti D

May 2, 2019

8:00 - 9:45am. *Biomechanics.*

Location: West Exhibition Hall.

[Abstract #6180-B0046](#). [Poster #B0046](#)

Optic nerve vessel density in glaucoma patients of African and European descent

Wong B, Moghimi S, **Zangwill LM**, Hou H, Penteadó R, Manalastas P, Ghahari E, **Bowd C**, **Weinreb RN**

8:00 - 9:45am. *Blood flow, Ischemia/reperfusion, hypoxia and oxidative stress.*

Location: West Exhibition Hall.

[Abstract #A0120 - A0140](#). [Poster #A0131](#).

Dilatation of the retinal capillary plexuses in branch retinal vein occlusion

Long CP, Bakhoun M, Toomey CB, **Bartsch DG**, **Nudleman E**, **Goldbaum MH**, Freund KB, Sarraf D, **Freeman WR**

10:15am - 12:00pm. *Biology of Retinal Neurons.*

Location: East 11/12.

[Abstract #6405](#). PAPER SESSION.

Thyroid signaling specifies cone subtypes in human retinal organoids

Johnston RJ, Eldred K, Hadyaniak S, Hussey K, Breneman B, Zhang PW, Chamling X, Sluch V, **Welsbie DS**, Hattar S, Taylor J, **Wahlin KJ**, Zack DJ

10:15am - 12:00pm. *Cornea Dry Eye Clinical I Diagnostics.*

Location: West Exhibition Hall.

[Abstract #B0285 - B0322](#). [Poster #B0285](#).

Evaluation of partial blink rate as a measurement of dry eye disease

Sella r, jie y, feng j, gomez lm, **afshari na**

12:15 - 1:45pm. *Optical Coherence Tomographic Angiography of the Eye-SIG.*

Location: East Ballroom B.

[SIG](#).

Optical coherence tomographic angiography of the eye

Huang D, Rosenfeld PJ, Fawzi AA, Schmidt-Erfurth U, Jia Y, **Zangwill LM**

12:15 - 1:45pm. *The implications of immune response in ocular gene therapy-SIG.*

Location: East 1.

[SIG](#).

The implications of immune response in ocular gene therapy

Boroah S, Dick AD, Flannery JG, Iannaccone A, Sieving PA, **Boroah S**