

CURRICULUM VITAE

DATE PREPARED: November 20, 2008

PART I: General Information

Name: Joseph Felix Rizzo, III

Education:

- 1974 B.S. (Biology and Chemistry), Louisiana State University
- 1978 M.D. (Medicine), Louisiana State University, New Orleans, LA

Postdoctoral Training:

- 07/78-06/79 Intern in Adult Medicine, University of Southern California/Los Angeles County Hospital
- 07/79-06/82 Resident in Neurology, Tufts/New England Medical Center
- 07/82-06/85 Resident in Ophthalmology, Boston University School of Medicine
- 07/85-06/86 Clinical Fellow, Neuro-Ophthalmology, Massachusetts Eye and Ear Infirmary/Harvard Medical School (Mentor: Simmons Lessell, M.D.)
- 07/86-06/01 Laboratory of Richard Masland, Ph.D., Massachusetts General Hospital

Licensure and Certification:

- 1979 Massachusetts Medical License
- 1984 Board-Certified, American Board of Psychiatry and Neurology

1987 Board-Certified, American Board of Ophthalmology

Academic Appointments:

1986-1988 Instructor in Ophthalmology, Harvard Medical School, Boston, MA

1986-1990 Clinical Research Affiliate, Massachusetts Institute of Technology, Cambridge, MA

1989-1998 Assistant Professor of Ophthalmology, Harvard Medical School, Boston, MA

1990- Research Affiliate, Research Laboratory of Electronics, Massachusetts Institute of Technology, Cambridge, MA

1998- Associate Professor of Ophthalmology, Harvard Medical School, Boston, MA

Hospital or Affiliated Institution Appointments:

01/86-12/86 Assistant in Ophthalmology, Associate Staff, Massachusetts Eye and Ear Infirmary, Boston, MA

01/87-12/97 Assistant in Ophthalmology, Active Staff, Massachusetts Eye and Ear Infirmary, Boston, MA

01/98- Associate Surgeon, Massachusetts Eye and Ear Infirmary and the Massachusetts General Hospital, Boston, MA

09/01- Staff Ophthalmologist, Veterans Administration Hospital, Jamaica Plain, Boston, Boston, MA

06/03- Clinical Associate: Surgery Service/Ophthalmology, Massachusetts General Hospital, Boston, MA

Other Professional Positions and Major Visiting Appointments:

1994-1997 Quarterly Visiting Physician, Rhode Island Hospital, Department of Ophthalmology

Hospital and Health Care Organization Clinical Service Responsibilities:

1986- Staff Attending, Ophthalmology, Massachusetts Eye and Ear Infirmary

Major Administrative Responsibilities:

2001- Director, Center of Innovative Visual Rehabilitation, Veterans Administration Hospital, Jamaica Plain, Boston

2006- Director, Neuro-Ophthalmology Service, Massachusetts Eye and Ear Infirmary

Major Committee Assignments:

Affiliated Inst

1989- Fellowship Committee, Massachusetts Eye and Ear Infirmary

1990- Medical Records Committee [Chairperson], Massachusetts Eye and Ear Infirmary

1991- Patent Committee, Massachusetts Eye and Ear Infirmary

1992- Resident Selection Committee, Massachusetts Eye and Ear Infirmary

1997-2001 Joint Governing Committee, Schepens-Massachusetts Eye and Ear Infirmary Study Unit

2006- Strategic Planning Committee, Massachusetts Eye and Ear Infirmary

Professional Societies:

- 1980- Massachusetts Medical Society, Member
- 1984- American Academy of Neurology, Member
- 1985- American Academy of Ophthalmology, Member
- 1987- Association for Research in Vision and Ophthalmology, Member
- 1987- North American Neuro-Ophthalmic Society, Member
 Scientific Program Committee, 1991-1996
 Secretary, 1992-1994
 Chairperson, Abstracts Subcommittee, 1992-1995
 Certification and Accreditation Committee, 1993-1999
 Education Committee, 1993-
 Research Symposium Planning Committee, 1993-1995
 Nominations Committee, 1993-2000
 Fellowship Committee, 2004-
- 1987-1995 Frank Walsh Society, Member
- 1988- American Medical Association, Member
- 1988-1995 Massachusetts Society of Eye Physicians and Surgeons, Member
- 1991-2005 New England Ophthalmological Society, Member

Community Service Related to Professional Work:

- 1993-1994 Member, Medical Advisory Board Member Registry of Motor Vehicles,
 Commonwealth of Massachusetts
- 1994- Member, Medical Advisory Board Myasthenia Gravis Foundation,
 Massachusetts Chapter

Editorial Boards:

- 2003-2004 Ad-Hoc Editorial Board Member, Investigative Ophthalmology and Visual Science
- 2004- Editorial Board Member, Investigative Ophthalmology and Visual Science
- 2007- Editorial Board Member, The Journal of Ocular Biology, Diseases, and Informatics

Awards and Honors:

- 1972 Phi Beta Sigma, Honor Society, Louisiana State University
- 1975 Phi Kappa Phi, Honor Society, Louisiana State University
- 1976 Ciba Award (presented to the person contributing the most to the medical school class), Louisiana State University School of Medicine
- 1978 Dean's Award for "Overall Excellence", Louisiana State University School of Medicine
- 1995 Special Award , Xth Congress European Society of Ophthalmology, Milan, Italy
- 2004 Bartemeus Award (for leadership within the field of retinal prosthetics), Detroit Institute of Ophthalmology
- 2007 Senior Achievement Award, American Academy of Ophthalmology

Part II: Research, Teaching, and Clinical Contributions

A. Narrative report of Research, Teaching, and Clinical Contributions

I am a Neuro-Ophthalmologist and a physician scientist, and I direct a research project to develop a retinal prosthesis to restore vision to the blind. My professional time is nearly equally divided between clinical work and research, with additional time allocations for teaching (10%) and administrative responsibilities (5%). An overview of my areas of primary focus is provided below.

Research

My research is dedicated toward either studying the mechanisms of visual loss, improving our diagnostic methods for blinding diseases, or developing new treatments for blinding diseases.

Basic Science and Translational Research. I founded the Boston Retinal Implant Project (BRIP) in the late 1980s, and I have since served as co-director of the Project. The BRIP is a multi-disciplinary research initiative that is based at the Massachusetts Eye and Ear Infirmary, Massachusetts Institute of Technology and the Boston Veterans Administration Hospital. The goal of the BRIP is to develop a retinal prosthesis to offer a new therapeutic option for patients who have acquired blindness. My team currently includes 34 researchers who are distributed across six academic centers.

My primary roles on the Project have been to: 1) set the strategic direction of the Project; 2) perform administrative duties, including hiring and firing of research and administrative staff; 3) coordinate the biological initiatives with our team of engineers; and 4) develop in-vivo techniques related to development of a retinal prosthesis. Regarding the latter, my most recent interest is the development of a technological platform to study the neural code of vision, which I believe will help inform our approach to deliver electrical stimulation to blind patients to create visual images.

Clinical Research

My clinical research has focused primarily on the study of optic neuritis/multiple sclerosis, ischemic optic neuropathy, pseudotumor cerebri and giant cell arteritis. I have completed three significant clinical research studies that have influenced the diagnosis and treatment of optic neuritis and ischemic optic neuropathy, which are the two most common forms of non-glaucomatous optic neuropathy in adults. Some of my significant findings include: 1) recognition that all women and most men who experience optic neuritis eventually developed multiple sclerosis; 2) the demonstration of a significant overlap in the clinical profiles of optic neuritis and ischemic optic neuropathy; and 3) the recognition that magnetic resonance imaging (MRI) provides the most objective method to distinguish between these two disorders. The improved diagnostic accuracy obtained by MRI reduces the potential that patients with ischemic optic neuropathy might be unnecessarily treated as if they had multiple sclerosis. I also was the first clinician to either recognize the occurrence of optic neuropathy in Familial Dysautonomia, and occult large vessel occlusive disease of the retina and choroid as a cause for persistent monocular visual loss.

Teaching

I share responsibility for supervision and teaching of one clinical fellow and eight residents per year in the basic evaluation and management of Neuro-Ophthalmic disorders. I provide one-on-

one instruction to residents, fellows and medical students on the Neuro-Ophthalmology rotation, and I deliver approximately 35 lectures per year on a wide range of clinical problems. As director of the Neuro-Ophthalmology service, I also design and provide oversight for our fellowship training program. For the past 17 years, I have served as Director of the Neuro-Ophthalmology section of the Lancaster course in Ophthalmology, which is the oldest and largest educational course that is designed for residents-in-training.

Clinical Care

I deliver medical care to patients only at the Massachusetts Eye and Ear Infirmary, where I practice as one of three full-time Neuro-Ophthalmologists. I evaluate roughly 40% of all patients referred to our service. My practice is primarily one of diagnostic consultation for a wide range of visual disturbances that result from damage to the eye or brain.

Intersection Among Professional Activities

My goal in becoming a physician-scientist has been to deliver high quality care to individual patients while performing research to hopefully help a much larger number of patients than I would ever meet. My interactions with severely blind patients led me to establish my research project to develop a retinal prosthesis. The scientific knowledge that I gain from my basic/translational research has helped to improve my ability to understand the problems that affect my patients.

B. Funding Information

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| 1986-1991 | Physician Scientist Award, National Eye Institute, National Institutes of Health, Title: "Identification of Sub-Populations of Human Retinal Ganglion Cells" |
| 1988 | Principal Investigator, Lion's Club, Title: "Development of a Silicon Retinal Implant to Restore Some Vision to Blind Patients" |
| 1990-1996 | Co-Principal Investigator, Seaver Foundation, Title: "Development of a Silicon Retinal Implant to Restore Some Vision to Blind Patients" |
| 1991-1992 | Principal Investigator, The E. Matilda Ziegler Foundation for the Blind, Inc., Title: "Development of a Silicon Retinal Implant to Restore Some Vision to Blind Patients" |

- 1991-1996 Consultant, National Institute on Aging, P01-AG09976, Title: "Sleep, Aging and Circadian Rhythm Disorders"
- 1994-1996 Principal Investigator, Joseph Drown Foundation, Title: "Development of a Silicon Retinal Implant to Restore Some Vision to Blind Patients"
- 1994-1999 Collaborator, National Institutes of Health, Title: "The Role of Human Visual Cortex in Perception"
- 1996-1997 Principal Investigator, Grousbeck Foundation, Title: "Development of a Silicon Retinal Implant to Restore Some Vision to Blind Patients"
- 1997-2001 Co-Principal Investigator, Catalyst Foundation, New York, Title: "Retinal Implant Chip for the Blind"
- 1997-2001 Co-Principal Investigator, Keck Foundation, Title: "Development of a Silicon Retinal Implant to Restore Vision to the Blind"
- 2000-2001 Principal Investigator, Wynn Foundation, Title: "Retinal Electrical Stimulation of Patients with RP"
- 2000-2003 P.I., Foundation Fighting Blindness, Grant #: T-VP-1000-69, Title: "In Vitro Electrical Stimulation of Retinas"
- 2000-2005 Co-Principal Investigator, National Institute of Health, Sub-Contract with Second Sight, Title: "Development/Testing of Artificial Retinas for the Blind"
- 2001-2006 Principal Investigator, Veterans Administration, Title: "Center of Excellence Project to Support the Center for Innovative Visual Rehabilitation"
- 2002-2003 Principal Investigator, Veterans Administration, Equipment grant to support development of a retinal prosthesis
- 2002-2004 Principal Investigator, Veterans Administration, Title: "High Density Feedthroughs for Implantable Prosthesis Packages"
- 2003-2007 Supervisor/Investigator, Catalyst Foundation, Title: "Second Generation Retinal Implant for the Blind"

- 2004-2006 Principal Investigator, Veterans Administration, Title: "Development of a Biocompatible Retinal Prosthesis"
- 2005-2007 Principal Investigator, Defense Applied Research Program Agency (DARPA), NEOVISION Program, Title: "Study of the Interface between the Retina and a Custom Designed Stimulator Chip"
- 2005-2008 Principal Investigator, National Science Foundation, Title: "Development of a Technological Platform to Study the Neural Code of Vision"
- 2006-2011 Principal Investigator, Veterans Administration, Title: "Center of Excellence" grant (second cycle of funding) to support the "Center for Innovative Visual Rehabilitation"
- 2007-2008 Principal Investigator, TATRC: United States Army Medical Research and Material Command, Title: "Development of a Modular, Configurable Retinal Prosthesis"
- 2007-2008 Sub-Contractor (P.I.), National Institutes of Health (SBIR Grant), title: "Functionalized Coatings for Enhanced Neural Interfaces"
- 2007-2009 Principal Investigator, Department of Defense, Title: "Optimization of Microelectronic Methods to Produce an Implantable Retinal Prosthesis to Treat Blindness"

C. Report of Other (Non-Funded) Activities

- P.I. Incidence of Polycystic Ovarian Syndrome and Idiopathic Intracranial Hypertension
- P.I. Screening of a Battery of Tests to Identify Better Means of Assessing Vision in Severely Blind Patients
- P.I. Observational Study of Neoplastic Infiltrative Optic Neuropathy
- P.I. Meta-analysis of the Relationship of the Dose of Corticosteroid on the Therapeutic Efficacy for Treating Giant Cell Arteritis

Collaborator National Institutes of Health: "Effects of Alzheimer's Disease on Basic and High Order Sensory Capacities"

P.I. FDA, G000269/S002, FDA Approved Investigational Device Exemption (IDE) trial to determine stimulation thresholds and perceptual quality of electrical stimulation of the retina

P.I. fMRI Study of Visual Cortical Plasticity in Patients Who Are Blind from Retinitis Pigmentosa and Age-Related Macular Degeneration

D. Report of Teaching

1. Local contributions

a. Medical School Courses

1990-1991	<u>Course in Human Nervous System and Behavior - New Pathway Curriculum</u>		
	Tutor	10 Medical Students	<i>contact time</i> 2 hours/week for 5 week(s) <i>prep time</i> 1 hours/ week for 5 week (s)
1990-1991	<u>Neurobiology Lecture, "The Retinal Anatomical Basis of Afferent Visual Function"</u>		
	Lecturer	50 Medical Students	<i>contact time</i> 2 hours/year for 1 year(s) <i>prep time</i> 1 hours/ year for 1 year (s)
1992-	<u>Introduction to Neuroscience; Health Sciences and Technology</u>		

Lecturer	40 Medical Students	<i>contact time</i> 2 hours/year for 1 year(s)	<i>prep time</i> none reported
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b. Graduate Medical Courses

1986- Neuro-Ophthalmology Lecture Series; Massachusetts Eye and Ear Infirmary

Lecturer	10 Residents 10 Other Students	<i>contact time</i> 10 hours/year for 15 year(s)	<i>prep time</i> 10 hours/ year for 15 year (s)
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1989 Schepens Eye Research Institute, "Neuro-Ophthalmological Aspects of Retinal Disease"

1989-2002 Neuro-Ophthalmology section Harvard-Post Graduate Review course for Ophthalmologists, Harvard Medical School

Lecturer	75 Graduate Students	<i>contact time</i> 4 hours/year for 15 year(s)	<i>prep time</i> 6 hours/ year for 15 year (s)
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1991- Lancaster Course in Ophthalmology: Neuro-Ophthalmology Section. Waterville, ME

Lecturer	65 Residents	<i>contact time</i> 15 hours/year for 16 year(s)	<i>prep time</i> 10 hours/ year for 16 year (s)
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1992 Emergency Lecture Series: "Neuro-Ophthalmic Complications of Ocular Trauma"

c. Local Invited Presentations

Annual Invited Lecturer

1995- "Ocular Myasthenia", Myasthenia Gravis Support Group of Massachusetts

2001- "Neuro-Ophthalmic Manifestations of Chiasmal Disease", Neuro-Endocrinology Service, Massachusetts General Hospital

Commencement Speaker

1999 Commencement Address: Resident and Fellowship Graduation Ceremony, Massachusetts Eye and Ear Infirmary

Grand Rounds

1986 "Optic Neuritis and Multiple Sclerosis", Department of Neurology, Beth Israel Deaconess Medical Center, Boston

1986 "Transient Monocular Blindness", Department of Neurology, Saint Elizabeth's Hospital, Brighton

1986 "Optic Neuritis and Multiple Sclerosis", Department of Ophthalmology, Boston University School of Medicine, Boston

1986-1996 Ophthalmology Grand Rounds, Department of Ophthalmology, Massachusetts Eye and Ear Infirmary, Boston

- 1987 "Optic Neuritis and Multiple Sclerosis", Department of Ophthalmology, Tufts/
New England Medical Center, Boston
- 1987 "Clinical Aspects of Afferent Pathway Disease", Department of Ophthalmology,
Boston University School of Medicine, Boston
- 1987 "Risk of Developing Multiple Sclerosis after Optic Neuritis", Department of
Neurology, Massachusetts General Hospital, Boston
- 1988 "Optic Neuritis and Multiple Sclerosis", Department of Neurology, Brigham and
Women's/Beth Israel Hospital, Boston
- 1989 "Optic Neuritis and Multiple Sclerosis", Department of Ophthalmology, Tufts/
New England Medical Center, Boston
- 1990 "Clinical Aspects of Afferent Pathway Disease", Department of Ophthalmology,
Tufts/New England Medical Center, Boston
- 1992 "Diagnosis and Management of Optic Neuritis", Department of Ophthalmology,
Children's Hospital, Boston
- 1993 "Clinical Vignettes that Reveal Aspects of Neuronal Behavior", Department of
Neurology, Massachusetts General Hospital, Boston
- 1993 "Clinical Vignettes that Reveal Aspects of Neuronal Behavior", Department of
Ophthalmology, Lahey Clinical Medical Center, Burlington, MA
- 1994 "ATP Deficiency Optic Neuropathy", Department of Ophthalmology, Tufts/
New England Medical Center, Boston

- 1996 "New Treatment and Concepts of Transient Monocular Blindness", Department of Neurology, Tufts/New England Medical Center, Boston
- 1999 "Development of a Silicon Retinal Prosthesis", Department of Neurosurgery, Massachusetts General Hospital, Boston
- 2000 "Development of a Silicon Retinal Prosthesis", Department of Neurology, Massachusetts General Hospital, Boston
- 2002 "Neuro-Ophthalmic Manifestations of Myasthenia Gravis", Department of Neurology, Tufts/New England Medical Center, Boston
- 2005 "Ophthalmic Aspects of Giant Cell Arteritis", Department of Rheumatology, Boston University School of Medicine, Boston

Invited Lecturer

- 1991-1995 "Retro-Chiasmal Syndromes", New England College of Optometry
- 1996 "Overlapping Clinical Features of Retinal and Optic Nerve Disease" and "Retinal Basis for Visual Function", Tufts/Boston University Combined Resident Lecture Series
- 1997 "Clinical Overview of the Ocular Motor System", Tufts/Boston University Combined Resident Lecture Series
- 1997 "Management of Temporal Arteritis", Division of Ophthalmology, North Shore Medical Center

- 1997 Vision Rehabilitation Service, Massachusetts Eye and Ear Infirmary
- 2005 "The Use of Modern Technology to Restore Vision to the Blind", Boston Museum of Science
- 2006 "Development of a Retinal Prosthesis to Restore Vision to the Blind: The Changing Landscape of Military Ophthalmology", Schepens Eye Research Institute, Boston

Research Presentation

- 1991 "Retinal Transplantation", Department of Anatomy and Neurobiology, Boston University Graduate Seminar series, Boston
- 1993 "Development of a Silicon Retinal Prosthesis", Massachusetts Institute of Technology Colloquium
- 2002 Center for Innovative, Minimally Invasive Technology, "Development of a Retinal Prosthesis", Massachusetts General Hospital
- 2004 "Puzzling, Retrospective Perceptual Results from Electrical Stimulation of Human Retina", Department of Anatomy and Neurobiology, Boston University School of Medicine, Boston
- 2008 "Development of a Retinal Prosthesis", Lion's Club

Seminar

- 1990 "Paraneoplastic Retinopathy", Schepens Eye Research Institute

- 1991 "Optic Neuropathies Masquerading as Retinopathy", Schepens Eye Research Institute, Boston
- 1995 "Management of Temporal Arteritis", Springfield Ophthalmology Association, Springfield, MA
- 2001 "Development of a Retinal Prosthesis" in "The Biology of Ophthalmic Diseases", NEI Postdoctoral Training Program, Massachusetts Eye and Ear Infirmary and the Schepens Eye Research Institute, Boston, MA
- 2007 1st Harvard - wide Neural Prosthesis Seminar, Harvard Medical School
- 2008 "Ischemic Optic Neuropathy", Tufts Medical School

d. Continuing Medical Education Courses

- 1987 New England Ophthalmological Society, "Optic Neuritis and Multiple Sclerosis"
- 1989- Neuro-Ophthalmology Fall Festival (bi-annual; 8 events in total)
- 1989 Symposium on Head Trauma, Spaulding Rehabilitation Hospital, Boston. "Neuro-Ophthalmic Manifestations of Closed Head Injury"
- 1989-2002 Neuro-Ophthalmology Section (for Ophthalmologists); Harvard Post-Graduate Review Course in Ophthalmology
- 1990 New England Ophthalmological Society, "Partial Central Retinal Artery Occlusion"

- 1991 Course in Acute Neurology and Stroke Management, sponsored by St. Elizabeth's Hospital, Brighton, MA
- 1991 American Academy of Ophthalmology, "Traumatic Optic Neuropathy", Update Course
- 1992 New England Council of Optometrists, Regional meeting. "Clinical Overview of the Afferent Visual System"
- 1992 Practicing Ophthalmology for Primary Care Physicians, Massachusetts Eye and Ear Infirmary. "Migraine"
- 1993 New England Ophthalmological Society, "Visual Function in Alzheimer's Disease"
- 1996 New England Ophthalmological Society, "Diagnosis and Management of Temporal Arteritis"
- 1997 Clinical Update Course in Ophthalmology: "Results of the Optic Neuritis Treatment Trial" and "Paraneoplastic Retinopathy"
- 1997 New England Optometric Society, Annual Regional Meeting. "Clinical Aspects of Optic Nerve Disease"
- 2000 "New Treatments for Neo-Vascular Age-Related Macular Degeneration", sponsored by Harvard Medical School

- 2001 New England Council of Optometrists, Regional Meeting. "Retinal and Cortical Visual Field Defects in a Young Woman"
- 2001 New England Council of Optometrists, Regional Meeting. "Development of a Retinal Prosthesis"
- 2002 New England Ophthalmological Society. "Sneeze Induced Neuro-Ophthalmic Complications"
- 2003 New England Ophthalmological Society. "Ischemic Optic Neuropathy"
- 2004 New England Ophthalmological Society. "Traumatic Optic Neuropathy"
- 2005 Director, Kevin Hill Seminar in Ophthalmology on Neuro-Ophthalmology; 5 Lectures
- 2005 New England Ophthalmological Society's 18th Annual Meeting for Ophthalmic Medical Personnel. "Common Forms of Optic Neuropathies"
- 2005 New England Ophthalmological Society. "Pediatric Nystagmus"
- 2006 Chandler Visiting Lecture; Academic Organizer
- 2007 Alumni Meeting, Department of Ophthalmology, Massachusetts Eye and Ear Infirmary; Course Co-Director
- 2008 Illinois Eye Review: Overview of Clinical Neuro-Ophthalmology

e. Advisory and Supervisory Responsibilities in Clinical or Laboratory Setting

- 1986- 19 Undergraduate and Graduate Students (10 Undergraduate; 9 Graduate) for 50 hrs/year, Responsibilities include: supervision of students either in our clinic or in my laboratory, reviewing theses, and jointly performing experiments. Harvard College, MIT, Boston University School of Medicine, University of New South Wales, Australia, UCLA, Brown University, Holy Cross, Louisiana State University
- 1986- 139 Ophthalmology Residents and Clinical Fellows for 250 hrs/year, Responsibilities include: supervision of 120 residents during their 3 month rotation and 19 fellows over their year-long appointment, supervise emergency room patients, teach, and perform lumbar punctures and temporal biopsies with the residents and , Massachusetts Eye and Ear Infirmary

f. Leadership Roles

- 1989-2002 Director, Neuro-Ophthalmology section Harvard-Post Graduate Review course for Ophthalmologists, Harvard Medical School
Responsibility: Preparation of lectures and hand-outs that summarize the fundamental clinical issues in the practice of neuro-ophthalmology for a six hour lecture session given once per year.
- 1991-1992 Member, Advanced Concepts in Visual Science Course Planning Committee, Massachusetts Eye and Ear Infirmary
Responsibility: Identify topics and lecturers in emerging fields relevant to visual science.
- 1993 Organizer and Moderator, New England Ophthalmic Society Symposium on Clinical Neuro-Ophthalmology, New England Ophthalmic Society
Responsibility: Selection of topics and choosing lecturers for a half-day symposium to approximately 200 ophthalmologists.

- 1995 Course Co-Director, "Biomedical Engineering Society, Annual Meeting", Boston, MA., Biomedical Engineering Society
Responsibility: Prepare a four hour symposium and select speakers to review the topic of visual prostheses.
- 2007- Trustee, Schepens Eye Research Insitute, The Schepens Eye Research Institute
Responsibility: To provide oversight of The Institute's research activities
- 2008 Symposium Chair, Massachusetts Eye and Ear Infirmary Annual Alumni Meeting, Massachusetts Eye and Ear Infirmary
Responsibility: Symposium Chair, 2008 Update on Ophthalmology

g. Advisees/Trainees

<i>Training Duration</i>	<i>Name</i>	<i>Current Position</i>
1991-1992	Nick Volpe, M.D.	Professor of Ophthalmology, University of Pennsylvania, Philadelphia, PA
1992-1993	Len Levin, M.D., Ph.D.	Professor of Ophthalmology, University of Wisconsin, Madison, WI
1994-1995	Misha Pless, M.D.	Associate Professor of Neurology, Massachusetts General Hospital, Boston, MA
1996-1997	Judith Warner, M.D.	Associate Professor of Ophthalmology, University of Utah School of Medicine, Salt Lake City, UH
1997-1998	Howard Pomeranz, M.D., Ph.D.	Professor of Neuro-Ophthalmology, Long Island Jewish Hospital, Hyde Park, NY

1999-2000	David Newman-Toker, MD, PhD	Assistant Professor of Neurology, Johns Hopkins University School of Medicine
2000-2001	Michael Lee, M.D.	Associate Professor, Department of Ophthalmology, University of Minnesota, Minneapolis, MN
2001-2002	Nathalie Collignon, MD, PhD	Associate Professor of Ophthalmology, University Hospital, University of Liege, Belgium
2002-2003	Dean Cestari, M.D.	Assistant Professor of Ophthalmology, Massachusetts Eye and Ear Infirmary, Boston, MA
2003-2004	Jonathan Kim, M.D.	Associate Professor of Ophthalmology, Loma Linda University Medical Center, Loma Linda, CA
2004-2005	Susan Pepin, M.D.	Assistant Professor of Ophthalmology, Dartmouth Medical School, Hanover, NH
2006-2007	Marc Dinkin, M.D.	Assistant Professor of Neurology, Brigham and Women's Hospital, Boston, MA

2. Regional, national, or international contributions

a. Invited Presentations

Regional

1987 "Optic Neuritis and Multiple Sclerosis", New England Ophthalmological Society
[Competitively Selected]

- 1990 "Partial Central Retinal Artery Occlusion", New England Ophthalmological Society [*Competitively Selected*]
- 1991 "Traumatic Optic Neuropathy", American Academy of Ophthalmology; Regional Update Course [*Competitively Selected*]
- 1992 "Clinical Overlap of Optic Neuritis & Ischemic Optic Neuropathy", Rhode Island Society of Eye and Physicians and Surgeons, RI [*Invited Lecture*]
- 1992 Three lectures on clinical Neuro-Ophthalmological topics, Greater New York Ophthalmology Clinical Lecture Series, NY [*Invited Lecture*]
- 1992 "Occult Retinal and Choroidal Vascular Disease", Manhattan Eye, Ear and Throat Hospital, Department of Ophthalmology [*Grand Rounds*]
- 1993 "Occult Retinal & Choroidal Vascular Disease", Rhode Island Hospital, Providence, RI [*Ophthalmology Grand Rounds*]
- 1994 "Optic Neuritis Treatment Trial", Western Massachusetts Ophthalmological Society [*Invited Lecture*]
- 1994 "Variations on the Theme of Ischemic Optic Neuropathy", New York Hospital, Cornell Medical Center, New York [*D. Jackson Coleman Visiting Professorship*]
- 1995 "Steps Toward the Development of a Retinal Prosthesis", Biomedical Engineering Society, Annual Meeting, Boston, MA [*Invited Lecturer*]
- 1997 "Transient Monocular Blindness: New Concepts and Therapy", Department of Neurology, Brown University Medical Center, Providence, RI [*Neurology Grand Rounds*]

- 1999 "Italian-American Biomedical Exchange Symposium", Boston University, Boston, Massachusetts [*Guest Lecturer*]
- 2006 "The Relevance of Neuroscience for the Development of a Retinal Prosthesis to Restore Vision to the Blind", Boston Society of Neurology and Psychiatry, 2006 [*Invited Lecturer*]
- 2006 "Development of a Retinal Prosthesis to Restore Vision to the Blind", Advanced Technologies in the Neurosciences, sponsored by Dartmouth Medical School and CIMIT, Hanover, NH [*Invited Lecture*]

National

- 1986 "Optic Neuritis and the Risk of Developing Multiple Sclerosis", North American Neuro-Ophthalmic Society [*Competitively Selected*]
- 1986 "A Progressive Neurologic Syndrome Following Immunization", Frank Walsh Neuro-Ophthalmic Society [*Competitively Selected*]
- 1987 "Multiple Sclerosis Following Idiopathic Optic Neuritis", American Academy of Neurology [*Competitively Selected*]
- 1987 "Optic Neuritis and Multiple Sclerosis", University of Iowa, Iowa City, IA [*Ophthalmology Grand Rounds*]
- 1987 "Ophthalmoplegia with Congenital Hypotonia", Frank Walsh Neuro-Ophthalmic Society [*Competitively Selected*]

- 1988 "Clinical Aspects of Retinal Ganglion Cell Function", North American Neuro-ophthalmic Society [*Invited Lecture*]
- 1988 Neuro-Ophthalmology mini-symposium, "Clinical Applications of Optic Nerve Blood Flow Studies", Association for Research in Vision and Ophthalmology [*Invited Lecture*]
- 1988 "How Do We See? Retinal Anatomy Underlying Afferent Visual Function", Louisiana State University School of Medicine, New Orleans, LA [*Ophthalmology Grand Rounds*]
- 1989 "Measurement of Optic Nerve Blood Velocity as a Function of Age in Normal Subjects", North American Neuro-ophthalmic Society [*Competitively Selected*]
- 1990 "Lymphoma Affecting the Neuro-Ophthalmic Pathways", North American Neuro-Ophthalmology Society [*Invited Lecture*]
- 1990 "Paraneoplastic Retinopathy", Frank Walsh Society [*Competitively Selected*]
- 1990 "Optic Neuritis and Ischemic Optic Neuropathy", Neuro-Ophthalmology Conference; University Hospital, Washington, D.C. [*Invited Lecture*]
- 1991 "Acromegaly with Visual Loss", Frank Walsh Society [*Competitively Selected*]
- 1991 "Unconscious Sight Regulating Circadian Rhythms in a Blind Patient", Los Angeles Neuro-Ophthalmology Society, Los Angeles, CA [*Visiting Lecturer*]
- 1991 "Anatomical and Physiological Basis of Afferent Visual Function", North American Neuro-ophthalmology Society [*Seminar*]

- 1992 "ATP Deficiency; A genre of optic neuropathy", North American Neuro-Ophthalmology Society [*Competitively Selected*]
- 1992 "ATP Deficiency: A genre of optic neuropathy", University of Pennsylvania, Philadelphia, PA [*Neurology Grand Rounds*]
- 1992 Thee clinical lectures, Pacific Medical Center, San Francisco, CA [*Ophthalmology Grand Rounds*]
- 1993 "Development of a Silicon Retinal Implant to Restore Some Vision to Blind Patients", Department of Ophthalmology, University of Chicago, Chicago, IL [*Guest Lecturer*]
- 1993 "Development of a Retinal Prosthesis", Louisiana State University Medical Center, New Orleans, LA [*Ophthalmology Grand Rounds*]
- 1993 "Development of a Retinal Prosthesis", Department of Ophthalmology, Mayo Clinic, Rochester, MN [*Visiting Professor*]
- 1993 "Varying the Intensity of Stimulus Light for Detection of Afferent Pupil Defects", North American Neuro-ophthalmology Society [*Competitively Selected*]
- 1993 "Overview of Afferent Visual Function", Southern College of Optometry, Memphis, TN [*Visiting Lecturer*]
- 1993 "Management of Optic Neuritis", American Academy of Ophthalmology [*Competitively Selected*]
- 1993 Case presentations and one clinical lecture, Oregon State Society of Ophthalmology, Portland, Oregon [*Annual Guest Lecturer*]

- 1993 "Development of a Retinal Prosthesis", FASEB Conference, Copper Mountain, CO [*Invited Lecture*]
- 1994 "Development of a Retinal Prosthesis", Department of Ophthalmology, Willis-Knighten Hospital, Shreveport, LA [*Visiting Professor*]
- 1994 "Steps Toward the Development of a Retinal Prosthesis", Nashville Ophthalmological Society, Nashville, TN [*Guest Lecturer*]
- 1994 "Pathological Cupping of the Optic Nerve Head", Jules Stein Eye Institute [*Visiting Professor*]
- 1994 "Development of a Silicon Retinal Implant to Restore Some Vision to Blind Patients", Salk Institute, La Jolla, CA [*Invited Lecture*]
- 1994 "Overlapping Clinical Profiles of Retinal and Optic Nerve Disease", Departments of Ophthalmology and Neurology, Vanderbilt University [*Visiting Professor*]
- 1994 "Subconscious Sight Regulating Circadian Rhythms in Several Blind Patients", North American Neuro-Ophthalmology Society [*Competitively Selected*]
- 1994 "Application of Human Photoreceptor, Retinal Ganglion Cell and Occipital Cortical Density Data to Visual Field Analysis", North American Neuro-Ophthalmology Society, Tuscon, AZ [*Competitively Selected*]
- 1994 "Development of a Retinal Prosthesis", Defense Science Research Council, La Jolla, CA [*Invited Lecture*]

- 1994 "Implications of the Optic Neuritis Treatment Trial", Rhode Island Hospital
[Ophthalmology Grand Rounds]
- 1994 "Development of a Silicon Retinal Implant to Restore Some Vision to Blind Patients", California Institute of Technology, Pasadena, CA*[Invited Lecture]*
- 1994 "Development of a Retinal Prosthesis", University of Southwestern Louisiana, Lafayette, LA*[Plenary Lecturer, 37th Midwest Symposium on Circuits and Systems]*
- 1994 Five lectures on clinical Neuro-Ophthalmology, Los Angeles Ophthalmological Research Club, Los Angeles, CA*[Visiting Professor]*
- 1994 "Development of a Retinal Prosthesis", Smith-Ketterwell Institute, San Francisco, CA*[Invited Lecture]*
- 1994 One Clinical Lecture, Pittsburg Ophthalmological Society*[Visiting Lecturer]*
- 1994 "Compressive Optic Neuropathies", Department of Ophthalmology, National Naval Medical Center, Bethesda, MD*[Visiting Professor]*
- 1994 "Histopathology of an Adult Onset Optic Neuropathy", Frank Walsh Neuro-Ophthalmology Meeting, Washington, D.C.*[Competitively Selected]*
- 1995 "Vision Without Perception", American Academy of Ophthalmology, Atlanta, GA*[Seminar]*
- 1995 Four clinical lectures, Department of Ophthalmology, Cleveland Clinic*[Visiting Professor]*

- 1995 One clinical and one basic science lecture, University of New Jersey Medical and Dental Health Science Center [*Visiting Professor*]
- 1995 "Steps Toward the Development of a Retinal Prosthesis", Science Writers Convention, Orlando, Florida, sponsored by Research to Prevent Blindness [*Guest Lecturer*]
- 1995 "Disorders of Ocular Motility" (3 hours), New York City Resident Lecture Series [*Guest Lecturer*]
- 1995 "Childhood Optic Neuritis", Manhattan Eye and Ear Infirmary, Manhattan, NY [*Pediatric Ophthalmology Grand Rounds*]
- 1995 "Steps Toward the Development of a Retinal Prosthesis", NASA-Goddard Space Center, Maryland [*Invited Lecturer*]
- 1995-1997 Two hours each of case presentations by residents and clinical lectures, Ophthalmology Department, Brown University, Providence, RI [*Quarterly Visiting Professor*]
- 1995-1998 Five lectures per year of clinical neuro-ophthalmological topics, Stanford University-sponsored training course for Ophthalmology residents-in-training, Palo Alto, CA [*Invited Lecturer*]
- 1996 "Development of a Retinal Implant", 2nd Annual RESNA Engineering Research Symposium, Salt Lake City [*Invited Lecturer*]
- 1996 Clinical lecture, Department of Ophthalmology, University of Missouri, Columbia, MO [*Visiting Professor*]

- 1996 "Steps Toward Development of a Retinal Prosthesis" and 3 hours of case discussions, University of Michigan Ophthalmology Grand Rounds[*Visiting Professor*]
- 1996 Clinical Lecturer, Walter Reed Army Hospital Biennial Ophthalmology Symposium[*Visiting Professor*]
- 1996 Clinical lecture, Long Island Jewish Hospital/Northshore Hospital Long Island, NY[*Visiting Lecturer*]
- 1996 "New Concepts of Transient Monocular Blindness", Scheie Eye Institute, University of Pennsylvania[*Ophthalmology Grand Rounds*]
- 1996 Delivered both Ophthalmology and Neurology Grand Rounds, Department of Neurology, University of Mississippi, Jackson, Mississippi[*Visiting Professor*]
- 1997 Clinical Lecture, Great Lakes Symposium of VLSI circuits and design, Lafayette, Louisiana[*Invited Plenary Lecturer*]
- 1998 Presentation in Symposium of Retinal Prostheses, sponsored by "Vision Research", Fort Lauderdale, Florida[*Invited Lecture*]
- 1999 "Development of a Silicon Retinal Prosthesis", Cornell Medical Center Grand Rounds[*Visiting Professor*]
- 1999 Regional Biomedical Symposium, University of Southwestern Louisiana, Department of Engineering[*Guest Lecturer*]
- 2000 "Development of a Silicon Retinal Prosthesis", MACULA 2000/ Atlantic Coast Retinal Meeting[*Guest Lecturer*]

- 2000 Clinical Lecture, Inauguration, Mann Institute of Biomedical Engineering, University of Southern California, Los Angel*[Invited Lecturer]*
- 2000 "Development of a Retinal Prosthesis", National Medical Association, Washington, D.C.*[Invited Lecturer]*
- 2001 "Giant Cell Arteritis", American Academy of Ophthalmology, Sponsored by the North American Neuro-Ophthalmology Society, Dallas*[Competitively Selected]*
- 2002 "Retinal Prosthesis: The Boston School", Retina Mini-Symposium, American Academy of Ophthalmology meeting*[Invited Lecturer]*
- 2002 "Differential Diagnosis of Optic Neuropathy", American Academy of Ophthalmology, Sponsored by the North American Neuro-Ophthalmology Society, Fort*[Competitively Selected]*
- 2002 "Engineering and Clinical Challenges of Developing a Retinal Prosthesis", Foundation Fighting Blindness, Chicago, IL*[Invited Lecture]*
- 2003 "Retinal Prosthesis: Unexpectedly Small Percepts Evoked in Human Testing", Research Conference sponsored by the Department of Ophthalmology, Stanford University*[Invited Lecture]*
- 2003 "International Conference on Restoration of Neural Function", Veterans Administration, Asilimar, CA*[Invited Lecture]*
- 2003 "Development of a Retinal Prosthesis", John F. Kennedy Rehabilitation Hospital, New Jersey, Department of Neurology*[Invited Lecturer]*

- 2003 "Development of a Retinal Prosthesis", Case Western Reserve University [*Purnell Visiting Professor*]
- 2004 Lecture , The Institute of Ophthalmology and Visual Science, New Jersey Medical School [*Invited Lecturer*]
- 2004 "Development of a Retinal Prosthesis", Long Island Jewish Hospital [*Invited Lecture*]
- 2004 Lecture, Chicago Ophthalmological Society [*Invited Lecture*]
- 2004 Lecture, New Jersey Institute of Technology, Newark, NJ [*Invited Lecturer*]
- 2004 Lecture, Federation of American Societies for Experimental Biology, Saxtons River, Vermont [*Invited Speaker*]
- 2004 "Regulatory Considerations in the Development of a Retinal Prosthesis", Federal Food and Drug Administration, Center for Drug Evaluation and Research [*Invited Speaker*]
- 2005 "Challenges in the Development of a Retinal Prosthesis", Symposium on the "Integration of New Technologies for the Care of Retinal Disease", Aspen, CO [*Invited Lecturer*]
- 2005 "Technologies Related to Development of a Retinal Prosthesis", Dual Sensory Disability Conference, sponsored by the Department of Veterans Affairs, Portland, OR [*Invited Lecturer*]
- 2005 "The Visual Potential of a Retinal Prosthesis", American College of Eye Surgeons, Fort Lauderdale, FL [*Invited Lecturer*]

- 2005 Lecture, White House Conference on "Emerging Technologies in Support of the New Freedom Initiative", Department of Veterans Affairs[*Invited Lecturer*]
- 2005 "The Process of Discovery" Lecture Series, Cleveland Clinic - Case Western Medical School, Cleveland, OH[*Invited Lecturer*]
- 2006 "Replacement and Rescue", Symposium Meeting at the John A. Moran Eye Center, University of Utah School of Medicine[*Invited Lecturer*]
- 2006 "Development of a Retinal Prosthesis", Neuroscience Institute, Medical University of South Carolina, Charleston, SC[*Invited Professor: Neuroscience Grand Rounds*]
- 2006 Neuro-Ophthalmology, 2005-2006 Greater New York Ophthalmology Clinical Lecture Series[*Invited Lecturer*]
- 2006 "A Retinal Prosthesis as a Potential Treatment for Trauma-Induced Blindness", Dartmouth 2006 Poly-Trauma Conference, Hanover, NH[*Invited Lecture*]
- 2006 Clinical Lecture, The New York Eye and Ear Infirmary[*Invited Professor*]
- 2006 "Strategies and Solutions: the Changing Landscape of Military Ophthalmology", Schepens Eye Research Institute, Boston, MA[*Invited Lecturer*]
- 2007 "Emergency Neuro-Ophthalmology: Diagnosis and Management", American Academy of Ophthalmology Annual Meeting, New Orleans, LA[*Invited Lecturer*]

- 2008 "Use of Retinal Prosthesis to Restore Vision Following Traumatic Ocular Injury and Naturally-Occurring Retinal Diseases", Third Biennial Military Vision Research Symposium: Traumatic Eye and Brain Injury [*Invited Lecture; Moderator*]
- 2008 Product Line Review: Ocular Health "A Novel Retinal Prosthesis that is Modular and Configurable", Telemedicine and Advanced Technology Research Center [*Invited Lecture*]
- 2008 "The Bionic Eye: Posterior Segment - New Therapies", American Academy of Optometry [*Invited Lecture*]
- 2008 Bio-X Symposium: "What Level of Vision Might a Retinal Prosthesis Provide to Blind Patients?", Stanford University [*Invited Lecture*]

International

- 1992 Case presentations and 2 clinical lectures, Universite Laval, Department of Ophthalmology, Quebec, Canada [*Visiting Professor*]
- 1994 "Development of a Retinal Prosthesis", Instituto Scientifico, Ospedale S. Raffaele, University of Milan [*Invited Lecture*]
- 1994 Three lectures on clinical neuro-ophthalmology, Fondation Ophtalmologique A. DeRothschild, Paris [*Invited Lecturer*]
- 1994 Two day long course in fundamentals of Neuro-Ophthalmology, Universidad de Valladolid, Spain [*Visiting Professor*]

- 1994 "Development of a Silicon Retinal Implant", European Congress of Ophthalmology, Milan, Italy [*Plenary Lecturer*]
- 1996 Clinical Lecture, Scandinavian University Research Seminar, given by Merck, Sharpe, and Dohme, Co., Denmark [*Guest Lecturer*]
- 1996 Clinical lectures, Department of Ophthalmology, Sick Children's Hospital, Toronto, Canada [*Visiting Professor*]
- 1997 Two lectures and discussion of case presentations, Department of Ophthalmology, McGill University, Montreal, Canada [*Grand Rounds*]
- 1997 Clinical Lectures, University of Vienna, Department of Ophthalmology [*Visiting Professor and Grand Rounds Lecturer*]
- 1997 Development of a Silicon Retinal Implant, European Congress of Ophthalmology, Budapest, Hungary [*Invited Lecture*]
- 1997 "Neuro-Ophthalmological Disease with Glaucomatous Features", Charles University, Prague, Czech Republic [*Guest Lecturer, Glaucoma Conference*]
- 1998 "Development of a Silicon Retinal Prosthesis", Eighth International Symposium on Retinal Degeneration, Schluchsee, Germany [*Invited Lecturer*]
- 2000 "Perceptual Results from Electrical Stimulation of Human Retina", Hospital for Sick Children, Toronto, Canada [*Invited Lectureship: "Lloyd Morgan" Lecture*]
- 2000 "Development of a Silicon Retinal Implant", Parma from the Heart Medical Symposium on Blindness, Parma, Italy [*Keynote Lecturer*]

- 2000 Lecture, 11th World Congress of Retina International, Toronto, Canada [*Invited Lecturer*]
- 2000 The Eye and the Chip: World Congress on Artificial Vision, 2000, The Detroit Institute of Ophthalmology, Detroit, MI [*Lecturer*]
- 2001 "Development of a Retinal Prosthesis", International Neuro-Ophthalmology meeting, Sardinia, Italy [*Special Lecturer*]
- 2001 "Development of a Silicon Retinal Implant", International Ophthalmology Symposium, 50th Anniversary, Menicon Co, Nagoya, Japan [*Plenary Lecture*]
- 2002 Clinical Lecture, University of Liege, Belgium [*Visiting Professor*]
- 2002 Lecture, International Society of Eye Research, Geneva, Switzerland [*Invited Lecture*]
- 2002 The Eye and the Chip: World Congress on Artificial Vision, 2002, The Detroit Institute of Ophthalmology, Detroit Michigan [*Lecturer*]
- 2004 The Eye and the Chip: World Congress on Artificial Vision, 2004, The Detroit Institute of Ophthalmology, Detroit, Michigan [*Lecturer*]
- 2004 "Development of a Retinal Prosthesis" and clinical case presentations, Swiss Ophthalmology Society [*Invited Lecturer*]
- 2006 Lecture, German Ophthalmological Society, Berlin, Germany [*Invited Lecturer*]

- 2006 "Surgery for Sub- and Epiretinal Implants" , Artificial Vision 2006: The Bonn Dialogue, Bonn, Germany [*Invited Lecture*]
- 2006 Lecture, Shanghai International Biophysical Research Conference, Shanghai, China [*Executive Committee/Invited Lecturer*]
- 2006 Lecture, Brain Machine Interface Symposium, Kyoto, Japan [*Invited Lecturer*]
- 2006 "The Visual Potential of a Retinal Prosthesis", The University of Regensburg, Regensburg, Germany [*Invited Lecture*]
- 2006 The Eye and the Chip: World Congress on Artificial Vision, 2006, The Detroit Insitute of Ophthalmology, Detroit, Michigan [*Lecturer*]

b. Professional Leadership Roles related to Teaching

- 1977-1978 National Louisiana State University School of Medicine, New Orleans, LA
President, Student Body
- 1991 National North American Neuro-Ophthalmic Society
Course Co-Director of "Neuro-anatomical basis of afferent visual function":
Selection of topics and speakers for seminars at our annual meeting.
- 1991-1999 National North American Neuro-Ophthalmic Society
Member, Scientific Program Committee: Choice of topics and lecturers for mini-
symposia given at the yearly educational meeting.

- 1992 Regional Lancaster Review Course for Ophthalmologists, Colby College, Waterville, ME
Director, Neuro-Ophthalmology Section: Selection of faculty, organization of subject matter of roughly 30 lectures given over four days, preparation of detailed hand-outs and quality control of presentations.
- 1992-1995 National North American Neuro-Ophthalmic Society
Chairman, Abstracts Subcommittee: Help choose the best abstracts submitted for presentation at our yearly meeting.
- 1993- National North American Neuro-Ophthalmic Society
Member, Certification and Accreditation Committee: Defining the base of knowledge and associated technical skills necessary to practice Neuro-Ophthalmology as part of an effort to determine if our sub-specialty should attempt to employ a certification standard for its practitioners.
- 1993 National American Academy of Ophthalmology
Course Director and Moderator, "Practical Discussions in Neuro-Ophthalmology" for approximately 1,000 attendees: Selection of six speakers for a four hour symposium.
- 1993 National Association for Research in Vision and Ophthalmology
Moderator, Neuro-Ophthalmic Symposium
- 1993-1995 National North American Neuro-Ophthalmic Society
Member, Research Symposium Planning Committee: Identify topics for mini-symposia for meetings of neuro-ophthalmologists held each year in conjunction with the Association for Research in Vision and Ophthalmology.
- 1994 International European Congress of Ophthalmology Meeting, Milan, Italy
Course Director, "Practical Neuro-Ophthalmic Discussions": Selection of topics of discussion and lecturers for a two hour long seminar given to 30 attendees.

- 1995 National North American Neuro-Ophthalmic Society
Course Co-Director, "Visual Rehabilitation": Select topics of presentation and lecturers for a symposium at the annual meeting.
- 1999-2006 National American Academy of Ophthalmology
Member, Faculty Committee, For the preparation of the Neuro-Ophthalmology Text and the Basic Clinical Science Course
- 2000- International Detroit Institute of Ophthalmology, Detroit, IL
Member, Scientific Planning Committee, Bi-Annual "Eye and The Chip" International Meeting for Visual Prosthetics
- 2001 National Association of Research in Vision and Ophthalmology, Ft. Lauderdale, FL
Moderator, Visual Prosthetic Symposium
- 2004 National Association of Research in Vision and Ophthalmology, Ft. Lauderdale, FL
Moderator, Visual Prosthetic Symposium
- 2005 National American Academy of Ophthalmology, Chicago, IL
Moderator, Neuro-Ophthalmology Sub-Specialty Day
- 2006- Regional Massachusetts Eye and Ear Infirmary, Boston
Course Director, Neuro-Ophthalmology Fall Festival (Bi-Annual)
- 2006 Regional Massachusetts Eye and Ear Infirmary, Boston
Academic Organizer, Chandler Visiting Lecture

- 2006 International Shanghai International Biophysical Research Conference,
Shanghai, China
Executive Planning Committee Member/Scientific Organizer of Conference
- 2007 Regional Department of Ophthalmology, Massachusetts Eye and Ear
Infirmary, Boston
Course Co-Director, Alumni Meeting
- 2008 National NANOS
Organizer, NanoTechnology for Neuro-Ophthalmology
- 2008 National World Congress on Artificial Vision
Scientific Organizer, The Eye and the Chip 2008, World Congress on Artificial
Vision

3. Description of Teaching Award(s) Received

- 1986 "Fellow of the Year"
Massachusetts Eye and Ear Infirmary
- 2000 "Teacher of the Year Award"
Lancaster Course in Ophthalmology, Waterville, ME

Part III: Bibliography

Original Articles

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2. Rizzo JF, Berson EL, Lessell S. Retinal and neurologic findings in the Laurence-Moon-Bardet-Biedl phenotype. *Ophthalmology.* 1986;93(11):1452-6.

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Reviews/Chapters/Editorials

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