THOMAS A. CIULLA, MD, MBA

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317.506.0334

PROFESSIONAL HISTORY

OPHTHOTECH CORPORATION, Princeton & New York

Vice President, Clinical Strategy (Direct Report to Co-founder, President, Vice-Chairman) 2015 to Present

Senior Executive Functions:

- Participant in senior-most "C"-level team during Senior Strategy meetings
- Clinical, Reguatory and Business Strategy:
 - Developed, assessed and monitored all strategic issues with the President (weekly 1:1 meetings)
- Alliance Management with Novartis Pharmaceuticals:
 - Played a central role in clinical strategy and issues
 - Interacted with commercial partners via Novartis Joint Operations Committee
- Business Development:
 - Evaluated potential asset acquisitions & partnerships
 - Led clinical and scientific diligence
- Clinical R&D:
 - Developed & formatted clinical study results (all phases)
 - o Analyzed clinical image database
- Medical Affairs:
 - Led key interactions with KOLs & PIs
 - o Presented studies & HEOR at national meeting

- Health Economics Outcomes Research Team:
 - Researched cost effectiveness metrics
 - Assessed real world outcomes in wet AMD
- Regulatory:
 - Led written portion of NDA shells (CSR & SCE), supervising cross functional team
 - Served on NDA Strategy & Execution Teams, Label Writing Subteam
 - Updated Investigator Brochures
- Legal:
 - Evaluated IP issues on Patent Committee
 - Reviewed press releases, 10Ks & 10Qs on Public Disclosure Committee
- Commercial:
 - Led medical writing & graphics of new website
 - Reviewed pre-launch educational materials
 - Evaluated ad agencies & ads for launch
- Publications:
 - Led publication team in peer-reviewed outputs
 - Investor Relations: • Participated in multiple 1-on-1 public investor presentations & discussion

MIDWEST EYE INSTITUTE (Largest subspecialty ophthalmology group in state, 75K+ visits/yr), Indianapolis Adjunct Clinical Professor of Ophthalmology, Indiana University School of Medicine || 2015 – Present Partner || 2002 – Present

- Leadership:
 - Review operational, financial & strategic management at institutional level, as board member
 - Negotiated physician contracts for new retina specialists, mentored new physician, increasing retina service visits by over 20%, as managing partner of Midwest Retina Group
 - Conduct performance reviews, mentor discipline & set compensation for all 15 direct reports
- Operations Management:
 - Serve on Board of Directors, Overhead committee, Operations Committee
 - Earned Lean Six Sigma Green Belt, decreasing average patient visit by 18%, measured satisfaction

- Clinical research
 - >75 national clinical trials as Principal Investigator, including CATT & registration trials for Eylea, Jetrea, Iluvien
 - > 100 conference presentations
 - > 100 Medline-indexed publications as co-author
 - Co-Edited several retina-related textbooks
 - Medical Monitor, SAB, DSMB, Writing Committee for national trials
 - Journal peer-reviewer & editorial board member
- Teaching:
 - $\circ \quad \ \ {\rm Supervise \ retina \ service \ residents \ \& \ med \ students}$
 - o Conduct lectures on retinal disease & surgery
 - o Provided resident research projects & mentoring

INDIANA UNIVERSITY SCHOOL OF MEDICINE, DEPARTMENT OF OPHTHALMOLOGY, Indianapolis Associate Professor (Tenured), Co-Director of Retina Service || 2000 – 2002 Assistant Professor || 1996 – 2000

- Research:
 - First in US to co-author a randomized trial on any intravitreal therapy in AMD (*Retina*, 20: 244-250, 2000.)
 - Led preclinical anti-angiogeneis research laboratory, leading to several preclinical research publications
 - Led early research in intravitreal steroids, ocular blood flow, macular pigments lutein & zeaxanthin
 - \circ >15 national clinical trials as Principal Investigator
 - Performed phase 1/2-3 clinical study of Lucentis

- Leadership:
 - o Oversaw clinical research program
 - $\circ \quad \ \ {\rm Oversaw \ retina \ research \ laboratory}$
- Teaching:
 - Supervised retina service residents & med students
 - o Conducted lectures on retinal disease & surgery
 - o Provided resident research projects & mentoring

EDUCATION & TRAINING

INDIANA UNIVERSITY, KELLEY SCHOOL OF BUSINESS, Indianapolis

M.B.A., Business of Medicine 2015 (Concurrent with full-time vitreo-retinal practice & clinical research)

- Beta Gamma Sigma International Honor Society (top 20% of MBA cohort)
- Earned Kelley School of Business Green Belt in Lean Six Sigma
- Business of Medicine Courses: Healthcare Revenue & Delivery Models, Value Chain in Healthcare, Healthcare Marketing, Medical Technology Evaluation, Care Coordination & Clinical Integration, Public Policy (Washington Campus, Washington D.C.)
- Leadership & Strategy Courses: Leadership & Ethics, Conflict Resolution & Negotiation, Project Management, Developing Strategic Capabilities, Venture Strategy, & Business Law & Ethics
- Operations Management Courses: Earned Lean Six Sigma Green Belt, decreasing average patient visits by 18%, measured satisfaction

TUFTS MEDICAL SCHOOL, NEW ENGLAND EYE CENTER, OPHTHALMIC CONSULTANTS OF BOSTON, Boston

Fellow in Vitreo-Retina Surgery || 1996

Awarded Heed Ophthalmic Foundation Grant

HARVARD MEDICAL SCHOOL, MASSACHUSETTS EYE & EAR INFIRMARY, Boston

Resident in Ophthalmology || 1995

HARVARD MEDICAL SCHOOL, BETH ISRAEL HOSPITAL, Boston

Intern in Internal Medicine || 1992

UNIVERSITY OF CALIFORNIA SAN FRANCISCO, SCHOOL OF MEDICINE, San Francisco

M.D. || 1991

Elected to Alpha Omega Alpha Medical Honor Society

HARVARD COLLEGE, Cambridge

B.A., Chemistry (Magna Cum Laude) || 1986

- Awards, Honors & Highlights

Awards & Honors

- Top Doctor, Patient's Choice Award, & Compassionate Doctor Recognition, Castle Connolly 2012-2016
- Top Doctor, Indianapolis Monthly, by peer vote, 2013-2016
- Beta Gamma Sigma Honor Society (top 20% MBA cohort), Indiana University Kelley School of Business, 2015
- Senior Honor Award, American Society Retinal Specialists, 2014
- "Best Paper" Award, American Academy of Ophthalmology Annual Meeting, 2007
- Honor Award, American Society of Retinal Specialists, 2004
- Achievement Award, American Academy Ophthalmology, 2003
- Career Development Award, Research to Prevent Blindness, 1999-2002
- Professor of the Year Award, by resident vote, Department of Ophthalmology, Indiana University School of Medicine, 1997
- Heed Ophthalmic Foundation Fellowship, 1996
- Alpha Omega Alpha Honor Society, UCSF, 1991
- Faculty-Alumni Award for Academic Excellence, UCSF, (highest ranking graduating student), 1991
- Summer research grant award for study at Oxford, England, Myasthenia Gravis Foundation, 1988
- Magna Cum Laude graduate from Harvard College, 1986
- Harvard College Dean's List (all semesters), The Carl A.
 Pescosolido Scholarship (scholar-athlete award), The Harvard
 College Scholarship & The John Harvard Scholarship (each year for academic achievement & highest distinction), 1982-1986

PROFESSIONAL HIGHLIGHTS

- First in the United States to co-author a randomized trial on any intravitreal therapy in AMD (<u>Retina</u>, 20: 244-250, 2000)
- Co-Edited several retina-related textbooks
- Medical Monitor, SAB, DSMB, Writing Committee for national trials
- > 100 national clinical trials as Principal Investigator, including CATT & registration trials for Lucentis, Eylea, Jetrea, Iluvien
- > 100 conference presentations
- > 100 Medline-indexed publications as co-author



ACADEMIC APPOINTMENTS:

- 1991 1992 Clinical Fellow in Internal Medicine, Harvard Medical School, Boston
- **1992 1995** Clinical Fellow in Ophthalmology, Harvard Medical School, Boston
- 1995 1996 Clinical Fellow in Ophthalmology, Tufts Medical School, Boston
- **1996 2000** Assistant Professor of Ophthalmology, Retina Specialist Indiana University School of Medicine, Indianapolis
- **2000 2002** Associate Professor of Ophthalmology with Tenure (Early Promotion), Indiana University School of Medicine, Indianapolis
- **2000 2002** Co-Director, Retina Service, Department of Ophthalmology, Indiana University School of Medicine, Indianapolis
- 2015 Present Volunteer Clinical Professor of Ophthalmology, Indiana University School of Medicine, Indianapolis

HOSPITAL APPOINTMENTS:

- 1995 1996Associate Staff Physician, New England Medical Center, BostonAssistant Staff Physician and Surgeon, Massachusetts Eye and Ear Infirmary, Boston
- **1996 2002** Staff Physician and Surgeon, Roudebush Veterans Administration Medical Center
- **1996 2002** Staff Physician and Surgeon, Wishard Memorial Hospital, Indianapolis
- **1996 2009** Staff Physician and Surgeon, Ball Memorial Hospital, Muncie
- **1996 Present** Staff Physician and Surgeon, Indiana University Health System: University Hospital, Riley Hospital for Children, Methodist Hospital, Indianapolis
- 1999 Present Staff Physician and Surgeon, Beltway Surgery Centers, LLC, Indianapolis
- 2002 Present Staff Physician and Surgeon, St. Vincent Hospital, Indianapolis
- 2002 Present Staff Physician-Retina Specialist, Midwest Eye Institute

OTHER APPOINTMENTS and POSITIONS:

- 1986 1987Research assistant, research preceptor: Stephen L. Hauser, M.D., Neuro-immunology Unit,
Massachusetts General Hospital, Harvard Medical School, Boston
- Summer 1988 Visiting student research fellow, research preceptor: John Newsom-Davis, M.D., Neuroscience Unit, Molecular Medicine Institute, Oxford University, England
- June-Aug 1988 Summer Research Assistant, Neuro-immunology, Institute of Molecular Medicine, University of Oxford, England
- July/Aug 1994 Visiting Ophthalmology Resident, Cataract Surgery Rotation, Lions Aravind Institute of community ophthalmology, Madurai Area, India
- **1998 2010** Board member, Macular Degeneration Support Group of Indianapolis
- **2000 2002** Guest Editorial Board Member for Investigative Ophthalmology and Visual Sciences
- 2008 2013 Medical Monitor for Macular Degeneration National Clinical Trials-NeoVista
- 2012 2015 Data Monitoring Committee Oasis Study-ThromboGenics

- **2012 2015** Ohr Pharmaceutical Inc, Scientific Advisory Board
- 2002 Present Alumnus Interviewer, Harvard College, via Harvard College Club of Indiana
- 2004 Present Board of Directors and Operations Committee Member, Midwest Eye Institute
- 2004 Present Editorial Board for Current Opinion in Ophthalmology
- 2011 Present Board of Directors, Midwest Eye Institute
- 2012 Present Editorial Board Member for Clinical Medical Research and Opinion
- 2012 Present Editorial Board Member for Current Medical Research and Opinion
- 2015 Present Editorial Board Member for Journal of Modeling in Ophthalmology

SPECIALTY BOARD STATUS:

- 1997 Board certification in Ophthalmology
- 2007Renewal, board certification in Ophthalmology (requires fulfillment of CME requirements, Office
Record Review, and successful completion of Ophthalmic Review Examinations and Ophthalmic
Cognitive Knowledge Examination)

LICENSURE AND CERTIFICATION:

- 1992 Certification, National Board of Medical Examiners
- 1996 Full medical licensure, Indiana
- **2007 2017** Board Certification, Ophthalmology, American Board of Ophthalmology
- 2014 2016 Good Clinical Practices, Clinical Research

PROFESSIONAL ORGANIZATIONS:

PresentAmerican Academy of Ophthalmology, Association for Research in Vision and Ophthalmology,
Vitreous Society, Macula Society, Retina Society, Editorial Board Member Current Opinion in
Ophthalmology, Board Member International Symposium on Ocular Pharmacology and
Pharmaceuticals, Society of Heed Fellows, Indiana Academy of Ophthalmology, Indianapolis
Ophthalmologic Society, American Diabetes Association Professional Section, Alpha Omega Alpha
Honor Society, UCSF Alumni-Faculty Association

ADVISORY BOARDS

2001	International Symposium on Ocular Pharmacology and Pharmaceuticals
2002	Alcon Laboratories
	Eli Lilly and Company
	Eyetech Pharmaceutical
	Genentech Corporation
	Novartis Ophthalmics
	Theragenics Corporation
	Merck Ophthalmic Task Force
	Jerini Pharmaceuticals
	Neovista, Inc.
2003	Eli Lilly and Company
	Genentech Corporation
	Theragenics Corporation
2004	Alcon Laboratories
	Eli Lilly and Company
	Eyetech Pharmaceuticals
	Theragenics Corporation
	Merck Ophthalmic Task Force
	Jerini Pharmaceuticals
2005	Lilly Ophthalmology Advisory Board
	Merck Ophthalmic Task Force
	Genentech Advisory Board
	Eyetech Retina Experts
2006	Lilly Ophthalmology Advisory Board
	Eyetech Retina Experts
	Genentech Advisory Board
	Genentech Lucentis Advisory Board
2007	OPTOS Advisory Board
	Pfizer Research and Development Advisory Board
2008	Merck Advisory Board
2010	Allergan Advisory Board
	Alimera Advisory Board
2012	Ohr Pharmaceutical Inc., Scientific Advisory Board
	Genentech Aleglitazar in Diabetic Retinopathy Advisory Board
2013	Ohr Pharmaceutical Inc, Scientific Advisory Board
	Thrombogenics Advisory Board
2014	Ohr Pharmaceutical Inc, Scientific Advisory Board
	Thrombogenics Advisory Board
	Allergan Advisory Board

Stealth Pharmaceutical Advisory Board2015Thrombogenics OASIS Scientific Advisory BoardAllergan Retina Scientific Advisory Board

TEACHING ASSIGNMENTS – COURSES AND PRECEPTORSHIPS:

- **1994** Lecturer, Harvard medical student lecture series: An Introduction to Neuro-Ophthalmology and An Introduction to Ocular Pharmacology, Massachusetts Eye and Ear Infirmary, Harvard Medical School.
- **1995** Lecturer, Postgraduate Course: Non-infectious Inflammatory Disorders of the Eye and Adnexa, Massachusetts Eye and Ear Infirmary, Harvard Medical School.
- **1996** Lecturer, Postgraduate Course: *Ocular and Adnexal Infections*, Massachusetts Eye and Ear Infirmary, Harvard Medical School.
- **1996 2002** Lecturer, Ophthalmology residents' lecture series, Retina and vitreous service, Indiana University School of Medicine.

Attending Physician/Preceptor (12 months per year), supervision and instruction of ophthalmology residents on the Retina and Vitreous Service, Indiana University School of Medicine.

Attending Physician/Preceptor (12 months per year), supervision and instruction of Indiana University Medical Students rotating through the Retina and Vitreous Service, Indiana University School of Medicine.

1997 Lecturer, Sophomore medical student Ophthalmology lecture series, Indiana University School of Medicine.

Postgraduate Course co-coordinator, A workshop on proton therapy, August 8-9, 1997, Indiana University School of Medicine.

Postgraduate Course co-director, 7th Annual Theodore F. Schagel, Jr, M.D. Lectureship: Uveitis, September 26, 1997, Indiana University School of Medicine.

1998 – 2002 Attending Physician/Preceptor (12 months per year), supervision and instruction of vitreo-retinal fellow, Indiana University School of Medicine Department of Ophthalmology.

TEACHING ASSIGNMENTS - INVITED LECTURES, SEMINARS AND PRESENTATIONS:

1986 American Society for Photobiology, Los Angeles, CA, June 22-26, 1986, "Oxygen independent photosensitization of DNA by rose bengal."

American Chemical Society's 26th Annual College Research Symposium, Boston, MA, April 26, 1986, "Oxygen independent DNA cleavage photosensitized by rose bengal."

- 1987 Second International Congress of Neuroimmunology, Philadelphia, PA, September 8-11, 1987,
 "Molecular genotyping of the T-cell receptor beta chain in families of multiple sclerosis patients."
- 1989 Western Medical Student Research Forum, Carmel, CA, February 8-10, 1989, "Plasma from antibody negative myasthenia gravis patients reduces acetylcholine receptor agonist induced sodium flux into the TE671 cell line."
- **1993** North American Neuro-Ophthalmology Society Meeting, Big Sky, MT, February 7-11, 1993, "Embolic frequency and coexisting disease in central retinal artery occlusion."

Association for Research in Vision and Ophthalmology, Sarasota, FL, May 2-7, 1993, "Embolic frequency and coexisting disease in central retinal artery occlusion."

1994 North American Neuro-Ophthalmology Society Meeting, Durango, CO, February 27-March 3, 1994, "Peripapillary subretinal hemorrhage: A sign with a nonspecific but limited differential diagnosis."

Association for Research in Vision and Ophthalmology, Sarasota, FL, May 1-6, 1994, "Central retinal artery occlusion in rabbit eyes: A realistic animal model using human atheroma."

TEACHING ASSIGNMENTS - INVITED LECTURES, SEMINARS AND PRESENTATIONS (CONT.)

Massachusetts Eye and Ear Infirmary Department of Continuing Education: Ocular and Adnexal 1995 Infections, Boston, MA, February 25, 1995, Serpiginous choroiditis." Association for Research in Vision and Ophthalmology, Fort Lauderdale, FL, May 14-19, 1995, "Intravitreal toxicity of dental adhesives in the rabbit." "Nantucket Retina" meeting, Nantucket, MA, July 27-28, 1995, "Intravitreal toxicity of dental adhesives in the rabbit." American Academy of Ophthalmology, Atlanta, GA, October 29-November 2, 1995, "Early and late endophthalmitis after glaucoma filtering surgery." Massachusetts Eye and Ear Infirmary Department of Continuing Education: Ocular and Adnexal 1996 Infections, Boston, MA, January 27, 1996, "Early and late endophthalmitis after glaucoma filtration surgery: The Massachusetts Eye and Ear Infirmary Experience." Association for Research in Vision and Ophthalmology, Fort Lauderdale, FL, April 21-26, 1996, "Retinal artery vasospasm and the rabbit electroretinogram." American Diabetes Association "Ask the Experts" Program, Indianapolis, IN, November 20, 1996, "Diabetic Retinopathy." Indiana University Continuing Education for Ophthalmic Personnel, Indianapolis, IN, November 19, 1997, "Age-related macular degeneration." Indiana University Division of Continuing Medical Education, Indianapolis, IN, November 21, 1996, "Diagnosis and Treatment of CMV Retinitis." Indiana University HIV Clinical Conference, Indianapolis, IN, January 7, 1997, "Vitraserts and 1997 Intraocular Injections." International Symposium on Radiation Therapy for Macular Degeneration, New York, NY, March 21, 1997, "Proton therapy for choroidal neovascular membranes in age-related macular degeneration." Association for Research in Vision and Ophthalmology, Fort Lauderdale, FL, May 11-16, 1997, "A porcine model for choroidal neovascular membrane formation." Taking Control of Your Diabetes, Indianapolis, IN, June 28, 1997, "Diabetic Retinopathy." Indiana Academy of Ophthalmology, Indianapolis, IN, June 13-14, 1997, "Proton therapy for choroidal neovascular membranes in age-related macular degeneration." Indiana University Division of Continuing Medical Education: A Workshop on Proton Therapy, Indianapolis, IN, August 8-9, 1999, "Proton therapy for exudative age-related macular degeneration." Indiana University Division of Continuing Medical Education: Theodore F. Schlaegel, Jr, M.D. Lectureship, Indianapolis, IN, September 26, 1999, "What is new in CMV retinitis treatment." American Academy of Optometry, Indiana Chapter, Indianapolis, IN, November 5, 1997, "Experimental treatments for age-related macular degeneration." Indiana University Continuing Education for Ophthalmic Personnel, Indianapolis, IN, November 19, 1997, "Diabetic Retinopathy." Indiana University Physics Department Lecture Series, Bloomington, IN, January 28, 1998, "Proton 1998 therapy for exudative age-related macular degeneration." Indiana University Center for Aging Research, Indianapolis, IN, January 20, 1998, "Age-Related Macular Degeneration." Association for Research in Vision and Ophthalmology, Fort Lauderdale, FL, May 10-15, 1998, "A new

TEACHING ASSIGNMENTS - INVITED LECTURES, SEMINARS AND PRESENTATIONS (CONT.)

method for evaluating choroidal blood flow in age-related macular degeneration: area dilution analysis."

Food and Drug Administration Food Advisory Committee Meeting, Reston, VA, June 15-17, 1998, "Olestra, determinants macular pigment density, and age-related macular degeneration."

American Academy of Ophthalmology, New Orleans, LA, November 8-11, 1998, "Comprehensive circulatory studies in age-related macular degeneration."

American Academy of Optometry: Ellerbrock Memorial Continuing Education Program, San Francisco, CA, December 10-14, 1998, "Experimental treatments for age-related macular degeneration."

99 Indiana University Division of Continuing Medical Education: Department of Ophthalmology Grand Rounds, Indianapolis, IN, May 5, 1999, "The vascular pathogenesis of age-related macular degeneration."

> Association for Research in Vision and Ophthalmology, Fort Lauderdale, FL, May 9-14, 1999, "Comprehensive blood flow assessment in nonexudative age-related macular degeneration."

Association for Research in Vision and Ophthalmology, Fort Lauderdale, FL, May 9-14, 1999: Age-Related Macular Degeneration Special Interest Group Lecture, "Possible role of blood flow in the progression of atrophic age-related macular degeneration."

European Technology Meeting on Non-Invasive Ocular Blood Flow Measurement, Indianapolis, IN, May 14-15, 1999, "Ocular blood flow and age-related macular degeneration."

Indiana Optometric Association, Indianapolis, IN, June 9, 1999, "An update on retinal detachment surgery."

Central American Technology Meeting on Non-Invasive Ocular Blood Flow Measurement, Indianapolis, IN, July 8-9, 1999, "Ocular blood flow and age-related macular degeneration."

Indiana University School of Optometry Continuing Education Series, Bloomington, IN, July 11, 1999, "An update on CMV retinitis"

Indiana University School of Optometry Continuing Education Series, Bloomington, IN, July 11, 1999, "An update on age-related macular degeneration."

Indiana University Division of Continuing Medical Education: Theodore F. Schlaegel, Jr, M.D. Lectureship, Indianapolis, IN, September 24, 1999, "Determinants of macular pigment density as risk factors for age-related macular degeneration."

European Association for Vision and Eye Research, Palma de Majorca, Spain, October 6-9, 1999: Special Interest Symposium on Age-Related Macular Degeneration, "Blood flow in atrophic agerelated macular degeneration."

Proton Therapy Cooperative Group National Meeting, session chair on Eye Treatments, Bloomington, IN, October 11, 1999, "Radiation therapy for age-related macular degeneration."

2000 Portuguese Ophthalmology Society, Lisbon, Portugal, April 7-8, 2000, "Role of ocular blood flow in age-related macular degeneration."

Indiana University Ophthalmic Technician Continuing Education Course, April 12, 2000, "An update on age-related macular degeneration."

Indiana University School of Optometry Continuing Education Series, Bloomington, IN, April 24, 2000, "Emerging treatments for age related macular degeneration."

Indiana University Division of Continuing Medical Education: Department of Ophthalmology Grand

Thomas A. Ciulla, M.D., M.B.A — thomasciulla@gmail.com — 609.865.4487 — 317.506.0334 — Page 10 of 53 TEACHING ASSIGNMENTS – INVITED LECTURES, SEMINARS AND PRESENTATIONS (CONT.)

Rounds, Indianapolis, IN, April 26, 2000, "Photodynamic therapy for age-related macular degeneration."

Association for Research in Vision and Ophthalmology, Fort Lauderdale, FL, April 30– May 4, 2000, "Aging affects the retrobulbar circulation differently in women and men."

Marquette Manor Retirement Community, Indianapolis, IN, May 19, 2000, "An update on age-related macular degeneration."

Indiana University School of Optometry Continuing Education Series, Bloomington, IN, July 16, 2000, "Surgical macular disorders and macular surgery."

Indiana University Division of Continuing Medical Education: Department of Ophthalmology Grand Rounds, Indianapolis, IN, September 6, 2000, "Macular pigment density before and after cataract extraction."

Midwest Regional Retina Conference, Indianapolis, IN, September 9, 2000, "The vascular theory of age-related macular degeneration pathogenesis."

Indiana University School of Optometry Department of Education, Indiana Optometric Association Fall Seminar, Bloomington, IN, October 5, 2000, "Macular Surgery Update."

International Meeting of Imaging Technology in Ocular Blood Flow, Indianapolis, IN, October 19, 2000"Ocular perfusion in age-related macular degeneration."

American Academy of Ophthalmology, Dallas, Texas, October 22-25, 2000, "Cerebral Blood Flow is Altered in Glaucoma Patients."

American Academy of Ophthalmology, Dallas, Texas, October 22-25, 2000, "Age-related changes in macular pigment optical density."

Eli Lilly Education Preceptorship for Diabetic Retinopathy, 2001-2003, three sessions per year.

2001

Indiana University Division of Continuing Medical Education: Department of Ophthalmology Grand Rounds, Indianapolis, IN, January 17, 2001, "Macular pigments in age-related macular degeneration: a summary and research update."

Macular Degeneration Support Group of Indianapolis, IN, February 10, 2001, "PDT, TTT, and XRT for AMD: The alphabet soup of AMD treatments."

Association for Research in Vision and Ophthalmology, Fort Lauderdale, FL, April 29-May 4, 2001, "Choroidal neovascular membrane (CNVM) inhibition in rat with intraocular sustained-release triamcinolone acetonide micro-implants."

Nantucket Retina Course, Nantucket, MA, July 26-27, 2001, "Intravitreal triamcinolone for choroidal neovascularization."

Jules Stein Eye Institute Continuing Education Course on Clinical Applications of Ocular Blood Flow, Los Angeles, CA, August 11, 2001, "Role of ocular blood flow in the treatment of age-related macular degeneration" and "Clinical correlations of ocular blood flow in age-related macular degeneration."

Roche-Sponsored Lecture Series on Valcyte for the Treatment of Cytomegalovirus, Indianapolis, IN, August 31, 2001 "CMV Retinitis in the era of HAART therapy."

Indiana University Division of Continuing Medical Education: Diabetes Update – The Burden of Diabetes, Indianapolis, IN, September 7, 2001, "The burden of retinopathy."

Indiana University Division of Continuing Medical Education: Department of Ophthalmology Grand Rounds, Indianapolis, Indiana, September 5, 2001, "CMV Retinitis in the era of HAART therapy."

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TEACHING ASSIGNMENTS – INVITED LECTURES, SEMINARS AND PRESENTATIONS (CONT.)

American Academy of Ophthalmology, New Orleans, LA, November 11-15, 2001, "A randomized shamcontrolled trial of proton radiation for exudative age-related macular degeneration."

Iridex-Sponsored Lecture, American Academy of Ophthalmology, New Orleans, LA, November 11 -15, 2001, "Transpupillary Thermotherapy for occult subfoveal choroidal neovascular membranes in agerelated macular degeneration: effect on ocular perfusion."

American Academy of Ophthalmology, New Orleans, LA, November 11 -15, 2001, Continuing Medical Education Instructional Course: "Ocular Blood Flow."

American Diabetes Association, ASK THE EXPERTS: Panel Expert; Sponsored by American Diabetic Association and Marsh Supermarkets, November 17, 2001.

Vitreous Society, Fajardo, Puerto Rico, November 26-30, 2001, "Laser Trabecular Ablation for Chronic Hypotony following Complicated Vitreoretinal Surgery."

Vitreous Society, Fajardo, Puerto Rico, November 26-30, 2001, "Transupuillary Thermotherapy for Subfoveal Occult Choroidal Neovascularazation: Effects on Ocular Perfusion."

IU School of Medicine, Indianapolis, IN, November 6, 2001, "An Update on Diabetic Retinopathy Treatment."

2002 Eli Lilly Education Preceptorship for Diabetic Retinopathy, 2001-2003, three sessions per year.

Indiana University School of Medicine, Division of Ophthalmology Continuing Education Program for Ophthalmic Technicians, Indianapolis, IN, February 13, 2002 "Diabetic Retinopathy."

Endocrinology and Metabolism Grand Rounds, Indiana University of Medicine, Indianapolis, IN, March 6, 2002, "An update on Diabetic Retinopathy."

Tufts University School of Medicine/New England Eye Center Continuing Education Program: John F. Kennedy Library, Boston, MA, April 13, 2002, "Clinical Applications of Ocular Blood Flow: "Is there a role for Ocular Blood Flow in Age-Related Macular Degeneration?"

Annual Convention of the Indiana Optometric Association, Continuing Medical Education, April 30, 2002, "Prevention Vision Loss in Maculopathies."

Association for Research in Vision and Ophthalmology, Ft. Lauderdale, FL, May 5-10, 2002, "Evaluation of a Novel Photosensitizer MV6401 as a Photodynamic Agent using a Primate Chorodial Neovascular Model"

Association for Research in Vision and Ophthalmology, Age Related Macular Degeneration Special Interest Group Lecture, Ft. Lauderdale, FL, May 5-10, 2002, "Inhibition of Experimental and Clinical Choroidal Neovascular by Triamcinalone Acetonide."

Nantucket Retina Course, July 26, 2002, "Laser Trabecular Sclerosis for Chronic Hypotony After Vitreoretinal Surgery."

American Academy of Ophthalmology and Pan-American Association of Ophthalmology, Orlando FL, October 20-23, 2002, "Bacterial Endophthalmitis Prophylaxis for Cataract Surgery: An Evidence-based Update."

American Academy of Ophthalmology and Pan-American Association of Ophthalmology, Orlando, FL, October 20-23, 2002, "Prolonged Remission of Serpignous Choroiditis with High Dose Short-TeR. M. Chlorombucil."

American Academy of Ophthalmology and Pan-American Association of Ophthalmology, Orlando, FL, October 20-23, 2002, Continuing Medical Education: Instructional Course: "Ocular Blood Flow."

University of Texas Southwestern Medical Center Continuing Medical Education, Dallas, TX, October

TEACHING ASSIGNMENTS – INVITED LECTURES, SEMINARS AND PRESENTATIONS (CONT.)

5, 2002, "Clinical Applications of Ocular Blood Flow in Glaucoma and Age-Related Macular Degeneration: Macular Degeneration, The Role of Ocular Perfusion in AMD, Pathophysiology and Treatment."

American Diabetes Association, ASK THE EXPERTS: Panel Expert; Sponsored by American Diabetic Association and March Supermarkets, November 16, 2002.

AMD Clinical Trials Network Meeting on Triamcinolone, Philadelphia, PA, November 23, 2002 "Rationale for use of Triamcinolone in Neovascular AMD."

US Advisory Board, Eli Lilly and Company, US PKC Beta Inhibitor Advisory Board, Indianapolis, IN, March 28-29, 2002, "Diabetic Retinopathy: Disease, Mechanisms, and Current Management."

Indiana Optometric Association, 2002, Indianapolis, IN "Preventing Vision Loss in Maculopathies."

2003 Eli Lilly Education Preceptorship for Diabetic Retinopathy, 2001-2003, three sessions per year.

Macula Society, Naples, FL, February 26-March 1, 2003 Choroidal Neovascular Membrane Inhibition in a Laser-Treated Rat Model with Intraocular Sustained-Release Triamcinolone Acetonide Micro-Implants.

Retina Society, Chicago, IL, September 18-21, 2003 "Ocular Blood Flow Perturbations in Nonexudative Age-Related Macular Degeneration.

American Society of Retinal Specialists, New York, NY, August 16-20, 2003 "Choroidal Neovascular Membrane Inhibition in a Laser-Treated Rat Model with Triamcinolone Acetonide Micro-Implants" Cornea Research Foundation of America and Price Vision Group- Focus on Education, Carmel, IN, October 25, 2003, "New Advances in the Treatment of Macular Degeneration with Visudyne."

Indiana Academy of Ophthalmology and Midwest Glaucoma Symposium, Indianapolis, IN, September 12, 2003, "New Tools in Retina" Eli Lilly and Company, US PKC Beta Inhibitor Advisory Board, Chicago, IL, March 1-2, 2003.

Theragenics Corporation, Theragenics Advisory Board Meeting, Buford, GA, August 6, 2003 "A Review of AMD Treatment Strategies."

AMD Support Group, Indianapolis, IN, November 8, 2003 "A Review of Emerging Treatment for AMD."

The Association for Research in Vision and Ophthalmology, Fort Lauderdale, FL, May 6, 2003, "Ocular Blood Flow Assessments in AMD and its Potential Clinical Applications."

Theragenics Corporation, Theragenics Advisory Board Meeting, Washington, D.C., October 4, 2010, "TheraSight Ocular Brachytherapy System."

American Academy of Ophthalmology Annual Meeting, November17, 2003, "RhuFab V2 for Exudative AMD: Six-month Results by Lesion Type of a Prospective, Randomized, Multicenter Trial."

2004 Eli Lilly Education Preceptorship for Diabetic Retinopathy, 2004, one session per year.

American Society of Retina Specialists, San Diego, CA, August 16-20, 2004 Fluorescein Angiography Case Conference: "Local Steroid Treatment of Sarcoid-Related Optic Nerve Head Granuloma."

American Society of Retina Specialists, San Diego, CA, August 16-20, 2004 "Squalamine Lactate Reduces Choroidal Neovascularization in a Laser-Injury Model in the Rat."

American Society of Retina Specialists, San Diego, CA, August 16-20, 2004 "Bacterial Endophthalmitis Prophylaxis for Cataract Surgery - An Evidence Based Update."

American Society of Retina Specialists, San Diego, CA, August 16-20, 2004 Course Director:

"Intravitreal Triamcinolone (Kenalog) for CNVM: Mechanistic and Practical Aspects."

American Society of Retina Specialists, San Diego, CA, August 16-20, 2004, Roundtable Discussion, "Diagnosis and Management of Cystoid Macular Edema."

Macula Society, Las Vegas, NV, February 26-March 1, 2004 Session Chair- Basic Science.

Macula Society, Las Vegas, NV, February 26- March 1, 2004 "Squalamine Lactate Reduces Choroidal Neovascularization in a Laser-Injury Model in a Rat."

The University of Pennsylvania Heath System, Department of Ophthalmology, Scheie Eye Institute Visiting Professor Lectures and Ophthalmic Seminars, January 8, 2004, "The Role of Corticosteroids in the Treatment of AMD."

The University of Pennsylvania Heath System, Department of Ophthalmology, Scheie Eye Institute Visiting Professor Lectures and Ophthalmic Seminars, January 8, 2004, "The Role of Macular Pigments Lutein and Xeazanthin in the Pathophysiology of AMD."

Aspen Retinal Detachment Society, February 29-March 4, 2004 "Treatment of Hypotony Following Retinal Detachment Surgery."

Aspen Retinal Detachment Society, February 29-March 4, 2004 "Triamcinolone as a Treatment for Choroidal Neovascular Membranes."

American Association of Diabetes' Educators, Indianapolis, IN, August 11, 2004, Planning Committee Member and Faculty Presenter "Rethinking the Diagnosis and Treatment of Diabetic Microvascular Complications."

The Retina Society, Baltimore, MD, Sept.30-October 3, 2004, "Macular Carotenoid Pigment Density is Reduced in Obese Subjects."

Indiana Optometric Association, Indianapolis, IN, April 30- May 2, 2004, "Diabetic Retinopathy and Diabetic Macular Edema."

University of California San Francisco, San Francisco, CA, February 25, 2004 "The Role of Corticosteroids in the Treatment of AMD."

University of California San Francisco, San Francisco, CA, February 25, 2004 "Role of Macular Pigments Lutein and Zeaxanthin in the Pathophysiology of AMD."

Optometry Educational Conference, Richmond, IN, November 21, 2004 "New Treatment for AMD."

Eyetech Pharmaceuticals, April 16-18, 2004, Phoenix, AZ, Macugen Consultants' Meeting.

Theragenics Corporation, Theragenics Advisory Board Meeting, August 7, 2004, Atlanta, GA, "A Safety and Feasibility Study of TheraSight[™] Ocular Brachytherapy System for Treatment of AMD."

Eli Lilly and Company, Diabetic Educators Conference, August 19, 2004. "An Update on Diabetic Retinopathy Treatment."

The Association for Research in Vision and Ophthalmology, Fort Lauderdale, FL, April 26-27, 2004, "Macular Pigment Density in the Normal Elderly, and Subjects with Cataracts and Age-Related Macular Degeneration."

Indiana Optometric Association, Ocular Pharmacology Seminar, Carmel, IN, February 9, 2005, "Macugen Treatment of AMD."

2005

Retaane Key Opinion Leader Meeting, Alcon Laboratories, Inc., New York, NY, April 1-3, 2005.

Genentech Retina Experts Meeting, Washington, DC, April 14-15, 2005, "Lucentis™ Clinical Data Review."

Thomas A. Ciulla, M.D., M.B.A — thomasciulla@gmail.com — 609.865.4487 — 317.506.0334 — Page 14 of 53

TEACHING ASSIGNMENTS – INVITED LECTURES, SEMINARS AND PRESENTATIONS (CONT.)

Macula Society, Key Biscayne, FL, February 23-26, 2005 Session Chair-Other Treatments for Choroidal Neovascularization

Alcon RETAANE Key Opinion Leaders, New York, NY, April 1-3.

The Association for Research in Vision and Ophthalmology, Fort Lauderdale, FL, May 1-5, 2005 "Comparison of Photodynamic Therapy, Intravitreal Triamcinolone or a Combined Regimen as Initial Treatment of Choroidal Neovascularization."

The Association for Research in Vision and Ophthalmology, Fort Lauderdale, FL, May 1-5, 2005 "The Effects of Topical Dorzolamide on Visual Acuity and Disease Progression in Non-Neovascular Age-Related Macular Degeneration: a One-Year, Randomized, Double-Masked, Placebo-Controlled Trial"

The Association for Research in Vision and Ophthalmology, Fort Lauderdale, FL, May 1-5, 2005 "Perfusion Pressure Correlates with Visual Acuity in Patients With Non-Neovascular Age-Related Macular Degeneration."

The Association for Research in Vision and Ophthalmology, Fort Lauderdale, FL, May 1-5, 2005 "The Analytic and 12-Month Biological Variability of Retinal Oximetry Measurements in Patients With Non-Neovascular Age Related Macular Degeneration."

The Association for Research in Vision and Ophthalmology, Fort Lauderdale, FL, May 1-5, 2005 "A Phase II, Multicenter, Randomized, Controlled, Masked Study of the Effects of Squalamine Lactate in Combination with Visudyne® in Patients with Subfoveal Choroidal Neovascularization Associated With Age-Related Macular Degeneration."

The Association for Research in Vision and Ophthalmology, Fort Lauderdale, FL, May 1-5, 2005 "A New Ocular Brachytherapy System for the Treatment of Exudative AMD."

The Association for Research in Vision and Ophthalmology, Fort Lauderdale, FL, May 1-5, 2005 "Treatment Outcomes of Choroidal Neovascularization Secondary to Ocular Histoplasmosis."

American Society of Retina Specialists, Montreal, Quebec, Canada, July 16-20, 2005 "A Phase II, Multi-Center, Randomized, Controlled, Masked Study of EVIZON™ (Squalamine Lactate) with Verteporfin in AMD: Interim Safety and Efficacy."

Update on the Management of Diabetic Retinopathy and its Complications, Chicago, IL, June 4, 2005 "Update on the Management of Diabetic Macular Edema."

WRTV-Channel 13 Health News, Interview with Anchorwoman Anne Marie Tiernon, July 21, 2005, "Breakthrough for macular degeneration."

WRTV-Channel 6 Health News, Interview with Anchorwoman Stacia Matthews, August 11, 2005, "New macular degeneration treatment shows promise."

U.S. Diabetes Care Ophthalmology Advisory Board Meeting, Eli Lilly and Co, Washington, D.C., October 6-7, 2005.

American Academy of Ophthalmology, Chicago, IL, October 15, 2005, "Safety and efficacy results forma phase 2, multicenter, randomized, controlled, masked study (MSI-1256F-208) of the effects of Evizon (Squalamine Lactate for injection) with concomitant Verteporfin in patients with wet AMD."

Neovascular AMD, Part 3, Future Therapeutic Options for AMD, Webcast Speaker, The Dulaney Foundation, November 9, 2005.

Merck & Company Ocular Steroid Consultants Meeting, West Pointe, PA, November 4, 2005 "Overview of antiangiogenic corticosteroids for the treatment of retinal diseases."

The Macular Degeneration Support Group, Saint Vincent's Hospital, Indianapolis, IN, November 12,

TEACHING ASSIGNMENTS – INVITED LECTURES, SEMINARS AND PRESENTATIONS (CONT.)

2005, "Current Research and Treatment of Age Related Macular Degeneration."

Genentech Retina Experts Meeting, Scottsdale, AZ, December 2-3, 2005.

Eyetech Retina Experts Meeting, New York, NY, December 15-17, 2005.

2006

Eyetech Clinical Roundtable Meeting, Chicago, IL, January 27-29, 2006, "Macugen for non-subfoveal choroidal neovascularization."

Angiogenesis 2006 Meeting, Bascom Palmer Eye Institute, Miami, FL, February 3-4, 2006 "Triamcinolone for Choroidal Neovascularization: Mechanistic and Histologic Aspects."

Genentech Retina Experts Meeting, Snowmass Village, CO, March 4, 2006, "Overview of Lucentis clinical trials for exudative age-related macular degeneration: Marina and Anchor clinical trials."

The Association for Research in Vision and Ophthalmology, Fort Lauderdale, FL, May 1, 2006 "Molecular Heterogeneity of VEGF-A in the Vitreous of Patients with Proliferative Diabetic Retinopathy."

Retinal Physician Roundtable and ACCME Accredited Supplement, Fort Lauderdale, FL, April 30, 2006, "A Comprehensive Understanding of Current Angiogenesis Science and How to Profile Identification Factors for Treating AMD Patients."

Jerini Clinical Advisory Board Meeting, Fort Lauderdale, FL, April 30, 2006, "Integrin inhibitors in the treatment of age-related macular degeneration."

Alcon/Lilly Ophthalmology Advisory Board, Detroit, MI, August 3-4, 2006.

Indiana Academy of Ophthalmology, Indianapolis, IN, September 29, 2006 "The History of the Changing Landscape of Pharmacological therapies for AMD."

Indiana Optometric Association Department of Education Fall Seminar, Bloomington, IN, October 4, 2006, "An Update on Antiangiogenesis Therapy for Exudative Age-Related Macular Degeneration."

ACCELMED CME Dinner Series, Cincinnati, OH, October 25, 2006, "Evolving Paradigms and Partnerships: Modern management of diabetic retinopathy."

ACCELMED CME Dinner Series, Indianapolis, IN, October 26, 2006, "Evolving Paradigms and Partnerships: Modern management of diabetic retinopathy."

The Wilmer Eye Institute Advanced Studies in Ophthalmology, Diabetic Retinopathy in 2006: What a Difference a Year Makes, Las Vegas, NV, November 11, 2006, "The Science Behind the Disease: Unraveling the Molecular Biology of Diabetic Retinopathy."

2007The Association for Research in Vision and Ophthalmology, Fort Lauderdale, FL, May 10, 2007"Ranibizumab (LucentisTM) for Neovascular Age-Related Macular Degeneration (AMD): 1-Year Visual
Acuity (VA) Results for Fellow Eyes with Neovascular AMD in MARINA and ANCHOR"

Retina 2007, Kauai, HI, January 19, 2007, "Management of Retinal Vein Occlusions, Treatment of Venous Occlusive Disease with Pegaptanib."

The Retina Society Annual Scientific Meeting. Boston, MA, September 28, 2007, "Treatment of Macular Edema Following Central Retinal Vein Occlusion with Pegaptanib Sodium (Macugen): A One-Year Study."

American Academy of Ophthalmology Annual Meeting, New Orleans, LA, November 10-13, 2007, "Treatment of Macular Edema Following Central Retinal Vein Occlusion with Pegaptanib Sodium (Macugen): A One-Year Study."

American Academy of Ophthalmology Annual Meeting, New Orleans, LA, November 10-13, 2007,

TEACHING ASSIGNMENTS - INVITED LECTURES, SEMINARS AND PRESENTATIONS (CONT.)

Scientific Poster, "Intra	vitreal Bevacizumab for CNV due to Presumed Ocular Histoplasmosis	
Syndrome."		

NeoVista, Inc, San Francisco, CA, December 3, 2007, Data Safety Monitoring Board.

American Society of Retina Specialists Annual Meeting, Indian Wells, CA, December 2, 2007, "Ranibizumab (Lucentis) for Neovascular Age-related Macular Degeneration (AMD): One-year Results for Fellow Eyes with Neovascular AMD (MARINA, ANCHOR)."

2008 Eye on AMD patient lecture series, Boston, MA, July 19, 2008, "Important facts about age-related macular degeneration and treatment."

Indiana University School of Optometry Continuing Education Series, Bloomington, IN, August 17, 2008, "An Update on AMD and Diabetic Retinopathy."

2009 Indiana Optometric Association 2009 Formulary Seminar, Carmel, IN, July 15, 2009, "Retinal Update, Current advancements in the treatment of retinal, macular and vitreous diseases and surgery to include diagnostic, pharmacological and surgical procedures."

Retina Congress 2009, New York, NY, September 3 – October 4, 2009, "Update on the FAMOUS Study: PK and PD of Iluvien (Fluocinolone Acetonide [FA] Intravitreal Insert for Diabetic Macular Edema (DME)."

2010 The Macula Society 33rd Annual Scientific Program, Tucson, AZ, February 25, 2010, "Ranibizumab (Lucentis) for Neovascular Age-Related Macular Degeneration (AMD): 2-Year Results for Fellow Eyes with Neovascular AMD in MARINA and ANCHOR Trials."

The Association for Research in Vision and Ophthalmology 2010 Annual Meeting, Fort Lauderdale, FL, May 6, 2010, "Fluocinolone Acetonide Intravitreal Insert (Iluvien) Phase 3 Studies; Demographics."

American Society of Retina Specialists Annual Meeting, Vancouver, Canada. August 28-September 2,2010, Scientific Poster, "A Phase 1 Investigation of iSONEP, a Sphingosine-1-Phosphate Monocional Antibody, for Wet AMD in a Subset of Subjects with PED."

American Society of Retina Specialists Annual Meeting, Vancouver, Canada, August 28-September 2, 2010, Scientific Poster, K. Blinder, K. Ramaiya, T. A. Ciulla, G. Shah, "Ranibizumab vs PDT for Presumed Ocular Histoplasmosis."

Indiana Optometric Association Fall Seminar, Indianapolis, IN, October 6-7, 2010, "Retinal Update."

American Academy of Ophthalmology Annual Meeting, Chicago, IL, October 16-19, 2010, Scientific Poster, "Safety and Efficacy of Dexamethasone Intravitreal Implant Plus Laser Photocoagulation vs. Laser Alone for Treatment of Diabetic Macular Edema."

American Academy of Ophthalmology Annual Meeting, Chicago, IL, October 16-19, 2010, "Two-Year Outcomes of the Ranibizumab for Edema of the Macula in Diabetes (READ-2) Study."

2011 American Academy of Ophthalmology Annual Meeting, Orlando, FL, October 22-25, 2011, "Dexamethasone Intravitreal Implant Plus Laser Photocoagulation vs. Laser Monotherapy for Treatment of Diffuse Diabetic Macular Edema."

The Association for Research in Vision and Ophthalmology Annual Meeting, Fort Lauderdale, FL, May 4, 2011, "Efficacy and Safety of Combination Therapy with Dexamethasone Intravitreal Implant (DEX Implant) Plus Laser Photocoagulation Versus Monotherapy with Laser for Treatment of Diffuse Diabetic Macular Edema (DDME)."

2012 Indiana Optometric Association Fall Seminar, Bloomington, IN, October 3, 2012, "Retina Update."

2014 Macula Society 37th Annual Meeting, Key Largo, FL, February 19, 2014. "Ranibizumab in Diabetic

TEACHING ASSIGNMENTS - INVITED LECTURES, SEMINARS AND PRESENTATIONS (CONT.)

Macular Edema Refractory to Multiple Prior Treatments."

The Association for Research in Vision and Ophthalmology Annual Meeting, Orlando, FL, May 4-8, "Ranibizumab for diabetic macular edema refractory to multiple prior treatments."

American Society of Retina Specialists 32nd Annual Meeting, San Diego, CA, August 10, 2014, Scientific Poster, "Dexamethasone Implant (0.7 mg) for Persistent and Recurrent Macular Edema Due to Venous Occlusion."

American Society of Retina Specialists 32nd Annual Meeting, San Diego, CA, August 10, 2014, Scientific Poster, "Ranibizumab for diabetic macular edema refractory to multiple prior treatments."

The Retina Society 47th Annual Scientific Meeting, Philadelphia, PA, September 12, 2014, Scientific Poster, "Interim Results from a Phase 2 Study of Squalamine Lactate Ophthalmic Solution 0.2% in the Treatment of Neovascular Age-Related Macular Degeneration (AMD)."

The Retina Society 47th Annual Scientific Meeting, Philadelphia, PA, September 11-14, 2014, Scientific Paper, "Squalamine Lactate Then and Now: A Review of IV and Topical Formulation Data and Comparison of Pharmacokinetics."

American Academy of Ophthalmology Retina Subspecialty Day, Chicago, IL, October 17, 2014, "Squalamine Eye Drops for Retinal Disease."

Indiana Optometric Association Winter Seminar, Indianapolis, In, February 11, 2015, "Retina Update 2015."

The Macula Society 36th Annual Meeting, Scottsdale, AZ, February 28, 2015, Scientific Paper, "Vitreomacular Interface (VMI) Modestly Influenced Treatment Intensity but not Visual Acuity in the Comparison of Age-Related Macular Degeneration Treatment Trials (CATT)."

The Association for Research in Vision and Ophthalmology Annual Meeting, Denver, CO, May 3-7, 2015, "Final Results from a Phase 2 Study of Squalamine Lactate Ophthalmic Solution 0.2% (OHR-102) in the Treatment of Neovascular Age-related Macular Degeneration (AMD)."

The Association for Research in Vision and Ophthalmology Annual Meeting, Denver, CO, May 3-7, 2015, "Influence of the Vitreomacular Interface on Treatment Outcomes in the Comparison of AMD Treatments Trials (CATT)."

The Association for Research in Vision and Ophthalmology Annual Meeting, Denver, CO, May 3-7, 2015, "Dexamethasone Implant (0.7 mg) for Persistent and Recurrent Macular Edema Due to Venous Occlusion."

American Society of Retina Specialists 33rd Annual Meeting, Vienna, Austria, July 13, 2015, Scientific Paper, "Influence of the Vitreomacular Interface on Treatment Outcomes in the Comparison of AMD Treatments Trials (CATT)."

The Retina Society 48th Annual Scientific Meeting, Paris, France, October 9, 2015, Scientific Paper, "Final Results from a Phase 2 Study of Squalamine Lactate Ophthalmic Solution 0.2% (OHR-102) in the Treatment of Neovascular Age-related Macular Degeneration (AMD) THE IMPACT STUDY."

American Academy of Ophthalmology Retina Subspecialty Day, Las Vegas, NV, November 14, 2015, Scientific Paper, "Results of the Nexus Study: An Investigation of iSONEP, A Monoclonal Antibody Targeting Sphingosine-1-Phosphate in Patients With Wet AMD."

American Academy of Ophthalmology, Las Vegas, NV, November 14, 2015, Scientific Poster, "Reducing Patient Flow Times in a Retina Clinic."

2016 Indiana University School of Medicine, Department of Ophthalmology Grand Rounds, Indianapolis, IN, January 6, 2016, "Limitations of AntiVEGF Therapy in Neovascular AMD: Could AntiPDGF Therapy

Thomas A. Ciulla, M.D., M.B.A — thomasciulla@gmail.com — 609.865.4487 — 317.506.0334 — Page 18 of 53 TEACHING ASSIGNMENTS – INVITED LECTURES, SEMINARS AND PRESENTATIONS (CONT.)

be the Silver Bullet?"

World Ophthalmology Congress, Guadalajara, Mexico, February 7, 2016, Scientific Presentation, "Long-TeR. M. Improvements in Vision and Diabetic Retinopathy Achieved and Maintained with prn Ranibizumab Therapy During the RIDE/RISE Open-Label Extension (OLE)."

The Macula Society 37th Annual Meeting, Miami Beach, FL, February 26, 2016, Scientific Paper, "Assessment of RPE Atrophy in a Phase 2b Study of a Platelet Derived Growth Factor Inhibitor (Fovista), in Combination with a Vascular Endothelial Growth Factor Inhibitor (Ranibizumab) for Neovascular Age Related Macular Degeneration (nAMD)."

The Association for Research in Vision and Ophthalmology Annual Meeting, Seattle, WA, May 1-5, 2016, "Visual outcome over time and tissue responses in patients with early vision loss after combination therapy of anti-PDGF (Fovista ® 1.5mg) plus anti-VEGF (ranibizumab 0.5mg) versus monotherapy anti-VEGF (ranibizumab 0.5mg)."

The Association for Research in Vision and Ophthalmology Annual Meeting, Seattle, WA, May 1-5, 2016, "Baseline structural parameters measured with optical coherence tomography predict functional progression in open-angle glaucoma patients after five years."

The Association for Research in Vision and Ophthalmology Annual Meeting, Seattle, WA, May 1-5, 2016, "Baseline retrobulbar blood flow correlates more strongly with longitudinal changes in macular structure in glaucoma patients of African descent."

The Association for Research in Vision and Ophthalmology Annual Meeting, Seattle, WA, May 1-5, 2016, "Real World U.S. Outcomes of Anti-Vascular Endothelial Growth Factor (VEGF)Therapy in Neovascular AMD (NAMD): Risk of Vision Loss is Greatest in Patients with Better Baseline Visual Acuity."

The Association for Research in Vision and Ophthalmology Annual Meeting, Seattle, WA, May 1-5, 2016, "Assessment of Retinal Pigment Epithelium (RPE) Atrophy in a Phase 2b Study of a Platelet Derived Growth Factor inhibitor (Fovista ®), in combination with a Vascular Endothelial Growth Factor inhibitor (Ranibizumab) for Neovascular Age-Related Macular Degeneration (NAMD)."

Indiana University School of Optometry Continuing Education Lecture, Bloomington, IN, May 14, 2016, "Update on Geographic Atrophy and Neovascular AMD."

Ophthalmic Drug Development Summit, Washington, D.C., July 28, 2016, "Innovation Theory Applied to AMD Therapy Development: The Innovators' DNA, Dilemma, and Prescription."

American Society of Retina Specialists 34th Annual Meeting, San Francisco, CA August 10, 2016, Scientific Paper, "Real World U.S. Outcomes of Anti-VEGF Therapy in Neovascular AMD: Risk of Vision Loss is Greatest in Patients with Better Baseline Visual Acuity."

The Retina Society 49th Annual Scientific Meeting, San Diego, CA, September 17, 2016, Scientific Paper, "A Meta-analysis of Anti-VEGF Treatment Regimens for Neovascular Age-related Macular Degeneration: One Year Results are Driven in Part by the Injection Frequency."

Cambridge Healthtech Institute's 4th Annual Targeting Ocular Disorders Conference, Boston, MA, September 21, 2016, "Innovation Theory Applied to AMD Therapy Development: The Innovators' DNA, Dilemma, and Prescription."

Indiana Optometric Association Fall Seminar, Bloomington, IN, October 5, 2016, Continuing Education Lecture, "The Good, The Bad and The Ugly: AMD Future Treatments, Current Treatments, and Outcomes."

PROFESSIONAL SERVICE:

- **1997 Present** Reviewer for Ophthalmology, Journal of The American Academy Of Ophthalmology
- 1998 Present Reviewer for Archives of Ophthalmology
- **1998 2010** Reviewer for Investigative Ophthalmology and Visual Sciences
- **1998 2000** Reviewer for The Journal of the American Optometric Association
- **1999 2010** Reviewer for Ophthalmic Surgery and Lasers
- **1999 Present** Reviewer for American Journal of Ophthalmology
- **2000 2009** Reviewer for British Journal of Ophthalmology
- 2001 Present Editorial Board Member for Current Opinion in Ophthalmology
- **2002 2010** Reviewer for Acta Ophthalmologica
- 2015 Reviewer for Current Eye Research
- 2004 Present Reviewer for Retina

UNIVERSITY SERVICE:

- **1996 2002** Member, *Ophthalmology Resident Selection Committee*, Indiana University School of Medicine Resident advisor (two residents per year), Department of Ophthalmology, Indiana University School of Medicine
- **1997** Member, Professional Services Committee, Indiana University School of Medicine
- **1997 1999** Member, Executive Steering Committee, Midwest Proton Therapy Institute, Indiana University
- 1998 Member, Search Committee for Dean of Indiana University School of Optometry, Indiana University
- 1998 2002 Member, Retina Fellow Selection Committee, Indiana University School of Medicine Retina fellow advisor (one fellow per year), Department of Ophthalmology, Indiana University School of Medicine

COMMUNITY MEDICAL SERVICE:

- 1996 2002Attending Physician and Surgeon, Indigent vitreoretinal and laser clinic (2 clinics per month and 2
or more operations per month, 12 months per year), Department of Ophthalmology, Wishard
Memorial County Hospital, Indiana University School of Medicine
- **1998 2010** Board member, Macular Degeneration Support Group of Indianapolis
- 2000 2015 Volunteer retinal specialist, Eye Care American National Eye Care Project
- 2000 2015 Volunteer retinal specialist, Donate-A-Day Program, Prevent Blindness Indiana
- **2000 2015** Volunteer Ophthalmologist, Trinity Free Clinic

PROFESSIONAL ACTIVITIES:

1997 – 2002 Member, AIDS Clinical Trial Group, Indiana University School of Medicine

Member, Complications of HIV Disease Research Agenda Committee Viral Diseases Pathogen Study Group, National Institutes of Health Thomas A. Ciulla, M.D., M.B.A — thomasciulla@gmail.com — 609.865.4487 — 317.506.0334 — Page 20 of 53 PROFESSIONAL SERVICES/ACTIVITIES — COMMUNITY MEDICAL SERVICES — UNIVERSITY SERVICES (CONT.)

> Member, Study of Ocular Complications of AIDS (SOCA) research group, Johns Hopkins University Center for Clinical Trials, School of Hygiene and Public Health

- **1998 1999** Protocol Chair, *Clinical Study* 738: "A comparison of intracellular and systemic HIV and CMV viral burdens in patients with CMV retinitis. A trial of the adult AIDS clinical trials group." Sponsored by the National Institute of Allergy and Infectious Disease, National Institutes of Health, currently on hold due to decreased incidence of CMV retinitis in the era of highly active antiretroviral therapy
- **2004 Present** National Principal Investigator, Theragenics Corporation, "A Safety and Feasibility study of the TheraSight Ocular Brachytherapy System for the Treatment of Age-Related Macular Degeneration"
- 2007 NeoVista, Inc "CNV Secondary to AMD Treated with Beta Radiation Epiretinal Therapy," CABERNET, *Medical Monitor.*

GRANTS, FELLOWSHIPS AND CLINICAL TRIALS:

1988	The Myasthenia Gravis Foundation, to study the immunologic mechanism of acetylcholine receptor inactivation in antibody-negative myasthenia gravis, Principal Investigator
	The American Academy of Allergy and Immunology, to study the immunologic mechanism of acetylcholine receptor inactivation in antibody-negative myasthenia gravis, <i>Principal Investigator</i>
1993 – 1994	Harvard's Department of Ophthalmology's Unrestricted Grant Award from Research to Prevent Blindness, Inc., to develop a new animal model for retinal artery occlusions using human atheroma, Principal Investigator
1994 – 1995	Harvard's Department of Ophthalmology's Unrestricted Grant Award from Research to Prevent Blindness, Inc., to study pharmacologic rescue of retinal ischemia in a rabbit model monitored by electroretinography, <i>Principal Investigator</i>
1995 – 1996	Heed Ophthalmic Foundation, for continued training and research in vitreo-retinal surgery, Principal Investigator
1996 – 1997	Indiana University Biomedical Research Grant, to develop a porcine model of choroidal neovascularization, <i>Principal Investigator</i>
1997	Indiana Lions Eye Bank, Inc., to support a macular degeneration clinical research coordinator, Co- Principal Investigator
	Indiana University Strategic Directions Implementation Proposal, to partially renovate the Indiana University Cyclotron Facility for medical application, including proton therapy of exudative age- related macular degeneration, Co-Principal Investigator
	Indiana University Intercampus Research Fund, to study proton therapy for choroidal neovascular membranes in age-related macular degeneration, Co-Principal Investigator
1997 – 1998	Miravant Medical Technologies, to study photodynamic therapy of choroidal vessels in a rabbit model using a second-generation photosensitizer, <i>Principal Investigator</i>
	The Proctor and Gamble Company, to study determinants of macular pigment density in a populational cross section, <i>Principal Investigator</i>
1998	National Institutes of Health Grant # UO1AI25859, for collaborative AIDS and CMV retinitis related clinical research with the Indiana University AIDS Clinical Trial Group, <i>Co-Investigator</i>
	Fight for Sight Prevent Blindness America, to comprehensively evaluate ocular perfusion in nonexudative age-related macular degeneration, <i>Principal Investigator</i>
	Alcon Laboratories, to study the effects of a topical agent on macular function and ocular perfusion in patients with nonexudative age-related macular degeneration, <i>Principal Investigator</i>
	Merck & Co, to study the effects of a topical agent on macular function and ocular perfusion in patients with nonexudative age-related macular degeneration, Co-Investigator
1998 – 2003	Research to Prevent Blindness Career Development Award, unrestricted grant, to study age-related macular degeneration, <i>Principal Investigator</i>
1999	National Institutes of Health Grant # UO1AI25859, for collaborative AIDS and CMV retinitis related clinical research with the Indiana University AIDS Clinical Trial Group, <i>Co-Investigator</i>

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macular degeneration, Principal Investigator

Indiana Lions Eye Bank, Inc, for equipment for treatment of patients with age-related macular degeneration and other retinal diseases, *Co-Principal Investigator*

Reeves Foundation, Columbus, IN, unrestricted grant for research of age-related macular degeneration, Co-Principal Investigator

Eli Lilly & Co., LY333531 Protein Kinase CB Inhibitor-Diabetic Retinopathy Study (B7A-MC-MBBM). Co-Investigator

Eli Lilly & Co., LY333531 Protein Kinase C B Inhibitor Diabetic Macular Edema Study (B7A-MC-MBBK). Co-Investigator

IU-Center for Aging Research Pilot Project Funding, to study the relationship between macular pigment density, nutrition, and early macular degeneration in aged subjects, *Co-Investigator*

Isis Pharmaceuticals, to study an anti-Raf kinase antisense oligonucleotide on ocular angiogenesis in the pig, *Co-Investigator*

1999 – 2000 National Institutes of Health Grant # EY11191-01, Business Innovation Research Program via Miravant Medical Technologies, to study photodynamic therapy of choroidal vessels and experimental choroidal neovascularization in a primate model, *Principal Investigator*

Alcon Pharmaceuticals, to study inhibition of choroidal neovascularization by intravitreal acetacortave acetate, in a rat model, *Principal Investigator*

2000 Magainin Pharmaceuticals, to study the antiangiogenic effects of squalamine in a porcine and rat neovascularization model, Co-Principal Investigator

Eli Lilly & Co., to study the effects of a IC351 phosphodiesterase inhibitor on retinal function, *Principal Investigator*

2001 Eli Lilly & Co., to study the effects of LY293558 glutamate inhibitor on visual function in healthy volunteers, *Principal Investigator*

Carl Marshall Reeves and Mildred Almen Reeves Foundation, Inc., for equipment to assist the study on nutritional supplementation and visual functioning in age-related macular degeneration

Genentech, "A Phase I / II, Multicenter, Dose–Escalation, Controlled Study of the Safety, Tolerability, Pharmacokinetics, and Activity of Multiple-Dose Intravitreal Injections of rhuFABV2 in Subjects with Neovascular Age-Related Macular Degeneration," *Principal Investigator*

2002 Genentech, "A Phase I / II, Single-masked, Multicenter Study of the Safety, Tolerability, and Activity of Multiple-Dose Intravitreal Injections of rhuFAB V2 in Combination with Verteporfin Photodynamic Therapy (Visudyne) in Subjects with Neovascular Age-Related Macular Degeneration," *Principal Investigator*

Eli Lilly & Co.," Phase 3, Multicenter, Parallel, Randomized Dbl-Masked, Placebo-Controlled Study of the Effects of 32 mg/dy Ruboxistaurin Vision Loss in Patients With Type 1 or Type 2 Diabetes Mellitus and an Early Treatment Diabetic Retinopathy Study Level Between 47A and 53E," Sub-Investigator

2003 Genentech, "A Phase III Multicenter, Randomized, Double-Masked Sham Injection—Controlled Study of the Efficacy and Safety of rhuFAB V2 in Subjects with Minimally Classic or Occult Subfoveal Neovascular Age-Related Macular Degeneration," *Principal Investigator*

Genentech, "A Phase III, Placebo-Controlled, Multi-Center Study to Examine the Safety and Efficacy of Multiple-Dose Intravitreal Injections of rhuFAB V2 in Subjects with Age-Related Macular

Degeneration who have Predominant Classic Lesion Degeneration," Principal Investigator

Genentech, "Vitreous Sample Collection, a VEGF Observational Study," Investigator Initiated

Diabetic Retinopathy Clinical Research Network, "Protocol A, A Pilot Study of Laser Photocoagulation for Diabetic Macular Edema," Sub-Investigator

Immusol: A Safety and Efficacy Assessment of Chimeric ribozyme to PCNA to Prevent Recurrence of Proliferative Vitreoretinopathy," Sub-Investigator

2004ALCON Research, Ltd., "An Evaluation of Efficacy and Safety of Posterior Juxtascleral
Administrations of Anecortave Acetate for Depot Suspension (15 mg or 30 mg)_ versus Sham
Administration in Patients at Risk for Developing Sight-Threatening Choroidal Neovascularization
(CNV) Due to Exudative Age- Related Macular Degeneration," Principal Investigator

Eyetech Pharmaceuticals, Inc., "A Phase II Randomized, Double-Masked, Multi-Center Trial, in Parallel Groups, to Determine the Safety, Efficacy and Pharmacokinetics of Intravitreous Injections of Pegaptanib Sodium Compared to Sham Injection for 30 Weeks in Patients with Recent Vision Loss Due to Macular Edema Secondary to CRVO," Principal Investigator

Genaera Corporation, "A Phase 2, Multi-Center, Randomized, Masked, Controlled Study of Squalamine lactate) for the Treatment of Subfoveal Choroidal Neovascularization Associated with Age-Related Macular Degeneration," *Principal Investigator*

Genaera Corporation, "A Phase 2, Multi-Center, Randomized, Controlled, Masked Study of the Effects of Squalamine Lactate in Combination with Visudyne in Patients with Subfoveal Choroidal Neovascularization Associated with Age-Related Macular Degeneration," *Principal Investigator*

Theragenics Corporation, "A Safety and Feasibility study of the TheraSight Ocular Brachytherapy System for the Treatment of Age-Related Macular Degeneration," *National Principal Investigator*

Diabetic Retinopathy Clinical Research Network, "Protocol B," A Randomized Trial Comparing Intravitreal Triamcinolone Acetonide and Laser hotocoagulation for Diabetic Macular Edema," Sub-Investigator

Diabetic Retinopathy Clinical Research Network, "Protocol C" Temporal Variation in Optical Coherence Tomography Measurements of Retinal Thickening in Diabetic Macular Edema," Sub-Investigator

Allergan, "A Six-Month Phase 3, Multicenter, Masked, Randomized, Sham-Controlled Trial (with Six-Month Open-Label Extension) to Assess the Safety and Efficacy of 700 µg and 350 µg Dexamethasone Posterior Segment Drug Delivery System (DEX PS DDS Applicator System) in the Treatment of Patients with Macular Edema Following Central Retinal Vein Occlusion or Branch Retinal Vein Occlusion Protocol Number," Sub-Investigator

National Institute of Health, "The Standard Care vs. COrticosteroid for Retinal Vein Occlusion (SCORE) Study," Sub-Investigator

Inspire, Inc, "A Randomized, Double-Masked, Placebo Controlled, Parallel Group, Multi-Center, Dose-Ranging Study of Denufosol Tetrasodium (INS37217)

Intravitreal Injection in Subjects with Rhegmatogenous Retinal Detachment," Sub-Investigator

2005 Eyetech Pharmaceuticals, Inc, "A Phase 2/3 Randomized, Controlled, Double-Masked, Multi-Center, Comparative Dose-Finding Trial, in Parallel Groups, to Compare the Safety and Efficacy of Intravitreous Injections of 0.3, 0.03. or 0.003 mg Pegaptanib Sodium (Macugen), Given as Often as Every 6 Weeks for 54 Weeks (to be Extended 3 years), to Sham Injections in Subjects with Diabetic Macular Edema (DME) Involving the Center of the Macula," *Principal Investigator* Eyetech Pharmaceuticals, Inc, "A Phase 111b/IV Randomized, Double-Masked, Active Controlled, Dose-Ranging, Multi-Center Comparative Trial, in Parallel Groups, to Compare the Safety and Efficacy of Intravitreal Injections of Pegaptanib Sodium (Macugen) Given Every 6 Weeks for 102 Weeks, to Pegaptanib Sodium Plus Photodynamic Therapy (PDT) with Visudyne, in Patients with Exudative Age-Related Macular Degeneration (AMD)," Principal Investigator

Genaera Corporation, "A Phase 2, Multi-Center, Randomized, Controlled, Masked Study of Squalamine Lactate for the Treatment of Subfoveal Choroidal Neovascularization Associated with Age-Related Macular Degeneration, an Extension Open-label trial," *Principal Investigator*

Genaera Corporation, "A Phase 3 Multicenter, Randomized, Double-Masked, Controlled Study of Squalamine Lactate for Injection for the Treatment of Subfoveal Choroidal Neovascularization Associated with Age-Related Macular Degeneration," *Principal Investigator*

Genentech, "A Phase III, Multicenter, Randomized, Double Masked, Sham Injection-Controlled Study of the Efficacy and Safety of RhuFab V2 (Ranibizumab) in Subjects with Minimally Classic or Occult Subfoveal Neovascular Age-Related Macular Degeneration," *Principal Investigator*

Genentech, "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.," *Principal Investigator*

Novartis, "A Safety and Efficacy Study Comparing the Combination Treatments of Verteporfin Therapy Plus One of Two Different Doses of Intravitreal Triamcinolone Acetonide and the Verteporfin Therapy Plus Intravitreal Pegaptanib," *Principal Investigator*

Diabetic Retinopathy Clinical Research Network, "Protocol D, Evaluation of Vitrectomy for Diabetic Macular Edema Study," *Sub-Investigator*

Allergan, "A 3-Year, Phase 3, Multicenter, Masked, Randomized, Sham-Controlled Trial to Assess the Safety and Efficacy of 700ug and 350ug Dexamethasone Posterior Segment Drug Delivery System (DEX PS DDS_Applicator System in the Treatment of Patients with Diabetic Macular Edema," Sub-Investigator

Inspire, Inc, "A Randomized, Double-Masked, Parallel Group, Multi-Center, Dose Ranging Pilot Study of Denufosol Tetrasodium (INS37217) Intravitreal Injection in Subjects with Uveitis Associated Macular Edema," Sub-Investigator

2006 OSI/Eyetech, "Pilot Study of the Effect of Pegaptanib Sodium to Prevent Worsening of Cystoid Macular Edema Following Cataract Surgery in Diabetics," *Principal Investigator*

> Genera Corporation, "A Randomized, Open Label, Safety and Pharmacodynamic Study of Squalamine Lactate for Injection for the Treatment of Choroidal Neovascularization Associated with Age-Related Macular Degeneration," *Principal Investigator*

> Regeneron, "A Randomized, Controlled Study of the Safety, Tolerability and Biological Effect of Repeated Intravitreal Administration of VEGF Trap in Patients with Neovascular Age-Related Macular Degeneration," Principal Investigator

Othera, "A Randomized, Double- Masked, Dose – Ranging, Multi- Center, Phase 11 Study Comparing the Safety and Efficacy of OT-551-C04 with Placebo to Treat Geographic Atrophy Associated with Age-Related Macular Degeneration.," *Principal Investigator*

Alcon, "Evaluation of the Efficacy and Safety of Posterior Juxtascleral Administration of Anecortave Acetate for Depot Suspension versus Sham Administration in Patients at risk for developing sight-Threatening Choroidal Neovascularization (CNV) due to Exudative Age-Related Macular

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Degeneration (AMD)," Principal Investigator

Acuity Pharmaceuticals, "A Phase II, Pharmacokinetic, Randomized, Double-Masked, Controlled, Dose Comparison Study of Cand5 for Intravitreal Injection for the Treatment of Diabetic Macular Edema," *Principal Investigator*

Genentech. "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 (AMD) or Macular Edema Secondary to Retinal Vein Occlusion (RVO) Who Have Completed a Genentech-Sponsored Ranibizumab Study," *Principal Investigator*

Alcon, "Clinical evaluation of the safety of next generation ophthalmic irrigating solution compared to BSS Plus for use during surgery for removal of epimacular membrane and vitrectomy," *Principal Investigator*

Diabetic Retinopathy Clinical Research Network, "Protocol F, An Observational Study of the Development of Diabetic Macular Edema Following Scatter Laser Photocoagulation," Sub-Investigator

Eli Lilly, "The Effect of Ruboxistaurin on Clinically Significant Macular Edema in Patients with Diabetes Mellitus, as assessed by Optical Coherence Tomography," *Sub-Investigator*

2007 OPKO/ Acuity Pharmaceuticals, "A Phase III, randomized, double-masked, parallel-assignment study of intravitreal bevasiranib sodium, administered every 8 or 12 weeks as maintenance therapy following three injections of Lucentis compared with Lucentis monotherapy every 4 weeks in patients with Exudative Age-Related Macular Degeneration," *Principal Investigator*

> QLT, Inc., "A Multicenter, Randomized, Single-masked study comparing Reduced-fluence Visudyne-Lucentis Combination Therapies and Lucentis Monotherapy in Subjects with CNV Secondary to AMD," Principal Investigator

Regeneron, "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," *Principal Investigator*

Regeneron, "Randomized, Single-Masked, Long-Term Safety and Tolerability Study of Intravitreal VEGF Trap-Eye in Subjects with Neovascular Age-Related Macular Degeneration," *Principal Investigator*

Fulcrum Pharma Developments, LTD, "A Phase 1 Open Label Study to Investigate the Safety, Tolerability and Pharmacokinetic Profile of Single and Repeated Doses of JSM6427 Following Administration by Intravitreal Injection in Patients with Neovascular AMD," *Principal Investigator*

Novartis, "A 24-month randomized, double-masked, controlled, multicenter, phase IIB 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.," *Principal Investigator*

National Eye Institute, "Comparison of Age-related Macular Degeneration Treatment Trials (CATT), Lucentis-Avastin Trial," *Principal Investigator*

Allergan, Inc, "A 2-YEAR, Multicenter, Randomized, Controlled, Masked, Dose-Finding Trial to Assess the Safety and Efficacy of Multiple Intravitreal Injections of AGN 211745 in patients with Subfoveal Choroidal Neovascularization Secondary to Age-Related Macular Degeneration.," *Principal Investigator*

Alimera Sciences, Inc and pSivida, Inc., "A Randomized, Double-Masked, Parallel Group, Multi-Center,

Dose-Finding Comparison of the Safety and Efficacy of ASI-001A 0.5 μ g/day and ASI-001B 0.2 μ g/day Fluocinolone Acetonide Intravitreal Inserts to Sham Injection in Subjects with Diabetic Macular Edema.," *Principal Investigator*

Alimera Sciences, Inc and pSivida, Inc., "An open label pharmacokinetic and efficacy study of 0.5 μ g/day and 0.2 μ g/day Fluocinolone Acetonide Intravitreal Inserts in Subjects with Diabetic Macular Edema.," *Principal Investigator*

Wilmer Eye Institute, John Hopkins University, "Ranibizumab for Edema of the Macula in Diabetes – A Phase 11 Study," Principal Investigator

Genentech. "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 to Branch Retinal Vein Occlusion.," *Principal Investigator*

Barnes Hospital, Kevin Blinder MD, "Lucentis for Histoplasmosis," Principal Investigator

J. Heier IST, "A Phase I Multicenter Study of the Safety and Efficacy of Multiple Intravitreal Injections of Ranibizumab in Subjects with Choroidal Neovascularization Secondary to Causes other than Age-Related Macular Degeneration.," *Principal Investigator*

Thrombogenics, Inc., "A randomized, placebo-controlled, double-masked, parallel-group, doseranging clinical trial of intravitreal microplasmin in patients undergoing surgical vitrectomy: The MIVI (Microplasmin for Vitreous Injection III) Trial," *Principal Investigator*

Vitreoretinal Technologies, Inc., "A Phase 3 Safety and Efficacy Study of Vitreosolve for Ophthalmic Intravitreal Injection for Inducing Posterior Vitreous Detachment in Retinopathy Subjects," *Principal Investigator*

Diabetic Retinopathy Clinical Research Network, "Protocol H, A Phase 2 Evaluation of Anti-VEGF Therapy for Diabetic Macular Edema: Bevacizumab (Avastin)," Sub-Investigator

2008L-Path, Inc, "A Phase 1, Dose-Escalating, Multi-Center, Study of iSONEPTM (Sonepcizumab [LT1009])Administered as an Intravitreal Injection to Subjects with Choroidal Neovascularization Secondary to
Age-Related Macular Degeneration," Principal Investigator

Pfizer, Inc., "A Phase I Open-Label, Dose Escalation Trial of REDD14NP delivered by a Single Intravitreal Injection to Patients with Choroidal Neovascularization (CNV) Secondary to Exudative Age-Related Macular Degeneration ("Wet AMD")," *Principal Investigator*

GlaxoSmithKline, Inc., "A double- masked, randomized, parallel- group study to investigate the pharmacodynamics, safety, and systemic pharmacokinetics of pazopanib eye drops, administered for 28 days to adult subjects with neovascular age - related macular degeneration.," *Principal Investigator*

GlaxoSmithKline,Inc, "Panzopanib eye drops in subjects with neovascular age-related macular degeneration. Study extension.," *Principal Investigator*

Allergan, Inc, "A 52-Week, Masked, Multicenter, Randomized, Controlled Trial (With Up To 13 Weeks Additional Follow-up) to Assess the Safety and Efficacy of 700 μg Dexamethasone Posterior Segment Drug Delivery System

(DEX PS DDS) Applicator System in Combination with Laser Photocoagulation Compared with Laser Photocoagulation Alone in the Treatment of Subjects With Diffuse Diabetic Macular Edema (DME)," *Principal Investigator*

MacuSight,Inc., "A Phase 2, Randomized, Double-Masked, Placebo-Controlled, Dose – Ranging Clinical Study to Assess the Safety and Efficacy of Subconjunctival Injections of Sirolimus in Patients

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with Diabetic Macular Edema Secondary to Diabetic Retinopathy," Principal Investigator

Genentech, Inc., "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 to Central Retinal Vein Occlusion," *Principal Investigator*

Thrombogenics, "A Randomized, Placebo Controlled Double-Masked, Multicenter Trial of Microplasmin Intravitreal Injection for Non-Surgical Treatment of Focal Vitreomacular Adhesion," *Principal Investigator*

Allergan, Inc., "A Multicenter, Masked, Randomized, Sham-Controlled, Parallel-group, 6-Month (Plus 6-Month Extension) Study to Evaluate the Safety and Effects on Visual Function of Brimonidine Tartrate Posterior Segment Drug Delivery System (Brimonidine Tartrate PS DDS®) Applicator System in Patients with Primary Open-Angle Glaucoma," Sub-Investigator

Allergan, Inc., "A Multicenter, Masked, Randomized, Sham-Controlled, Paired-eye Comparison, 12-Month (Plus 12-Month Extension) Study to Evaluate the Safety and Effects on Retinal Structure and Visual Function of Brimonidine Tartrate Posterior Segment Drug Delivery System (Brimonidine Tartrate PS DDS®) Applicator System in Patients with Geographic Atrophy from Age-related Macular Degeneration," Sub-Investigator

Pfizer, "A Phase II Prospective, Randomized, Multi-Center, Diabetic Macular Edema Dose Ranging, Comparator Study Evaluating the Efficacy and Safety of PF-04523655 Versus Laser Therapy (DEGAS)," Sub-Investigator

2009 MacuSight, Inc, "A Phase 2, Randomized, Masked, Controlled Clinical Study to Assess the Safety and Efficacy of Lucentis® plus Sirolimus versus Lucentis® plus Placebo in Patients with Sub-Foveal Choroidal Neovascularization Secondary to Age-Related Macular Degeneration," *Principal Investigator*

> Regeneron, Inc., "A Double-Masked, Randomized, Controlled Study of the Safety, Tolerability and Biological Effect of Repeated Intravitreal Administration of VEGF Trap-Eye in Patients with Diabetic Macular Edema (DME," *Principal Investigator*

> GlaxoSmithKline,Inc and Alcon, "A medial chart review ("Study") focused on pattern of treatment for wet AMD and health outcomes of anti-VEGF therapy in ophthalmic clinics in the US.," *Principal Investigator*

Pfizer, "Phase II Open Label, Multicenter, Prospective, Randomized, Age Related Macular Degeneration, Comparator Controlled, Study Evaluating PF-04523655 Versus Ranibizumab in the Treatment of Subjects with Choroidal Neovascularization(MONET)," Sub-Investigator

2010 Allergan, Inc., "A Multicenter, Patient-Masked, Safety Extension Study to Evaluate the Biodegradation of the Brimonidine Tartrate Posterior Segment Drug Delivery System," Sub-Investigator

Allergan, Inc., "A 12-Month, Multicenter, Masked, Randomized, Controlled Study to Assess the Safety and Efficacy of 700 ug Ozurdex as Adjunctive Therapy to Lucentis Compared with Lucentis Alone in the Treatment of Patients with Choroidal Neovascularization Secondary to Age-related Macular Degeneration," *Sub-Investigator*

Allergan, Inc., "A 12-Month, Multicenter, 2-Stage (Open Label, Dose-Escalation, Followed by Masked, Randomized) Single Dose Study of the Safety and Efficacy of AGN-208397 in Patients with Macular Edema (ME) Associated with Retinal Vein Occlusion (RVO)," Sub-Investigator

GlaxoSmithKline, Inc, "An Open-Label Pilot Study to Evaluate the Safety, Tolerability,

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Pharmacokinetics, Exploratory Efficacy and Pharmacodynamics of Oral Pazopanib Administered for 28 Days to Neovascular Age-Related Macular Degeneration Patients," *Principal Investigator*

Genentech, SEVEN year observational UPdate of macular degeneration patients post-MARINA/ANCHOR and HORIZON trials (SEVEN UP Study), *Principal Investigator*

Genentech, A Study of Ranibizumab Administered Monthly or on an As-Needed Basis in Patients With Subfoveal Neovascular Age-Related Macular Degeneration (HARBOR Study), *Principal Investigator*

2011Lux Biosciences, Inc., "A Multi-Center, Double-Masked, Parallel-Group, Placebo-Controlled Study to
Assess the Efficacy and Safety of Vocolsporin as Therapy in Subjects with Active Noninfectious
Uveitis Involving the Intermediate and/or Posterior Segments of the Eye," Sub-Investigator

Allergan, Inc., "A Multicenter, 2-Stage (Open Label, Dose-Escalation, followed by Double-Masked, Randomized) Study of the Safety and Efficacy of AGN-150998 in Patients with Exudative Age-Related Macular Degeneration (AMD)" (REACH), *Sub-Investigator*

Lpath, Inc, "A Phase 2A, Multi-center, Masked, Randomized, Comparator-Controlled Study Evaluating iSONEP (Sonepcizumab [LT1009]) as Either Monotherapy or Adjunctive Therapy to Lucentis or Avastin Versus Lucentis or Avastin Alone for the Treatment of Subjects with Choroidal Neovascularization Secondary to Age-Related Macular Degeneration," *Principal Investigator*

Alimera Sciences, Inc, "An Open Label, Multi-center Extension Study of the Safety and Utility of the New Inserter of ILUVIEN (Fluocinolone Acetonide Intravitreal Insert) 0.19mg and the Safety of ILUVIEN in Subjects with Diabetic Macular Edema," *Principal Investigator*

Alcon Research, Ltd, "Controlled, Double-Masked, Randomized, Multicenter Study to Evaluate AL-78898A as a Treatment of Exudative AMD," *Principal Investigator*

2012 Juvenile Diabetes Research Foundation International, "A Randomized, Multi-center, Phase II Study of the Safety, Tolerability, and Bioactivity of Repeated Intravitreal Injections of iCo-007 as Monotherapy or in Combination with Ranibizumab or Laser Photocoagulation in the Treatment of Diabetic Macular Edema with Involvement of the Foveal Center" (iDEAL Study), *Principal Investigator*

Ohr Pharmaceuticals, Inc., "Phase II study of the efficacy and safety of squalamine lactate ophthalmic formulation 0.2% BID in subjects with neovascular AMD" (OHR-002), Principal Investigator

Quark Pharmaceuticals, Inc., "An Open-Label Dose Escalation Study of PF-04523655 (Stratum I) Combines with a Prospective, Randomized, Double-Masked, Multi-Center, Controlled Study (Stratum II) Evaluation the Efficacy and Safety of PF-04523655 Alone and in Combination with Ranbizumab Versus Ranibizumab Alone in Diabetic Macular Edema" (MATISSE Study), *Principal Investigator*

Alcon Research, Ltd., "Safety, Tolerability and Efficacy Study of ESBA 1008 Versus LUCENTIS in the Treatment of Exudative Age-Related Macular Degeneration" (C-10-083), *Principal Investigator*

Acucela, Inc., "A Phase 2b/3 Multicenter, Randomized, Double-Masked, Dose-Ranging Study Comparing the Efficacy and Safety of Emixustat Hydrochloride (ACU-4429) with Placebo for the Treatment of Geographic Atrophy Associated with Dry Age-Related Macular Degeneration" (SEATTLE Study), Principal Investigator

2013Alcon Research, Ltd., "A Prospective, Randomized, Double-Masked, Multicenter, Two AR. M. Study
Comparing the Efficacy and Safety of ESBA 1008 Versus EYLEA in Subjects with Exudative Age-
Related Macular Degeneration" (C-12-006), Principal Investigator

XOMA, "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" (The EYEGUARD-A Study, X052130), Principal Investigator

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XOMA, "A Randomized, Double-masked, Placebo-controlled Study of the Safety and Efficacy of Gevokizumab in the Treatment of Subjects with Non-infectious Intermediate, Posterior, or Pan-Uveitis Currently Controlled with Systemic Treatment" (The EYEGUARD-C Study, X052131), Principal Investigator

Ampio Pharmaceuticals, Inc., "A Randomized, Placebo-Controlled, Parallel, Double-Masked Study to Evaluate the Efficacy and Safety of Two Doses of Oral Optina in Adult Patients with Diabetic Macular Edema" (AP-05-002), Principal Investigator

Ophthotech Corp., "A Phase 3 Randomized, Double-Masked, Controlled Trial to Establish the Safety and Efficacy of Intravitreous 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" (OPH1002), *Principal Investigator*

Pfizer, "A Phase 2, Randomized, Double-Masked, Placebo-Controlled Parallel Group, Multi-Center Study to Compare the Efficacy and Safety of a Chemokine CCR2/5 Receptor Antagonist (PF-04634817) With That of Ranibizumab in Adult Subjects with Diabetic Macular Edema" (B1261009), Principal Investigator

National Eye Institute, "Comparison of Age-related Macular Degeneration Treatment Trials Follow Up Study (CATT FS), Lucentis-Avastin Trial," *Principal Investigator*

National Eye Institute, "Study of Comparative Treatments for Retinal Vein Occlusion 2: a multicenter, prospective, randomized non-inferiority trial of eyes with macular edema secondary to central retinal vein occlusion, comparing intravitreal bevacizumab every 4 weeks with intravitreal aflibercept every 4 weeks" (SCORE 2), Principal Investigator

Thrombogenics, "Ocriplasmin Research to Better Inform Treatment (ORBIT)" (TG-MV-018), Principal Investigator

2014 Alcon Research, Ltd, "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," (LHA510-2201), Principal Investigator

> Alcon Research, Ltd, "A Two-Year, Randomized, Double-Masked, Multicenter, Three-AR. M. Study Comparing the Efficacy and Safety of RTH258 versus Aflibercept in Subject with Neovascular Age-Related Macular Degeneration," (RTH HAWK), *Principal Investigator*

Allergan, "A Study of Abicipar Pegol in Patients with Neovascular Age-related Macular Degeneration" (150998-003, CYPRESS, Subinvestigator

Allergan, "A Study of Abicipar Pegol in Patients with Diabetic Macular Edema" (150998-004, PALM) Subinvestigator

2015Apellis, "A Phase II, Multicenter, Randomized, Single-Masked, Sham-Controlled Study of Safety,
Tolerability and Evidence of Activity of Intravitreal APL-2 Therapy in Patients with Geographic
Atrophy (GA)," (FILLY), Subinvestigator

Neurotech, "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 Eylea® for the Treatment of Recurrent Subfoveal Choroidal Neovascularization (CNV) Secondary to Age-Related Macular Degeneration (AMD)," (NT-503-03-AMD-001), Principal Investigator

Clearside Biomedical, Inc., "A Phase 3, Randomized, Masked, Controlled Clinical Trial to Study the Efficacy of Triamcinolone Acetonide Injectable Suspension (CLS-TA) for the Treatment of Subjects

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with Macular Edema associated with Non-Infectious Uveitis," (CLS1001-301), Subinvestigator

RESEARCH PUBLICATIONS:

BOOKS AND CHAPTERS:

1996—–		
	1.	T. A. Ciulla , A. Sullivan-Baker, (eds.): The Massachusetts Eye and Ear Infirmary Residents' Guide to Ocular Antimicrobial Therapy. Wellesley: A. K. Peters, Ltd., 1996.
1998—–		
	2.	A. Harris, L. Kagemann, H. S. Chung, T. A. Ciulla : "The use of dye dilution curve analysis in the quantification of indocyanine green angiograms of the human choroid" <i>Ophthalmology Clinics of North America</i> , 11, 3: <i>Ophthalmic Imaging and Diagnostics</i> , R. L. Stamper (ed), W. B. Saunders Company, Philadelphia, 1998.
	3.	L. Kagemann, A. Harris, H. S. Chung, T. A. Ciulla : "The use of dye dilution curve analysis in the quantification of indocyanine green angiograms of the human choroid" <i>Blood Flow in Glaucoma</i> , Enke Publishing, 1998.
1999—–		
	4.	A. Harris, D. Bingaman, T. A. Ciulla, B. Martin. "Retinal and Choroidal Circulation" in Retina, fourth edition, S.J. Ryan (ed), Mosby: St. Louis, 1999.
2000		
	5.	T. A. Ciulla: "Exudative Age-Related Macular Degeneration," Ophthalmology, Emedicin, 2000.
2002—-	6.	T. A. Ciulla : "Vitreo-Retinal Surgery, Principles: Age-Related Macular Degeneration," Ophthalmic Surgery: Principles and Practice, 3 rd Edition, G.L. Spaeth (ed), W. B. Saunders Company, Philadelphia, 2002.
2003—-		
-	7.	A. Harris, C. Jonescu-Cuypers, L. Kagemann, T. A. Ciulla , G.K. Krieglstein (editors): An Atlas of Ocular Blood Flow- Vascular Anatomy, Pathophysiology, and Metabolism. Butterworth: Woburn, MA, 2003.
	8.	T. A. Ciulla , A. Harris, C. R. Regillo (editors): <i>Ocular Posterior Segment Imaging</i> . Lippincott Williams and Wilkins, Philadelphia, 2003.
	9.	T. A. Ciulla, A. Harris: "Color Doppler Imaging of Retrobulbar Vasculature" in T. A. Ciulla , A. Harris, C. R. Regillo (editors): <i>Ocular Posterior Segment Imaging</i> . Lippincott Williams and Wilkins, Philadelphia, 2003.
	10.	T. A. Ciulla , A. Harris, C. R. Regillo "Retina and Optic Nerve Imaging." Lippincott Williams and Wilkins, Philadelphia, 2003.
2006—-		
	11.	G. M. Comer, T. A. Ciulla, "Pharmacotherapy of Exudative Age-Related Macular Degeneration: An Update," in K. Kohli, M. Gupta, S. Tejwani (editors): <i>Contemporary Perspectives on Clinical</i> <i>Pharmotherapeutics.</i> Elsesier, A division of Reed Elsevier India Private Limited, Lajpat Nagar-IV, New Delhi, India, 2006
	12.	A. Harris, D. Bingaman, T. A. Ciulla, B. Martin, "Retina and Choroidal Blood Flow in Health and Disease," in S. J. Ryan (editor): R <i>etina,</i> Elsevier Mosby, New York, 2006.

NON-REFEREED PAPERS:

1999—-		
	1.	T. A. Ciulla: How to manage central serous retinopathy. Review of Ophthalmology 6: 99-102, 1999.
	2.	T. A. Ciulla , R. Abel, P. S. Bernstein, D. Boyer, F. L. Ferris Do Vitamin Supplements Really Prevent Progression of AMD?, <i>Ocular Surgery News</i> , October 1, 1999.
	3.	T. A. Ciulla : Antiangiogenesis therapy for exudative age-related macular degeneration. <i>Review of Ophthalmology</i> 7: 84-89, 2000.
	4.	T. A. Ciulla : Dietary carotenoids, macular pigments linked to AMD? <i>Ophthalmology Times</i> , 25:16, p. 10-12, 2000.
2001—-		
	5.	T. A. Ciulla : Where the AMD clinical trials stand. <i>Review of Ophthalmology</i> , 8: 58-63, 2001.
	6.	T. A. Ciulla: New therapies for age-related macular degeneration, Clinical Researcher 1: 14-17, 2001.
	7.	T. A. Ciulla: Where the AMD Clinical Trials Stand, Retinal Insider, January 2001.
	8.	Eli Lilly and Company, Ophthalmology Anatomy and Physiology, Course Syllabus, 2001.
	9.	Eli Lilly and Company, Diabetic Retinopathy, Course Syllabus, 2001.
2002—-		
		T. A. Ciulla , R. P. Danis: Indiana University Retina Review, 2002.
		T. A. Ciulla : Trends in treatment of Diabetic Macular Edema, <i>Review of Ophthalmology</i> , 12:92, 2002.
		T. A. Ciulla , A. Harris: The role of ocular perfusion in AMD, <i>Review of Ophthalmology</i> , 12:48, 2002.
	-	T. A. Ciulla : The role of ocular blood flow in AMD, Ocular Surgery News, p. 19-21, Aug, 2002.
		T. A. Ciulla : Postoperative Endophthalmitis, <i>Cataract and Refractive Surgery</i> , p. 16-18, Nov/Dec, 2002.
	15.	T. A. Ciulla , E. T. Cunningham, M. Thomas, H. Kaplan: Roundtable: Laser, PD, surgery, corticosteroids can treat POHS, <i>Ophthamology Times</i> , 27:19, p. 10-12, 2002.
	16.	R. Able Jr., J. A. Augustin, T. A. Ciulla , M. J. Cooney. R. P. Gallemore, R. B. Roden, L. J. Singerman, G. A. Williams: Roundtable: Nutrition and the eye, <i>Ocular Surgery News</i> 20:23, p 24-28, 2002.
	17.	T. A. Ciulla, E.T. Cunningham, L.J. Singerman: Round Table: Therapeutic Approaches to Diabetic Macular Edema, <i>Ocular Surgery News</i> , p.88, April 2003.
	18.	T. A. Ciulla, K.G. Csaky, A. Harris, L. Kagemann, K.S. Kooner, L.R. Pasquale, J.T. Whitson: Ocular Blood Flow in Glaucoma and Age-related Macular Degeneration: Evidence Based Clinical Applications, <i>Ophthamology Times</i> , June 15, 2003.
	19.	T. A. Ciulla, D. A. Saperstein, <i>American Academy of Ophthalmology, Focal Points: Clinical Modules for Ophthalmologists, Clinicians' Corner,</i> Advances in the Treatment of Non-Exudative Age-Related Macular Degeneration, June, 2003.
	20	. C. Guttman, T. A. Ciulla, Povidone-Iodine Considered Best Endophthalmitis Prophylaxis, <i>Ophthalmology Times</i> , April 15, 2003.
	21.	T. A. Ciulla, Three-Dimensional Retinal Imaging, Review of Ophthalmology, 9:74, 2003.
2004		
	22	G. Comer, T. A. Ciulla : Pharmacotherapy for Diabetic Retinopathy, Review of Ophthalmology, A Clinician's Guide to Retinal Disease, 10:25, 2004.

23. C. A. Puliafito, **T. A. Ciulla**, E. S. Gragoudas, A. C. Ho, J. W. Miller, J. M. Seddon, G. A. Williams, New Perspectives on Age-Related Macular Degeneration, *Ocular Surgery News*, August 15, 2004.

	24.	T. A. Ciulla, J. S. Heier, P. Kaiser, R. W. Snyder, P. Tornambe, Diagnosis and Management of Cystoid Macular Edema, Continuing Medical Education: A Supplement to Ophthalmology Management, January, 2005.
	25.	T. A. Ciulla, Epidemiology and Impact of Diabetic Retinopathy, John Hopkins University School of Medicine Advanced Studies in Medicine, October, 2004.
	26.	T. A. Ciulla, AMD Combination Therapy: Multiple Mechanistic Approaches, <i>Review of Ophthalmology</i> , August 15, 2004.
2005		
	27.	P. Perry, Breakthroughs in Treating Macular Degeneration: An Interview with Thomas A. Ciulla, M.D., Saturday Evening Post, p. 38-39, 82-84, January/February 2005.
	28.	Evizon-Visudyne Combo Well-Tolerated for AMD, Ocular Surgery News, July 19, 2005.
	29.	Squalamine With PDT Deemed Safe, Tolerable, for AMD in Phase 2 Trial, Ocular Surgery News, May 5, 2005.
	30.	D.S. Boyer, N.M. Bressler, T. A. Ciulla, J.I. Lim, E. Reichel, S. Schwartz, Panel: Preferred Treatment Depends on Severity of AMD, <i>Ocular Surgery News,</i> July 20, 2005.
	31.	T. A. Ciulla, Update on Diabetic Retinopathy, Diabetes Dialogue, 2005.
2006——		
	32.	T. A. Ciulla : Emerging Anti-VEGF Inhibitors May Improve Vision in Exudative Age-Related Macular Degeneration, In Update On Clinical Trials In Exudative Age-Related Macular Degeneration, <i>Peerview Press</i> , 2006.
	33.	L. Charters, T. A. Ciulla : Squalamine safe, effective when administered with PDT, <i>Ophthalmology</i> <i>Times</i> , 31(5): 64. April 15, 2006.
2007——		
	34.	D.K. Kurz, T. A. Ciulla : Drug Delivery to the Posterior Segment, Retinal Physician, 4(7): 19-23, 2007.
	35.	T. A. Ciulla : Targeting VEGF, The VEGF Trap Clinical Trials. Review of Ophthalmology, 12:50-54, 2007.
	36.	T. A. Ciulla: Opening New Fronts in the Battle Against AMD, Review of Ophthalmology, May 2007.
2010——		
	37.	R. Ehrlich, R. Axer-Stiegel, T. A. Ciulla, A. Harris, D. Weinberger: Anti-VEGF vs. Macular Grid Photocoagulation for Retinal Vein Occlusion. <i>Retinal Physician,</i> April 2010.
2015——		
	-	T. A. Ciulla : Corticosteroids for Diabetic Macular Edema, <i>Review of Ophthalmology</i> , February 2015.
		T. A. Ciulla : Squalamine Eyedrops for Retinal Disease, Ophthalmology Management, February 2015.
		T. A. Ciulla : Anti-VEGF Therapy to Limit DR Progression, <i>Review of Ophthalmology</i> , May 2015.
	41.	T. A. Ciulla : Personalized Medicine: Impact on Retina Therapies, <i>Review of Ophthalmology</i> , November, 2015.
2016——		
	42.	R. M. Hussain, T. A. Ciulla : Association Between Anti-VEGF Injection Frequency and Visual Acuity Outcomes in Patients with Neovascular AMD, <i>Ophthalmology Management</i> , March 2016.
	43.	R. M. Hussain, T. A. Ciulla: Targeting VEGF's Silent Partners in DME, <i>Review of Ophthalmology</i> , August 2016.
	44.	T. A. Ciulla, R. M. Hussain: Regulations and MD-Owned ASCs. How Do They Stack Up Against Complex Laws and a Demand for Cost Control?, <i>Ophthalmology Management</i> , October, 2016.

45. P. Bracha, **T. A. Ciulla**: Dry AMD Masquerade Syndromes, *Retinal Physician*, January 2017.

2017——

REFEREED PAPERS:

1986—–		
	1.	T. A. Ciulla , G. A. Epling, I. E. Kochevar: Photoaddition of chlorpromazine to guanosine-5'- monophosphate. Photochemistry and Photobiology 43: 607-613, 1986.
1988——	2.	T. A. Ciulla , E. Seboun, M. A. Robinson, T. H. Doolittle, T. Hayashi, T. J. Kindt, S. L. Hauser: Molecular genotypes of the T-cell receptor beta chain in multiple sclerosis families. <i>Annals of the New York Academy of Sciences</i> 540: 271-276, 1988.
	3.	T. A. Ciulla , R. M. Sklar, S. L. Hauser: A simple method for DNA purification from peripheral blood. Analytical Biochemistry 174: 485-488, 1988.
1989—–		
	4.	E. Seboun, M. A. Robinson, T. H. Doolittle, T. A. Ciulla , T. J. Kindt, S. L. Hauser: A susceptibility locus for multiple sclerosis is linked to the T-cell receptor beta chain gene complex. <i>Cell</i> 57: 1095-1100, 1989.
	5.	T. A. Ciulla , J. R. Van Camp, E. Rosenfeld, I. E. Kochevar: Photosensitization of single-strand breaks in pbr322 DNA by rose bengal. <i>Photochemistry and Photobiology</i> 49: 293-298, 1989.
1991——		
	6.	T. Yamamoto, A. Vincent, T. A. Ciulla , B. Lang, I. Johnston, J. Newsom-Davis: Seronegative myasthenia gravis: a plasma factor inhibiting agonist induced acetylcholine receptor function co- purifies with IgM. Annals of Neurology 30: 550-557, 1991.
1994——		
	7.	Q. Y. Duh, T. A. Ciulla , O. H. Clark: Primary parathyroid hyperplasia associated with thyroid hemiagenesis and agenesis of the isthmus. <i>Surgery</i> 115: 257-263, 1994.
1995——		
	8.	T. A. Ciulla , R. Moulton, A. Oberoi, J. W. Miller: Central retinal artery occlusion in rabbit eyes: A realistic animal model using human atheroma. <i>Current Eye Research</i> 14: 573-578, 1995.
	9.	T. A. Ciulla , F. Tolentino, J. Morrow, T.P. Dryja: Vitreous amyloidosis in familial amyloidotic polyneuropathy: report of a case with the val30met transthyretin mutation. <i>Survey of Ophthalmology</i> 40:197-206, 1995.
	10.	T. A. Ciulla , O. McCabe, K. North, R. A. Peterson, D.C. Anthony, M. S. Korson: Bilateral infantile cataractogenesis in a patient with deficiency of complex one, a mitochondrial electron transport chain enzyme. <i>Journal of Pediatric Ophthalmology and Strabismus</i> 32:378-382, 1995.
1996——		
	11.	T. A. Ciulla , E. S. Gragoudas: Serpiginous choroiditis. International Ophthalmology Clinics 36:135-143, 1996.
	12.	T. A. Ciulla , J. W. Miller, S. Mukai: Severe penetrating eye trauma caused by fish-pick accidents. <i>Retina</i> 16:219-221, 1996.
	13.	T. A. Ciulla , R. Haimovici, E. J. Riley, D. J. D'Amico: Intravitreal toxicity of dental adhesives in the rabbit. <i>Retina</i> 16:431-436, 1996.
	14.	T. A. Ciulla, A. R. Frederick, C. Kelly, R. Amrein: Post-vitrectomy positioning complicated by ulnar nerve palsy. <i>American Journal of Ophthalmology</i> 122:739-740, 1996.

15. T. A. Ciulla, A. Sullivan-Baker: Endophthalmitis following glaucoma filtering surgery. *International Ophthalmology Clinics* 36:87-96, 1996.

1997——		
	16.	T. A. Ciulla , A. R. Frederick: Acute multifocal Best's Disease in a 64 year-old man. American Journal of Ophthalmology 123:129-131, 1997.
	17.	T. A. Ciulla , R. D. Pesavento, S Yoo: Subretinal aspiration biopsy of ocular lymphoma. American Journal of Ophthalmology 123:420-422, 1997.
	18.	T. A. Ciulla , A. D. Beck, T. M. Topping, A. S. Baker: Blebitis, early endophthalmitis and late endophthalmitis after glaucoma filtering surgery. <i>Ophthalmology</i> 104:986-995, 1997.
	19.	T. A. Ciulla , R. A. Bains, F. A. Jakobiec, T. M. Topping, E. S. Gragoudas: Uveal Lymphoid Neoplasia: A Clinical-Pathologic Correlation and Review Of The Early Form. <i>Survey of Ophthalmology</i> 41:467-476, 1997.
	20.	T. A. Ciulla , T. M. Topping: Surgical treatment of a macular hole secondary to accidental laser burn. Archives of Ophthalmology 115:929-930, 1997.
	21.	T. A. Ciulla , R. D. Pesavento: Surgical review: Epiretinal fibrosis. Ophthalmic Surgery and Lasers 28:670-679, 1997.
	22.	L. P. Aiello, S. E. Bursell, A. Clermont, E. Duh, H. Ishii, C. Takagi, F. Mori, T. A. Ciulla , K. Ways, M. Jirousek, L. E. Smith, G. L. King: Vascular endothelial growth factor-induced retinal permeability is mediated by protein kinase C in vivo and suppressed by an orally effective beta-isoform-selective inhibitor. <i>Diabetes</i> 46:1473-1480, 1997.
	23.	M. Krzystolik, T. A. Ciulla , T. M. Topping, A. S. Baker: Exogenous Aspergillus niger endophthalmitis in a patient with a filtering bleb. <i>Retina</i> 17:461-463, 1997.
	24.	A. Martidis, C. Yung, T. A. Ciulla : Talc embolism: A static retinopathy. American Journal of Ophthalmology 124:841-843, 1997.
1998——		
	25.	M. Krzystolik, T. A. Ciulla , A. R. Frederick: Evolution of a full-thickness macular hole. American Journal of Ophthalmology 125:245-247, 1998.
	26.	T. A. Ciulla , B. K. Rutledge, M. G. Morley, J. Duker: The progressive outer retinal necrosis syndrome: Successful treatment with combination antiviral therapy. <i>Ophthalmic Surgery and Lasers</i> 29:198-206, 1998.
	27.	T. A. Ciulla , R. P. Danis, A. Harris: Age-related macular degeneration: A review of experimental treatments. <i>Survey of Ophthalmology</i> , 43: 134-146, 1998.
	28.	A. Harris, T. A. Ciulla, H. S. Chung, B. J. Martin: Regulation of retinal and optic nerve blood flow. Archives of Ophthalmology, 116:1491-1495, 1998.
1999——		
	29.	T. A. Ciulla , C. T. Schnizlein-Bick, R. P. Danis, M. O. Frank, L. J. Wheat: Comparison of intraocular to plasma HIV-1 viral burden in patients with cytomegalovirus retinitis, <i>American Journal of Ophthalmology</i> , 127:221-223, 1999.
	30.	H. S. Chung, A. Harris, J. K. Kristinsson, T. A. Ciulla , C. Kagemann, R. Ritch: Gingko biloba extract increases ocular blood flow. <i>Journal of Ocular Pharmacology and Therapeutics</i> , 15:233-240, 1999.
	31.	P. Latkany, T. A. Ciulla , P.F. Cacchillo, M. Malkoff: Mitochondrial maculopathy: geographic atrophy of the macula in the MELAS associated A to G 3243 mitochondrial DNA point mutation. <i>American Journal of Ophthalmology</i> , 128:112-114, 1999.

- **32. T. A. Ciulla**, A. Harris, H. S. Chung, R. P. Danis, L. Kagemann, L. McNulty, L. Pratt, B. J. Martin: Color Doppler imaging reveals reduced ocular blood flow velocities in nonexudative age-related macular degeneration, *American Journal of Ophthalmology*, 128:75-80, 1999.
- **33.** A. Harris, H. S. Chung, **T. A. Ciulla,** L. Kagemann: Progress in measurement of ocular blood flow and relevance to our understanding of glaucoma and age-related macular degeneration. *Progress in Retinal and Eye Research*, 18:669-687, 1999.
- **34.** A. Martidis, D. G. Miller, **T. A. Ciulla**, R. P. Danis, R. S. Moorthy: Corticosteroids as an antiangiogenic agent for histoplasmosis-related subfoveal choroidal neovascularization, *Journal of Ocular Pharmacology and Therapeutics*, 15: 425-428, 1999.
- **35. T. A. Ciulla**, R. P. Danis, M. Criswell, L. M. Pratt: Changing therapeutic paradigms for exudative agerelated macular degeneration: Antiangiogenic agents and photodynamic therapy, *Expert Opinion on Investigational Drugs*, 12: 2173-2182, 1999.

2000

- **36.** R. P. Danis, **T. A. Ciulla**, L. M. Pratt, W. Anliker: Intravitreal triamcinolone acteonide in exudative agerelated macular degeneration, *Retina*, 20: 244-250, 2000.
- **37.** P. F. Cacchillo, **T. A. Ciulla**, T. Strayer, M. Fischer: Nocardia endophthalmitis following uncomplicated phacoemsulfication and implantation of an intraocular lens, *Ophthalmic Surgery and Lasers*, 31: 64-65, 2000.
- **38.** P. Latkany, **T. A. Ciulla**, C. Younger, H. Gao: Non-small cell lung adenocarcinoma metastatic to the vitreous without fundus lesions, *Ophthalmic Surgery and Lasers*, 31: 155-156, 2000.
- **39. T. A. Ciulla**, B. S. Pawlyk, A. Harris, A. Oberoi, J. W. Miller, M. A. Sandberg: Retinal artery vasospasm and the rabbit electroretinogram, *Journal of Ocular Pharmacology and Therapeutics*, 16: 393-398, 2000.
- **40.** H. Piper, **T. A. Ciulla**, R. P. Danis, L. M. Pratt: Changing therapeutic paradigms for cytomegalovirus retinitis, *Expert Opinion on Pharmacotherapy*, 7: 1343-52, 2000.
- **41.** D. A. Cooper, J. Curran-Celantano, **T. A. Ciulla**, B. R. Hammond, R. P. Danis, L. M. Pratt, K. A. Riccardi, T. G. Filloon: Olestra consumption is not associated with macular pigment optical density in a cross-sectional volunteer sample in Indianapolis, *Journal of Nutrition*, 130: 642-647, 2000.
- **42.** M. Harris, A. Harris, J. Biller, H. Garzozi, D. Zarfty, **T. A. Ciulla**, B. J. Martin: Aging affects the retrobulbar circulation differently in females and males, *Archives of Ophthalmology*, 118: 1076-1080, 2000.
- **43.** R. Woodburn, R. Danis, R. Timmerman, T. Witt, **T. Ciulla**, R. Worth, M. Bank, S. Coffman: Preliminary experience in the treatment of choroidal melanoma with gamma knife radiosurgery, *Journal of Neurosurgery*, 93 Suppl 3: 177-179, 2000.
- **44.** A. Harris, **T. A. Ciulla**, L. Kagemann, D. Zarfati, B. Martin: Vasoprotection as neuroprotection for the optic nerve, *Eye*, 14: 473-475, 2000.

2001

- **45. T. A. Ciulla**, J. Curran-Celantano, D. Cooper, B. R. Hammond, R. P. Danis, L. M. Pratt, K. A. Riccardi, T. G. Filloon: Determinants of macular pigment density in adult volunteers in the Indianapolis area, *Ophthalmology*, 108: 730 737, 2001.
- **46. T. A. Ciulla**, M. Criswell, R. P. Danis, T. Hill: Intravitreal triamcinolone acetonide inhibits choroidal neovascular membrane formation in a rat model, *Archives of Ophthalmology*, 119: 399 404, 2001.
- **47. T. A. Ciulla**, A. Harris, B. J. Martin: Ocular perfusion and age-related macular degeneration, *Acta Ophthalmologica*, 79: 108-115, 2001.
- 48. R. P. Danis, T. A. Ciulla, M. H. Criswell, L. M. Pratt: Antiangiogenic Therapy of Proliferative Diabetic
Retinopathy, Expert Opinion on Pharmacotherapy, 2: 395 - 407, 2001.

- **49. T. A. Ciulla**, B. R. Hammond, C.W. Yung, L. M. Pratt: Macular Pigment Optical Density Before and After Cataract Extraction, *Investigative Ophthalmology and Visual Science*, 42: 1338 1341, 2001.
- **50.** Studies of Ocular Complications of AIDS Research Group in Collaboration with the AIDS Clinical Trials Group. The Ganciclovir Implant Plus Oral Ganciclovir Versus Parenteral Cidofovir For the Treatment of Cytomegalovirus Retinitis In Patients With Acquired Immunodeficiency Syndrome: The Ganciclovir Cidofovir Cytomegalovirus Retinitis Trial. *American Journal of Ophthalmology*, 131: 457-67, 2001.
- **51.** S. S. Tuli, D. WuDunn, **T. A. Ciulla**, L. B. Cantor: Delayed suprachoroidal hemorrhage following glaucoma filtration procedures, *Ophthalmology*, 108: 1808-1811, 2001.
- **52. T. A. Ciulla**, H. C. Piper, M. Xiao, J. L. Wheat: Presumed ocular histoplasmosis syndrome: update on epidemiology, pathogenesis, and photodynamic, antiangiogenic, and surgical therapies. *Current Opinion in Ophthalmology*, 12:442-449, 2001.
- **53. T. A. Ciulla**, A. Harris, L. Kagemann, R. Maturi, L. McNulty, R.P. Danis: Transpupillary Thermotherapy for Subfoveal Occult CNVM: Effect on Ocular Perfusion, *Investigative Ophthalmology and Visual Science*, 42: 3337-3340, 2001.
- **54.** J. Curran-Celantano, B. R. Hammond, **T. A. Ciulla**, D. A. Cooper, L. M. Pratt, R. P. Danis: The relationship between dietary intake, blood, and retinal concentrations of lutein and zeaxanthin in adult volunteers in a Midwest population, *American Journal of Clinical Nutrition*, 74: 796-802, 2001.
- **55.** R. P. Danis, **T. A. Ciulla**, S. P. Henry: Potential therapeutic application of antisense oligonucleotides in the treatment of ocular diseases, *Expert Opinion: Pharmacotherapeutics*, 2:277-91, 2001.

- **56. T. A. Ciulla**, M. B. Starr, S. Masket Bacterial endophthalmitis prophylaxis for cataract surgery: an evidence-based update. *Ophthalmology*, 109:13-24, 2002.
- **57.** B. R. Hammond, **T. A. Ciulla**, D. M. Snodderly: Macular pigment density is reduced in obese subjects, *Investigative Ophthalmology and Visual Science*, 43: 47-50, 2002.
- **58. T. A. Ciulla**, A. Harris, H. S. Chung, R. P. Danis, L. Kagemann, B. J. Martin, H. J. Garzozi: Choroidal perfusion perturbations in non-neovascular age-related macular degeneration, *British Journal of Ophthalmology*, 86:209-213, 2002.
- **59.** A. Martidis, R. P. Danis, **T. A. Ciulla**, J. S. Duker: Treatment of cytomegalovirus retinitis-related retinal detachment with combination pars plana vitrectomy/silicone oil tamponade and sustained-release ganciclovir implant, *Ophthalmic Surgery and Lasers*; 33:135-139, 2002.
- **60. T. A. Ciulla**, A. Harris, P. Latkany, Piper HC, Arend O, Garzozi H, Martin B.: Ocular perfusion abnormalities in diabetes, *Acta Ophthalmologica*, 80:468-77.2002.
- **61.** R. Haimovici, **T. A. Ciulla**, J. W. Miller, A. George, T. Hasan, K. T. Schomacker, E. S. Gragoudas: Localization and fundus angiography of the photosensitizers rose bengal, CASPc, and chlorine6 in the rabbit eye, *Retina*, 1:65-74, 2002.
- **62.** N. T. Ranson, R. P. Danis, **T. A. Ciulla**, L. Pratt: Intravitreal triamcinolone in subfoveal recurrence of choroidal neovascularization after laser treatment in macular degeneration, *British Journal of Ophthalmology*, 5:527-9, 2002.
- **63.** E. Rechtman, **T. A. Ciulla**, M. H. Criswell, A. Pollack, A. Harris: An update on Photodynamic Therapy in Age-Related Macular Degeneration, *Expert Opinion Pharmacotherapy* 3:931-938, 2002.
- **64. T. A. Ciulla**, R. P. Danis, S. B. Klien, V. E. Malinovskky, P. S. Soni, L. M. Pratt, N. O. Pugh, J. G. Morphis, C. Bloch, J. Cameron: Proton therapy for exudative age-related macular degeneration: a randomized, sham-controlled clinical trial. *American Journal of Ophthalmology*, 6:905-6, 2002.

65.	D. Kurz, T. A. Ciulla: Novel approaches for retinal drug delivery, Ophthalmology Clinics of North
	America, 3:405-10, 2002.

2005

- **66. T. A. Ciulla,** M.H. Criswell, R. P. Danis, M. Fronheiser, P. Yuan, T. A. Cox, K.G. Csaky, M. R. Robinson: Choroidal neovascular membrane inhibition in a laser treated rat model with intraocular sustained release triamcinolone acetonide microimplants, *British Journal of Ophthalmology*, 87:1032-7, 2003.
- **67.** D. Kurz, **T. A. Ciulla**: Leber's congenital amaurosis associated with optic disk neovascularization and vitreous hemorrhage, *American Journal of Ophthalmology*, 135:723-5, 2003.
- **68. T. A. Ciulla**, A. G. Armador, B. Zinman: Diabetic retinopathy and diabetic macular edema: pathophysiology, screening, and novel therapies. *Diabetes Care*, 26:2653-64, 2003.
- **69.** A. Harris, **T. A. Ciulla**, L. M. Pratt, E. Rechtman, L. Kagemann, H. C. Piper, H.J. Garzozi: The effects of dorzolamide on choroidal and retinal perfusion in non-exudative age related macular degeneration. *British Journal of Ophthalmology*, 87:753-7, 2003.
- **70. T. A. Ciulla**, M. H. Criswell, R. P. Danis, J. I. Williams, M. P. McLane, K. J. Holroyd: Squalamine lactate reduces choroidal neovascularization in a laser-injury model in the rat. *Retina*, 23:808-14, 2003.

2004

- **71. T. A. Ciulla**, L. B. Cantor, D. E. Kurtz, A. Capistrano: Laser trabecular sclerosis for chronic hypotony after vitreoretinal surgery. *Ophthalmology*, 111:256-8, 2004.
- **72. T. A. Ciulla**, M. H. Criswell, R. P. Danis, W. J. Snyder, W. Small IV: Evaluation of photopoint photosensitizer mv6401, indium chloride methyl pyropheophorbide, as a photodynamic therapy agent in primate choriocapillaris and laser-induced choroidal neovascularization. *Retina*, 24:521-9, 2004.
- **73.** G. M. Comer, **T. A. Ciulla**: Pharmacotherapy for diabetic retinopathy. *Current Opinion in Ophthalmology*, 15:508-18, 2004.
- **74. T. A. Ciulla**, B. R. Hammond: Macular pigment density and aging, assessed in the noR. M.al elderly and those with cataracts and age-related macular degeneration. *American Journal of Ophthalmology*, 138:582-7, 2004.
- **75. T. A. Ciulla**, J. D. Walker, D. S. Fong, M. H. Criswell: Corticosteroids in posterior segment disease: an update on new delivery systems and new indications. *Current Opinion in Ophthalmology*, 15:211-20, 2004.
- **76.** M. H. Criswell, **T. A. Ciulla**, T. E. Hill, W. Small, R. P. Danis, W. J. Snyder, L. A. Lowseth, D. L. Carson. The squirrel monkey: characterization of a new-world primate model of experimental choroidal neovascularization and comparison with the macaque. *Investigative Ophthalmology and Visual Science*, 45:625-34, 2004.
- **77.** G. M. Comer, **T. A. Ciulla**: Diagnostic Imaging of Retinal Disease. International Ophthalmology Clinics. Controversies and Advancements in the Treatment of Retinal Disease. 44:1-15, 2004.
- **78.** J. P. Dunn, M. V. Natta, G. Foster, B. D. Kuppermann, D. F. Martin, A. Zong, D. A. Jabs, Studies of Ocular Complications of AIDS Research Group: Complications of Ganciclovir implant surgery in patients with cytomegalovirus retinitis: The Ganciclovir Cidofovir Cytomegalovirus Retinitis Trial. *Retina*, 24:41-50, 2004.

- **79. T. A. Ciulla**, M. H. Criswell, W. J. Snyder, W. Small IV: Photodynamic Therapy with PhotoPoint Photosensitizer MV6401, Indium Chloride Methyl Pyropheophorbide, Achieves Selective Closure of Rat Corneal Neovascularization and Rabbit Choriocapillaris, *British Journal of Ophthalmology*, 89:113-9, 2005.
- 80. G. M. Comer, T. A. Ciulla, J. S. Heier, M. H. Criswell: Future pharmacological treatment options for

non-exudative and exudative age-related macular degeneration, *Expert Opinion on Emerging Drugs*, 10:119-35, 2005.

- **81. T. A. Ciulla**, G. M. Comer, C. Peloquin, J. Wheeler: Human Vitreous Distribution of Linezolid after a Single Oral Dose, *Retina*, 25:619-24, 2005.
- 82. G. M. Comer, T. A. Ciulla, M. H. Criswell, M. Tolentino: Current and future treatment options for nonexudative and exudative age-related macular degeneration, *Drugs and Aging*, 21:967-92, 2005.
- **83.** G. M. Comer, **T. A. Ciulla**: Current and future pharmacological intervention for diabetic retinopathy. *Expert Opinion on Emerging Drugs*. 10:441-55, 2005.
- **84.** A. Oliver, G. M. Comer, **T. A. Ciulla**: New and classical insights in presumed ocular histoplasmosis syndrome and its treatment. *Current Opinion in Ophthalmology*, 16:160-5, 2005.
- **85.** M. H. Criswell, **T. A. Ciulla**, L. A. Lowseth, W. Small IV, R. P. Danis, D. L. Carson, W. J. Snyder: Anastomotic Vessels Remain Viable after Photodynamic Therapy in Primate Models of Choroidal Neovascularization, *Investigative Ophthalmology and Visual Science*. 46:2168-74, 2005.
- **86.** M. H. Criswell, W. Z. Hu, T. L. Cornell, A. Otlecz, P. Danis, G. N. Lambrou, R, **T. A. Ciulla**: Oral administration of the selective COX-2 inhibitor, Lumiracoxib, significantly reduces choroidal neovascular membrane development in the rat laser-trauma model, *Retina*, 25(8):1054-64, 2005.
- **87. T. A. Ciulla,** A. Oliver, G. M. Comer: MV-6401, a potent photosensitizer: a review of the current state of photosensitizing agents for the treatment of exudative age-related macular degeneration, *Drugs of the Future* 30(10): 1031-1037, 2005.

2006

- 88. J. S. Heier, A. N. Antoszyk, P. R. Pavan, S. R. Leff, P. J. Rosenfeld, T. A. Ciulla, R. F. Dreyer, R. C. Gentile, J. P. Sy, F. Hantsbargar, N. Shams: Ranibizumab for Treatment of Neovascular Age-Related Macular Degeneration A Phase I/II Muliticenter, Controlled, Multidose Study, Ophthalmology, 113(4):633, 2006.
- **89.** A. Oliver, **T. A. Ciulla**: Corticosteroids as antiangiogenic agents. Ophthalmology Clinics of North America 19(3) 345-51, 2006.

- **90.** J. S. Heier, D. S. Boyer, **T. A. Ciulla,** P.J. Ferrone, J. M. Jumper, R. C. Gentile, D. Kotlovker, C. Y. Chung, R. Y. Kim for the FOCUS Study Group: Ranibizumab combined with verteporfin photodynamic therapy in neovascular age-related macular degeneration: year 1 results of the FOCUS Study. *Archives of Ophthalmology* 124 (11): 1532-42, 2007.
- **91.** E. Rechtman, A. Harris, B. Siesky, L, Kagemann, R. P. Danis, D. Sinces, **T. A. Ciulla**: The relationship between retrobulbar and choroidal hemodynamics in non-neovascular age-related macular degeneration. *Ophthalmic Surgery and Laser Imaging*. 38 (3): 219-25, 2007.
- **92. T. A. Ciulla**: Therapeutic effects of ranibizumab in neovascular age-related macular degeneration. *Expert Review of Ophthalmology*. 2(5): 679-693, 2007.
- **93. T. A. Ciulla,** A. Oliver, M. J. Gast: Squalamine lactate for the treatment of age-related macular degeneration. *Expert Review of Ophthalmology* 2(2): 165-175, 2007.
- **94.** T. A. Ciulla: Ranibizumab: A Viewpoint, Drugs. 67(8):1207-1209, 2007.
- **95.** J. A. Davidson, **T. A. Ciulla,** J. B. McGill, K. A. Kles, P. W. Anderson: How the diabetic eye loses vision. *Endocrine*. 32(1): 107-16, 2007.
- **96.** E. Rechtman, A. Harris, H. J. Garzizi, **T. A. Ciulla**: Pharmacologic therapies for diabetic retinopathy and diabetic macular edema. *Journal of Clinical Ophthalmology*. 1 (4):383-91, 2007.
- **97.** A. Oliver, **T. A. Ciulla**. Sustained Response to Multiple Intravitreal Triamcinolone Acetonide Injections in a Patient with Predominantly Occult Choroidal Neovascularization: Retina Cases and Brief Reports. 1: 12-13, 2007.

2008——		
.000	98.	R. Ehrlich, A. Harris, N.S. Kheradiya, D. M. Winston, T. A. Ciulla, B. Wirostko: Age-related macular degeneration and the aging eye. <i>Journal of Clinical Interventions in Aging</i> . 3(3):473-82, 2008.
	99.	G. M. Comer, T. A. Ciulla, M. H. Criswell, A. Harris; AR. M.D, Exudative. eMedicine. 2008 June.
	100.	D. J. Browning, A.R.Glassman, L. P. Aiello, N. M. Bressler, S. B. Bressler, R. P. Danis, M. D. Davis, F. L. Ferris, S. S. Huang, P. K. Kaiser, C. Kollman, S. Sadda, I. U. Scott, H. Qin: Diabetic Retinopathy Clinical Research Network. Optical coherence tomography measurements and analysis methods in optical coherence tomography studies of diabetic macular edema. <i>Ophthalmology</i> . 115(8):1366-71, 2008.
009—–		D. M. Drawer, M. Michala, D. K. Kaisan, J. C. Haisan, J. D. Su, T. Lanukulau, T. A. Ciullau ANGLIOD Study.
	101.	D. M. Brown, M. Michels, P. K. Kaiser, J. S. Heier, J. P. Sy, T. Lanvhulev, T. A. Ciulla : ANCHOR Study Group: Ranibizumab versus verteporfin photodynamic therapy for Neovascular age-related macular degeneration: Two-year results of the ANCHOR study. <i>Ophthalmology</i> , 116 (1): 57-65, 2009.
	102.	J. J. Wroblewski, J. A. Wells 3 rd , A. P. Adamis, R. R. GBuggage, E. T. Cunningham, Jr., M. Goldbaum, D. R. Guyer, B. Katz, M. M. Altaweel, T. A. Ciulla : Pegaptanib in Central Retinal Retinal Vein Occlusion Study Group: Petgaptanib sodium for macular edema secondary to central retinal vein occlusion. <i>Archives of Ophthalmology</i> 127(4): 374-80, 2009.
	103.	T. A. Ciulla , R. J. Rosenfeld: Anti-vascular endothelial growth factor therapy for Neovascular ocular diseases other than age-related macular degeneration. <i>Current Opinion in Ophthalmology</i> ; 20 (3): 166-174, 2009.
	104.	I. U. Scott, N. L. Oden, P. C. VanVeldhuisen, M. S. Ip, B. A. Blodi, A. N. Antoszyk, T. A. Ciulla , SCORE Study Investigator Group: American Journal of Ophthalmology 148(5):725-732, 2009.
	105.	Q. D. Nguyen, S. M. Shah, J. S. Heier, D. V. Do, J. Lim, D. Boyer, P. Abraham, P. A. Campochiaro, T. A. Ciulla, READ-2 Study Group: Primary End Point (Six Months) Results of the Ranibizumab for Edema of the macula in diabetes (READ-2) study. <i>Ophthalmology</i> . 116 (11): 2175-81, 2009.
	106.	M. S. Ip, I. U. Scott, P. C. VanVeldhuisen, N. L. Oden, B. A. Blodi, M. Fisher, L. J. Singerman, M. Tolentino, C. K. Chan, V. H. Gonzalez, T. A. Ciulla, SCORE Study Group: A randomized trial comparing the efficacy and safety of Intravitreal triamcinolone with observation to treat vision loss associated with macular Edema secondary to central retinal vein occlusion: the Standard Care vs. Corticosteroic for Retinal Vein Occlusion (SCORE) study report 5. <i>Archives of Ophthalmology</i> 127(9), 11014, 2009.
	107.	R. Ehrlich, T. A. Ciulla , R. Maturi, N. S. Kheradiya, N. Hrisomalos, S. Shulman, M.G. Guess, E. Coyle, A. Harris: Intravitreal bevacizumab for choroidal neovascularization secondary to presumed ocular histoplasmosis syndrome. <i>Retina</i> . 29 (10): 1418-23, 2009.
010——	108.	R. Ehrlich, T. A. Ciulla , A. M. Moss, A. Harris: Combined treatment of intravitreal bevacizumab and intravitreal triamcinolone in patients with retinal vein occlusion: 6 months of follow-up. Graefe's Archive for Clinical and Experimental Ophthalmology 2010 March;248(3):375-80. Epub 2009 November 8.
	109.	R. Ehrlich, R. Axer-Siegel, T. A. Ciulla , A. Harris, D. Weinberger: Anti-VEGF vs Macular Grid Photocoagulation for Retinal Vein Occlusion. <i>Retinal Physician</i> . 2010 April.
	110.	R. Ehrlich, A. Harris, T. A. Ciulla , N. Kheradiya, D. M. Winston, B. Wirostko: Diabetic macular edema: physical, physiological and molecular factors contribute to this pathological process. <i>Acta Ophthalmologica</i> 2010 May; 88(3):279-91. Epub 2010 March 11.
	111.	Diabetic Retinopathy Clinical Research Network, M. J. Elman, L. P. Aiello, R. W. Beck, N. M. Bressler,

Diabetic Retinopathy Clinical Research Network, M. J. Elman, L. P. Alello, R. W. Beck, N. M. Bressler,
S. B. Bressler, A. R. Edwards, F. L. Ferris 3rd, S. M. Friedman, A. R. Glassman, K. M. Miller, I. U. Scott,
C. R. Stockdale, J. K. Sun: Randomized trial evaluating ranibizumab plus prompt or deferred laser or
triamcinolone plus prompt laser for diabetic macular edema. *Ophthalmology*. 2010 June; 117(6):1064 1077.e35. Epub 2010 April 28.

Thomas A. Ciulla, M.D., M.B.A — thomasciulla@gmail.com — 609.865.4487 — 317.506.0334 — Page 41 of 53 REFEREED PAPERS (CONT.)

- 112. P. A. Campochiaro, J. S. Heier, L. Feiner, S. Gray, N. Saroj, A. C. Rundle, W. Y. Murahashi, R. G. Rubio; BRAVO Investigators: Ranibizumab for macular edema following branch retinal vein occlusion: sixmonth primary end point results of a phase III study. *Ophthalmology*. 2010 June; 117(6):1102-1112.e1. Epub 2010 April 15.
- 113. D. M. Brown, P. A. Campochiaro, R. P. Singh, Z. Li, S. Gray, N. Saroj, A. C. Rundle, R. G. Rubio, W. Y. Murahashi; CRUISE Investigators: Ranibizumab for macular edema following central retinal vein occlusion: six-month primary end point results of a phase III study. *Ophthalmology*. 2010 June; 117(6):1124-1133.e1. Epub 2010 April 9.
- 114. P. A. Campochiaro, G. Hafiz, S. M. Shah, S. Bloom, D. M. Brown, M. Busquets, T. A. Ciulla, L. Feiner, N. Sabates, K. Billman, B. Kapik, K. Green, F. Kane, Famous Study Group: Sustained ocular delivery of fluocinolone acetonide by an intravitreal insert. *Ophthalmology.* 2010 July; 117(7):1393-9.e3. Epub 2010 March 3.
- **115.** M. A. Puhan, M. L. Van Natta, F. J. Palella, A. Addessi, C. Meinert, Ocular Complications of AIDS Research Group: Excess mortality in patients with AIDS in the era of highly active antiretroviral therapy: temporal changes and risk factors. *Clinical Infectious Diseases*. 2010 October 15; 51(8):947-56.
- **116.** M. A. Puhan, M. L. Van Natta, F. J. Palella, A. Addessi, C. Meinert, Ocular Complications of AIDS Research Group: Excess mortality in patients with AIDS in the era of highly active antiretroviral therapy: temporal changes and risk factors. *Clinical Infectious Diseases*. 2010 October 15; 51(8):947-56.
- 117. Q. D. Nguyen, S. M. Shah, A. A. Khwaja, R. Channa, E. Hatef, D. V. Do, D. Boyer, J. S. Heier, P. Abraham, A. B. Thach, E. S. Lit, B. S. Foster, E. Kruger, P. Dugel, T. Chang, A. Das, T. A. Ciulla, J. S. Pollack, J. I. Lim, D. Eliot, P. A. Campochiaro, READ-2 Study Group: Two-year outcomes of the ranibizumab for edema of the mAcula in diabetes (READ-2) study. *Ophthalmology*. 2010 November; 117(11):2146-51. Epub 2010 September 19.
- **118.** D. A. Jabs, A. Ahuja, M. Van Natta, A. Lyon, S. Srivastava, S. Gangaputra, Studies of the Ocular Complications of AIDS Research Group: Course of cytomegalovirus retinitis in the era of highly active antiretroviral therapy: five-year outcomes. *Ophthalmology*. 2010 November; 117(11):2152-61.e1-2. Epub 2010 July 29.
- **119.** T. R. Friberg, M. Tolentino; LEVEL Study Group, P. Weber, S. Patel, S. Campbell, M. Goldbaum: Pegaptanib sodium as maintenance therapy in neovascular age-related macular degeneration: the LEVEL study. *British Journal of Ophthalmology*. 2010 Dec; 94(12):1611-7. Epub 2010 May 14.
- 2011-
- 120. J. S. Heier, D. Brown, T. A. Ciulla, P. Abraham, J. M. Bankert, S. Chong, P. E. Daniel Jr., I. K. Kim: Ranibizumab for choroidal neovascularization secondary to causes other than age-related macular degeneration: a phase I clinical trial. Ophthalmology. 2011 January; 118(1):111-8. Epub 2010 August 3.
- P. A. Campochiaro, D. M. Brown, A. Pearson, T. A. Ciulla, D. Boyer, F. G. Holz, M. Tolentino, A. Gupta, L. Duarte, S. Madreperla, J. Gonder, B. Kapik, K. Billman, F. E. Kane, FAME Study Group: Long-term Benefit of Sustained-Delivery Fluocinolone Acetonide Vitreous Inserts for Diabetic Macular Edema. *Ophthalmology*. 2011 April; 118(4):626-635.e2.
- **122.** R. Ehrlich, **T. A. Ciulla**, A. Moss, A. Harris: Response to: Combined treatment of intravitreal bevacizumab and intravitreal triamcinolone in patients with retinal vein occlusion by Schroff et al. *Graefe's Archive for Clinical and Experimental Ophthalmology*. 2011 February; 249(2):305. Epub 2010 March 30.
- **123.** CATT Research Group, D. F. Martin, M. G. Maguire, G. S. Ying, J. E. Grunwald, S. L. Fine, G. J. Jaffe: Ranibizumab and bevacizumab for neovascular age-related macular degeneration, *New England Journal of Medicine*. 2011 May 19; 364(20):1897-908. Epub 2011 April 28.
- 124. B. Wirostko, K. Beusterien, J. Grinspan, T. Ciulla, J. Gonder, A. Barsdorf, A. Pleil: Patient preferences

in the treatment of diabetic retinopathy. Patient Prefer Adherence. 2011;5:229-37. Epub 2011 May 24.

- **125.** M. B. Sultan, D. Zhou, J. Loftus, T. Dombi, K. S. Ice, Macugen 1013 Study Group: A phase 2/3, multicenter, randomized, double-masked, 2-year trial of pegaptanib sodium for the treatment of diabetic macular edema. *Ophthalmology*. 2011 June; 118(6):1107-18. Epub 2011 May 6.
- 126. Q. D. Nguyen, S. M. Shah, A. A. Khwaja, R. Channa, E. Hatef, D. V. Do, D. Boyer, J. S. Heier, P. Abraham, A. B. Thach, E. S. Lit, B. S. Foster, E. Kruger, P. Dugel, T. Chang, A. Das, T. A. Ciulla, J. S. Pollack, J. I. Lim, D. Eliott, P. A. Campochiaro, READ-2 Study Group: Two-year outcomes of the ranibizumab for edema of the macula in diabetes (READ-2) study. *Ophthalmology*. 2010 November; 117(11):2146-51. Epub 2010 September 19. Erratum in: *Ophthalmology*. 2011 June; 118(6):1016. Eliot, Dean [corrected to Eliott, Dean].
- 127. E. Sezgin, M. L. Van Natta, A. Ahuja, A. Lyon, S. Srivastava, J. L. Troyer, S. J. O'Brien, D. A. Jabs, Studies of the Ocular Complications of AIDS Research Group: Association of host genetic risk factors with the course of cytomegalovirus retinitis in patients infected with human immunodeficiency virus. *American Journal of Ophthalmology*. 2011 June; 151(6):999-1006.e4. Epub 2011 March 10.
- 128. D. M. Brown, J. S. Heier, T. A. Ciulla, M. Benz, P. Abraham, G. Yancopoulos, N. Stahl, A. Ingerman, R. Vitti, A. J. Berliner, K. Yang, Q. D. Nguyen, CLEAR-IT 2 Investigators: Primary endpoint results of a phase II study of vascular endothelial growth factor trap-eye in wet age-related macular degeneration. Ophthalmology. 2011 June; 118(6):1089-97.
- **129.** J. T. Holbrook, R. Colvin, M. L. Van Natta, J. E. Thorne, M. Bardsley, D. A. Jabs, Studies of Ocular Complications of AIDS (SOCA) Research Group: Evaluation of the United States public health service guidelines for discontinuation of anticytomegalovirus therapy after immune recovery in patients with cytomegalovirus retinitis. *American Journal of Ophthalmology*. 2011 October; 152(4):628-637.e1. Epub 2011 July 13.
- **130.** J. V. Loftus, M. B. Sultan, A. M. Pleil, Macugen 1013 Study Group: Changes in vision and health related quality of life in patients with diabetic macular edema treated with pegaptanib sodium or sham. *Investigative Ophthalmology and Visual Science*. 2011 September 29; 52(10):7498-505. Print 2011 September.
- **131.** J. T. Holbrook, R. Colvin, M. L. Van Natta, J. E. Thorne, M. Bardsley, D. A. Jabs, Studies of Ocular Complication of AIDS (SOCA) Research Group: Evaluation of the United States public health service guidelines for discontinuation of anticytomegalovirus therapy after immune recovery in patients with cytomegalovirus retinitis. *American Journal of Ophthalmology*. 2011 October; 152(4):628-637.e.1. doi:10.1016/j.ajo.2011.04.007. Epub 2011 July 13.

2012-

- **132.** E. A. Sugar, D. A. Jabs, A. Ahuja, J. E. Thorne, R. P. Danis, C. L. Meinert, Studies of the Ocular Complications of AIDS Research Group: Incidence of cytomegalovirus retinitis in the era of highly active antiretroviral therapy. *American Journal of Ophthalmology*. 2012 June; 153(6):1016-24.e5. doi:10.1016/j.ajo.2011.11.014. Epub 2012 Feburary 4.
- **133.** Y. Shoshani, A. Harris, M. M. Shoja, Y. Arieli, R. Ehrlich, S. Primus, **T. Ciulla**, A. Cantor, B. Wirostko, B. A. Siesky: Impaired ocular blood flow regulation in patients with open-angle glaucoma and diabetes. *Clinical and Experimental Ophthalmology*. 2012 September-October; 40(7): 697-705. doi: 10.1111/j.1442-9071.2012.02778.x. Epub 2012 May 17.
- 134. Comparison of Age-related Macular Degeneration Treatments Trials (CATT) Research Group, D. F. Martin, M. G. Maguire, S. L. Fine, G. S. Ying, G. J. Jaffe, J. E. Grunwald, C. Toth, M. Redford, F. L. Ferris: Ranibizumab and bevacizumab for treatment of neovascular age-related macular degeneration: two-year results. Ophthalmology. 2012 July; 119(7): 1388-98. doi:10.1016/j.ophtha.2012.03.053. Epub 2012

May 1.

- **135.** P. Stalmans, M. S. Benz, A. Gandorfer, A. Kampik, A. Girach, S. Pakola, J. A. Haller, MIVI-TRUST Study Group: Enzymatic viteolysis with ocriplasmin for viteomacular traction and macular holes. *New England Journal of Medicine*. 2012 August 16:367(7):606-15. doi: 10.1056/NEJMoa1110823.
- 136. S. Gangputra, L. Drye, V. Vaidya, J. E. Thorne, D. A. Jabs, A. T. Lyon, Studies of the Ocular Complications of AIDS (SOCA) Research Group: Non-cytomegalovirus ocular opportunistic infections in patients with acquired immunodeficiency syndrome. *American Journal of Ophthalmology*. 2013 Feburary;155(2): 206-212.e5.doi:10.1016/j.ajo.2012.07.019. Epub 2012 October 12.
- **137.** P. A. Campochiaro, Q. D. Nguyen, G. Hafiz, S. Bloom, D. M. Brown, M. Busquests, **T. Ciulla**, L. Feiner, N. Sabates, K. Billman, B. Kapik, K. Green, F. E. Kane, FAMOUS Study Group: Aqueous levels of fluocinolone acetonide after administration of fluocinolone acetonide inserts of fluocinolone acetonide implants. *Ophthalmology*. 2013 March: 120(3):583-7.doi: 10.1016/j.ophtha.2012.09.014. Epub 2012 December 4.

- 138. S. A. Hagstrom, G. S. Ying, G. J. Pauer, G. M. Sturgill-Short, J. Huang, D. G. Callanan, I. K. Kim, M. L. Klein, M. G. Maguire, D. F. Martin, Comparison of AMD Treatments Trials Research Group: Pharmacogenetics for genes associated with age-related macular degeneration in the Comparison of AMD Treatments Trials (CATT). *Ophthalmology*. 2013 March; 120(3);539-9. doi:10.1016/j.ophtha.2012.11.037. Epub 2013 January 18.
- 139. B. G. Busbee, A. C. Ho, D. M. Brown, J. S. Heier, I. J. Suner, Z. Li, R. G. Rubio, P. Lai, HARBOR Study Group: Twelve-month efficacy and safety of 0.5 mg or 2.0 mg ranibizumab in patients with subfoveal neovascular age-related macular degeneration. *Ophthalmology*. 2013 May: 120(5): 1046-56. doi: 10.1016/j.ophtha.2012.10.014. Epub 2013 January 23.
- **140.** K. J. Ramaiya, K. J. Blinder, **T. Ciulla**, B. Cooper, G. K. Shah: Ranibizumab versus photodynamic therapy for presumed ocular histoplasmosis syndrome. *Ophthalmic Surgery, Lasers, and Imaging Retina*. 2013 January-Feburary; 44(1): 17-21. doi: 10 3928/23258160-20121221-07.
- 141. D. A. Jabs, A. Ahuja, M. Van Natta, J. P. Dunn, S. Yeh, Studies of the Ocular Complications of AIDS Research Group: Comparison of treatment regimens for cytomegalovirus retinitis in patients with AIDS in the era of highly active antiretroviral therapy. *Ophthalmology*. 2013 June;120(6):1262-70. doi:10.1016/j.ophtha.2012.11.023. Epub 2013 Feb 16.
- **142.** D. V. Do, Q. D. Nguyen, A. A. Khwaja, R. Channa, Y. J. Sepah, R. Sophie, G. Hafiz, P.A., READ-2 Study Group: Ranibizumab for edema of the macula in diabetes study: 3-year outcomes and the need for prolonged frequent treatment. *JAMA Ophthalmology*. 2013 Feburary 131(2):139-45.
- 143. G. J. Jaffe, D. F. Martin, C. A. Toth, E. Daniel, M. G. Maguire, G. S. Ying, J. E. Grunwald, J. Huang, Comparison of Age-related Macular Degeneration Treatments Trials Research Group: Macular morphology and visual acuity in the comparison of age-related macular degeneration treatments trials. Ophthalmology. 2013 September 120(9):1860-70. doi: 10.1016/j.ophtha.2013.01.073. Epub 2013 May 1.
- 144. D. G. Callanan, S. Gupta, D. S. Boyer, T. A. Ciulla, M. A. Singer, B. D. Kuppermann, C. C. Liu, X. Y. Li, D. A. Hollander, R. M. Schiffman, S. M. Whitcup, Ozurdex PLACID Study Group: Dexamethason intravitreal implant in combination with laser photocoagulation for the treatment of diffuse diabetic macular edema. *Ophthalmology.* 2013 September 120(9):1843-51. doi: 10.1016/j.ophtha. 2013. 02.018. Epub 2013 May 22.
- **145.** S. B. Bressler, H. Qin, M. Melia, N. M. Bressler, R. W. Beck, C. K. Chan, S. Grover, D. G. Miller, Diabetic Retinopathy Clinical Research Network: Exploratory analysis of the effect of intravitreal ranivizumab or triamcinolone on worsening of diabetic retinopathy in a randomized clinical trial. *JAMA*

Opthalmology. 2013 August: 131(8):1033-40. doi: 10.1001/jamaopthalmol.2013.4154.

- **146.** R. Danis, M. M. McLaughlin, M. Tolentino, G. Staurenghi, L. Ye, C. F. Xu, R. Y. Kim, M. W. Johnson, for the Pazopanib Eye Drops Study Group: Pazopanib eye drops: a randomized trial in neovascular agerelated macular degeneration. British Journal of Ophthalmology. 2013. November 13. doi: 10.1136/bjophthalmol-2013-303117.
- **147.** R. Channa, R. Sophie, A. A. Khwaja, D. V. Do, G. Hafiz, Q. D. Nguyen, P.A. Campochiaro, The READ-2 Study Group: Factors affecting visual outcomes in patients with diabetic macular edema treated with ranibizumab. *Eye* (London). 2013 November 22. doi: 10.1038/eye.2013.245.
- 2014
- 148. J. Cunha-Vaz, P. Ashton, R. Iezzi, P. Campochiaro, P. U. Dugel, F. G. Holz, M. Weber, R. P. Danis, B. D. Kuppermann, C. Bailey, K. Billman, B. Kapik, F. Kane, K. Green, FAME Study Group: Sustained delivery fluocinolone acetonide vitreous implants: long-teR. M. benefit in patients with chronic diabetic macular edema. *Ophthalmology.* 2014 Oct;121(10):1892-903. doi: 10.1016/j.ophtha.2014.04.019. Epub 2014 Jun 14.
- **149.** I. Kozak, V. Vaidya, M. L. Van Natta, J. W. Pak, K. P. May, J. E. Thorne, Studies of the Ocular Complications of AIDS Research Group: The prevalence and incidence of epiretinal membranes in eyes with inactive extramacular CMV retinitis. *Investigative Ophthalmology and Visual Science*. 2014 Jun 12;55(7):4304-12. doi: 10.1167/iovs.14-14479.
- **150.** F. A. Folgar, G. J. Jaffe, G. S. Ying, M. G. Maguire, C. A. Toth, Comparison of Age-Related Macular Degeneration Treatments Trials Research Group: Comparison of optical coherence tomography assessments in the comparison of age-related macular degeneration treatments trials. *Ophthalmology.* 2014 Oct;121(10):1956-65. doi: 10.1016/j.ophtha.2014.04.020. Epub 2014 May 15.
- **151.** B. J. Kim, G. S. Ying, J. Huang, N. E. Levy, M. G. Maguire, CATT Research Group: Sporadic visual acuity loss in the Comparison of Age-Related Macular Degeneration Treatments Trials (CATT). *American Journal of Ophthalmology*. 2014 Jul;158(1):128-135.e10. doi: 10.1016/j.ajo.2014.04.004. Epub 2014 Apr 13.
- **152. T. A. Ciulla**, A. Harris, N. McIntyre, C. Jonescu-Cuypers: Treatment of diabetic macular edema with sustained-release glucocorticoids: intravitreal triamcinolone acetonide, dexamethasone implant, and fluocinolone acetonide implant. *Expert Opinion on Pharmacotherapy*. 2014 May;15(7):953-9. doi: 10.1517/14656566.2014.896899. Epub 2014 Mar 24. Review.
- **153.** S. A. Hagstrom, G. S. Ying, G. J. Pauer, G. M. Sturgill-Short, J. Huang, M. G. Maguire, D. F. Martin, Comparison of Age-Related Macular Degeneration Treatments Trials (CATT) Research Group: VEGFA and VEGFR2 gene polymorphisms and response to anti-vascular endothelial growth factor therapy: comparison of age-related macular degeneration treatments trials (CATT). JAMA Ophthalmology. 2014 May;132(5):521-7.
- **154.** R. Channa, R. Sophie, A. A. Khwaja, D. V. Do, G. Hafiz, Q. D. Nguyen, P. A. Campochiaro, READ-2 Study Group: Factors affecting visual outcomes in patients with diabetic macular edema treated with ranibizumab. *Eye* (London). 2014 Mar;28(3):269-78. doi: 10.1038/eye.2013.245. Epub 2013 Nov 22.
- 2015
- 155. M. M. Altaweel, E. Daniel, D. F. Martin, R. A. Mittra, J. E. Grunwald, M. M. Lai, A. Melamud, L. S. Morse, J. Huang, F. L. Ferris 3rd, S. L. Fine, M. G. Maguire, Comparison of Age-related Macular Degeneration Treatments Trials (CATT) Research Group: Outcomes of eyes with lesions composed of >50% blood in the Comparison of Age-related Macular Degeneration Treatments Trials (CATT). Ophthalmology, 2015. 122(2): p. 391-398 e5.
- **156.** A. A. Aref, I. U. Scott, N. L. Oden, M. S. Ip, B. A. Blodi, P. C. VanVeldhuisen, SCORE Study Investigator Group: Incidence, Risk Factors, and Timing of Elevated Intraocular Pressure After Intravitreal Triamcinolone Acetonide Injection for Macular Edema Secondary to Retinal Vein Occlusion: SCORE

Study Report 15. JAMA Ophthalmol, 2015. 133(9): p. 1022-9.

- **157. T. A. Ciulla**, G. S. Ying, M. G. Maguire, D. F. Martin, G. J. Jaffe, J. E. Grunwald, E. Daniel, C. A. Toth: Comparison of Age-Related Macular Degeneration Treatments Trials Research Group. Influence of the Vitreomacular Interface on Treatment Outcomes in the Comparison of Age-Related Macular Degeneration Treatments Trials. *Ophthalmology*, 2015. 122(6): p. 1203-11.
- **158.** J. A. Haller, P. Stalmans, M. S. Benz, A. Gandorfer, S. J. Pakola, A. Girach, A. Kampik, G. J. Jaffe, C. A. Toth, MIVI-TRUST Study Group: Efficacy of intravitreal ocriplasmin for treatment of vitreomacular adhesion: subgroup analyses from two randomized trials. *Ophthalmology*, 2015. 122(1): p. 117-22.
- **159.** A. S. Willoughby, G. S. Ying, C. A. Toth, M. G. Maguire, R. E. Burns, J. E. Grunwald, E. Daniel, G. J. Jaffe, Comparison of Age-Related Macular Degeneration Treatments Trials Research Group: Subretinal Hyperreflective Material in the Comparison of Age-Related Macular Degeneration Treatments Trials. *Ophthalmology*, 2015. 122(9): p. 1846-53 e5.

- **160.** R. M. Hussain, and **T. A. Ciulla**: Treatment strategies for refractory diabetic macular edema: switching anti-VEGF treatments, adopting corticosteroid-based treatments, and combination therapy. *Expert Opin Biol Ther*, 2016. 16(3): p. 365-74.
- **161.** E. Daniel, J. Shaffer, G. S. Ying, J. E. Grunwald, D. F. Martin, G. J. Jaffe, M. G. Maguire, Comparison of Age-Related Macular Degeneration Treatments Trials (CATT) Research Group: Outcomes in Eyes with Retinal Angiomatous Proliferation in the Comparison of Age-Related Macular Degeneration Treatments Trials (CATT). *Ophthalmology*, 2016. 123(3): p. 609-16.
- **162.** T. A. Ciulla, R. M. Hussain, L. M. Ciulla, B. Sink, A. Harris: Ranibizumab for Diabetic Macular Edema Refractory to Multiple Prior Treatments. *Retina*, 2016. 36(7): p. 1292-7.
- 163. N. Shah, M. G. Maguire, D. F. Martin, J. Shaffer, G. S. Ying, J. E. Grunwald, C. A. Toth, G. J. Jaffe, E. Daniel, Comparison of Age-related Macular Degeneration Treatments Trials Research Group: Angiographic Cystoid Macular Edema and Outcomes in the Comparison of Age-Related Macular Degeneration Treatments Trials. Ophthalmology, 2016. 123(4): p. 858-64.
- **164.** R. M. Hussain, **T. A. Ciulla**, L. M. Ciulla, B. Sink, A. Harris: Efficacy of Dexamethasone Intravitreal Implant for Refractory Macular Edema Caused by Retinal Vein Occlusion, *Retina Cases and Brief Reports*, in press, 2016.
- **165.** G. J. Jaffe, **T. A. Ciulla**, A. P. Ciardella, F. Devin, P. U. Dugel, C. M. Eandi, H. Masonson, J. Monés, J. A. Pearlman, M. Quaranta-El Maftouhi, F. Ricci, K. Westby, S. C. Patel: Dual Antagonism of PDGF and VEGF in Neovascular Age-Related Macular Degeneration: A Phase 2b multicenter randomized controlled trial, *Ophthalmology*, in press, 2016.

EDITORIALS IN REFEREED JOURNALS:

1999—-		
	1.	T. A. Ciulla : Current treatment of postoperative endophthalmitis (guest editorial), <i>Ophthalmology</i> , 106: 2237-2238, 1999.
2001—-		
	2.	T. A. Ciulla : Evolving pathophysiologic paradigms for age-related macular degeneration, (guest editorial), British Journal of Ophthalmology, 85: 210 - 512, 2001.
2003—		
	3.	T. A. Ciulla : Recent advances in the treatment of exudative age-related macular degeneration, including transpupillary thermotherapy. <i>Acta Ophthalmologica Scand</i> , 81:103-4, 2003.
		LETTERS-TO-THE-EDITOR IN REFEREED JOURNALS:
1995		
- , , , , ,	1.	T. A. Ciulla and K. Johnson: Herpes simplex virus corneal dendrite. Images In Clinical Medicine, <i>New</i> England Journal of Medicine 333:1743, 1995.
	2.	T. A. Ciulla , J. W. Miller, and D. J. D'Amico: Laser photodisruption of visible retinal artery emboli (letter). British Journal of Ophthalmology 79:964-965, 1995.
1996—-		
	3.	T. A. Ciulla and N. J. Volpe: Visible emboli in retinal artery occlusions (letter). <i>American Journal of Ophthalmology</i> 122:134-135, 1996.
1998—-		
	4.	T. A. Ciulla and R. P. Danis: Repair of retinal detachments due to herpes varicella-zoster virus retinitis (letter). <i>Ophthalmology</i> 105:390-391, 1998.
	5.	T. A. Ciulla , R. P. Danis, and A. Harris: Choroidal perfusion defects in age-related macular degeneration (letter). <i>American Journal of Ophthalmology</i> 126:153-154, 1998.
	6.	T. A. Ciulla , U. Chakravarthy, and R. P. Danis: Radiation Therapy for Exudative Age-Related Macular Degeneration (letter). <i>Retina</i> , 18:387-389, 1998.
1999—-		
	7.	A. Harris, T. A. Ciulla , H. S. Chung, and B. Martin: Regulation of retinal and optic nerve blood flow (letter), <i>Archives of Ophthalmology</i> , 117:979, 1999.
2003—		
	8.	M. B. Starr, T. A. Ciulla , and S. Masket: Bacterial endophthalmitis prophylaxis: Author reply (letter), Ophthalmology, 110: 1667-1668, 2003.
	9.	S. Masket, T. A. Ciulla , and M. B. Starr: Bacterial endophthalmitis prophylaxis: Author reply (letter), <i>Ophthalmology</i> , 110: 1669, 2003

PUBLISHED ABSTRACTS:

1987——		
	1.	T. A. Ciulla, M.A. Robinson, T. Doolittle, T.J. Kindt, and S.L. Hauser: Molecular genotyping of the T-cell receptor beta-chain in families of multiple sclerosis patients. <i>Journal of Neuroimmunology</i> , 16:34-35, 1987.
1993——		
	2.	T. A. Ciulla and N. J. Volpe: Embolic frequency and coexisting disease in central retinal artery occlusion. <i>Investigative Ophthalmology and Visual Sciences</i> (Supplement), 34: 842, 1993.
1994——		
	3.	R. Haimovici, T. A. Ciulla , T. Flotte, J. W. Miller, T. Hasan, K. T. Schomacker, and E. S. Gragoudas: Localization of rose bengal, CASPc, and chlorine6 in the rabbit eye. <i>Investigative Ophthalmology and</i> <i>Visual Sciences</i> (Supplement), 35: 1158, 1994.
	4.	T. A. Ciulla, R. Moulton, A. Oberoi, and J. W. Miller: Central retinal artery occlusion in rabbit eyes: A realistic animal model using human atheroma. <i>Investigative Ophthalmology and Visual Sciences</i> (Supplement), 35: 1505, 1994.
1995——		
	5.	T. A. Ciulla , R. Haimovici, E. J. Riley, and D. J. D'Amico: Intravitreal toxicity of dental adhesives in the rabbit. <i>Investigative Ophthalmology and Visual Sciences</i> (Supplement), 36: 236, 1995.
	6.	R. Haimovici, T. A. Ciulla , J. W. Miller, A. George, T. Hasan, K. T. Schomacker, and E. S. Gragoudas: Rose bengal, CASPc, and chlorine6 fundus angiography in the rabbit eye. <i>Investigative Ophthalmology</i> <i>and Visual Sciences</i> (Supplement), 36: 617, 1995.
	7.	T. A. Ciulla, T. M. Topping, and A. S. Baker: Early and late endophthalmitis after glaucoma filtering surgery. <i>Ophthalmology</i> (Supplement), 102: 112. 1995.
1996——		
	8.	T. A. Ciulla , A. Oberoi, B. S. Polluck, J. W. Miller, and M. A. Sandberg: Retinal artery vasospasm and the rabbit electroretinogram. <i>Investigative Ophthalmology and Visual Sciences</i> (Supplement), 37: 841, 1996.
	9.	S. Yoo, T. A. Ciulla , and R. D. Pesavento: Subretinal aspiration biopsy of ocular lymphoma. <i>Ophthalmology</i> (Supplement), 103: 187. 1996.
1997——		
	10.	T. A. Ciulla and R. P. Danis: A porcine model for choroidal neovascular membrane formation, Investigative Ophthalmology and Visual Sciences (Supplement), 38: 96, 1997.
	11.	L. P. Aiello, A. Clermont, E. Duh, H. Ishii, T. A. Ciulla , C. Takagi, F. Mori, M. Jirousek, G. L. King, and S. E. Bursell: Suppression of Vascular endothelial growth factor (VEGF) induced retinal vascular permeability in vivo using an orally effective PKC-B selector inhibitor, <i>Investigative Ophthalmology and Visual Sciences</i> (Supplement), 38: 501, 1997.
	12.	A. Martidis, R. P. Danis, T. A. Ciulla , A. Harris, and L. A. McNulty: Indocyanine green angiography of exudative age-related macular degeneration, <i>Investigative Ophthalmology and Visual Sciences</i> (Supplement), 38: 501, 1997.
	13.	D. J. Miller, T. A. Ciulla , R. P. Danis, and T. J. Steffans: The use of corticosteroids in the treatment of histoplasmosis related subfoveal choroidal neovascular membranes, <i>Investigative Ophthalmology and Visual Sciences</i> (Supplement), 38: 97, 1997.

- **14. T. A. Ciulla**, A. Harris, H. S. Chung, M. Pereira, L. Kagemann, and R. P. Danis: A new method for evaluating choroidal blood flow in age-related macular degeneration: area dilution analysis, *Investigative Ophthalmology and Visual Sciences* (Supplement), 39: 385, 1998.
- **15.** B. J. Martin, A. Harris, H. S. Chung, **T. A. Ciulla**, R. P. Danis, and L. Pratt: Reduced posterior ciliary artery flow velocities in age-related macular degeneration, *Investigative Ophthalmology and Visual Sciences* (Supplement), 39: 384, 1998.
- **16.** L. Kagemann, A. Harris, D. W. Evans, H. S. Chung, and **T. A. Ciulla**: Right and left eye blood flow respond differently to mild hypercapnia, *Investigative Ophthalmology and Visual Sciences* (Supplement), 39: 263, 1998.
- **17.** J. K. Kristinsson, A. Harris, H. S. Chung, **T. A. Ciulla**, and R. Ritch: Gingko Biloba Extract increases ocular blood flow velocity, *Investigative Ophthalmology and Visual Sciences* (Supplement), 888: 476, 1998.
- **18.** R. P. Danis, **T. A. Ciulla**, C. T. Schnizlein-Bick, and I. U. AIDS Clinical Trial Group: Comparison of intraocular and systemic HIV viral loads in patients with CMV retinitis, *Investigative Ophthalmology and Visual Sciences* (Supplement), 39: 96, 1998.
- **19.** A. Martidis, R. P. Danis, and **T. A. Ciulla**: Treatment of rhegmatogenous retinal detachment due to cytomegalovirus retinitis with combination pars plana vitrectomy/silicone oil tamponade and sustained-release ganciclovir implant, *Investigative Ophthalmology and Visual Sciences* (Supplement), 39: 135, 1998.
- **20. T. A. Ciulla**, A. Harris, R. P. Danis, H. S. Chung, L. Kagemann, L. M. Pratt, L. A. McNulty, and B. J. Martin: Comprehensive circulatory studies in age-related macular degeneration, *Ophthalmology* (Supplement), 105: 189, 1998.

- **21.** T. E. Hill, **T. A. Ciulla**, L. M. Pratt, R. P. Danis, L. Kagemann, and A. Harris: Macular pigment density in nonexudative age-related macular degeneration, *Investigative Ophthalmology and Visual Sciences* (Supplement), 40: 165, 1999.
- 22. L. M. Pratt, T. A. Ciulla, R. P. Danis, J. Curran-Celantano, D. A. Cooper, and B. R. Hammond: Determinants of macular pigment density in adult volunteers in the Indianapolis area, *Investigative Ophthalmology and Visual Sciences* (Supplement), 40: 165, 1999.
- **23.** D. A. Cooper, **T. A. Ciulla**, B. R. Hammond, K. A. Riccardi, T. G. Filloon, and J. Curran-Celantano: Macular carotenoid pigment density and Olestra consumption in a cross-sectional volunteer sample in Indianapolis, *Investigative Ophthalmology and Visual Sciences* (Supplement), 40: 165, 1999.
- 24. M. H. Criswell, T. A. Ciulla, and T. E. Hill: Effects of steroidal anti-angiogenic therapy on laser-induced choroidal neovascular membranes in the rat, *Investigative Ophthalmology and Visual Sciences* (Supplement), 40: 231, 1999.
- **25.** R. P. Danis, **T. A. Ciulla**, and L. M. Pratt: Shorterm visual outcome of exudative age-related macular degeneration treatment with intravitreal triamcinolone acetonide, *Investigative Ophthalmology and Visual Sciences* (Supplement), 40: 316, 1999.
- **26. T. A. Ciulla**, A. Harris, R. P. Danis, H. S. Chung, L. Kagemann, and L. M. Pratt: Comprehensive blood flow assessment in nonexudative age-related macular degeneration, *Investigative Ophthalmology and Visual Sciences* (Supplement), 40: 560, 1999.
- **27.** B. Snook, A. Harris, L. Kagemann, H. S Chung, H. J. Garzozi, and **T. A. Ciulla**: Quantitative comparison of the Heidelberg retinal angiograph and the Rodenstock scanning laser ophthalmoscope by area dilution analysis, *Investigative Ophthalmology and Visual Sciences* (Supplement), 40: 509, 1999.
- J. Curran-Celantano, B. R. Hammond, D. A. Cooper, L. M. Pratt, R. P. Danis, and T. A. Ciulla: The relationship between dietary intake, blood, and retinal concentrations of carotenoids in adult volunteers in the Indianapolis area, *Investigative Ophthalmology and Visual Sciences* (Supplement), 40: 568, 199929.

- **29.** B. J. Martin, A. Harris, L. Kagemann, H. S. Chung, M. A. Garret, and **T. A. Ciulla**: Intravenous droperidol rapidly and markedly reduces intraocular pressure and increases peak flow velocity in some retrobulbar arteries, *Investigative Ophthalmology and Visual Sciences* (Supplement), 40: 666, 1999.
- **30. T. A. Ciulla**, 30. Blood flow in nonexudative age-related macular degeneration, *Ophthalmic Research* (Supplement), 31: 93, 1999.

2000

- **31. T. A. Ciulla**, A. Harris, H. S. Chung, L. Kagemann, D. Zafarti, L. McNulty, and B. J. Martin: Aging affects the retrobulbar circulation differently in women and men, *Investigative Ophthalmology and Visual Sciences* (Supplement), 41: 898, 2000.
- **32.** M. H. Criswell, **T. A. Ciulla**, R. P. Danis, T. E. Hill, W. J. Snyder, and W. Small: Evaluation of a new photosensitizer for photodynamic therapy in a primate model of choriocapillaris closure, *Investigative Ophthalmology and Visual Sciences* (Supplement), 41: 914, 2000.
- **33.** T. E. Hill, **T. A. Ciulla**, M. H. Criswell, W. J. Snyder, and W. Small: Evaluation of photosensitizer MV6401 in the rabbit as a novel agent in photodynamic therapy, *Investigative Ophthalmology and Visual Sciences* (Supplement), 41: 915, 2000.
- **34.** L. M. Pratt, **T. A. Ciulla**, B. R. Hammond, and C. W. Yung: Macular pigment optical density before and after cataract extraction, *Investigative Ophthalmology and Visual Sciences* (Supplement), 41: 3184, 2000.
- **35. T. A. Ciulla**, B. R. Hammond, and L. M. Pratt: Age-related changes in macular pigment optical density, *Ophthalmology* (Supplement), 107: 242, 2000.
- **36.** A. Harris, H. S. Chung, D. Zarfati, L. Kagemann, F. H. Orge, M. Zalish, and **T. A. Ciulla**: Cerebral blood flow is altered in glaucoma patients, *Ophthalmology* (Supplement), 107: 206, 2000.

2001-

- **37.** E. A. Nowacki, A. Harris, L. Kagemann, Y. Rotenstreich, C. P. Jonescu-Cuypers, L. McCranor, L. McNulty, **T. A. Ciulla**, and C. W. Sheets: Effect of verapamil and nifedipine on retrobulbar choroidal and retinal blood flow, *Investigative Ophthalmology and Visual Sciences* (Supplement), 2001.
- **38.** B. A. Siesky, A. Harris, L. Kagemann, L. Cantor, C. W. Yung, **T. A. Ciulla**, L. McCranor, and A. Capistrano: The acute effect of 1% brinzolamide on ocular blood flow, *Investigative Ophthalmology and Visual Sciences* (Supplement), 2001.
- **39.** A. Harris, L. Kagemann, Y. Rotenstreich, C. P. Jonescu-Cuypers, **T. A. Ciulla**, B. Martin, B. Siesky, L. McCranor, and P. O. Sinchai: Heidelberg retinal flowmetry: A comparison of a new analysis technique with SLDF software pre- and post-glaucoma therapy, *Investigative Ophthalmology and Visual Sciences* (Supplement), 2001.
- **40.** D. D. Thuente, **T. A. Ciulla**, R. P. Danis, N. Pugh, J. Morphis, S. Klein, V. Malinovsky, S. Soni, L. M. Pratt, D. Carter, and Midwest Proton Radiation Therapy Study Group: A randomized sham-controlled trial of proton irradiation for exudative age-related macular degeneration, *Investigative Ophthalmology and Visual Sciences* (Supplement), 2001.
- **41.** H. C. Piper, A. Harris, **T. A. Ciulla**, L. Kagemann, C. W. Sheets, O. Sinchai, L. M. Pratt, C. P. Jonescu-Cuypers, and Y. Ishii: Dorzolamide increases both choroidal and retinal circulation in patients with nonexudative age-related macular degeneration, *Investigative Ophthalmology and Visual Sciences* (Supplement), 2001.
- **42.** R. P. Danis, M. H. Criswell, **T. A. Ciulla**, S. P. Henry, and B. Monia: Repeated intravitreal injection of an anti-C-RAF kinase antisense oligonucleotide in a pig model of branch retinal vein occlusion (BVO): Tolerability and efficacy, *Investigative Ophthalmology and Visual Sciences* (Supplement), 2001.
- 43. M. H. Criswell, T. A. Ciulla, R. P. Danis, T. E. Hill, W. J. Snyder, and W. Small: The squirrel monkey

provides a "new world" alternative as a primate model for studying development of choroidal neovascularization, *Investigative Ophthalmology and Visual Sciences* (Supplement), 2001.

- **44.** J. F. Cole, **T. A. Ciulla**, B. R. Hammond, and K. Morris: Macular pigment carotenoids are related to agerelated reductions in lens density, *Investigative Ophthalmology and Visual Sciences* (Supplement), 2001.
- **45.** L. M. Pratt, M. H. Criswell, **T. A. Ciulla**, R. P. Danis, T. E. Hill, W. J. Snyder, and W. Small: Choriocapillaris closure in normal primates using photosensitizer MV6401 at different post-injection activation times, *Investigative Ophthalmology and Visual Sciences* (Supplement), 2001.
- **46.** L. A. McNulty, **T. A. Ciulla**, A. Harris, R. Maturi, L. Kagemann, L. M. Pratt, D. Weinberger, and M. H. Criswell: Transpupillary thermotherapy for subfoveal occult CNVM: Effect on ocular perfusion and mechanistic implications, *Investigative Ophthalmology and Visual Sciences* (Supplement), 2001.
- **47. T. A. Ciulla**, M. H. Criswell, M. R. Robinson, B. A. King, T. E. Hill, P. Yuan, and C. G. Csaky: Choroidal neovascular membrane (CNVM) inhibition in rat with intraocular sustained-release triamcinolone acetonide micro-implants, *Investigative Ophthalmology and Visual Sciences* (Supplement), 2001.
- **48.** S. S. Tuli, D. WuDunn, **T. A. Ciulla**, and L. B. Cantor: Delayed suprachoroidal hemorrhage following glaucoma filtration procedures, *Ophthalmology*, Supplement, 2001.
- **49. T. A. Ciulla**, R.P.Danis, S. B. Klien, V. E. Malinovskky, P. S. Soni, L. M. Pratt, N. O. Pugh, J. G. Morphis, C. Bloch, and J. Cameron: Proton therapy for exudative age-related macular degeneration: a randomized, sham-controlled clinical trial, *Ophthalmology*, Supplement, 2001.
- **50.** A. Harris, Y. Rotenstereich, L. Kagemann, C. P. Jonescu-Cuypers, B. Siesky, L. McCranor, R. P. Danis, and **T. A. Ciulla**, Choroidal Circulation is Improved by Verapamil and Nifedipine, only Nifedipine Decreases Retrobulbar and Retinal Circulation, *Ophthalmology*, Supplement, 2001.

2002

- **51. T. A. Ciulla**, M. H. Criswell, R. P. Danis, W. S. Snyder, and W. Small: Evaluation of a novel photosensitizer MV6401 as a photodynamic therapy agent using a primate choroidal neovascularizaton model, *Investigative Ophthalmology and Visual Sciences*, (supplement), 2002.
- **52.** M. H. Criswell, **T. A. Ciulla**, R. P. Danis, J. I. Williams, J. P. McLane, and H. J. Holroyd: Squalmaine lactate inhibits choroidal neovascular membrane (CNVM) formation in a rat laser-trauma model, *Investigative Ophthalmology and Visual Sciences*, (supplement), 2002.
- **53.** A. Harris, L. KageR. M.an, C. Amin, R. Migliardi, **T. A. Ciulla**, and O. Arend: A new spectrographic digital fundus oxymeter: effect of hyperoxia on retinal oxygen tension, *Investigative Ophthalmology and Visual Sciences*, (supplement), 2002.
- **54.** R. P. Danis, L. J. McCarthy, A. Harris, **T. A. Ciulla**, and L. Kagemann: Interim results of a multicenter double masked placebo controlled trial of apheresis in pre-angiogenic age-related macular degeneration, *Investigative Ophthalmology and Visual Sciences*, (supplement), 2002.
- **55.** C. Jonescu-Cuypers, A. Harris, L. M. Pratt, L. Kagemann, B. Siesky, **T. A. Ciulla**, L. McNulty, S. Shah, and L. McCranor: The effect of Nilvadipine on flow velocity and visual acuity in non-exudative age related macular degeneration, *Investigative Ophthalmology and Visual Sciences*, (supplement), 2002.

- 56. M. A. Desai, A. Harris, B. Siesky, L. McCranor, T. A. Ciulla, L. Kagemann, L. M. Pratt, E. Rechtman, and S. Ventrapragada. Topical Dorzolamide May Enhance Peripapillary Choroidal Perfusion in Non-Neovascular Age-Related Macular Degeneration: *Investigative Ophthalmology and Visual Sciences*, (supplement), 2003.
- 57. T. A. Ciulla, A. Harris, E. Rechtman, L. Kagemann, M. A. Desai, S.A. Friedman, S. Ventrapragada, and R.

V. Kumar. Ocular Blood Flow Assessment in AMD and its Potential Clinical Applications: *Investigative Ophthalmology and Visual Sciences*, (supplement), 2003.

58. M. H. Criswell, **T. A. Ciulla,** L. Lowseth, R. P. Danis, and D. Carson. Chorioretinal Anastomoses Remain Viable after Photodynamic Therapy (PDT) in Primate Models of Choroidal Neovascularization (CNV): Investigative Ophthalmology and Visual Sciences, (supplement), 2003.

2004-

- **59.** T. L. Cornell, W.-Z.Hu, M. H. Criswell, A. Ottlecz, R. P. Danis, G. N. Lambrou, and **T. A. Ciulla**. Oral Administration of the Selective COX-2 Inhibitor, Lumiracoxib, Significantly Reduces Choroidal Neovascular Membrane (CNVM) Development in the Rat Laser-Trauma Model: *Investigative Ophthalmology and Visual Sciences*, (supplement), 2004.
- **60.** G. M. Comer, **T. A. Ciulla**, C. Peloquin, and J. Wheeler. Human Vitreous Distribution of Linezolid After a Single Oral Dose: *Investigative Ophthalmology and Visual Sciences*, (supplement), 2004.
- **61.** L. E. Kagemann, A. Harris, B. Siesky, L. McNulty, E. Sanchez, F. Orge, J. Smith, and **T. A. Ciulla**. Comparison of Area Dilution Analysis with Color Doppler Imaging: *Investigative Ophthalmology and Visual Sciences*, (supplement), 2004.
- **62.** H. Garzozi, A. Harris, L. Kagemann, B. Siesky, H. Gao, **T. A. Ciulla**, P. Tsai, M. Lusky, and F. Orge. Retinal Arteriovenous Passage Times Derived from Fluorescein Angiography are Independent of AVP Times Derived From Indocyanine Green Angiography: *Investigative Ophthalmology and Visual Sciences*, (supplement), 2004.
- **63. T. A. Ciulla** and B. R. Hammond. Macular Pigment Density in The Normal Elderly, And Subjects With Cataracts And Age-Related Macular Degeneration: *Investigative Ophthalmology and Visual Sciences*, (supplement), 2004.

- **64.** G. Comer, **T. A. Ciulla**, H. Gao, and R. K. Maturi. Treatment Outcomes of Choroidal Neovascularization Secondary to Ocular Histoplasmosis: *Investigative Ophthalmology and Visual Sciences*, (supplement), 2005.
- **65.** G. Hubbard, **T. A. Ciulla**, D. M. Marcus, J. Heier, M. Zarbin, G. J. Jaffe, N. Bhagat, E. Buckley, and T. M. Aaberg, Sr. A New Ocular Brachytherapy System for the Treatment of Exudative AMD: *Investigative Ophthalmology and Visual Sciences*, (supplement), 2005.
- **66. T. A. Ciulla**, C. Regillo, A. Desai, R. Levitt, J. Nau, and C. A. Garcia. A Phase II, Multi-center, Randomized, Controlled, Masked Study of the Effects of Squalamine Lactate in Combination With Visudyne® in Patients With Subfoveal Choroidal Neovascularization Associated With Age-Related Macular Degeneration: *Investigative Ophthalmology and Visual Sciences*, (supplement), 2005.
- **67.** L. E. Kagemann, A. Harris, B. Siesky, C. Klass, R. Danis, H. Gao, **T. A. Ciulla**, C. Jonescu-Cuypers, L. McCranor, and E. Rechtman. An Analytic and 12-Month Biological Variability of Retinal Oximetry Measurements in Patients With Non-Neovascular Age Related Macular Degeneration *Investigative Ophthalmology and Visual Sciences*, (supplement), 2005.
- **68.** A. Oliver, **T. A. Ciulla**, and R. Maturi. Comparison of Photodynamic Therapy, Intravitreal Triamcinolone or a Combined Regimine as Initial Treatment of Choroidal Neovascularization: *Investigative Ophthalmology and Visual Sciences*, (supplement), 2005.
- **69.** F.M. Contereas, A. Harris, B. Siesky, H. Gao, R. P. Danis, E. Rechtman, L. McCranor, C. Klass, and **T. A. Ciulla.** Perfusion Pressure Correlates with Visual Acuity in Patients with Non-Neovascular Age-Related Macular Degeneration: *Investigative Ophthalmology and Visual Sciences*, (supplement), 2005.
- 70. E. Rechtman, A. Harris, T. A. Ciulla, R. P. Danis, B. Siesky, L. McCranor, L. M. Pratt, M. O. Peracha, and

H. Gao. The Effects of Topical Dorzolamide on Visual Acuity and Disease Progression in Non-Neovascular Age-Related Macular Degeneration: A One-Year, Randomized, Double-Masked, Placebo-Controlled Trial: Investigative Ophthalmology and Visual Sciences, (supplement), 2005.

2006

- **71.** E. Rechtman, A. Harris, **T. A. Ciulla**, R. P. Danis, B. Siesky, E. Brizendine D. Sines, C. W. Yung, O. Geyer, and H.J. Garzozi: The Relationship Between Retrobulbar and Choroidal Hemodynamics in Non-Neovascular Age-Related Macular Degeneration: *Investigative Ophthalmology and Visual Sciences*, (supplement), 2006 47:2170.
- **72. T. A. Ciulla**, L. Yu, J. Lowe, N. Yu, M. Maia, L. A. Damico, and N. Ferrara. Molecular Heterogeneity of VEGF-A in the Vitreous of Patients with Proliferative Diabetic Retinopathy: *Investigative Ophthalmology and Visual Sciences*, (supplement), 2006 47:967.
- **73.** G. Hubbard, III, **T. A. Ciulla**, J. Heier Jr., M. Zarbin, and G. J. Jaffe. A Progress Report on the TheraSight Ocular Brachytherapy Safety and Feasibility Study: *Investigative Ophthalmology and Visual Sciences*, (supplement), 2006 47:2101.

2007

- **74. T. A. Ciulla**, H. Shapiro, S. Schneider, and MARINA and ANCHOR Study Groups. Ranibizumab (LucentisTM) for Neovascular Age-Related Macular Degeneration (AMD): 1-Year Visual Acuity (VA) Results for Fellow Eyes with Neovascular AMD in MARINA and ANCHOR: *Investigative Ophthalmology and Visual Sciences*, (supplement), 2007 48:4573.
- **75.** M. Gast, W. Yarnall, **T. A. Ciulla**, R. Rosen, A. DelConte, and C. A. Garcia. Squalamine Lactate Therapy Results in High Levels of VA Stability in Patients with Subfoveal Choroidal Neovascularization Associated with Age-Related Macular Degeneration - A Phase 2, Randomized, Controlled Study: Investigative Ophthalmology and Visual Sciences, (supplement), 2007 48:2874.
- **76. T. A. Ciulla**, A. Oliver, and M. Gast: Squalamine lactate for the treatment of Age-Related Macular Degeneration, *Expert Review of Ophthalmology*, Vol.2, No. 2, 165-175, 2007.
- **77.** E. Rechtman, A. Harris, B. Siesky, L. Kagemann, R. P. Danis, D. Sines, and **T. A. Ciulla**: The relationship between retrobulbar and choroidal hemodynamics in non-neovascular age-related macular degeneration, *Ophthalmic Surgery, Lasers and Imaging*, 2007 May-June;38(3): 219-25.
- **78. T. A. Ciulla**: Therapeutic effects of ranibizumab in neovascular age-related macular degeneration, *Expert Review of Ophthalmology*, October 2007, Vol. 2, No.5, 679-693.
- **79.** J. A. Davidson, **T. A. Ciulla**, J. B. McGill, K. A. Kles, and P. W. Anderson: How the diabetic eye loses vision, *Endocrine*, 32:107-116, 2007.
- 80. E. Rechtman, A. Harris, E. Stefansson, T. A. Ciulla, B. Siesky, L. Kagemann and H. J. Garzozi: The Relationship Between Retinal Oxygenation and Visual Function in Non-Neovascular Age-Related Macular Degeneration: Investigative Ophthalmology and Visual Sciences, (supplement), 2007 48:1787.

2009

 I. K. Kim, J. S. Heier, D. M. Brown, T. A. Ciulla, P. Abraham, J. M. Bankert S. Chong, and P. E. Daniel. Efficacy and Safety of Ranibizumab (LUCENTIS (R)) for the Treatment of Choroidal Neovascularization Not Due to Age-Related Macular Degeneration: 6-Month Data From a Randomized Clinical Trial: Investigative Ophthalmology and Visual Sciences, (supplement), 2009 50:6204.

2010

82. T. A. Ciulla and the FAME Studies Group. Fluocinolone Acetonide Intravitreal Insert (Iluvien (R)) Phase 3 Studies: Demographics: *Investigative Ophthalmology and Visual Sciences,* (supplement),

2010 51:5844.
D. Callanan, S. Gupta, T. A. Ciulla, D.S. Boyer, C. Liu, J. Lou, X. Li and S.M. Whitcup. Efficacy and Safety of Combination Therapy with Dexamethasone Intravitreal Implant (DEX Implant) Plus Laser Photocoagulation Versus Monotherapy with Laser for Treatment of Diffuse Diabetic Macular Edema (DDME), Investigative Ophthalmology and Visual Sciences, 2011;52: E-Abstract 3968
L. Ciulla, T. Ciulla . Ranibizumab for diabetic macular edema refractory to multiple prior treatments, Invest Ophthalmol Vis Sci 2014;55: E-Abstract 1768.
J. S. Slakter, T. A. Ciulla , M. J. Elman; L. J Singerman, G. Stoller, P. K. Kaiser, I. B. Taraporewala, S. Backenroth. Final Results from a Phase 2 Study of Squalamine Lactate Ophthalmic Solution 0.2% (OHR-102) in the Treatment of Neovascular Age-related Macular Degeneration (AMD), Invest Ophthalmol Vis Sci 2015; 56, 4805.
T. A. Ciulla , G. S. Ying, M. G. Maguire, D. F. Martin, G. J. Jaffe, J. E. Grunwald, E. Daniel, C. A. Toth, CATT Research Group. Influence of the Vitreomacular Interface on Treatment Outcomes in the Comparison of AMD Treatments Trials (CATT), Invest Ophthalmol Vis Sci 2015; 56, 3154.
L. Ciulla, B. Sink, R. Hussain. T. A. Ciulla . Dexamethasone Implant (0.7 mg) for Persistent and Recurrent Macular Edema Due to Venous Occlusion, Invest. Ophthalmol. Vis. Sci. 2015; 56(7) :3753.
K. A. Rezaei, K. Westby, P. K. Kaiser; T. A. Ciulla , S. Patel. Visual outcome over time and tissue responses in patients with early vision loss after combination therapy of anti-PDGF (Fovista ® 1.5mg) plus anti-VEGF (ranibizumab 0.5mg) versus monotherapy anti-VEGF (ranibizumab 0.5mg), Invest. Ophthalmol. Vis. Sci. 2016; 57(12).
N. Moore, A. Harris, B. A. Siesky, A. Huang, C. Ridenour, I. Januleviciene, L. Siaudvytyte, G. Eckert, A. C. Verticchio Vercellin, T. A. Ciulla . Baseline structural parameters measured with optical coherence tomography predict functional progression in open-angle glaucoma patients after five years. Invest. Ophthalmol. Vis. Sci. 2016; 57(12):350.
A. C. Verticchio Vercellin, A. Harris, B. A. Siesky, A. Huang, C. Ridenour, I. Januleviciene, L. Siaudvytyte, G. Eckert, N. Moore, T. A. Ciulla . Baseline retrobulbar blood flow correlates more strongly with longitudinal changes in macular structure in glaucoma patients of African descent. Invest. Ophthalmol. Vis. Sci. 2016; 57(12):2973.
F. Huang, K. Westby, D. F. Williams, T. A. Ciulla , S. Zaveri, S. Patel. Real World U.S. Outcomes of Anti- Vascular Endothelial Growth Factor (VEGF)Therapy in Neovascular AMD (NAMD): Risk of Vision Loss is Greatest in Patients with Better Baseline Visual Acuity. Invest. Ophthalmol. Vis. Sci. 2016; 57(12):3343.
T. Ciulla , G. J. Jaffe, S. Patel. Assessment of Retinal Pigment Epithelium (RPE) Atrophy in a Phase 2b Study of a Platelet Derived Growth Factor inhibitor (Fovista ®), in combination with a Vascular Endothelial Growth Factor inhibitor (Ranibizumab) for Neovascular Age-Related Macular Degeneration (NAMD). <i>Invest. Ophthalmol. Vis. Sci.</i> 2016; 57(12):4418.
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