# CURRICULUM VITAE

Mimi Liu, M.D.

Vitreoretinal Surgeon

**BUSINESS ADDRESS:** 

Colorado Retina Associates 255 S Routt St., Ste 200 Lakewood, CO 80228 (Research Office Location)

COLORADO RETINA ASSOCIATES:	1/2006
BOARD CERTIFICATION:	Diplomate, American Board of Ophthalmology since 2005
EDUCATION AND TRAINING	
COLLEGE:	Yale University, New Haven, CT B.S. Biology with Honors, 1991 - 1995
MEDICAL SCHOOL:	Baylor College of Medicine Doctorate of Medicine, 1995 - 1999
IINTERNSHIP:	Hospital of Saint Raphael, New Haven, CT
	Transitional Medicine, 1999 – 2000
RESIDENCY:	Wills Eye Hospital, Philadelphia, PA Ophthalmology, 2000 2003
FELLOWSHIP:	Wills Eye Hospital, Philadelphia, PA Retina Service, Vitreoretinal Surgery, 2003 2005

PROFESSIONAL SOCIETIES:	American Academy of Ophthalmology (2000-present) Colorado Medical Society (2005-present) American Society of Retina Specialists (2010-present) Colorado Society of Eye Physicians and Surgeons (2010present) Association for Research in Vision and Ophthalmology (2014present)
CURRENT POSITIONS:	Partner, Colorado Retina Associates, PC Denver, CO (July 2006-present) Executive Committee, Secretary/Treasurer (2013-2014)
APPOINTMENTS:	Hospital Porter Adventist Hospital, Denver, CO Harvard Park Surgery Center, Denver, CO Lincoln Surgery Center, Parker, CO Red Rocks Surgery Center, Golden, CO
PROFESSIONAL ACTIVITIES:	Reviewer for Colorado Medical Board (2006-present) Speaker, Mile High Masters of Retina (2011—present) Instructor, Colorado Retina Associates staff conferences (2011-present) Reviewer for Canadian Journal of Ophthalmology (2012- present)
CERTIFICATIONS AND OTHER LICENSURES:	American Board of Ophthalmology 2005 US Drug Enforcement Agency, Controlled Substance - 2003

### PEER-REVIEWED PUBLICATIONS

Javers MA, Liu M, Cuvelier BS, Bowden CL. Characterization of the effect of the adenosine agonist cyclohexyladenosine on platelet activating factor-induced increase in cytosolic calcium in human platelets in vitro, Cell Calcium. 1990, 1:647-653.

Devarajan P, Liu M, Stabach PR, Morrow JS. Ankyrin binding is required for ERto-Golgi trafficking of Na, K-ATPase. Mot, Biol. Cell 8:1769A, 1997.

Liu M, Lee AG, Rice L, Lambert HM. Bilateral retinal vascular occlusive disease in essential thrombocythemia. Retina. 1999, 19:563-4.

Liu M,Cohen EJ, Brewer GJ, Laibson PR. Kayser-Fleischer ring as the presenting sign of Wilson disease. Am J Ophthalmol 2002, 133:832-4.

Lee HC, Liu M, Ho AC. Cystoid macular edema associated with Celiac Spruet Arch Ophthalmo/. 2004; 122: 411-3.

Liu M, Lee HC, Hertle RW, Ho AC. Retinal detachment from inadvertent intraocular injection of botulinum toxin A Am J Ophtha/mol. 2004; 137:201-2.

Chieh JJ, Roth DB, Liu M, et al. Intravitreal triamcinolone acetonide for diabetic macular edema. Retina. 2005; 25 :828-34.

Rhee DJ, Peck RE, Belmont J, Martidis A Liu M, Chang J. Fontanarosa J, Moster MR. Intraocular pressure alterations following intravitreal triamcinolone acetonide. Br J Ophthalmol. 2006 Aug;90(8):999-1003.

Clark WL, Liu M, Kitchens J, Wang P, Haskova Z. Baseline Characteristics Associated With Early. Visual Acuity Gains After Ranibizumab Treatment for Retinal Vein Occlusion. In Progress

## BOOK CHAPTERS REVIEWS AND DISCUSSIONS

Liu M, Regillo CD. Review of treatments in macular degeneration: a synopsis of current approved treatments and ongoing clinical trials . Curr. Opin Ophthalmol. 2004;15:221-6.

Liu M, Benson WE, Tasman W. Retina 12.21- 12.31, Wills Eye Manual, 4th ed.

Liu M. Shields CL, Shields JA. Malignant melanoma of the choroid. Wills Eye Manual, 4th ed.

McGuire J, Murchison A, Jaeger E. Wills Eye Ophthalmology Five Minute Consult. 2012. Contributing author.

## **INVITED PRESENTATIONS**

Liu M, Javers MA The effect of cyclohexyladenosine on platelet activating factor-induced change in cytosolic calcium in human platelets in vitro. Paper. National Symposium of Humanities and Engineering. Richmond, VA. Apr, 1991.

Devarajan P\* Dorfman A. Liu M, Morrow JS. Minimal ankyrin binding domain on Na, K- ATPase. Poster. Meeting of the American Society for Cell Biology. San Francisco, CA. Dec, 1994.

Devarajan P, Liu M, Stabach PR, Morrow JS. Ankyrin binding is required for ER to golgi trafficking of

Na, K-ATPase. Poster. Meeting of the American Society for Cell Biology. San Francisco, CA. Dec, 1997.

Liu M, Raber IR. Corneal opacities in spondyloepiphyseal dysplasia tarda. Poster. Contact Lens Association of Ophthalmologists Conference. Anaheim, CA. Jan, 2002.

Liu M, Sharma MC, Benson WE, Belmont JB, Brown GC, Regillo CD. Laser photocoagulation for macular edema associated with hemiretinal vein occlusion. Paper. Annual Wills Eye Hospital Conference. Philadelphia, PA. Mar, 2002.

Liu M, Sharma MC, Benson WE, Regillo CD, Belmont JB, Brown GC. Laser photocoagulat ion for macular edema associated with hemiretinal vein occlusion. Poster. American Academy of Ophthalmology. Orlando, FL. Oct, 2002.

Nelson M, Martidis A, Spinak D, Liu M, Regillo CD, Federman J. Intravitreal triamcinolone acetonide for the treatment of cystoid macular edema. Poster. Association of Research in Vision and Ophthalmology. Fort Lauderdale, FL. May, 2003.

Chieh J, Liu M, Martidis A. et al. Intravitreal triamcinolone acetonide for the treatment of diabetic macular edema. Paper. Association of Research in Vision and Ophthalmology. Fort Lauderdale, FL. May, 2003.

Liu M, Martidis A. Chieh et al. Complications of intravitreal triamcinolone acetonide for the treatment of macular edema. Paper. Association of Research in Vision and Ophthalmology. Fort Lauderdale, FL. May, 2003.

Liu M, Martidis A, Belmont JB, Regillo CD. Intravitreal triamcinolone acetonide for the treatment of macular edema associated with central retinalvein occlusion. Paper. American Academy of Ophthalmology. Anaheim, CA. Nov, 2003.

Liu M, Soto R, Regillo CD, Belmont 1B, Ho AC. Pain reduction with slower infusion of verteporfin in photodynamic therapy . Poster. Association of Research in Vision and Ophthalmology. Fort Lauderdale, FL. April, 2004.

Ho TA, Liu M, Vander JF, Fineman MS. Optical coherence tomography findings of fullthickness macular holes that developed after vitrectomy. Poster. American Academy of Ophthalmology. New Orleans, LA. Oct. 2004.

Liu M, Soto R, Regillo CD, Belmont Ho AC. Pain reduction with slower infusion of verteporfin in photodynamic therapy. Poster. American Academy of Ophthalmology. New Orleans, LA. Oct, 2004.

Update in Vitreoretinal Surgery. Porter Hospital Continuing Education Series. April, 2009 Retinal Detachment. Mile High Masters of Retina. Feb, 2011.

AREDS2 Update. Mile High Masters of Retina. Feb, 2012.

Emerging Therapies for Geographic Atrophy. Mile High Masters of Retina. Feb, 2013.

Liu M, Wang P, Huskova Z. Baseline Characteristics Associated with Early Clinically Significant Visual Acuity Gains after Ranibizumab Treatment for Retinal Vein Occlusion. Association for Research in Vision and Ophthalmology. Denver, CO. May, 2015 Liu M, Wang P, Huskova Z. Individualized Ranibizumab Dosing Effective for Maintaining Visual Acuity Gains in Patients With BRVO and CRVO. Association for Research in Vision and Ophthalmology. 2016.

Mimi Liu, MD, Chin-Yu Lin, PhD, Verena Steffen, MSc; and Zdenka Haskova, MD, PhD. Insights Into the Progression of Diabetic Retinopathy Severity Among Primary Care Patients With Diabetes in the United States. ARVO Virtual Presentation May 2020

Michael Singer 1, Mimi Liu 2, Patricio G Schlottmann 3, Arshad M Khanani 4, Miranda Hemphill 5, Lauren Hill 5, Lisa Tuomi 5, Zdenka Haskova 5 Predictors of Early Diabetic Retinopathy Regression with Ranibizumab in the RIDE and RISE Clinical Trials. Clin Ophthalmol 2020 Jun 17;14:1629-1639.

Robert B. Bhisitkul, MD, PhD1 Peter A. Campochiaro, MD2; Mimi Liu, MD3; Verena Steffen, MSc4; Steven Blotner, MSc4; and Zdenka Haskova, MD, PhD4 Clinical Trial Versus Real-World Outcomes With Anti–Vascular Endothelial Growth Factor Therapy for Central Retinal Vein Occlusion Presented at the 53rd Annual Scientific Meeting of The Retina Society | Virtual Presentation | September 2020

## SELECTED CLINICAL TRIALS

ForseeHome (EMMES)- Sub<sup>w</sup>investigator, Title: Home Vision Monitoring in AREDS2 for Progression to Neovascular AMD using the ForseeHome Device 2011-2013

AREDS2 (EMMES)- Sub-investigator, Title: Age-Related Eye Disease study 2 (AREDS2): A Multicenter, ran omiz d trial of lu ein zeaxa t an ome a, 3 1 n -chai 01 u saturate fa <u>acids</u> (docosahexaenoic acid (DHA) and eicosapentaenoic acid (EPA) in age-related macular degeneration

MD71 10852 (GSK)-Sub-investigator, Title: A Phase 2b Dose-Ranging Study of Pazopanib Eye Drops versus Ranibizumab Intravitreal Injections for the Treatment of Neovascular Age-Related Macular Degeneration

Omega- OT-551•C04: Sub-Investigator, Title: A randomized, double-masked, dose-ranging, multicenter, Phase II study comparing the safety and efficacy of OT-551 with placebo to treat geographic atrophy associated with age-related macular degeneration.

FAME (Alimera)- Sub-Investigator, Title: A Randomized, Double-Masked, Parallel Group, Multicenter, Dose-Finding Comparison of the Safety and Efficacy of ASI-OO IA 0.5 ug/day and ASI001B 0.2 ug/day Fluocinolone Acetonide Intravitreal Inserts to Sham injection in Subjects with Diabetic Macular Edema 2007-2010

FAME (Alimera) Protocol: C-01-1 1-008, Sub-Investigator, Title: An Open Label, Multicenter 6 i Extension Study of the Safety and Utility of the Ne Inserter of ILUVIEN (Fluocinolone Acetonide Intravitreal Insert) and the Safety of ILUVIEN in Subjects Diabetic Macular Edema 2010-2012

CATT (University of Pennsylvania)— Sub-Investigator, Title: Multi-centered randomized clinical trial to assess the relative safety and efficacy of two treatments for subfoveal Neovascular AgeRelated Macular Degeneration (AMD). 2014-2015

DENALI (Novartis)-Sub-Investigator, Title: A 24 month Randomized, Double-Masked, Controlled, Mul ticenter, Phase 11B Study Assessing Safety and Efficacy of Verteporfin (Visudyne)

Photodynamic Therapy Administered in Conjunction with Ranibizumab (Lucentis) versus Ranibizumab (Lucentis) Monotherapy in Patients with Subfoveal Choroidal Neovascularization Secondary to Age-Related Macular Degeneration 2007-2010

Posurdex (Allergan): Sub-Investigator, Title: A Phase 2, Multicenter, Masked, Randomized, Sham-Controlled 12-Month Trial (Plus a 12-Month Masked Extension) to Assess the Safety and Efficacy ofa 700 gg Dexamethasone Posterior Segment Drug Delivery System (DEX PS DDS) Applicator System as Adjunctive Therapy to Photodynamic Therapy with Verteporfin (PDT) in the Treatment of Patients with Age-Related Macular Degeneration (ARMD)

BRAVO (Genentech)-Sub-Investigator, FVF41 65g: A Phase II Multicenter, Randomized Sham Injection-Controlled Study of the Efficacy and Safety of Ranibizumab Injection Compared with Sham in Subjects with Macular Edema Secondary 1 Branch Retinal Vein Occlusion 2008-2011

CRUISE (Genentech)-Sub-Investigator, FYF4166g: Title: A Phase III Multicenter, Randomized Sham Injection-Controlled Study of the Efficacy and Safety of Ranibizumab Injection Compared with Sham in Subjects with Macular Edema Secondary 1 Central Retinal Vein Occlusion 2008-2011

HORIZON — FVF3426g: Sub-Investigator, Title: An Open Label, Multicenter Extension Study to Evaluate the Safety and Tolerability of Ranibizumab in Subjects with Choroidal Neovascularization (CNV) Secondary to Age Related Macular Degeneration (AMO) or Macular Edema Secondary to Retinal Vein Occlusion (RVO) who have Completed a Genentech-sponsored Ranibizumab Study.

NOVARTIS CRAD01A2203: Sub-Investigator, Title: A randomized \*doublemasked, parallel group study to assess the efficacy of oral Everolimus 5 mg once daily, either alone or added to Lucentis, in patients with neovascular age-related macular degeneration.

INSURE (Novartis) Sub-Investigator, Protocol: CAIN457C2302, Title: A 28 week Multicenter, Randomized, Double-Masked, Placebo-Controlled, dose-Ranging Phase III Study to Assess AIN457 versus Placebo in Inducing and Maintaining Uveitis Suppression in Adults with Active, NonInfectious, Intermediate, Posterior or Panuveitis Requiring Immunosuppression.

VIEW (Regeneron), Protocol: YGTF-OD-0605, Sub-Investigator, Title: A Randomized, DoubleMasked, Active Controlled Phase III Study of the Efficacy, Safety and Tolerability of Repeated Doses of Intravitreal YEGF Trap with Neovascular Age-Related Macular Degeneration

DNA Repository Sub Study in Association with Ranibizumab Study FBF4579g: (Genentech): Title: A Phase III, Double-Masked, Multicenter, Active Treatment-Controlled Study of the Efficacy and Safety of 0.5 mg and 2.0 mg of Ranibizumab administered monthly or on an as needed basis (prn) with a Safety Run-In of a Single Dose of 2.0 mg Ranibizumab in Patients with Subfoveal Neovascular Age-Related Macular Degeneration. 2009-2011

RISE (Genentech): Protocol: FVF4168g, Sub-Investigator, Title: A Phase III, Double-Masked, Multicenter, Randomized, Sham-Controlled Study c Efficacy and Safety of Ranibizumab Injection in Subjects with Clinically Significant Macular Edema with Center Involvement Secondary to Diabetes Mellitus

HARBOR (Genentech): **Principal Investigator**, FVF4579G- Title: A Phase III, Double-Masked, Multicenter, Randomized, Active Treatment-Controlled Study of the Efficacy and Safety of 0.5mg and 2/0 mg Ranibizumab Administered Monthly or on an as-needed Basis (PRN) in Patients with Subfoveal Neovascular Age-Related Macular Degeneration 2009-2012

SHORE (Genentech): **Principal Investigator**, FVF4967G- Title: A Multicenter Randomized Study Evaluating Dosing Regimens for Treatment Intravitreal Ranibizumab Injections in Subjects with Macular Edema Following Retinal Vein Occlusion 2011-2012

SEATTLE (Acucela) Protocol: 4429-202, Sub-Investigator, Title: A Phase 2b/3 multicenter, randomized, double-masked, dose ranging study comparing the efficacy and safety of emixustat HCL (ACU-4429) with placebo for the treatment of geographic atrophy associated with dry agerelated macular degeneration. 2013-2016

BAM (GSK)- Sub-Investigator, Title: A Phase 2\* Multicenter, Randomized, Double-Masked, Placebocontrolled, Parallel-group Study to Investigate the Safety, Tolerability, Efficacy, Pharmokinetics and Pharmacodynamics of

GSK933776 in Adult Patients with Geographic Atrophy Secondary to AgeRelated Macular Degeneration 2012-2016

FOVISTA I and II: (Ophthotech): Protocol: OPH1003- Sub-Investigator, A Phase 3, Randomized, DoubleMasked, Controlled Trial to Establish the Safety and Efficacy of Intravitreous Administration of FOVISTA<sup>™</sup> (ANTI-PEGYLATED APTAMER) Administered in Combination with Lucentis Compared to Lucentis Monotherapy in Subjects with Subfoveal Neovascular Age-Related Macular Degeneration 2014-2016

FORSIGHT (Forsight, Inc)- Sub-Investigator, A Prospective, Multi-Center, Randomized, Controlled Clinical Trial Designed to Evaluate the Safety and Preliminary Efficacy ofV404PDS in Chronic Noninfectious Uveitis 2014-2015

8 1 ORA (Aerpio Therapeutics) **Principal Investigator**, Title: A Phase 2, Randomized, ActiveControlled, Double-Masked, Multi-Center Study to Assess the Safety and Efficacy of Daily Subcutaneous AKB-9778 Administered for 3 months, as Monotherapy or Adjunctive to Ranibizumab, In Subjects with Diabetic Macular Edema 2014-2015

TOGA (University of Virginia) Sub-Investigator, A Randomized, Double-Masked, Placebo Controlled Study Evaluating ORACEA in Subjects with Geographic Atrophy Secondary to Non-Exudative Age, Related Macular Degeneration 2014present

ORBIT (Thrombogenics) Protocol: TG-MV-018, Sub-Investigator Title: Ocriplasmin Research to Better Inform 2014-present

EYEGUARD (XOMA) Sub-Investigator, Title: A Randomized, Double-Masked, Placebo Controlled Study of the Safety and Efficacy of Gevokizumab in the Treatment of Active Non-Infectious Intermediate, Posterior, Or Pan-Uveitis 2012-2015

REVIEW: (Regeneron) Protocol: VGFT e-AMD-1124, Sub-Investigator, Title: Open-Label Study of the Efficacy, Safety, and Tolerability of Intravitreal Administration ofVEFG Trap-Eye (Intravitreal Aflibercept Injection) in Patients with Neovascular Age-related Macular Degeneration.

SAKURA (Santen, inc) Protocol: DE-109, Sub-investigator, Title: A Phase III, Multinational, Multicenter, Randomized, Double-Masked, Study Assessing the Safety and Efficacy of Intravitreal Injections of DE-109 (three doses) for the Treatment of Active, Non-infectious Uveitis of The Posterior Segment of the Eye 2012-present STOP (Genentech, University of Nebraska) Protocol number: ML28522, Sub-Investigator, Title: Study of the safety, tolerability and bioactivity of tocilizumab on patients with noninfectious uveitis 2012-present

OPTINA (Ampio Pharmaceuticals) **Principal Investigator**, Title: A Randomized, Placebo-Controlled, Parallel, Double-Masked Study to Evaluate the Efficacy and Safety of Two Doses of Oral Optina<sup>™</sup> in Adult Patients with Diabetic Macular Edema 2013-2015

OCULOS (Ohr Pharmaceuticals) Protocol: OHR-002, Sub-Investigator, Title: A Phase 2 Study of the Efficacy and Safety of Squalamine Lactate Ophthalmic Solution 0.2% Twice Daily in Subjects with Neovascular AgeRelated Macular Degeneration 2012-2015

9 1 p EMERGE (ICONIC): Protocol: [T-002, Sub-investigator, Title: A Phase II, Randomized, Double-Masked, Multicenter, Active-Controlled Study Evaluating the Safety of Repeated Intravitreal injections of hL-con1 administered as monotherapy or in combination with ranibizumab compared to ranibizumab monotherapy. 2015-present

XCOVERY: (Tyrogenex) Protocol: X82-OPH,,201, Sub-Investigator, Title: A Randomized\* Double-Masked, Placebo-Controlled, Dose-Finding, Non-inferiority Study of X-82 plus prn Eylea@ monotherapy in Neovascular AMD 2015-2018

SPECTRI (LAMPA) (Regeneron) **Principal Investigator**, Title: A Phase III, Multicenter, Randomized, DoubleMasked\* Sham-Controlled Study to Assess the Efficacy and Safety of Lampalizumab Administered Intravitreally to Patients with Geographic Atrophy Secondary to Age-Related Macular Degeneration 2015-2017

NEUROTECH: (Neurotech) Protocol: NT-503-3-AMD-001), Sub-investigator, Title: A Multi-center, Two-stage, Open-Label Phase I and Randomized, Active Controlled, Masked Phase II Study to Evaluate the Safety and Efficacy of Intravitreal Implantation of NT-503-3 Encapsulated Cell Technology Compared with Eyelea@ for the Treatment of Recurrent Subfoveal Choroidal Neovascularization (CNV) Secondary to Age-Related Macular Degeneration (AMD) 2015-2016

LADDER (Genentech) Protocol: GX28228\* Sub-Investigator, Title: Active Treatment<sup>æ</sup>Controlled Study of the Efficacy and Safety of the Ranibizumab Port Delivery System for Sustained Delivery of Ranibizumab in Patients with Subfoveal Neovascular Age-Related Macular Degeneration 2015-present

VIDI (ASTELLAS): Protocol: 8232-CL-OOI, **Principal Investigator**, Title: A Phase II, Double-Masked, Randomized, Active-Controlled Study to Evaluate the Efficacy and Safety of ASP8232 in Reducing Central Retinal Thickness in Subjects with Diabetic Macular Edema 2015-2016 HAWK (Alcon): Protocol RTH258-C001, Sub-Investigator, Title: A Two-year, Randomized, Double-Masked, Multicenter, Three-Arm Study Comparing the Efficacy and Safety of RTH258 versus Afibercept in Subjects with Neovascular Age-Related Macular Degeneration 2015-2017

CAPELLA (Regeneron) Protocol: R2176-3-AMD-1417, Sub-Investigator, Title: A Phase II, Double-Masked, Randomized, Controlled, Multiple-Dose, Regimen-Ranging Study of the Efficacy and Safety of Intravitreal REGN2176—3 in Patients with Neovascular Age-Related Macular Degeneration 2015-present

CEDAR (Allergan): Protocol: AGN-150998, **Principal Investigator**, Title: A Multicenter, Double-Masked, Randomized 100-week. Parallel-Group, Active-Controlled Study to Evaluate the Safety and Efficacy of Abicipar in Treatment-Naive patients with Neovascular AMD. 2015-present

VAPOR (Santen) Protocol: 35-002: Sub-Investigator, Title: A Multicenter, Randomized, Open Label, Phase IIa Study Assessing the Efficacy, Safety and Duration of Effect on Intravitreal Injections of DE-120 (a VEGF and PDGF Receptor Inhibitor) as Monotherapy and with a Single Eyelea@ Injection in Subjects with TreatmentNaive Exudative Age-Related Macular Degeneration. 2015-2017

ALDEYRA (Aldeyra) Protocol: NS2-02, **Principal Investigator**, Title: A Phase 2, Randomized, InvestigatorMasked, Comparator Controlled Trial to Evaluate the Safety and Efficacy of NS2 Eye Drops in Patients with Anterior Uveitis 2015-2016

AVENUE (Roche) Protocol: BP29647, **Principal Investigator**, Title: A Multi Center Multiple-Dose and Regimen, Randomized, Active Comparator Controlled, Double-Masked, Parallel Group, 36 Week Study to Investigate The Safety, Tolerability, Pharmacokinetics, And Efficacy of R06867461 Administered Intravitreally in Patients with Choroidal Neovascularization Secondary to Age-Related Macular Degeneration 2015-2017

PROXIMA (Genentech) Protocol: GX29633, **Principal Investigator**, Title: A Multicenter, Prospective Epidemiologic Study of the Progression of Geographic Atrophy Secondary to Age-Related Macular Degeneration2015-2018

LHA510 (Alcon/Novartis) Protocol: LHA510-2201, Sub-Investigator, Title: A Randomized, Double-Masked, Vehicle-Controlled, Proof-of-Concept Study for Topically Delivered LHA510 as a Maintenance Therapy in Patients with Wet Age-Related Macular Degeneration. 2015-2017

VISTA (Regeneron) Protocol: VGFT\*OD-1009, Sub-Investigator, Title: A Double-Masked, Randomized, ActiveControl, Phase 3 Study of the Efficacy and Safety of Intravitreal Administration of VEGF Trap-Eye in Patients with Diabetic Macular Degeneration 2011-2015

AURA (Aura Biosciences) Protocol: AU-011-201, Sub-Investigator, Title: A Prospective, Randomized, MultiCenter, Masked Clinical Trial Designed to Evaluate Two Doses of Light-Activated AU-OII for the Treatment of Subjects with Small to Medium (1.5-4.0 mm thickness) Primary Uveal Melanoma 2016-2018

PANORAMA (Regeneron) Protocol: VGFT-E-1412, Sub-Investigator, Title: A Phase 3, DoubÆe-Masked, Randomized Study of the Efficacy and Safety of Intravitrea] Aflibercept Injection in Patients with Moderately Severe to Severe Nonproliferative Diabetic Retinopathy 2015 - 2018

EXPOSURE (Genentech) Protocol: GX29455, **Principal Investigator**, Title: A Phase II, Multicenter, Randomized, Single-Masked, sham injection - Study of lampalizumab Intrevitreal Injections administered to patients with Geographic atrophy, 2014-2017

EYEGATE (Eyegate) Protocol: EGP-437-006, Sub-Investigator, A Prospective, Multi-Center, Randomized, Double-Masked, Positive Controlled, Phase 3 Clinical Trial Designed to Evaluate the Safety and Efficacy of Iontophoretic Dexamethasone Phosphate Ophthalmic Solution Compared to Prednisolone Acetate Ophthalmic Suspension (1%) in Patients with Non-Infectious Anterior Segment Uveitis 2016-present

ABICIPAR DME Protocol: 1771-201-008, **Principal Investigator**, A multicenter, open-label, single-arm study to evaluate abicipar for safety and treatment effect in patients with neovascular age-related macular degeneration (AMD) 2015-2016

AERPIO/TIME2B: **Principal Investigator**, Phase 2 Double-masked, Placebo-Controlled Study To Assess The Safety And Efficacy Of Subcutaneously Administered AKB-9778 15mg Once Daily Or 15mg Twice Daily For 12 Months In Patients With Moderate To Severe Non-Proliferative Diabetic Retinopathy 2017-2018

OLEI: **Principal Investigator**, A Phase II, Multicenter, Randomized, Single-Masked, sham injection - Study of lampalizumab Intrevitreal Injections administered to patients with Geographic atrophy who have completed prior Lampa Studies, 2013-2017

STAIRWAY: **Principal Investigator,** This is a Phase II, multicenter, randomized, active comparator-controlled, subject and outcomeassessor masked, parallel group, 52-week study to investigate the efficacy, safety, and pharmacokinetics of RO6867461 administered at 12- and 16-week intervals in treatment-naive patients with nAMD 2016-2017

TLC399A2002: **Principal Investigator**, A Phase Trial of TLC399 (ProDex) in Subjects with Macular Edema due to Retinal Vein Occlusion (RVO): A Double-masked, Randomized Trial to Evaluate Efficacy and Tolerability 2016-2018

HAWK Extension (Alcon): Protocol RTH258-C001, Sub-Investigator, Title: A Twoyear, Randomized, Double-Masked, Multicenter, Three-Arm Study Comparing the Efficacy and Safety of RTH258 versus Afibercept in Subjects with Neovascular Age-Related Macular Degeneration who participated in Hawk 1. 2017-2018

BOULEVARD: BP30099 Sub-Investigator, a multiple-center, multiple-dose, randomized, active comparator–controlled, double-masked, three parallel group, 36-week study in patients with CI-DME 2016-2017

IT-003: Iconic Sub-Investigator, A Phase 1, Open-label, Multicenter Study Evaluating the Safety and Tolerability, Biologic Activity, Pharmacodynamics, and Pharmacokinetics of Single and Repeated Escalating Intravitreal Doses of ICON-I in Patients with Uveal Melanoma Who are Planned to Undergo Enucleation or Brachytherapy 2016-2017

SAPPHIRE: CLS1003-30, Sub-Investigator, A randomized, masked, controlled trial to study the safety and efficacy of suprachoroidal CLS-TA in conjunction with intravitreal aflibercept in subjects with retinal vein occlusion 2016-present

GILEAD: Sub-Investigator, A Phase 2, Randomized, Placebo-Controlled Trial Evaluating the Efficacy and Safety of Filgotinib in Subjects with Active Noninfectious Uveitis 2018 – present

OPT-302: Sub-Investigator, A dose-ranging study of intravitreal OPT-302 in combination with Ranibizumab in participants with wet AMD 2018 – present

OPH2003B: Sub-Investigator, A Phase 2/3 Randomized, Double-Masked, Controlled Trial to Assess the Safety and Efficacy of Intravitreous Administration of Zimura<sup>™</sup> (Anti-C5 Aptamer) in Subjects with Geographic Atrophy Secondary to Dry Age-Related Macular Degeneration 2018 – present

OPH2007: Sub-Investigator, A phase 2A open label to assess the safety of Zimura (Anti-C5) administered in combination with Lucentis 0.5 mg in NVAMD 2018-present