

Raghu C. Murthy, MD, FACS

Retina Eye Specialists

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www.retinaeye.com

Work Experience

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| 7/2004-Present | Retina Eye Specialists, South Pasadena, CA
President/Founder |
| 9/2004-Present | Doheny Eye Institute, USC Keck School of Medicine, Los Angeles, CA
Clinical Instructor |
| 9/2010-Present | Cedars-Sinai Medical Center, Los Angeles, CA
Chief Pediatric Retinal Specialist |

Fellowship Training

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| 7/2002-6/2004 | Casey Eye Institute/Oregon Health Sciences Univ., Portland, OR
Fellowship in Vitreo-Retinal Surgery |
| 7/2001-6/2002 | Casey Eye Institute/Oregon Health Sciences Univ., Portland, OR
Fellowship in Gene Therapy with J. Timothy Stout, MD, PhD

Isolation, cloning, and transfection of anti-neovascular genes in Corneal Transplant and Choroidal Neovascular Membrane models in rabbits and Primates |

Residency Training

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| 7/1998-6/2001 | Doheny Eye Institute/USC, Los Angeles, CA
Residency in Ophthalmology |
| 6/1997-6/1998 | Kern Medical Center, Bakersfield, CA
Internship in General Surgery |

Education

1993-1997	University of Florida College of Medicine, Gainesville, FL Doctor of Medicine
1991-1993	Harvard University, Cambridge, MA Post-Baccalaureate Program in Pre-Medical Studies
1985-1987	New School of Social Research, New York, NY M.A. in Media Studies and Film Production
1981-1985	Princeton University, Princeton, NJ B.A. with double major in Biology and History
1978-1981	Diploma from Phillips Exeter Academy, Exeter, NH Graduated with High Honors

Honors

1999	Warren Wilson Resident Prize for Outstanding Research, Doheny Eye Institute
1984	Woodrow Wilson Award for Thesis Research, Princeton University
1981	Graduated with High Honors, Phillips Exeter Academy
1980	Recipient of the Prize in Philosophy, Phillips Exeter Academy

Medical Licensure/Specialty Boards

American Board of Ophthalmology (2003-Present)

California Medical Board (1998-Present)

Hospital Staff Privileges

Cedars-Sinai Medical Center, Los Angeles, CA

Huntington Hospital, Pasadena, CA

PIH Health Good Samaritan Hospital, Los Angeles, CA

San Gabriel Valley Medical Center, San Gabriel, CA

LAC-USC Medical Center, Los Angeles, CA

Specialty Surgical Center, Beverly Hills, CA

Raymond Renaissance Surgery Center, Pasadena, CA

Clinical Research Experience

2015-Present	<u>Principal Investigator</u> : Phase 3, randomized, double blinded clinical trial. Safety and Efficacy of Abicipar Pegol in Patients with Neovascular Age-Related Macular Degeneration. Sponsor: Allergan.
2016	Imaging & Informatics in Retinopathy of Prematurity Research Consortium, AAO 2016
2013-2015	<u>Principal Investigator</u> : Phase 2, Safety and Efficacy Study of Oral Danazol in the Treatment of Diabetic Macular Edema
2013	ICH/GCP training 3/7/2013, NIH Certification Number: 1138828
2013	<u>Principal Investigator</u> : Diabetic Retinopathy Clinical Research Network. Protocols pending
2013	Sub-I: National Ophthalmic Genotyping and Phenotyping Network, Stage 1 – Creation of DNA Repository for Inherited Ophthalmic Diseases
2012	Sub-I: Clinical and genetic analysis of Retinopathy of Prematurity
2006-2008	Sub-I: Phase 3, randomized, double blinded, Intravitreal Posurdex for the treatment of Diabetic Macular Edema
2005-2006	Sub-I: Phase 3, randomized, double blinded, Intravitreal Macugen and PDT for the treatment of predominantly Classic subfoveal neovascular membranes
2002-2004	Sub-I: Phase 3, randomized, double blinded, Intravitreal RhuFab for the treatment of classical subfoveal neovascular membranes in age-related macular degeneration
2002-2004	Sub-I: Phase 3, randomized, double blinded, Intravitreal Fluocinolone Acetonide Implant for non-infectious posterior Uveitis
2003	Sub-I: Laser Measurements of the Eye

Publications

1. Kalpathy-Cramer J, Campbell JP & ROP Research Consortium (Chiang MF, Horowitz J, Berrocal A, Denser K, Lee T, Simmons C, Murthy RC ... Montero-Mendoza C). Plus Disease in ROP: Improving Diagnosis by Ranking Disease Severity and Using Quantitative Image Analysis. (*Ophthalmology* 2016, pp 2345-2351).
2. Kalpathy-Cramer J, Campbell JP & the ROP Research Consortium (Chiang MF, Horowitz J, Berrocal A, Denser K, Lee T, Simmons C, Murthy RC ... Montero-Mendoza C). Plus Disease in ROP: A Continuous Spectrum of Vascular Abnormality as a Basis of Diagnostic Variability. (*Ophthalmology* 2016, pp 2338-2344).
3. Murthy RC, McFarland TJ, Yoken J, Chen S, Barone C, Burke D, Appukuttan B, and Stout JT. Ex Vivo Transduction of Corneas with a Novel Fusion Gene Inhibits Angiogenesis and Graft Failure in a Corneal Transplantation Model (*IOVS*, Vol. 44, No.5, p.1837-1842, 3/2003).
4. Murthy RC & Stout JT. Chapter: Hereditary Retinitis Pigmentosa, in *Pediatric Retinal Diseases: Medical and Surgical Approaches* (edited by Hartnett ME), Lippincott Williams & Wilkins Press, pp. 141-161, 2005.
5. Murthy RC, Hsu J, Read R, Rao NA, Smith RE: Changing Indications for Penetrating Keratoplasty, 1994-1998 (*Cornea*, 9/2003).
6. Chen SL, Richard CK, Murthy RC, and Lauer AK. Perforating Ocular Injury by Taser. (Royal Australian and New Zealand College of Ophthalmologists, 2006, pp. 378-380)
7. Francis BA, Du LT, Najafi K, Mulusu UK, Murthy RC, Minckler DS Histopathologic Features of Conjunctival Filtering Blebs with and without Aqueous Leaks and prior exposure to Antifibrotics (*Ophthalmology*, 2003).

American Academy of Ophthalmology Lectures and Presentations

1. Murthy RC, Roberts M: Epidemiology of Proliferative Diabetic Retinopathy in a Large Urban Hispanic Population. The American Academy of Ophthalmology Meeting, Dallas, TX. October 2000.
2. Murthy RC, Hsu J, Read R, Rao NA, Smith RE: Changing Indication for Penetrating Keratoplasty, 1994-1998, The American Academy of Ophthalmology Meeting, Dallas, TX. October 2000.

Association for Research in Vision and Ophthalmology Presentations

1. Murthy RC, McFarland TJ, Zhang Y, Chen S, Appukuttan B, and Stout JT. Construction of a Lentiviral System Harboring Kringle 1-5 and Endostatin: Kringle-5 and Expression in a Rabbit Conjunctiva in a Rabbit Neovascularization Assay, (accepted for presentation). Association for Research in Vision and Ophthalmology, Fort Lauderdale, FL. May 2003.
2. Murthy RC, McFarland TJ, Chen S, Appukuttan B, and Stout JT. Expression of a Soluble VEGF Receptor-2 (KDR) Via Lentiviral Transduction in a Rabbit Corneal Neovascularization Assay. Association for Research in Vision and Ophthalmology, Fort Lauderdale, FL. May 2002.
3. Rooney S, Chen SL, Murthy RC, McFarland TJ, Stout, JT. Development of a Lentiviral Vector Harboring the Kringle 1-5 Domains of Human Plasminogen as an Agent to Treat Ophthalmic Neovascular Disease. Association for Research in Vision and Ophthalmology, Fort Lauderdale, FL. May 2002.
4. Yoken J, Murthy RC, McFarland TJ, Barone CM, Chen SL, Appukuttan B, and Stout JT. Production of a Lentiviral Vector Containing an Endostatin: Kringle-5 Fusion Gene a Potential Inhibitor of Post-Penetrating Keratoplasty Neovascularization. Association for Research in Vision and Ophthalmology, Fort Lauderdale, FL. May 2002.
5. Chen SL, Murthy RC, McFarland TJ, Appukuttan B, and Stout JT. Expression of a Fusion Gene Containing Angiostatin and Endostatin Motifs Via Lentiviral Transduction- A Novel, Potentially Anti-Angiogenic Reagent. Association for Research in Vision and Ophthalmology, Fort Lauderdale, FL. May 2002.
6. Barone CM, McFarland TJ, Chen SL, Murthy RC, Appukuttan B, Stout JT. Inhibition Corneal Angiogenesis with a Lentiviral Mediated Expression of a Fusion MIG::IP-10 Gene. Association for Research in Vision and Ophthalmology, Fort Lauderdale, FL. May 2002.
7. Westfall AC, Chen SL, McFarland TJ, Murthy RC, Barone CM, Appukuttan B, and Stout JT. Production of a Lentiviral Vector Containing Tissue Inhibitor or Metalloproteinase 1, an Inhibitor of Angiogenesis. Association of Research in Vision and Ophthalmology, Fort Lauderdale, FL. May 2002.
8. Parsa K, Murthy RC, Stout JT: Ectopic Lentis et Pupillae: Descriptive Case Report of Six Family members Showing Multiple Phenotypes of the Same Disease. Association of Research in Vision and Ophthalmology, Fort Lauderdale, FL. May 2000.
9. Murthy RC, Roberts M,: Epidemiology of 58 Consecutive Primary Pan Retinal Photocoagulation in a Largely Hispanic Population. Association of Research in Vision and Ophthalmology, Fort Lauderdale, FL. May 1999.
10. Murthy RC, Kurumetry UR, Rao MA, Minckler D: Histopathologic Study of Five Late Leaking Filtering Blebs. Association of Research in Vision and Ophthalmology, Fort Lauderdale, FL. May 1997.
11. Kurumetry UR, Murthy RC, Ziavras E: Spectrum of Air Bag-Related Ocular Injuries at a Large Urban Ocular Trauma Center. Association for Research in Vision and Ophthalmology, Fort Lauderdale, FL. April 1996.

Lecture Presentations

1. Retinopathy of Prematurity Neonatology Conference, Neonatologists, Cedars-Sinai Medical Center, Beverly Hills, California. 21 September 2017.
2. Advances in the Treatment of ROP: Grand Rounds, Department of Pediatrics, Cedars-Sinai Medical Center, Beverly Hills, California. 30 August 2012.
3. Pediatric Ophthalmology Lecture Series, Ophthalmology Residents, Cedars-Sinai Medical Center, Beverly Hills, California, 2010-Present.
4. Vitreo-Retinal Lecture Series, Linden Optometrists, Pasadena, California, 2007-Present.
5. Vitreo-Retinal Lecture Series, Braille Club, Pasadena, California, 2007-Present.
6. Vitreo-Retinal Lecture Series, Sunrise Retirement Community, Pasadena, California, 2007-Present.
7. Diabetes and Retinal Diseases Lecture Series, American Diabetes Association, San Gabriel, California, 2007-Present.
8. Diagnosis and Treatments for Age Related Macular Degeneration, Atherton Baptists Homes, Alhambra, California, November 2006.
9. Vitreo-Retinal Lecture Series, Berg-Feinfeld TLC Vision Correction Seminar, Pasadena, California, 2006-Present.
10. Pathobiology and Treatment of Vitreo-Retinal Maculopathies, Orange County Optometric Society, Sept., 2005.
11. Eye Diseases in the Elderly, Four Oaks Retirement Community, Beverly Hills, Dec., 2004.
12. New Developments in AMD, Vitalla Eye Institute, Bangalore, India, July 25, 2004.
13. Pediatric Retinal Diseases, Children's Hospital, Ulan Baator, Mongolia, August 4-7, 2004.
14. New Treatments for AMD, Casey Eye Institute, Portland, Oregon, Nov., 2002.
15. Phacoemulsification as practiced in Los Angeles, Prabha Eye Institute, Bangalore, India, June 2001.
16. Proliferative Diabetic Retinopathy in Hispanics, All Day Research Conference, Doheny Eye Institute/USC, June 2000.
17. Retinal Hemorrhages in Infants, All Day Clinical Conference, Doheny Eye Institute/USC, Jan 2000.
18. Progressive Outer Retinal Necrosis, All Day Clinical Conference, Doheny Eye Institute/USC, Jan 1999.
19. Epidemiology of Diabetic Retinopathy in Hispanic Patients, All Day Research Conference, Doheny Eye Institute/USC, June 1999.
20. Air Bag-Related Eye Injuries Grand Rounds, University of Florida, Gainesville, Florida, June 1996.

Medical School Research

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| 1996 | Doheny Eye Institute/USC, Narsing A. Rao, M.D.
<i>Cloning the anti-inflammatory Retinal Protective Protein gene.</i> |
| 1995 | Georgetown University, Dept. of Ophthalmology, Elaine Ziavras, M.D.
<i>Evaluating the spectrum of air bag-related ocular injuries.</i> |
| 1992-1993 | Dana-Farber Cancer/Harvard Medical School, Margaret Shipp, M.D.
<i>Cloning oncogenes associated with Small Cell Carcinoma.</i> |
| 1992 | McLean Hospital/Harvard Medical School: Rachel Neve, Ph.D.
<i>Isolation of proteins implicated in Alzheimer's.</i> |

Organizations

American Association of Ophthalmology, Fellow (2003-Present)

American College of Surgeons, Fellow (2005-Present)

California Association of Ophthalmology, Member (2010-Present)

Association for Research and Vision in Ophthalmology, Member (1997-Present)

Los Angeles Eye Society, Member (2004-Present)

Film Experience

- 1989-1991 WNET Channel13/PBS: Childhood Project, New York, NY.
Associate Producer: Documentary series about children shot internationally.
- 1987-1988 Maysles Films, New York, NY.
Associate Producer: Outrageous Taxi Stories, shown at the Margaret Mead Film Festival.
- 1989-1990 Producer and Assistant Director: Boss of the Ballet, shown at NY Film Festival.
- 1989-1990 Co-writer: Feature screenplay, DiMaggio's Last Season,
Finalist at the Sundance Film Festival, 1990.
- 1986-1990 Independent productions (Writer & Director) Yuppie Falls, Apeneck Sweeney.

Personal

Enjoy Literature, Film, and Photography

Foreign Languages: Fluent in Spanish, French, and Kannada

Traveled in South America, Europe, Africa, and Asia

Pilot, Motorcyclist, Ultimate Frisbee, Jogging, Hiking (Andes, Himalayas, Appalachian Trail)