

## BIOGRAPHICAL SKETCH

Provide the following information for the key personnel and other significant contributors in the order listed on Form Page 2.  
Follow this format for each person. **DO NOT EXCEED FOUR PAGES.**

NAME Baruch Kuppermann, M.D., Ph.D	POSITION TITLE Professor of Ophthalmology		
eRA COMMONS USER NAME			
EDUCATION/TRAINING <i>(Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)</i>			
INSTITUTION AND LOCATION	DEGREE <i>(if applicable)</i>	YEAR(s)	FIELD OF STUDY
University of California, Berkeley	B.A.	1972-1977	Biophysics
California Institute of Technology	Ph.D.	1978-1983	Neuroscience
University of Miami School of Medicine	M.D.	1983-1985	Medicine
LA County / USC Medical Center	Intern	1985-1986	Ophthalmology
USC School of Medicine / Doheney Eye Institute	Resident	1987-1990	Ophthalmology
Drs. Ronald Michels, Bert Blaser & Robert Murphy, Baltimore, Maryland	Fellow	1990-1991	Vitreous-Retinal Surgery
University of California, San Diego	Fellow	1991-1992	Retina & Uveitis

### **Personal Statement:**

Collaborator from University of California, Irvine. Dr. Kuppermann has a very active retina service with hundreds of patients, many of which have AMD. He will collaborate with Dr. Kenney on this project by identifying AMD and age-matched Normal subjects so we can to obtain blood samples for our study.

### **A. Positions and Honors.**

#### **Positions and Employment**

1978-1979	National Research Service Award with Dr. J.D. Pettigrew, California Institute of Technology
1980-1983	National Institutes of Health Graduate Fellowship, California Institute of Technology
1979-1983	National Research Service Award with Dr. D.C. Van Essen, California Institute of Technology
1990-1991	Heed Ophthalmic Foundation Fellow (Award)
1991-1992	Ronald G. Michels Foundation Fellow (Award)
1992-1996	Residency Program Director, Department of Ophthalmology, University of California, Irvine
1992-1998	Assistant Professor Department of Ophthalmology, University of California, Irvine
1995-1996	Acting Chair, Department of Ophthalmology, University of California, Irvine
1996-1998	Interim Chair, Department of Ophthalmology, University of California, Irvine
1992-present	Chief, Retina Service, Department of Ophthalmology, University of California, Irvine
1998-2007	Associate Professor, Department of Ophthalmology, University of California, Irvine
2005-present	Vice Chair of Clinical Research, Department of Ophthalmology, University of California, Irvine
2007-present	Professor, Department of Ophthalmology, University of California, Irvine

#### **Honors and Awards:**

Heed Ophthalmic Foundation Fellow, 1990-1991  
 Ronald G. Michels Foundation Fellow, 1991-1992  
 Best Doctors in America, 1996-current  
 Best Ophthalmologist in Orange County, Orange Coast Magazine, July 1996  
 Who's Who in Ophthalmology, Pacific Region 1996-1998

Teaching Award, presented by Ophthalmology residents of UC Irvine, 1995 and 1997  
 Honorary Award "For an Inestimable Contribution to Brazilian Ophthalmology," Brazilian Retina Society, 1997  
 Visiting Professor, University of California, San Francisco, 1997  
 Best Doctors: Orange County's A-List, Orange Coast Magazine, April 1998  
 Visiting Professor, Georgetown University, 1998  
 Visiting Professor, University of South Florida, 1999  
 Achievement Award, American Academy of Ophthalmology, 1999  
 Best Doctors in the Los Angeles Area, 2<sup>nd</sup> Best Ophthalmologist in the Greater Los Angeles Metropolitan Area, Guide to Top Doctors, 1999  
 Academic Senate Award, For Distinguished Service of the Member, Rules, Jurisdiction and Organization Committee, University of California, Irvine College of Medicine, 1996-2002  
 Best Doctors in America, 1996-current  
 Paul Sternberg Jr., M.D. Visiting Professor, Emory University, 2003  
 Visiting Professor, California Pacific Medical Center, University of California, San Francisco, 2003  
 Top Docs, Orange Coast Magazine, 2004  
 Visiting Professor, University of Kansas, 2004  
 Physician of Excellence Award, Orange County Medical Association, 2006  
 Visiting Professor, University of California, Los Angeles (UCLA), 2006  
 Invited Keynote Speaker & Guest of Honor at Professor Stein's Symposium, Tel Hashomer Hospital, Tel Aviv University, Tel Aviv, Israel, 2006  
 Retina Program Chairperson, 6<sup>th</sup> International Symposium on Ocular Pharmacology & Therapeutics (ISOPT), Berlin, German, 2006  
 Senior Honor Award, American Society of Retina Specialists, 2006  
 Senior Achievement Award, American Academy of Ophthalmology, 2006  
 Invited Named Lecturer, The Delbert Nachazel Lecture, William Beaumont University, Pontiac, MI, 2007  
 Retina Program Chairperson, 7<sup>th</sup> International Symposium on Ocular Pharmacology and Therapeutics (ISOPT), Budapest, Hungary 2008  
 Physicians of Excellence Award, Orange County Medical Association, 2008  
 Orange County Physician of Excellence, Orange County Medical Association, 2009  
 Best Doctors in America® 2009-2010/current  
 Honorary Award, Foundation Fighting Blindness, 2011  
 Nominee, 1<sup>st</sup> Thomas Cesario Clinician of the Year Award for Outstanding Patient Care Based on Knowledge, Skill, and Compassion, School of Medicine, University of California, Irvine, 2011  
 Visionary Award Recipient, Foundation Fighting Blindness, Newport Beach, 2012  
 Orange County Physician of Excellence, Orange County Medical Association, 2012  
 Visiting Professor Grand Rounds, Ophthalmology Department, UC Davis, CA, 2012  
 Visiting Professor Tel-Aviv Medical Center, Tel-Aviv, Israel, 2012

## **B. Selected peer-reviewed publications**

124. Chang-Lin JE, Burke JA, Peng Q, Lin T, Orilla WC, Ghosn CR, Zhang KM, **Kupfermann BD**, Robinson MR, Whitcup SM, Welty DF: Pharmacokinetics of a sustained-release dexamethasone intravitreal implant in vitrectomized and nonvitrectomized eyes. *Invest Ophthalmol Vis Sci.* 2011 Jun 28;52(7):4605-9. doi:10.1167/iops.10-6387. Print 2011 Jun.
125. Sheetz MJ, Aiello LP, Shahri N, Davis MD, Kles KA, Danis RP. Diabetic Retinopathy Study and the Protein Kinase C  $\beta$  Inhibitor-Diabetic Retinopathy Study 2. PKC-DRS and PKC-DRS2 Study Groups (including **Kupfermann BD**): Effect of ruboxistaurin (RBX) on visual acuity decline over a 6-year period with cessation and reinstatement of therapy: results of an open-label extension of the Protein Kinase C. *Retina.* 2011 Jun;31(6):1053-9.
126. Sezgin E, van Natta ML, Ahuja A, Lyon a, Srivastava S, Troyer JL, O'Brien SJ, Jabs DA for the SOCA study group (including **Kupfermann BD**): Association of host genetic risk factors with the course of

- cytomegalovirus retinitis in patients infected with human immunodeficiency virus. *Am J Ophthalmol.* 2011 Jun;151(6):999-1006.e4.
127. Gangaputra S, Almukhtar T, Glassman AR, Aiello LP, Bressler N, Bressler SB, Danis RP, Davis MD, Diabetic Retinopathy Clinical Research Network. (including **Kuppermann BD**): Comparison of film and digital fundus photographs in eyes of individuals with diabetes mellitus. *Invest Ophthalmol Vis Sci.* 2011 Aug 3;52(9):6168-73. Print 2011 Aug.
  128. Holbrook JT, Colvin R, Van Natta ML, Thorne JE, Bardsley M, Jabs DA; Studies of Ocular Complications of AIDS (SOCA) Research Group (including **Kuppermann BD**): Evaluation of the United States public health service guidelines for discontinuation of anticytomegalovirus therapy after immune recovery in patients with cytomegalovirus retinitis. *Am J Ophthalmol.* 2011 Oct; 152(4):628-637. e1.
  129. Aiello LP, Vignati L, Sheetz MJ, Zhi X, Girach A, Davis MD, Wolka AM, Shahri N, Milton RC. Diabetic Retinopathy Study and the Protein Kinase C  $\beta$  Inhibitor-Diabetic Retinopathy Study 2. PKC-DRS and PKC-DRS2 Study Groups (including **Kuppermann BD**): Oral protein kinase c  $\beta$  inhibition using ruboxistaurin: efficacy, safety, and causes of vision loss among 813 patients (1,392 eyes) with diabetic retinopathy in the Protein Kinase C  $\beta$  Inhibitor- Retina. 2011 Nov;31(10):2084-94.
  130. Haller JA, Bandello F, Belfort R Jr, Blumenkranz MS, Gillies M, Heier J, Loewenstein A, Yoon YH, Jiao J, Li XY, Whitcup SM, Ozurdex GENEVA Study Group (including **Kuppermann BD**): Dexamethasone intravitreal implant in patients with macular edema related to branch or central retinal vein occlusion twelve-month study results. *Ophthalmology.* 2011 Dec; 118(12):2453-60.
  131. Sharma A, Patil JA, Gramajo AL, Seigel GM, **Kuppermann BD**, Kenney CM: Effects of hydroquinone on retinal and vascular cells in vitro. 2012 May-Jun; 60(3):189-93.
  132. Narayanan R, Tibra N, Mathai A, Chhablani J, **Kuppermann BD**: Sutureless 23-gauge versus 20-gauge vitrectomy with silicone oil injection in rhegmatogenous retinal detachment. *Retina.* 2012 May;32(5):1013-6.
  133. Yeh WS, Haller JA, Lanzetta P, **Kuppermann BD**, Wong TY, Mitchell P, Whitcup SM, Kowalski JW: Effect of the duration of macular edema on clinical outcomes in retinal vein occlusion treated with dexamethasone intravitreal implant. *Ophthalmology.* 2012 Jun;119(6):1190-8.
  134. Sugar EA, Jabs DA, Ahuja A, Thorne JE, Danis RP, Meinert CL, Studies of the Ocular Complications of AIDS Research Group (including **Kuppermann BD**): Incidence of cytomegalovirus retinitis in the era of highly active antiretroviral therapy. *Am J Ophthalmol.* 2012 Jun;153(6):1016-24.e5.
  135. Stalmans P, Benz MS, Gandorfer A, Kampik A, Girach A, Pakola S, Haller JA. MIVI-TRUST Study Group (including **Kuppermann BD**): Enzymatic vitreolysis with ocriplasmin for vitreomacular traction and macular holes. *N Engl J Med.* 2012 Aug 16;367(7):606-15.
  136. **Kuppermann BD**: Ocriplasmin for Pharmacologic Vitreolysis. *Retina*, 32 ( 2): 225-231, September 2012.
  137. Johnson MW, Brucker AJ, Chang S, Gandorfer A, Kampik A, **Kuppermann BD**, Russel SR, Spaide RF, Thompson JT. Vitreomacular Disorders: Pathogenesis and Treatment. *Retina.* 2012 Sept;32 Suppl2:S173.
  138. Narayanan R, Chhablani J, Sinha M, Dave V, Tyagi M, Pappuru RR, **Kuppermann BD**. Efficacy of Anti-Vascular Endothelial Growth Factor Therapy in Subretinal Neovascularization Secondary to Macular Telangiectasia Type 2. *Retina.* 2012 Sept 17.
  139. Zacharias LC, Lin T, Migon R, Ghosn C, Orilla W, Feldmann B, Ruiz G, Li Y, Burke J, **Kuppermann BD**. Assessment of the differences in Pharmacokinetics and Pharmacodynamics between Four Distinct Formulations of Triamcinolone Acetonide. *Retina.* 2012 Sept 17.

### C. Research Support

#### Ongoing Research

**Protocol 206207-011, Allergan, Inc.**

Kuppermann (PI) 2005-Present

“A 3 year, Phase 3, Multicenter, Masked, Randomized, Sham-Controlled Trial to Assess the Safety and Efficacy of 700mg Dexamethasone Posterior Segment Drug Delivery System Applicator System in the Treatment of Patients with Diabetic Macular Edema.”

**JAEB I.** Kuppermann (PI) 2007- Present  
 “Intravitreal Ranibizumab or Trairmcinolone Acetonide in Combination with Laser Photocoagulation for Diabetic Macular Edema”.

**Allergan** Kuppermann (PI) 2010-Present  
 “A Multicenter, Patient-masked, Safety extension Study to Evaluate the Biodegradation of the Brimonidine Tartrate Posterior Segment Drug Delivery System (Allergan 033D).

**GlaxoSmith** Kuppermann (PI) 2009 – Present  
 “A Phase 2B Dose-Evaluation Study of Pazopanib Eye Drops versus Ranibizumab Intravitreal Injections for the Treatment of Neovascular Age-Related Macular Degeneration”.

**Regeneron** Kuppermann (PI) 2010- Present  
 “An Opened Label Long Term Safety and Tolerability Extension Study of Intravitreal Trap-eye in Neovascular Age-Related macular Degeneration”.

**Allergan AI-54110** Kuppermann (PI) 2012-Present  
 “A Multicenter, Open-label, Randomized Study Comparing the Efficacy and Safety of 700ug Dexamethasone Posterior Segment Drug Delivery System (DEX PS DDS) to Ranibizumab in Patients with Diabetic Macular Edema”.

**Regeneron** Kuppermann (PI) 2012-Present  
 “A Double Masked, Randomized, Active-Controlled Study of the Efficacy, Safety and Tolerability of Intravitreal Administration of VEGF Trap-Eye in Patients with Macular Edema Secondary to Branch Retinal Vein Occlusion”.

**GlaxoSmithKline** Kuppermann (PI) 2012-Present  
 “A Phase 2, Multicenter, Randomized Double Masked, Placebo Controlled, Parallel Group Study to Investigate the Safety, Tolerability, Efficacy, Pharmacokinetics and Pharmacodynamics of GSK933776 in Adult Patients with Geographic Atrophy (GA) Secondary to Age-Related Macular Degeneration”.

**Selected Completed Research Support**

**Jaeb N** Kuppermann (PI) 2010- 2012  
 “An evaluation of Intravitreal Ranibizumab for Vitreous Hemorrhage due to Proliferative Diabetic Retinopathy (protocol N)”.

**Protocol 190342-032D, Allergan, Inc.** Kuppermann (PI) 2008-2012  
 “A Multi-Center, Masked, Randomized, Sham-Controlled, Paired Eye Comparison, 12 Month Study to Evaluate the Safety and Effects on Retinal Structure and Visual Function of Brimonidine Tartrate Posterior Segment Drug Delivery System Applicator System in patients with Geographic Atrophy from Age Related Macular Degeneration”.

**Othera** Kuppermann (PI) 2008-2011  
 “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 (OMEGA)”.

**Genentech (Ride Study)** Kuppermann (PI) 2007-2011  
 “A Phase III, Double Masked, Multicenter, Randomized Sham Controlled Study of the Efficacy and Safety of Ranibizumab Injection in Subjects with clinically Significant Macular Edema with Center Involvement Secondary to Diabetes mellitus FVF4170g”.

**Regeneron** Kuppermann (PI) 2007-2011  
 “A Randomized, Double Masked, Active Controlled Phase III Study of the Efficacy, Safety and Tolerability of Repeated Doses of Intravitreal VEGF Trap in Subjects with Neovascular Age-Related Macular Degeneration”.

**Thrombogenics** Kuppermann (PI) 2009 – 2010  
 “A Randomized, Placebo Controlled, Double-Masked, Multicenter Trial of Microplamin intravitreal Injection for Non-Surgical Treatment of focal Vitreomacular Adhesion”.