

## **Ramin Sarrafizadeh, M.D., Ph.D.**

Retina Consultants of Southern Colorado, P.C.  
2770 North Union Blvd., Suite 140  
Colorado Springs, CO 80909  
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### **CURRENT POSITION**

2014-Present Retina Consultants of Southern Colorado, P.C.  
Colorado Springs, CO

### **EMPLOYMENT HISTORY**

2001-2014 Associated Retinal Consultants, Munson Medical Center  
Traverse City, MI

### **EDUCATION**

1987 Bachelor of Science, Biomedical Engineering  
Johns Hopkins University  
Baltimore, MD  
Highest distinction with general and departmental honors

1993 Doctor of Philosophy, Physiology  
Northwestern University  
Evanston, IL  
Highest distinction  
Medical Scientist Training Program

1995 Doctor of Medicine, Northwestern University Medical School  
Chicago, IL

### **POSTGRADUATE TRAINING**

1995-1996 Internship in Internal Medicine, Northwestern University Medical Center  
Chicago, IL

1996-1999 Residency in Ophthalmology, Northwestern University Medical Center  
Chicago, IL

1999-2001 Fellowship in Retina-Vitreous, Associated Retinal Consultants, P.C., William  
Beaumont Hospital  
Royal Oak, MI

### **HONORS & AWARDS**

1983 Phi Beta Kappa Award, University of Miami  
1983-1987 Dean's List, Johns Hopkins University  
1987 Tau Beta Pi (National Engineering Honor Society), Johns Hopkins University  
1988 Medical Scientist Training Program, Northwestern University Medical School  
1989 Finalist, Howard Hughes Medical Institute Research Competition  
1989 Baxter Research Fellowship to study motor programs in the cerebellum and red nucleus

## **Ramin Sarrafizadeh, M.D., Ph.D.**

1993	First Place, Society for Neuroscience Research Competition
1993	Second Place, Sigma Xi Research Competition
1995	Young Investigator Award of the American Federation for Clinical Research
1998	First Place, Northwestern University Ophthalmology Research Symposium
1999	Beem-Fisher Award of the Chicago Ophthalmological Society for Research Excellence
2005-2014	Best Doctors in America

### **HOSPITAL PRIVILEGES**

2014-Present	Penrose-St. Francis Medical Center Colorado Springs, CO
2014-Present	Memorial Hospital Colorado Springs, CO
2014-Present	Pinnacle Surgery Center Colorado Springs, CO

### **BOARD CERTIFICATION**

2001	Fellow of the American Academy of Ophthalmology
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### **LICENSURE**

1999-Present	Michigan
2014-Present	Colorado

### **PROFESSIONAL SOCIETIES**

American Academy of Ophthalmology  
American Society of Retina Specialists  
Association for Research in Vision and Ophthalmology  
Society for Neuroscience  
Sigma Xi (Scientific Research Society)  
Tau Beta Pi (National Engineering Honor Society)

### **CLINICAL RESEARCH**

Principal Investigator:

#### Aerpio AKB-9778-CI-5001 (Time-2B)

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

#### Allegro DME-202B (Del Mar)

A Phase 2 Multicenter, Randomized, Controlled, Double-Masked Clinical Trial Designed to Evaluate the Safety and Exploratory Efficacy of Luminata (ALG-1001) as Compared to AVASTIN in the Treatment of Diabetic Macular Edema

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pSIVIDA PSV-FAI-006

A Controlled, Multi-Center Study of the Utilization and Safety of the MK II Inserter and the Safety of the FAI Insert in Subjects with Non-Infectious Uveitis Affecting the Posterior Segment of the Eye

Regeneron R910-3-DME-1518 (Ruby)

A Randomized, Double-Masked, Active-Controlled, Phase 2 Study of the Efficacy, Safety and Tolerability of Repeated Doses of Intravitreal REGN910-3 in Patients with Diabetic Macular Edema

Sub-Investigator:

Adverum ADVM-022-02 (NAb)

Blood Specimen Collection Study for the measurement of Adeno-Associated Virus (AAV) Neutralizing Antibodies in Subjects with Neovascular (Wet) Age-Related Macular Degeneration

Adverum ADVM-022-01 (Optic)

An Open Label Phase I Study of ADVM-022 (AAV.7m8-aflibercept) in Neovascular (Wet) Age-Related Macular Degeneration

Alcon LHA510-2201

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

Alcon/Novartis RTH258-C001 (Hawk)

A Two-Year, Randomized, Double-Masked, Multicenter, Three-Arm Study Comparing the Efficacy and Safety of RTH258 versus Aflibercept in Subjects with Neovascular Age-Related Macular Degeneration

Allergan 150998-004 (Palm)

Evaluation of Abicipar Pegol (AGN-150998) in Patients with Decreased Vision Due to Diabetic Macular Edema

Allergan 190342-038 (Beacon)

Safety and Efficacy of Brimonidine Posterior Segment Drug Delivery System in Patients with Geographic Atrophy Secondary to Age-related Macular Degeneration

Chengdu Kanghong KHB-1802 (Panda)

A Multicenter, Double-masked, Randomized, Dose-Ranging Trial to Evaluate the Efficacy and Safety of Conbercept Intravitreal Injection in Subjects with Neovascular Age-related Macular Degeneration

Fast Track/60° Pharmaceuticals 60PH04

Multisite, Randomized, Double Blind, Placebo-Controlled Study to Assess the Long-Term Safety of Tafenoquine

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Genentech FVF4579g (Harbor)

A Phase III, Double-Masked, Multicenter, Randomized, Active Treatment-Controlled Study of the Efficacy and Safety of 0.5 mg and 2.0 mg Ranibizumab Administered Monthly or on an As-Needed Basis (PRN) in Patients with Subfoveal Neovascular Age-Related Macular Degeneration

Genentech/Roche GR39821 (HtrA1)

A Phase I, Multicenter, Open-Label, Single-Dose, Dose-Escalation, and Multiple-Dose Study of the Safety, Tolerability, Pharmacokinetics, and Immunogenicity of Intravitreal Injections of RO7171009 in Patients with Geographic Atrophy Secondary to Age-Related Macular Degeneration

Genentech/Roche GR40398 (Rhine)

A phase III, multicenter, randomized, double-masked, active comparator-controlled study to evaluate the efficacy and safety of RO6867461 in patients with diabetic macular edema

Genentech/Roche GR40306 (Tenaya)

A Phase III, Multicenter, Randomized, Double-Masked, Active Comparator-Controlled Study to Evaluate the Efficacy and Safety of Faricimab In Patients With Neovascular Age-Related Macular Degeneration

Genentech/Roche GX28228 (Ladder)

A Phase II, Multicenter, Randomized, Active Treatment-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

Genentech/Roche GX30191 (Omaspect)

A Multicenter, Open-Label Extension Study to Evaluate the Long-Term Safety and Tolerability of Lampalizumab in Patients with Geographic Atrophy Secondary to Age-Related Macular Degeneration who have Completed a Roche-Sponsored Study

Genentech/Roche GX29185 (Spectri)

A Phase III, Multicenter, Randomized, Double-Masked, Sham-Controlled Study to Assess the Efficacy and Safety of Lampalizumab Administered Intravitreally to Patients with Geographic Atrophy Secondary to Age-Related Macular Degeneration

Genentech/Roche BP30099 (Boulevard)

A Multiple-Center, Multiple-Dose, Randomized, Active Comparator-Controlled, Double-Masked, Parallel Group, 36 Week Study to Investigate the Safety, Tolerability, Pharmacokinetics and Efficacy of RO6867461 Administered Intravitreally in Patients with Diabetic Macular Edema

Genentech/Roche BP29647 (Avenue)

A Multiple-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 RO6867461 Administered Intravitreally in Patients with Choroidal Neovascularization Secondary to Age-Related Macular Degeneration

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Genentech/Roche CR39521 (Stairway)

Simultaneous Blockade of Angiopoietin-2 and VEGF-A with the Bispecific Antibody RO6867461 (RG7716) for Extended Durability in the Treatment of Neovascular Age-Related Macular Degeneration

MacTel NHOR Registry

A Natural History Observation and Registry Study of Macular Telangiectasia Type 2

Neurotech pharmaceuticals NTMT-03-A (Renexus)

A Phase III Multicenter Randomized, Sham Controlled, Study to Determine the Safety and Efficacy of Renexus in Macular Telangiectasia type 2

Novartis CRTH258A2301E1 (Hawk Extension)

A 24 week, double-masked, multicenter, two-arm extension study to collect safety and efficacy data on brolocizumab 6 mg drug product intended for commercialization in patients with neovascular age-related macular degeneration who have completed the CRTH258A2301 study

Novartis CRTH258B2301 (Kestrel)

A Two-Year, Three-Arm, Randomized, Double-Masked, Multicenter, Phase III Study Assessing the Efficacy and Safety of Brolocizumab versus Aflibercept in Adult Patients with Visual Impairment due to Diabetic Macular Edema

Novartis CRTH258AUS04 (Merlin)

A multicenter, randomized, double-masked Phase 3a study to assess safety and efficacy of brolocizumab 6mg q4 weeks compared to aflibercept 2 mg q4 weeks in patients with neovascular age-related macular degeneration (nAMD) with persistent retinal fluid

Novartis CRTH258C2301 (Raptor)

An Eighteen-Month, Two-Arm, Randomized, Double-Masked, Multi-Center, Phase III Study Assessing the Efficacy and Safety of Brolocizumab versus Aflibercept in Adult Patients with Visual Impairment due to Macular Edema secondary to Branch Retinal Vein Occlusion (RAPTOR)

Novartis CRTH258C2302 (Raven)

An Eighteen-Month, Two-Arm, Randomized, Double-Masked, Multi-Center, Phase III Study Assessing the Efficacy and Safety of Brolocizumab versus Aflibercept in Adult Patients with Visual Impairment due to Macular Edema secondary to Central Retinal Vein Occlusion (RAVEN)

Ophthotech OPH1002A (Eclipse)

A Phase 3 Randomized, Double-Masked, Controlled Trial to Establish the Safety and Efficacy of Intravitreal Administration of Fovista (Anti PDGF-B Pegylated Aptamer) Administered in Combination with Lucentis Compared to Lucentis Monotherapy in Subjects with Subfoveal Neovascular Age-Related Macular Degeneration

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Ophthotech OPH1004 (Solaris)

A Phase 3 Randomized, Double-Masked, Controlled Trial to Establish the Safety and Efficacy of Intravitreal Administration of Fovista (Anti-PDGF-B Pegylated Aptamer) Administered in combination with Either Avastin or Eylea Compared to Avastin or Eylea Monotherapy in Subjects with Subfoveal Neovascular Age-Related Macular Degeneration

Opthea OPT-302-1002

A dose-ranging study of intravitreal OPT-302 in combination with ranibizumab, compared with ranibizumab alone, in participants with neovascular age-related macular degeneration (wet AMD)

Opthea OPT-302-1003

Phase 1b/2a Study of OPT-302 In Combination With Aflibercept For Persistent Central-involved Diabetic Macular Edema

Pan Optica PAN-01-101

A Phase 1 Open-Label, Multi-Center Trial with Randomization to Dose to Evaluate the Safety and Tolerability of Topical Ocular PAN-90806 in Patients with Neovascular Age-Related Macular Degeneration (AMD)

pSIVIDA PSV-FAI-001

A Phase III, Multi-National, Multi-Center, Randomized, Masked, Controlled, Safety and Efficacy Study of a Fluocinolone Acetonide Intravitreal (FAI) Insert in Subjects with Chronic Non-infectious Uveitis Affecting the Posterior Segment of the Eye

Quark QRK207

A Phase 2/3, Randomized, Double-Masked, Sham-Controlled Trial of QPI-1007 Delivered By Single or Multi-Dose Intravitreal Injection(s) to Subjects with Acute NonArteritic Anterior Ischemic Optic Neuropathy (NAION)

Regeneron R2176-3-AMD-1303

An Open-Label, Dose Escalation Study of the Safety and Tolerability of Intravitreal REGN2176-3 in Patients with Neovascular Age Related Macular Degeneration/ Phase 1

Regeneron VGFTe-AMD-1124, Phase IV (Review)

An Open-Label Study of the Efficacy, Safety and Tolerability of Intravitreal Administration of VEGF Trap-Eye (Intravitreal Aflibercept Injection) in Patients with Neovascular Age-Related Macular Degeneration

Regeneron R2176-3-AMD-1417 (Capella)

A Phase 2, 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

Regeneron VGFTe-OD-1411 (Panorama)

A Phase 3, Double-Masked, Randomized Study of the Efficacy and Safety of Intravitreal Aflibercept Injection in Patients with Moderately Severe to Severe Nonproliferative Diabetic Retinopathy

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### Samsung SB11

A Phase III Randomized, Double-masked, Parallel Group, Multicenter Study to Compare the Efficacy, Safety, Pharmacokinetics and Immunogenicity between SB11 (proposed ranibizumab biosimilar and Lucentis in Subjects with Neovascular Age-related Macular Degeneration

### Tyrogenex X82-OPH-201

A Randomized, Double-masked, Placebo-controlled, Dose-finding, Non-inferiority Study of X-82 plus prn IVT Anti-VEGF Compared to prn IVT Anti-VEGF Monotherapy in Neovascular AMD/Phase 2b

## PUBLICATIONS

An investigation of sensorimotor integration in the turtle rubrocerebellar limb premotor network  
Sarrafizadeh, R. (Ph.D. thesis). Evanston, IL: Northwestern University, 1993.

Anatomy of the turtle cerebellorubral circuit studied in vitro using neurobiotin and biocytin.  
Sarrafizadeh, R., Keifer, J. and Houk, J.C. Neurosci. Lett. 149: 59-62, 1993.

Spatiotemporal patterns of activity in an in vitro recurrent network. Sarrafizadeh, R., He, L., Eisenman, L., Keifer, J and Houk, J.C. Proceedings of the Fifth World Congress on Neural Networks, Vol. II, pp. 585-588, 1993.

Sensory triggering of limb motor programs: Neural correlates of decisions for action. Sarrafizadeh, R. Center for the Study of Neuronal Populations and Behavior, Technical Report IX, 1994.

Anatomical organization of the limb premotor network in the turtle (*Chrysemys picta*) revealed by in vitro transport of biocytin and neurobiotin. Sarrafizadeh, R. and Houk, J.C. J. Comp. Neurol. 344: 137-159, 1994.

Three-dimensional reconstruction of the rubrocerebellar premotor network of the turtle. He, L., Sarrafizadeh, R. and Houk, J.C. Neuroimage 2: 21-33, 1995.

Somatosensory and movement-related properties of red nucleus: a single unit study in the turtle.  
Sarrafizadeh, R., Keifer, J. and Houk, J.C. Exp. Brain Res. 108: 1-17, 1996.

Red nucleus. Sarrafizadeh, R., Miller, L. and Houk, J.C. In: Encyclopedia of Neuroscience 2<sup>nd</sup> Edition, G. Adelman and B.H. Smith, eds., Elsevier Science Publishers, B.V., Amsterdam, Netherlands, 1999.

New therapies for the treatment of age-related macular degeneration. Sarrafizadeh, R. and Trese, M.T. Exp. Opin. Ther. Patents 10(3): 333-41, 2000.

Therapeutic management of age-related macular degeneration. Sarrafizadeh, R. and Trese, M.T. Disease-a-month. 46(8): 533-43, 2000.

Submacular hemorrhage during scleral buckle surgery treated with an intravitreal air bubble.  
Sarrafizadeh, R. and Williams, G.A. Retina 20: 415-7, 2000.

Antiphospholipid antibodies and retinal thrombosis in patients without risk factors: A prospective case-control study. Williams, G.A. and Sarrafizadeh, R. Am. J. Ophthalmology. 130: 538 [lett], 2000.

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A comparison of visual results and complications in eyes with posterior chamber intraocular lens dislocation treated with pars plana vitrectomy and lens repositioning or lens exchange. Sarrafizadeh, R., Ruby, A.J., Hassan, T.S., Williams, G.A., Garretson, B.R., Trese, M.T. and Margherio, R.R. Ophthalmology 108: 82-9, 2001.

Incidence of retinal detachment and visual outcome in eyes presenting with posterior vitreous separation and dense fundus-obscuring vitreous hemorrhage. Sarrafizadeh, R., Hassan, T.S., Ruby, A.J., Williams, G.A., Garretson, B.R., Capone, Jr., A., Trese, M.T. and Margherio, R.R. Ophthalmology 108: 2273-8, 2001.

An analysis of lesion size and location in newly diagnosed cytomegalovirus retinitis. Sarrafizadeh, R., Weinberg, D.V. and Huang, C-F. Ophthalmology 109: 199-25, 2002.

The effect of duration of macular detachment on results after the scleral buckle repair of primary, macula-off retinal detachments. Hassan, T.S., Sarrafizadeh, R., Ruby, A.J., Garretson, B.R., Kuczynski, B. and Williams, G.A. Ophthalmology 109:146-52, 2002.

Surgical management of diabetic traction retinal detachment. Sarrafizadeh, R. and Martin, C.E. Techniques In Ophthalmology1 (4): 218-222, 2003.

Repair of primary rhegmatogenous retinal detachment using 25-gauge transconjunctival sutureless vitrectomy. Lai, M.M., Ruby, A.J., Sarrafizadeh, R., Urban, K.E., Hassan T.S., Drenser, K.A. and Garretson, B.R. Retina 28 (5): 729-34, 2008.

Vitrectomy for asymptomatic lamellar macular hole. Garretson, B.R., Pollack, J.S., Ruby, A.J., Drenser, K.A., Williams, G.A. and Sarrafizadeh, R. Ophthalmology 115 (5): 884-6, 2008.