

**Saturday, May 6 – Education courses (education courses require separate registration)**

Room	8:30am–4:30pm	1pm–4:30pm		
307	001 Big Data: Current status and future directions		<p data-bbox="1238 177 1788 272">ARVO Annual Meeting Registration Pratt Street Lobby 7am – 6pm</p> <p data-bbox="1238 272 1788 368">ARVO Imaging Conference Ballroom 1 and 2 8am – 5:30pm (separate registration required)</p> <p data-bbox="1238 368 1788 464">ARVO Foundation and Dowling Society Gala Awards Ceremony and Dinner Hilton Baltimore, Key 1 – 8 6– 10pm (tickets required)</p>	
308	003 Demystifying statistics and research for ophthalmic investigators			
309	004 Stem cells and organoids as models of tissue differentiation and eye diseases			
314		005 Retinitis pigmentosa: Novel treatments and challenges		
316	002 Diabetic retinopathy: Past, present and future			

Sunday, May 7

Room	8:30–10:30am Symposia	10:40– 11:50am	12noon– 1:15pm	1:30–3pm Cross-Sectional Group/Workshops/SIGs	3:15–5pm Papers/Minisymposia	5:15–7:15pm Basic/Clinical Lecture	5:30– 6:3 — 0pm
Hall G			116 ARVO/Alcon Keynote Opening Session		145 OCT Angiography in AMD [RE] #816-821	164 Improving global eye health: Beating the odds for neglected and emerging diseases around the world [CO, CL, EY, GEN, GL, IM, LV, MOI] #1165-1170	
Ballroom 1				123 Managing Patients with Diabetic Macular Edema, Neovascular AMD, and Retinal Vein Occlusion: How to Best Utilize Data from Clinical Trials — SIG [RE, CL, IM, PH, VN]	143 Retinal glia [RC] #802-808		165 Beckman- Argyros Award in Vision Research #1171
Ballroom 2				117 GEN Group: New tools and methodologies for ocular genetics: Promises and challenges [GEN]	142 Dry Eye I [CO] #795-801		
Ballroom 3	101 Light-based treatment strategies for blinding eye disease — Symposium [AP, BI, CO, EY, GL, IM, LE, LV, MOI, PH, RC, RE, VI] #1-6			124 Lasker/IRRF Initiative on Amblyopia — SIG [EY, RE, VI, VN]			
Ballroom 4	102 Homologies between the brain and the eye: Can ocular researchers lead the way or are we following our 'brainy' colleagues? — Symposium [IM, AP, BI, GL, PH, RC] #7-12			125 Conclusions and recommendations from the TFOS Dry Eye Workshop II - SIG [CO]	144 Biochemistry and Molecular Biology of AMD I [BI] #809-815		
Room 301				126 Role of mitochondria in retinal health and diseases — SIG [RC, BI]	146 Deep learning for image segmentation and classification [MOI] #822-827		
Room 307				127 Beyond Axial Length: Modern Imaging Biomarkers for Better Understanding Myopia Development and Progression — SIG [MOI, AP, CL, CO, RE]	147 Genetics and modeling of lens and anterior segment anomalies — Minisymposium [LE] #828-833		
Room 308				128 Inflammasome activation in the pathogenesis of glaucoma — SIG [RC, EY, GL, IM, PH]			
Room 309				118 NIH-CSR workshop on the peer review of grant applications	148 Frequency of Visual Impairment and Eye Disease and Their Risk Factors [CL] #834-840		
Room 310				119 Addressing global blindness and eye diseases through research	149 Systemic influences on ocular disease [IM] #841-847		
Room 314		114 NEI Audacious Goals Initiative Town Hall		120 How to write and publish a high impact vision research article: The dos and don'ts			
Room 316	103 Eye and Vision Trauma			121 EVER/ARVO workshop: Update on mitochondrial optic neuropathies	150 Pharmacology and Cellular Mechanisms [GL] #848-853		
Room 321				129 National Academies of Sciences of Medicine and Engineering, Making Eye Health A Population Health Imperative Report: Closing the gaps in eye care — SIG [PH, GL, GEN]	151 Retinoblastoma: From Genetics and Pathology to Therapy [AP] #854-859		
Room 324					152 Nystagmus and Gaze Holding [EY] #860-866		
Room 328				122 Pizza with the experts			

**ARVO Annual Meeting**  
**Registration**  
 Pratt Street Lobby  
 7am – 6pm  
  
**Exhibit hours: 9am–5pm**  
 Exhibit Hall opens  
 7am for poster mounting  
  
**NAEVR Central**  
 in the Exhibit Hall  
 9am – 4pm  
  
**ARVO/Alcon**  
**Opening Keynote**  
 Mary-Claire King, PhD  
 University of Washington  
 12noon – 1:15pm  
 Hall G  
  
**Sunday Social**  
**Power Plant Live!**  
 7:30 – 10:30pm  
 (admission required)

## Sunday, May 7 ■ Posters

### 8:30–10:15am

Session Number	Session Title	Program Number	Board Number
104	AMD Imaging 1 [RE]	13 - 57	A0001 - A0045
105	Diabetic retinopathy: medical (non-surgical) [RE]	58 - 102	A0138 - A0182
106	Development of the Retina [RC]	103 - 126	A0210 - A0233
107	Cornea Wound Healing and Repair [CO]	127 - 175	A0317 - A0365
108	Genetic Epidemiology [CL]	176 - 188	B0120 - B0132
109	Cytokines; growth factors; Antiangiogenic drugs [PH]	189 - 211	B0220 - B0242
110	Retina;RPE; Mechanisms [PH, MOI, VN]	212 - 262	B0243 - B0293
111	Retinal degeneration. Models and mechanisms [RC, LV]	263 - 294	B0316 - B0347
112	Adaptive optics ophthalmoscopy: technology and application [MOI]	295 - 316	B0494 - B0515
113	Accommodation and presbyopia correction [VI]	317 - 340	B0562 - B0585

### 1:30–3:15pm

Session Number	Session Title	Program Number	Board Number
130	Determinants of PR development and repair [RC]	341 - 367	A0183 - A0209
131	AMD Imaging 2 [RE]	368 - 405	A0234 - A0271
132	AMD and anti-VEGF therapy 1 [RE]	406 - 440	A0272 - A0306
133	Dry eye, non-clinical [CO]	441 - 499	A0366 - A0424
134	Uveitis therapeutics: remedy and Relief [IM, MOI]	500 - 527	B0055 - B0082
135	Autoimmune Ocular disease: selfies gone wrong [IM, VI]	528 - 564	B0083 - B0119
136	Structural/functional genomics and gene variants [BI, VN]	565 - 585	B0133 - B0153
137	Biochemistry and molecular biology of the retina [BI]	586 - 636	B0154 - B0204
139	Imaging: Macula Retina, Blood Flow, OCT Angiography [GL]	692 - 746	B0439 - B0493
140	Eye movements [EY]	747 - 762	B0586 - B0601
141	Cataract Surgery Outcomes and Epidemiology [LE]	763 - 794	B0602 - B0633

### 3:15–5pm

Session Number	Session Title	Program Number	Board Number
138	Image Processing and Interpretation [MOI, VI]	637 - 691	B0384 - B0438
153	AMD and anti-VEGF therapy 2 [RE]	867 - 911	A0046 - A0090
154	Diabetic macular edema clinical research [RE, AP]	912 - 958	A0091 - A0137
155	Cornea Development [CO]	959 - 968	A0307 - A0316
156	Corneal neovascularization, immunology and neuropathy [CO]	969 - 1022	B0001 - B0054
157	Outer Retina Function [VN]	1023 - 1037	B0205 - B0219
158	New insights in RPE anatomy and physiology [RC]	1038 - 1059	B0294 - B0315
159	Intraocular pressure; aqueous humor dynamics [PH]	1060 - 1078	B0348 - B0366
160	Anti-inflammatory; antibiotics; antivirals [PH]	1079 - 1095	B0367 - B0383
161	Posterior segment mechanisms and functions in eye development and myopia [AP]	1096 - 1116	B0516 - B0536
162	Aberrations, optical models [VI, AP]	1117 - 1141	B0537 - B0561
163	Cataract Surgery - IOLs [LE]	1142 - 1164	B0634 - B0656

Poster board numbers correspond to poster location in Exhibit Hall  
A = Poster Area A , B = Poster Area B

**10:45 – 11:45am: All Posters and Networking — authors will be present at poster boards**

# Monday, May 8

Room	8:30–10:15am Papers/Minisymposia	10:15–10:55am	11am–12:45pm Papers/Minisymposia	Cross-Sectional Group/Workshops/SIGs	1–2:30pm	2:30–3:45pm	3:45 –5:30pm Papers/Minisymposia	5:45– 6:30pm	6:45– 7:30pm
Hall G	207 AMD and anti-VEGF therapy [RE] #1195-1201		229 Vitreoretinal interface and retinal detachment [RE] #1590-1595				267 Diabetic macular edema clinical and anti-VEGF research [RE] #2024-2029	288 Proctor Award Lecture #2436	289 Weisenfeld Award Lecture #2437
Ballroom 1	<b>204 Common pathogenic role of inflammation in retinal diseases</b> — Minisymposium [RC, BI] #1179-1184	204a RC Section Business Meeting	226 Gene therapies [BI] #1570-1576	256 Nanotechnology for Imaging the Eye — SIG [CO, AP, GL, PH, RE, RC]			264 Biomarkers based on vasculature Imaging [MOI] #2003-2009		
Ballroom 2	203 Corneal Wound Healing [CO] #1172-1178	203a CO Section Business Meeting	<b>225 Barrier function of the ocular surface</b> — Minisymposium [CO, IM] #1562-1569			261 Update on Treatments for Diabetic Retinopathy: Clinically Relevant Results from DRCR.net #1995a-1995g	263 Corneal Development and Repair [CO] #1996-2002		
Ballroom 3	205 Vitreoretinal surgery I [RE] #1185-1190	205a RE Section Business Meeting	227 AMD imaging I [RE] #1577-1582	257 The RPE-Photoreceptor Nexus: the Good, the Bad and the Ugly — SIG [RC, AP, BI, IM, PH, RE]			265 Inherited retinal diseases and macel [RE] #2010-2016	<p style="text-align: center;"><b>ARVO Annual Meeting</b> Registration Pratt Street Lobby 7am – 6pm</p> <p><b>NAEVR Briefing:</b> NAEVR Defense-Related Vision Research Opportunities 7:30 – 8:30am 328</p> <p>Exhibit hours 9am – 5:30pm Exhibit Hall opens 7am for poster mounting</p> <p><b>NAEVR Central</b> in Exhibit Hall 9am – 4pm</p> <p>Student/Trainee Social Charles Street Lobby 7:30 – 9pm</p>	
Ballroom 4	<b>206 Optic nerve regeneration: Barriers past and future</b> — Minisymposium [GL, AP, BI, YE, NT, RC, RE, VN] #1191-1194	206a GL Section Business Meeting	228 Imaging Posterior Segment and Progression [GL] #1583-1589				266 Neurodegeneration [GL] #2017-2023		
Room 301	208 Retina/RPE 1 [PH] #1202-1208	208a PH Section Business Meeting	230 IOP Measurement and Characterization I [GL] #1596-1602	258 Targeting Mitochondrial Dysfunction in Retinal and Optic Nerve Disease — SIG [RC, BI, GL, PH, RE]			268 Retina[PH] #2030-2036		
Room 307	209 Lens Development and Cell Biology [LE] #1209-1215	209a LE Section Business Meeting	231 RPE metabolism, autophagy and cell death [RC] #1603-1608	259 TGF beta signal transductions in ocular health and disease — SIG [CO, IM, LE, RE, RC]			269 Cataractogenesis I [LE] #2037-2043		
Room 308	210 Diseases and Protection [VN] #1216-1222	210a VN Section Business Meeting	232 Ganglion cells [VN] #1609-1615	251 LV Group: Reading with low vision: What we know and need to know [LV, VI, CL, EY]			270 The Impact of Low Vision on Mobility [LV] #2044-2049		
Room 309	211 Genetic Epidemiology [CL] #1223-1229	211a CL Section Business Meeting	233 Improving Eye Care Delivery [CL] #1616-1622						
Room 310	212 Emerging treatments for uveitis [IM] #1230-1236	212a IM Section Business Meeting	234 Immunological influences on AMD [IM] #1623-1628	252 Novel models and trends for accelerating applied ophthalmic product discovery and development					
Room 314	213 Genotype-phenotype correlations, prevalence studies and novel gene defects [BI] #1237-1243	213a BI Section Business Meeting		253 A global perspective on diversity: Challenges and opportunity			271 Molecular and biochemical mechanisms in retinal disorders [BI] #2050-2056		
Room 316	214 IOL and presbyopia correction [VI] #1244-1250	214a VI Section Business Meeting	<b>235 Applications of adaptive optics for retinal imaging and visual function testing</b> — Minisymposium [VI, CL, GL, LV, MOI, RC, RE, VN] #1629-1634	254 NEI extramural roundtable			272 Mechanisms of accommodation [VI] #2057-2063		
Room 321	215 Novel Imaging and Biomarkers for Ocular Tumors and Disease [AP, MOI] #1251-1256	215a AP Section Business Meeting					273 Corneal immunology and neuropathy [CO] #2064-2070		
Room 324		215b EY Section Business Meeting	<b>236 Optical coherence tomography in pediatric neuro-ophthalmology</b> — Minisymposium [EY, GL, LV, RC] #1635-1640	260 Controversies in Albinism: Why is Their Vision Poor and How Do We Fix It? —SIG [EY, RE, RC, VI, GEN]					
Room 328				255 China-ARVO networking forum					

## Monday, May 8 ■ Posters

8:30–10:15am

Session Number	Session Title	Program Number	Board Number
216	AO, OCT, and advanced optical methods [VI, MOI]	1257 - 1279	A0001 - A0023
217	OCT applications [MOI]	1280 - 1327	A0024 - A0071
218	Living With Vision Loss [CL]	1328 - 1359	A0297 - A0328
219	Stem cells for ganglion cell regeneration and repair [RC]	1360 - 1373	A0381 - A0394
220	Corneal Biology and Regenerative Medicine [CO]	1374 - 1432	B0024 - B0082
221	Corneal Endothelium [CO]	1433 - 1485	B0083 - B0135
222	Retinal Diseases [CL, LV]	1486 - 1509	B0167 - B0190
223	AMD [CL]	1510 - 1529	B0191 - B0210
224	Retinal vascular diseases I (excluding diabetes) [RE]	1530 - 1561	B0362 - B0393

11am–12:45pm

Session Number	Session Title	Program Number	Board Number
237	Clinical applications of OCT angiography [MOI]	1641 - 1700	A0072 - A0131
238	Lens Development and Molecular Cell Biology [LE]	1701 - 1722	A0179 - A0200
239	Embryology and morphogenesis of ocular structures [AP, MOI, RC, GL]	1723 - 1735	A0201 - A0213
240	Optic and extraocular anatomy and function [AP]	1736 - 1745	A0214 - A0223
241	Ganglion Cells: Development, axotomy, trauma [RC]	1746 - 1769	A0357 - A0380
242	Retinoblastoma: Basic/Translational [AP,BI]	1770 - 1781	A0410 - A0421
243	Tumors - Inside and around the eye, I [AP, EY, GEN]	1782 - 1802	A0422 - A0442
244	Cataract Surgery Procedures [LE]	1803 - 1832	B0136 - B0165
245	Genetics of macular degeneration [GEN]	1833 - 1853	B0276 - B0296
246	Clinical retinal imaging 1 [RE, AP, MOI, RC, VI, VN]	1854 - 1889	B0326 - B0361
247	Diabetic macular edema and anti-VEGF therapy [RE]	1890 - 1921	B0394 - B0425
248	AMD therapies (excluding anti-VEGF) [RE]	1922 - 1946	B0426 - B0450
249	AMD: New drugs, delivery systems [PH]	1947 - 1980	B0451 - B0484
250	AMD-Novel therapies [RC, RE]	1981 - 1995	B0485 - B0499

3:45–5:30pm

Session Number	Session Title	Program Number	Board Number
274	Imaging: Anterior Segment [GL]	2071 - 2098	A0132 - A0159
275	Clinical Trials and Drug Studies I [GL]	2099 - 2117	A0160 - A0178
276	Genetics of glaucoma [GEN]	2118 - 2142	A0224 - A0248
277	Uveitis: Diagnosis, Epidemiology, Quality of Life [IM, MOI]	2143 - 2190	A0249 - A0296
278	Visual Impairment [CL, LV]	2191 - 2218	A0329 - A0356
279	Inner Retinal circuits [VN]	2219 - 2233	A0395 - A0409
280	Lacrimal glands and Meibomian glands [CO]	2234 - 2256	B0001 - B0023
281	Bruch's membrane and choroid in macular disease [RC]	2257 - 2272	B0211 - B0226
282	RPE dysfunction in macular diseases [RC]	2273 - 2297	B0227 - B0251
283	AMD translational studies and choroidal neovascularization [RE]	2298 - 2321	B0252 - B0275
284	AMD Clinical Research 1 [RE]	2322 - 2350	B0297 - B0325
285	Amblyopia I [EY]	2351 - 2368	B0500 - B0517
286	Refractive Error [CL, AP, LV]	2369 - 2405	B0518 - B0554
287	Pediatric Eye Disease [CL]	2406 - 2435	B0555 - B0584

Poster board numbers correspond to poster location in Exhibit Hall  
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**2:45–3:45pm: All Posters and Networking — authors will be present at poster boards**

Tuesday, May 9

Room	8:30–10:15am Papers/Minisymposia	10:15– 10:55am	11am–12:45pm Papers/Minisymposia	1–2:30pm Cross-Sectional Group/Workshops/SIGs	2:30– 3:45	3:45 –5:30pm Papers/Minisymposia	5:45–7pm
Hall G	305 Novel therapies and imaging techniques for retinal disorders — Minisymposium [RE, BI, GL, RC] #2466-2471		328 Retinal Vascular Diseases and CSCR [RE] #2959-2965			366 AMD imaging II and visual function [RE] #3398-3403	385 ARVO/Champalimaud Award Lecture
Ballroom 1	302 Angiogenesis [RC] #2445-2451		325 ER stress and the unfolded protein response in ocular health and disease — Minisymposium [BI, GL, LV, PH, RC, RE] #2940-2945	352 Global Prevalence of Blindness and Vision Impairment: Magnitude, Temporal Trends, and Projections: are we on track to meet VISION 2020 and WHO Global Action Plan goals and beyond? - SIG [CL, CO, GL, RE]		363 Macular degeneration-cell biology [RC] #3378-3384	
Ballroom 2	301 Corneal Imaging and Biomechanics [CO] #2438-2444		324 Corneal dystrophies: Where do we stand? — Minisymposium [CO] #2934-2939		360 Study of COmparative Treatments for REtinal Vein Occlusion 2 (SCORE2): Primary Results #3368-3370	362 Corneal Tissue Engineering and Molecular Biology [CO] #3371-3377	
Ballroom 3	303 Biomechanics I [GL] #2452-2458		326 Diabetic retinopathy clinical [RE] #2946-2951	353 Optical Coherence Tomography Guided Ophthalmic Surgery: Next-Generation Advances - SIG [MOI, CO, GL, RE]		364 Retinal gene therapy and stem cell transplantation [RE] #3385-3390	<p>ARVO Annual Meeting Registration Pratt Street Lobby 7am – 6pm</p> <p>Exhibit hours 9am – 5:30pm Exhibit Hall</p> <p>NAEVR Central in the Exhibit Hall 9am – 4pm</p> <p>9th Annual WEAVR Luncheon 1 – 2:30pm Hilton Baltimore Holiday Ballroom</p> <p>MIT Outstanding Poster Award Competition 1 – 2:30pm Hall B</p>
Ballroom 4	304 Clinical Trials and Drug Studies II [GL] #2459-2465		327 Neuroprotection [GL] #2952-2958	354 Far peripheral vision: Review vision beyond 80o, where many people don't notice if there is a loss, but some intraocular lens patients report dark shadows - SIG [VI]		365 Capillaries, Blood Flow, OCT Angiography [GL] #3391-3397	
Room 301			329 Retina/RPE 2 [PH] #2966-2971			367 Intraocular pressure [PH] #3404-3409	
Room 307	306 Lens Physiology and Biomechanics I [LE] #2472-2478			355 New in vitro Models to Study AMD Pathogenesis: Step Aside ARPE19 - SIG [RC, RE]			
Room 308	307 The Impact of Low Vision on Function and Everyday Activities [LV] #2479-2484		330 Bipolar, Horizontal and Amacrine cells [VN] #2972-2978	356 New advancements in SD-OCT assessment of neuroretinal rim and fiber layer tissue for glaucoma detection and follow-up — SIG [GL, AP, RE, MOI]		368 Beyond the retina: Central visual circuits — Minisymposium [VN] #3410-3414	
Room 309			331 Understanding the Course and Risk Factors for Age-Related Macular Degeneration [CL] #2979-2985	348 VSS at ARVO - Functional Brain Imaging in Development and Disorder		369 Refractive Error: Risk Factors to Intervention Studies [CL, AP] #3415-3421	
Room 310			332 Going viral! [IM] #2986-2992	349 Chinese Ophthalmological Society Workshop: Molecular Cell Biology and Gene Therapy for Eye Diseases			
Room 314	308 Photoreceptors: Cell Biology, Disease and Rescue [RC] #2485-2491			350 How to discuss your animal research work with non-scientists		370 New Insights and Animal models [GEN] #3422-3428	
Room 316	309 Surprising human visual processes revealed with advanced techniques [VI] #2492-2498		333 Age-related changes in optics of the eye and vision - Minisymposium [VI, CO, LE, GL, LE, VN] #2993-2998	351 Clinician-scientist forum: How to become a successful clinician-scientist		371 Improving Retinal Imaging and Image Understanding-AO [VI] #3429-3435	
Room 321	310 Uveal melanoma: From Clinical Trials to Molecular Mechanisms [AP, RE] #2499-2504		334 Factors affecting ocular development [AP, RC] #2999-3005				
Room 324		323 General Business Meeting		357 Mechanisms of ocular surface immunity in graft vs host disease and sjogren syndrome - SIG [IM, CO]		372 Strabismus: Basic and Clinical [EY] #3436-3442	

## Tuesday, May 9 ■ Posters

### 8:30–10:15am

Session Number	Session Title	Program Number	Board Number
311	Diabetic Retinopathy: Basic Mechanisms [RC, RE, MOI]	2505 - 2531	A0039 - A0065
312	Neurodegeneration and Neuroprotection [GL]	2532 - 2577	A0122 - A0167
313	Ganglion Cells and Beyond [VN]	2578 - 2600	A0168 - A0190
314	Corneal Epithelium [CO]	2601 - 2647	A0191 - A0237
315	Dry eye, Clinical [CO]	2648 - 2707	A0238 - A0297
316	Anterior segment imaging and optics [VI]	2708 - 2732	A0412 - A0436
317	Visual functions, optical cues effecting and affected by myopia [AP]	2733 - 2749	A0437 - A0453
318	Whole Genome Analysis, Genetic Screening in Retinal Dystrophies and Others [GEN]	2750 - 2790	B0077 - B0117
319	Vitreoretinal surgery [RE]	2791 - 2833	B0228 - B0270
320	Visual Fields, Vision Function, Psychophysics I [GL, LV]	2834 - 2881	B0437 - B0484
321	Diabetic Eye Disease [CL, VN]	2882 - 2917	B0528 - B0563
322	Strabismus [EY]	2918 - 2933	B0564 - B0579

### 11am–12:45pm

Session Number	Session Title	Program Number	Board Number
335	Cellular Metabolism of the Retina and RPE [RC, RE]	3006 - 3028	A0001 - A0023
336	Blood flow [PH]	3029 - 3043	A0024 - A0038
337	Contact Lenses [CO]	3044 - 3097	A0298 - A0351
338	Functional imaging [MOI]	3098 - 3108	B0001 - B0011
339	Innovations in imaging [MOI, RE]	3109 - 3134	B0012 - B0037
340	Biomechanics II [GL]	3135 - 3173	B0038 - B0076
341	Cataractogenesis II [LE]	3174 - 3196	B0205 - B0227
342	AMD Clinical Research 2 [RE]	3197 - 3215	B0330 - B0348
343	Retinitis pigmentosa (clinical) [RE, GEN, LV, RC]	3216 - 3263	B0349 - B0396
344	Functioning with Low Vision [LV, CL]	3264 - 3303	B0397 - B0436
345	Papilledema, IIH and Optic Nerve [EY]	3304 - 3329	B0580 - B0605
346	Retinoblastoma: Clinical [AP]	3330 - 3342	B0606 - B0618
347	Tumors: Inside and around the eye, II [AP, GEN]	3343 - 3367	B0619 - B0643

### 3:45–5:30pm

Session Number	Session Title	Program Number	Board Number
373	ROP: Basic mechanisms [RC]	3443 - 3465	A0066 - A0088
374	Trabecular Meshwork and Ciliary Body [GL]	3466 - 3498	A0089 - A0121
375	Corneal Imaging, Topography, and Keratoconus [CO]	3499 - 3558	A0352 - A0411
376	Ocular gene expression, proteomics and lipidomics [BI, CL]	3559 - 3574	B0118 - B0133
377	Visual cycle and phototransduction [BI]	3575 - 3586	B0134 - B0145
378	Cellular mechanisms of retinal diseases and ocular therapeutics [BI]	3587 - 3601	B0146 - B0160
379	Clinical virology [IM]	3602 - 3614	B0161 - B0173
380	Mechanisms of viral infections [IM]	3615 - 3630	B0174 - B0189
381	Lens Physiology and Biomechanics II [LE]	3631 - 3645	B0190 - B0204
382	Retinal vascular diseases II (excluding diabetes) [RE, AP]	3646 - 3679	B0271 - B0304
383	Macular diseases (non-inherited) [RE]	3680 - 3704	B0305 - B0329
384	Glaucoma [CL]	3705 - 3747	B0485 - B0527

Poster board numbers correspond to poster location in Exhibit Hall  
A = Poster Area A , B = Poster Area B

**1–2:30pm: MIT Outstanding Poster Award Competition (Hall B)**

**2:45–3:45pm: All Posters and Networking — authors will be present at poster boards**



Wednesday, May 10

Room	7-8:30am	8:30-10:15am Papers/Minisymposia	11am-12:45pm Papers/Minisymposia	1-2:30pm Cross-Sectional Group/Workshops/SIGs	2:45 - 3:45	3:45 -5:30pm Papers/Minisymposia	5:45- 6:30pm	6:45- 7:30pm
Hall G		406 Diabetic retinal imaging [RE] #3775-3780	433 Retinal prostheses [RE] #4264-4270			472 Clinical posterior segment imaging [RE] #4748-4754	490 Cogan Award Lecture #5100	491 Friedenwald Award Lecture #5101
Ballroom 1		403 Stem Cells: new approaches and disease modeling [RC] #3755-3761	430 Diabetic Retinopathy [RC] #4245-4251	460 Update on Automated Screening for Diabetic Retinopathy: Validation and Implementation — SIG [RE, IM, MOI]		<b>469 An eye on the eye microvasculature</b> — Minisymposium [RC, RE] #4729-4733		
Ballroom 2		402 Dry Eye II [CO] #3748-3754	429 Corneal Epithelium in Health and Disease [CO] #4238-4244	454 MOI Group: Advanced interpretation of structural retinal optical coherence tomography [MOI, VI, GL, RE, AP, EY, RC]		468 Conjunctiva, Lacrimal and Meibomian glands and contact lenses [CO] #4722-4728		
Ballroom 3		404 AMD clinical research [RE] #3762-3767	431 Vitreoretinal surgery II and endophthalmitis [RE] #4252-4256	461 New knowledge of genetics and cell biology of exfoliation syndrome, a disorder of elastic tissue and ECM associated with ocular and systemic disease, offers novel means to treatment and prevention — SIG [GL]		470 Retinopathy of Prematurity [RE] #4734-4740		
Ballroom 4		405 Trabecular Meshwork, Ciliary Body and Anterior Segment Imaging [GL] #3768-3774	432 Structure-Function Relationships I [GL] #4257-4263	462 Predictive testing for age-related macular degeneration (AMD): Are we there yet? — SIG [CL, BI, RE, GEN]		471 Visual Fields, Vision Function, Psychophysics II [GL] #4741-4747		
Room 301		<b>407 Inflammaging and eye</b> — Minisymposium [PH, CO, GL, IM, RC, RE] #3781-3785		463 Emerging Therapeutic Modalities in Retinal Diseases — SIG [RE, CO, GL, IM, PH, RC]		473 Drug delivery II [PH] #4755-4760		
Room 307		408 Lens Epithelial Cells and PCO [LE] #3786-3792	<b>434 Membrane domains: Polarity, trafficking and assembly in the eye</b> — Minisymposium [LE, AP, BI, CO, GL, RC] #4271-4275		466 Establishing a Vision and Eye Health Surveillance System for the Nation #4718-4721			
Room 308		409 Corneal Endothelium and Fuchs Corneal Dystrophy [CO] #3793-3799	435 ERG:Advances, Disease and Injury [VN] #4276-4282	455 Leveling the Playing Field: Are we decreasing the disparities between minority and non minority individuals? [GEN, GL, PH]		474 Low Vision Devices and Rehabilitation [LV] #4761-4766		
Room 309		<b>410 Vision and driving: Lessons learned and future directions</b> — Minisymposium [CL, GL, LV, VI] #3800-3803	436 Improving Care for Diabetic Retinopathy [CL] #4283-4289	456 Idea to patents: Project to company				
Room 310		<b>411 All of the eye is a stage and immune cells are merely players</b> — Minisymposium [IM, AP, RC] #3804-3808	437 Basic investigations in the treatment of ocular infections [IM] #4290-4296	457 Grant writing tips for pre- and post-doctoral fellows: The nuts and bolts		<b>475 The bench and the bedside: Who is the instructor?</b> — Minisymposium [IM, CO, RE, VI] #4767-4771		
Room 314		412 Novel ophthalmic instrumentation and imaging [MOI] #3809-3815		458 Vulnerable populations in medical research: Ethical dilemmas and practical approaches		476 Ocular Transcriptomics and proteomics [BI] #4772-4778		
Room 316			438 Color vision, low vision [VI] #4297-4303	459 But I'm not from the US or EU! — international funding opportunities		477 Corneal Surgery: Techniques and outcomes [CO] #4779-4784		
Room 321 \		413 New Genes and Loci [GEN] #3816-3822		464 Highlighting Successful Technologies in Sustained Drug Delivery in Ophthalmology: New Polymer Science and Particle Engineering Platforms that Drive Future Promising Extended Release Therapies — SIG [GL, RE]		<b>478 Visual functions and processes conserved across species</b> — Minisymposium [AP, CO, EY, GEN, LE, MOI, PH, RC, VI, VN] #4785-4789		
Room 324		414 Amblyopia II [EY] #3823-3829	439 Intracranial Hypertension and Optic Nerve Changes [EY] #4304-4310	465 Role of LXR in Inflammation and cholesterol metabolism in the retina — SIG [RC]				
Room 328	401 Breakfast with the Experts							

**ARVO Annual Meeting**  
**Registration**  
 Pratt Street Lobby  
 7am – 6pm  
  
 Exhibit hours  
 9am – 5:30pm  
  
**NAEVR Central**  
 in the Exhibit Hall  
 9am – 4pm  
  
**ARVO Classical Concert**  
 8 – 10pm  
 Hilton Baltimore Hotel  
 Holliday Ballroom 6  
 401 W. Pratt Street  
  
**ARVO Karaoke Night**  
 9pm – 12midnight  
 PBR Baltimore,  
 a cowboy bar  
 34 Market Street  
 (tickets required)



## Wednesday, May 10 ■ Posters

### 8:30–10:15am

Session Number	Session Title	Program Number	Board Number
415	Oculoplastics [EY, AP]	3830 - 3849	A0001 - A0020
416	Optic Neuropathy [EY]	3850 - 3873	A0021 - A0044
417	Clinical microbiology [IM]	3874 - 3901	A0045 - A0072
418	Corneal Stroma and Keratocytes [CO]	3902 - 3915	A0098 - A0111
419	Ocular Surface Health and Disease [CO]	3916 - 3953	A0155 - A0192
420	Molecular mechanisms in uveal melanoma [AP,GEN]	3954 - 3972	A0241 - A0259
421	Imaging: Optic Nerve Head and Nerve Fiber Layer [GL, MOI]	3973 - 4027	A0282 - A0336
422	Diabetic Retinopathy: New Targets and Emerging Therapies [RC]	4028 - 4051	B0001 - B0024
423	Angiogenesis: Basic Mechanisms [RC, AP]	4052 - 4080	B0025 - B0053
424	Drug and gene therapy and delivery [PH]	4081 - 4122	B0081 - B0122
425	ipRGCs and Circadian Rhythms [VN]	4123 - 4147	B0242 - B0266
426	Retinal detachment (clinical) [RE]	4148 - 4174	B0443 - B0469
427	Retinal prostheses [RE, LV, MOI]	4175 - 4208	B0531 - B0564
428	Spatial and temporal vision [VI, VN]	4209 - 4237	B0670 - B0698

### 11am–12:45pm

Session Number	Session Title	Program Number	Board Number
440	Corneal Biomechanics [CO]	4311 - 4353	A0112 - A0154
441	Conjunctival cell Biol and Meibomian glands [CO, AP]	4354 - 4400	A0193 - A0239
442	Uveal melanoma clinical studies [AP]	4401 - 4422	A0260 - A0281
443	Physiological and myopic ocular biometry [AP,MOI]	4423 - 4440	A0401 - A0418
444	Drug delivery I [PH]	4441 - 4467	B0054 - B0080
445	Gene editing and gene therapies [BI]	4468 - 4509	B0123 - B0164
446	Genetics of retinal dystrophies and Functional Analysis [GEN]	4510 - 4529	B0165 - B0184
447	Photoreceptor degeneration and retinal rescue strategies [RC, LV]	4530 - 4555	B0185 - B0210
448	Stem cells and tissue engineering for retinal repair [RC, CO, RE]	4556 - 4586	B0211 - B0241
449	Pharmacological Intervention and Cellular Mechanisms [GL]	4587 - 4615	B0288 - B0316
450	Macular edema clinical and translational [RE]	4616 - 4634	B0489 - B0507
451	Macular diseases (inherited) [RE, MOI, RC, VI]	4635 - 4657	B0508 - B0530
452	Low Vision Populations, Services and Treatments [LV]	4658 - 4689	B0565 - B0596
453	Vision in aging and disease [VI]	4690 - 4717	B0642 - B0669

### 3:45–5:30pm

Session Number	Session Title	Program Number	Board Number
479	Cornea and Anterior Chamber [CL]	4790 - 4814	A0073 - A0097
480	Imaging technology and applications [MOI, VI]	4815 - 4861	A0337 - A0383
481	Animal imaging [MOI]	4862 - 4878	A0384 - A0400
482	Clinical electrophysiology [VN]	4879 - 4898	B0268 - B0287
483	Glaucoma: Biochemical and molecular disease mechanisms [BI]	4899 - 4919	B0317 - B0337
484	Surgery and Wound Healing [GL]	4920 - 4974	B0338 - B0392
485	Laser Therapy and MIGS [GL, LV]	4975 - 4999	B0393 - B0417
486	Vitreoretinal surgery novel approaches and vitreoretinal interface [RE]	5000 - 5024	B0418 - B0442
487	Diabetic retinopathy clinical and surgical [RE]	5025 - 5043	B0470 - B0488
488	Eye Care Delivery and Economic Research [CL]	5044 - 5088	B0597 - B0641
489	Pupil [EY, VN]	5089 - 5099	B0699 - B0709

Poster board numbers correspond to poster location in Exhibit Hall  
A = Poster Area A , B = Poster Area B

**2:45–3:45pm: All Posters and Networking — authors will be present at poster boards**

Thursday, May 11

Room	8:30–10:30am Symposia	11:30am–1:15pm Papers/Minisymposia	1:30 – 3:15pm
Hall G			551 ARVO/Alcon Closing Keynote: What's next in the investigation of genetics of age-related macular degeneration?
Ballroom 1		525 Cellular and molecular bases of retinal development [RC] #5567-5572	
Ballroom 2		524 Keratoconus: Basic Science and Clinical Applications [CO] #5560-5566	
Ballroom 3	<b>501 Genes and disease: How knowledge of genetics can guide treatment, now and in the future</b> [AP, CO, EY, GL, RE] #5102-5108	526 Surgery, Laser Therapy, Wound Healing [GL] #5573-5579	
Ballroom 4	<b>502 The global problem of antibiotic resistance: Impact on ocular health worldwide and researching alternatives</b> [AP, BI, CL, CO, PH, RE] #5109-5113	527 Novel methods and Mechanisms of Disease [GEN] #5580-5586	
Room 301		528 Molecular pharmacology and ocular toxicology [PH] #5587-5592	<p>ARVO Annual Meeting Registration Pratt Street Lobby 7am – 2:30pm</p> <p>ARVO 2018 —Honolulu Kickoff Reception 10:30 –11:30am Exhibit Hall</p> <p>ARVO/Alcon Closing Keynote What's next in the investigation of genetics of age-related macular degeneration? 1:30 – 3:15pm Hall G</p>
Room 307		529 Lens Biochemistry [LE] #5593-5599	
Room 308		530 Photoreceptors [VN, VI] #5600-5606	
Room 309		531 Glaucoma: Frequency, Risk Factors, and Care [CL] #5607-5613	
Room 310		532 Genomics and proteomics to dissect normal and diseased ocular sites: an immunology and microbiology perspective [IM] #5614-5619	
Room 314		533 Biochemistry and Molecular Biology implicated in diabetic retinopathy and glaucoma [BI] #5620-5626	
Room 316		534 Visual perception with defocus, distortions, and training [VI] #5627-5633	
Room 321		535 Novel findings and approaches in myopia research [AP] #5634-5640	
Room 324		536 Retinal Abnormalities and Neuropathology [EY, VN] #5641-5647	

## Thursday, May 11 ■ Posters

8:30–10:15am

Session Number	Session Title	Program Number	Board Number
503	Neurodegenerative Diseases and Brain Trauma [EY, MOI, VN]	5114 - 5137	B0001 - B0024
504	Orbital and Thyroid Eye Disease [EY, MOI]	5138 - 5163	B0025 - B0050
505	Toxicology; hypoxia; ischemia; oxidative stress; corneal disease [PH]	5164 - 5188	B0051 - B0075
506	Diabetic Retinopathy: Neurodegeneration and pathology associated with the neurovascular unit. [RC]	5189 - 5205	B0076 - B0092
507	Molecular mechanisms of diabetic retinopathy [BI]	5206 - 5227	B0093 - B0114
508	Biochemistry and Molecular Biology of AMD II [BI]	5228 - 5263	B0115 - B0150
509	Corneal Refractive Surgery [CO]	5264 - 5297	B0217 - B0250
510	Crystallins [LE]	5298 - 5311	B0266 - B0279
511	IOP Measurement and Characterization II [GL]	5312 - 5338	B0409 - B0435
512	Retinal Function: ERG studies [VN]	5339 - 5351	B0436 - B0448
513	Oxidative damage, ER stress and autophagy [RC, RE]	5352 - 5374	B0509 - B0531
514	Non-neural cells of the retina: Glia and Microglia [RC, CO, RE]	5375 - 5403	B0532 - B0560
515	Color vision, binocular and stereoscopic vision [VI, VN]	5404 - 5430	B0561 - B0587
516	Advancements in OCT [MOI]	5431 - 5444	B0588 - B0601
517	Wide field retinal imaging [MOI, VI]	5445 - 5459	B0602 - B0616
518	Factors mediating myopia [AP]	5460 - 5479	B0617 - B0636
519	High myopia, associated complications and potential treatments [AP]	5480 - 5495	B0637 - B0652
520	Endophthalmitis and trauma [RE]	5496 - 5522	B0678 - B0704
521	Retinopathy of Prematurity [RE]	5523 - 5559	B0723 - B0759

11:30am–12:45pm

Session Number	Session Title	Program Number	Board Number
537	Genetics of Corneal dystrophies [GEN]	5648 - 5661	B0151 - B0164
538	Corneal Non-refractive Surgery [CO]	5662 - 5712	B0165 - B0215
539	Cataract/Reporting of Research [CL]	5713 - 5727	B0251 - B0265
540	Immune mechanisms in Eye disease: perception and reality [IM]	5728 - 5759	B0280 - B0311
541	Infection and immunology [IM]	5760 - 5787	B0312 - B0339
542	Diabetic retinopathy [PH]	5788 - 5807	B0340 - B0359
543	Structure-Function Relationships II [GL]	5808 - 5842	B0360 - B0394
544	Electrophysiology [GL]	5843 - 5856	B0395 - B0408
545	Visual Disease Models and Restoration [VN]	5857 - 5886	B0449 - B0478
546	Paradigms of retinal degeneration and rescue [RC]	5887 - 5916	B0479 - B0508
547	Myopic CNV and CSCR [RE, AP, LV, MOI]	5917 - 5941	B0653 - B0677
548	Ocular Trauma [CL, VI]	5942 - 5959	B0705 - B0722
549	Retinal detachment: Basic research [RE]	5960 - 5979	B0760 - B0779
550	Clinical retinal imaging 2 and lasers [RE, MOI, VN]	5980 - 6009	B0780 - B0809

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**10:30–11:30am: All Posters and Networking — authors will be present at poster boards**

**10:30 –11:30 am: ARVO 2018— Honolulu Kickoff Reception — Exhibit Hall**

**2:15–3:30pm: ARVO/Alcon Closing Keynote — What's next in the investigation of genetics of age-related macular degeneration? — Hall G**