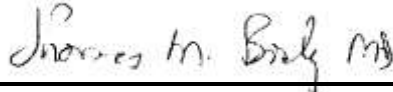


CURRICULUM VITAE



Thomas M. Bosley, MD

May 20, 2017

DEMOGRAPHIC AND PERSONAL INFORMATION

Current Appointments

3/2016-present Knights Templar Eye Foundation Professor of Ophthalmology, Wilmer Eye Institute, Johns Hopkins University

Personal Data

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Education and Training

Undergraduate

1968-1972 BA, Yale University, New Haven CT

Doctoral

1972-1977 MD, Stanford University, Palo Alto CA

Postdoctoral

1977-1978 Internal Medicine Intern, Hospital of the University of Pennsylvania, Philadelphia
1978-1980 Neurology Resident, Hospital of the University of Pennsylvania, Philadelphia
1980-1981 Research Fellow in Neurochemistry, MRC Developmental Neurobiology Unit, London
1981-1982 Senior Neurology Resident, Hospital of the University of Pennsylvania, Philadelphia
1982-1983 Clinical Fellow in Neuro-ophthalmology, Wills Eye Hospital, Philadelphia

Professional Experience

7/83-6/85 Neuro-ophthalmologist, Neuro-ophthalmology Associates, Wills Eye Hospital
7/85-6/97 Partner, Neuro-ophthalmology Associates, Wills Eye Hospital
7/83-7/89 Clinical Assistant Professor, Hospital of the University of Pennsylvania
7/89-6/95 Clinical Associate Professor, Hospital of the University of Pennsylvania
7/83-7/93 Attending Neuro-Ophthalmologist, Presbyterian Hospital, University of Pennsylvania
7/83-6/95 Attending Neuro-Ophthalmologist, Scheie Eye Institute
7/83-6/97 Clinical Affiliate, Department of Pediatrics, Children's Hospital of Philadelphia
7/83-6/97 Attending Neuro-Ophthalmologist, Pennsylvania Hospital
7/83-7/88 Assistant Neuro-Ophthalmologist, Wills Eye Hospital
7/88-2/92 Associate Neuro-Ophthalmologist, Wills Eye Hospital
3/92-6/97 Attending Neuro-Ophthalmologist, Wills Eye Hospital
12/89-6/97 Chair, Department of Neurology, Pennsylvania Hospital
1/95-6/97 Chief, Department of Neurology, Wills Eye Hospital
7/94-6/97 Professor of Neurology and Ophthalmology, Thomas Jefferson University, Philadelphia
8/97-8/05 Senior Academic Consultant, Chief, Neuro-ophthalmology Division, and Chair, Neurology Department, King Khaled Eye Specialist Hospital, Riyadh, Saudi Arabia
10/97-8/05 Neuro-ophthalmology Consultant, Neuroscience Department and Ophthalmology Division, King Faisal Specialist Hospital and Research Centre, Riyadh
9/05-9/08 Chief, Neurology Division, Cooper University Hospital, Camden NJ
2/06-6/13 Professor of Medicine (Neurology), University of Medicine and Dentistry of NJ
10/08-1/16 Professor of Ophthalmology, College of Medicine, King Saud University, Riyadh
10/08-1/16 Chief, Neuro-ophthalmology Division, Ophthalmology Department, KSU
7/13-1/16 Professor of Neurology, Cooper Medical School at Rowan University
3/16-present Professor of Ophthalmology, Wilmer Eye Institute, Johns Hopkins University

RESEARCH ACTIVITIES

Publications Peer-Reviewed Original Science Research

1. Dorfman LJ, **Bosley TM**, Cummins KL. Electrophysiological localization of central somatosensory lesions in patients with multiple sclerosis. *Electroencephalogr Clin Neurophysiol.* 1978; 44: 742-753.
2. Dorfman LJ, **Bosley TM**. Age-related changes in peripheral and central nerve conduction in man. *Neurol.* 1979; 29: 38-44.
3. Dorfman LJ, Perkash I, **Bosley TM**, Cummins KL. Use of cerebral evoked potentials to evaluate spinal somatosensory function in patients with traumatic and surgical myelopathies. *J Neurosurg.* 1980; 52: 654-660.
4. Dorfman LF, Donaldson SS, Gupta PR, **Bosley TM**. Electrophysiologic evidence of subclinical injury to the posterior columns of the human spinal cord after therapeutic radiation. *Cancer.* 1982; 50: 2815-2819.
5. **Bosley TM**, Schatz NJ. Clinical diagnosis of cavernous sinus syndromes. In: Smith C.H. and Beck R.W., eds. *Symposium on Neuro-Ophthalmology. Neurol Clin.* 1983; 1: 929-953.
6. **Bosley TM**, Woodhams P, Gordon RD, Balazs R. Effects of anoxia on the stimulated release of amino acid neurotransmitters in the cerebellum *in vitro*. *J Neurochem.* 1983; 40:189-201.
7. Moster M, Savino PJ, Sergott RC, **Bosley TM**, Schatz NJ. Isolated sixth nerve palsies in younger adults. *Arch Ophthalmol.* 1984; 102:1828-1830.
8. Barry E, Sussman NM, **Bosley TM**, Harner RN. Ictal blindness and status epilepticus amauroticus. *Epilepsia.* 1985; 26: 577-584.
9. **Bosley TM**, Cohen D, Schatz NJ, Zimmerman R, Bilaniuk L, Savino PJ, Sergott RC. Comparison of metrizamide CT and magnetic resonance imaging in the evaluation of lesions at the cervicomedullary junction. *Neurol.* 1985; 35: 485-492.
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11. Cohen DA, **Bosley TM**, Savino PJ, Sergott RC, Schatz NJ. Primary aberrant regeneration of the oculomotor nerve. Occurrence in a patient with abetalipoproteinemia. *Arch of Neurol.* 1985; 42: 821-823.
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13. Moster ML, Savino PJ, Schatz NJ, Snyder PJ, Sergott RC, **Bosley TM**. Visual function in prolactinoma patients treated with bromocriptine. *Ophthalmol.* 1985; 92:1332-1341.
14. Savino PJ, Sergott RC, **Bosley TM**, Schatz NJ. Hemifacial spasm treated with botulinum A toxin injection. *Arch Ophthalmol.* 1985; 103: 1305-1306.
15. Sergott RC, Belmont JB, Savino PJ, Fisher DH, **Bosley TM**, Schatz NJ. Optic nerve involvement in the acute retinal necrosis syndrome. *Arch Ophthalmol.* 1985; 103:1160-1162.
16. **Bosley TM**. The role of carotid noninvasive tests in stroke prevention. *Semin Neurol.* 1986; 6:194-203.
17. Hupp SL, Savino PJ, Schatz NJ, Sergott RC, **Bosley TM**. Nerve fibre bundle visual field defects and intracranial mass lesions. *Can J Ophthalmol.* 1986; 21: 231-235.
18. Savino PJ, Grossman RI, Schatz NJ, Sergott RC, **Bosley TM**. High-field magnetic resonance imaging in the diagnosis of cavernous sinus thrombosis. *Arch of Neurol.* 1986; 43:1081-1082.
19. Atlas SW, Grossman RI, Savino PJ, Schatz NJ, Sergott RC, **Bosley TM**, Hackney DB, Goldberg HI, Bilaniuk LT, Zimmerman RA. Internuclear ophthalmoplegia: MR-anatomic correlation. *AJNR Am J Neurorad.* 1987; 8:43-247.
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21. **Bosley TM**, Dann R, Silver FL, Alavi A, Kushner M, Chawluk JB, Savino PJ, Sergott RC, Schatz NJ, Reivich M. Recovery of vision after ischemic lesions: positron emission tomography. *Ann Neurol.* 1987; 21:444-450.
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23. Duker JS, Belmont J, **Bosley TM**. Angioid streaks associated with abetalipoproteinemia. Case report. *Arch Ophthalmol.* 1987; 105:1173-1174.

24. Sergott RC, Grossman RI, Savino PJ, **Bosley TM**, Schatz NJ. The syndrome of paradoxical worsening of dural-cavernous sinus arteriovenous malformations. *Ophthalmol.* 1987; 94:205-212.
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32. Sergott RC, Savino PJ, **Bosley TM**. Modified optic nerve sheath decompression provides long-term visual improvement for pseudotumor cerebri. *Arch Ophthalmol.* 1988; 106:1384-1390.
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57. **Bosley TM**, Kiyosawa M, Moster M, Harbour R, Zimmerman R, Savino PJ, Sergott RC, Alavi A, Reivich M. Neuro-imaging and positron emission tomography of congenital homonymous hemianopsia. *Am J Ophthalmol.* 1991; 111:413-418.
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68. Sergott RC, Flaherty PM, Lieb WE, Ho AC, Kay MD, Mitra RA, Savino PJ, **Bosley TM**. Color Doppler imaging identifies four syndromes of the retrobulbar circulation in patients with amaurosis fugax and central retinal artery occlusions. *Trans Am Ophthalmol Soc.* 1992; 90:383-398.
69. **Bosley TM**, Cohen MS, Gee W, Reed J, Sergott RC, Savino PJ. Amplitude of the ocular pneumoplethysmography wave-form is correlated with cardiac output. *Stroke.* 1993; 24:6-9.

70. Daneshdoost L, Gennarelli TA, Bashey HM, Savino PJ, Sergott RC, **Bosley TM**, Snyder PJ. Identification of gonadotroph adenomas in men with clinically non-functioning adenomas by the luteinizing hormone beta subunit response to thyrotropin-releasing hormone. *J Clin Endocrinol Metab.* 1993; 77:1352-1355.
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97. Jacquemin C, **Bosley TM**. The value of MRI in an ophthalmology practice. *Saudi J Ophthalmol.* 2000;14:245-254.
98. Buhaliqa A, Jacquemin C, **Bosley TM**. Neuro-ophthalmology teaching case: Ocular complications of nasopharyngeal cancer. *Saudi J Ophthalmol.* 2000; 14:255-259.
99. **Bosley TM**, Buhaliqa A. Pseudotumor cerebri. *Saudi J Ophthalmol.* 2000; 14:175-182.
100. Jacquemin C, Mullaney PB, **Bosley TM**. Abnormal development of the lesser wing of the sphenoid with clinical microphthalmos and microcephaly. *Neurorad.* 2001; 43:178-182.
101. Nakano M, Yamada K, Fain J, Sener EC, Selleck CJ, Awad AH, Zwaan J, Mullaney PB, **Bosley TM**, Engle EC. Homozygous mutations in ARIX (PHOX2A) result in congenital fibrosis of the extraocular muscles type 2. *Nat Genet.* 2001; 29:315-320.
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202. Zhang ML, Suarez MJ, Bosley TM, Rodriguez FJ. Histopathologic Features of Peripheral Nerve Sheath Tumors Involving the Eye and Ocular Adnexa. *Human Pathology* 2017 Feb 21. pii: S0046-8177(17)30053-9. doi: 10.1016/j.humpath.2017.02.006. [Epub ahead of print]
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Inventions, Patents, Copyrights

- 2013 Salih MAM, Salih MAM, Mustafa AA, and Bosley TM – US Patent Application “Ocular neostigmine drops for diagnosing myasthenia gravis” No. 13/892,624 (pending)

Extramural Funding

CURRENT

- 2014-2016 “Registry of congenital and genetic neuro-ophthalmic diseases in Saudi Arabia”

12-MED2621-02

Saudi Arabia National Program for Science and Technology Grant

SR 1,797,000/2 yr;

Role: PI; I conceived, designed, and organized this project; 20% effort.

2016-2018 “Prospective and retrospective assessment of the clinical, radiologic, and biochemical characteristics of microvascular mononeuropathies of cranial nerves 3, 4, and 6 in Saudi Arabia”

KKESHJHU/05-25

Role: PI; I conceived, designed, and organized this project; 10% effort (\$32,130 per year for 2 years funded)

2016-2018 “Molecular and phenotypic characterization of tumors of the eye and ocular adnexa in neurofibromatosis type 1”

KKESHJHU/05-12

Role: co-I; I contributed patients and helped conceive of the study; 2% effort (\$2300 per year for 2 years funded)

PENDING None

PREVIOUS

2009-2012 “Hereditary Visual Loss: A Clinical and Genetic Study”

AT-29-31

King Abdulaziz City for Science and Technology Project

SR 1,578,700/3 yr

Role: PI; I conceived, designed, and organized this project; 20% effort.

2010-2013 “Hereditary Ocular Motility Abnormalities: A Clinical and Genetic Study”

AT-30-20

King Abdulaziz City for Science and Technology Project

SR 2,461,000/3 yr

PI: Khaled K. Abu-Amero, PhD.

Role: co-PI; I conceived, designed, and organized this project; 20% effort.

Research Program Building / Leadership None

EDUCATIONAL ACTIVITIES

Educational Publications None

Teaching

Classroom instruction

2008-present I gave most of the “Introduction to Neuro-ophthalmology” lectures to 4th year medical students taking the Ophthalmology rotation at King Abdulaziz University Hospital (where the Department of Ophthalmology and most Ophthalmology clinics are located).

2008-present Participated in the Neuro-ophthalmology component of the Basic Science Course coordinated by King Saud University and given to all beginning Ophthalmology residents in Saudi Arabia during the first two months of their residencies.

Clinical Instruction

1983-1997 Taught Wills Eye Hospital Ophthalmology residents and Pennsylvania Hospital Neurology residents in Neuro-ophthalmology clinics.

1997-2005 Taught KKESH Ophthalmology residents and Neuro-ophthalmology fellows in Neuro-ophthalmology clinics.

2008-2015 Did most of the clinical instruction in Neuro-ophthalmology Clinic for Ophthalmology residents, occasional Neurology and Neurosurgery residents, and medical students at King Abdulaziz University Hospital and King Khaled University Hospital.

2016-present Taught Wilmer Ophthalmology residents (and occasionally Hopkins medical students and Neurology Fellows) in Neuro-ophthalmology clinics.

CME instruction

- 3/31/83 "Drug Treatment of Oscillopsia," Dept Neurology Grand Rounds, University of Pennsylvania, Philadelphia, PA
- 7/1/83 "Optic Disk Abnormalities," Dept Neurology, University of Pennsylvania, Philadelphia, PA
- 9/15/83 "Retinal Injuries," Dept Family Medicine, Thomas Jefferson University, Philadelphia, PA
- 9/23/83 "Nystagmus Update," American Academy of Ophthalmology, Northeast Regional Update Course, Philadelphia, PA
- 12/14/83 "Nystagmus Overview," Grand Rounds, Dept Ophthalmology, Hahnemann Hospital, Philadelphia, PA
- 1/26/84 "Optic Disk Abnormalities Revisited," Family Practice Department, Thomas Jefferson University Hospital, Philadelphia, PA
- 2/15/84 "Cavernous Sinus Syndromes," Dept Ophthalmology, Hahnemann Hospital, Philadelphia, PA
- 3/28/84 "PET in patients with central visual lesions," Wills Eye Conference, Philadelphia, PA
- 4/13/84 "Neuro-Ophthalmology Workshop," Scheie Eye Institute Alumni Meeting, Philadelphia, PA
- 1/17/85 "Myasthenia Gravis," Family Medicine, Thomas Jefferson University Hospital, Philadelphia, PA
- 3/14/85 "Head Trauma," Magee Rehabilitation Hospital, Philadelphia, PA
- 4/2/85 "Neuro-Oncology Problems," Philadelphia County Medical Society, Philadelphia, PA
- 4/18/85 "Transient Visual Loss," Scheie Alumni Lecture, Scheie Eye Institute, Philadelphia, PA
- 9/12/85 "Wegener's Granulomatosis," Grand Rounds, Dept Neurology, Hospital of the University of Pennsylvania, Philadelphia, PA
- 10/17/85 "Optic Disc Pathology," Dept Family Medicine, Thomas Jefferson University, Philadelphia, PA
- 1/14/86 "Non-Invasive Carotid Testing," Grand Rounds, Dept Neurology, Pennsylvania Hospital, Philadelphia, PA
- 1/18/86 "Transient Visual Loss" and "Positron Emission Tomography in Neuro-Ophthalmology," Scheie Eye Symposium on Neuro-Ophthalmology, Scheie Eye Institute, Philadelphia, PA
- 4/2/87 "Is Angiography Necessary in Evaluation of Carotid Artery Disease?," Wills Eye Hospital Conference, Philadelphia, PA
- 4/9/88 "Measurement of Ocular Blood Flow," Annual Glaucoma Meeting, Wills Eye Hospital, Philadelphia
- 5/12/88 "Positron Emission Tomography and Vision," Joint Meeting of the International North American Society and North American Neuro-Ophthalmology Society (NANOS), Vancouver, B.C.
- 10/30/91 "Facial Pain Syndromes - An Interdisciplinary Approach," Dept Ophthalmology Symposium, Pennsylvania Hospital, Philadelphia, PA
- 2/15/92 "PET Scanning of Central Visual Disturbances," North American Neuro-Ophthalmologic Society (NANOS), San Diego, CA
- 5/20/92 "Common and Classic Migraine," Continuing Education Program Headache Symposium, Pennsylvania Hospital, Philadelphia, PA
- 5/20/94 "The Role of Neuro-Imaging in Neuro-Ophthalmology," Radiology Lecture, Wills Eye Hospital, Philadelphia, PA
- 4/27/95 "Carotid Endarterectomy - Finally Some Objective Data," Cardiology for the Primary Care Physician, Jefferson Medical College, Philadelphia, PA
- 3/15/96 "Evaluation of Dizziness," Wills Eye Hospital Conference, Philadelphia, PA
- 4/27/96 Neuro-Ophthalmology Update, Wills Eye Hospital, Philadelphia, PA
- 10/31/96 "Neurologic Exam in the Geriatric Patient," Grand Rounds, Dept Family Medicine, Thomas Jefferson University Hospital, Philadelphia, PA
- 3/10/97 "Carotid Occlusion and Ocular Ischemic Syndrome," Grand Rounds, Neuroscience Department, King Faisal Specialist Hospital and Research Centre, Riyadh, Saudi Arabia
- 3/17/97 "Ocular Blood Flow in the Ocular Ischemic Syndrome," Grand Rounds, King Khaled Eye Specialist Hospital, Riyadh, Saudi Arabia
- 12/15/97 "Neuro-ophthalmology: The KKESH Experience," Grand Rounds, King Khaled Eye Specialist Hosp
- 6/3/98 "Microvascular Cranial Nerve Palsies at KKESH," Grand Rounds, King Khaled Eye Specialist Hosp
- 4/10/98 Neurology Case Conference, Dept Ophthalmology, Abington Memorial Hospital, Abington, PA
- 2/1/99 "Microvascular Cranial Nerve Palsies in Saudi Arabia," Grand Rounds, Riyadh Military Hospital Neuroscience Department, Riyadh

- 2/9/99 "Pick the Pathology: Oculomotor Nerve Palsies," Riyadh Neuroscience Club
- 2/17/99 "Optic Neuropathies in Young Saudis," First Annual Ophthalmology Update, King Faisal Specialist Hospital, Riyadh
- 4/7/99 "Optic Neuropathy in Saudi Arabia," "The Neuro-ophthalmology of Trauma in Saudi Arabia," and "Unusual aspects of optic neuritis in Saudi Arabia," 16th Annual KKESH Symposium, KKESH, Riyadh
- 5/10/99 "Mechanisms of Traumatic Optic Neuropathy," Grand Rounds, KKESH, Riyadh
- 3/1/00 "Two cases of hypophysitis in Saudi Arabia," 52nd Annual Meeting of the American Academy of Neurology, Toronto
- 4/11/00 "Horizontal Gaze Palsy and Scoliosis" and "Ophthalmologic Complications of ENT Surgery," KKESH Annual Symposium, Riyadh
- 2/12/01 "Pathophysiology, Diagnosis, and Management of Thyroid Eye Disease," Thyroid Disease Symposium at KFSHRC, Riyadh
- 5/7/01 "Visual recovery after Devic's disease," 53rd Annual Meeting of the American Academy of Neurology, Philadelphia
- 1/23/02 "Two hereditary eye movement abnormalities," Grand Rounds, KKESH, Riyadh
- 4/15/02 "Autosomal recessive horizontal gaze palsy and scoliosis localizes to chromosome 11q23-25," 54th Annual Meeting of the American Academy of Neurology, Denver
- 9/25/02 "Optic Neuritis and Multiple Sclerosis," Multiple Sclerosis Update: 2002 Symposium, King Faisal Specialist Hospital, Jeddah, KSA
- 1/6/02 "Congenital Cranial Dysinnervation Disorders: A clinical perspective," Neuroscience Department Grand Rounds, King Faisal Specialist Hospital, Riyadh
- 9/30/03 "Congenital Eye Movement Abnormalities," Neuromuscular Symposium, King Faisal Specialist Hospital, Riyadh
- 10/15/03 "Horizontal Gaze Palsy and Progressive Scoliosis," Grand Rounds (with Dr. Joanna Jen), KKESH, Riyadh
- 2/04 "Tumors Affecting Ocular Motility," Grand Rounds, KKESH, Riyadh
- 2/04 "Tumors Affecting Ocular Motility," Riyadh Neuroscience Club, Riyadh
- 12/14/04 "Mitochondrial DNA mutations and Leber Hereditary Optic Neuropathy," Riyadh Neuroscience Club, Riyadh
- 2/15/05 "Clinical characterization of a new congenital ocular motility syndrome," (poster plus presentation) NANOS Annual Meeting, Copper Mountain, CO
- 3/7/05 "Leber Hereditary Optic Neuropathy," KKESH Annual Symposium, Riyadh
- 3/9/06 "A Genetic Syndrome Associated with Autism," Dept Psychiatry Grand Rounds, Pennsylvania Hospital, Philadelphia PA
- 4/3/06 "Molecular and Biochemical Characterization of Patients with LHON-like Optic Neuropathies," American Academy of Neurology Annual Meeting, San Diego, CA
- 5/3/06 "CCDD Phenotypes in Saudi Arabia: Clinical distinctions between CFEOM2, HGPPS, and BSAS," Association for Research in Vision and Ophthalmology Annual Meeting, Ft. Lauderdale, FL
- 6/2/06 "The Optic Nerve Loves Mitochondria," Neurology Grand Rounds, Cooper University Hospital, Camden NJ
- 11/6/06 "Mitochondria and Optic Nerve Disease," Grand Rounds, KKESH, Riyadh, Saudi Arabia
- 6/1/07 "Mitochondria and Optic Nerve Disease: What's New in 2007," Neurology Grand Rounds, Cooper University Hospital, Camden, NJ
- 1/25/08 "The Optic Nerve Loves Mitochondria," Neurology Grand Rounds, Drexel University Medical School, Philadelphia, PA
- 3/24/08 "The Optic Nerve and Mitochondria," Grand Rounds, KKESH, Riyadh, Saudi Arabia
- 2/9/09 "Neuroimaging of Three Genetic Ocular Motility Disorders," Riyadh Society of Radiologic Sciences, Riyadh
- 3/2/09 "Five new consanguineous families with ROBO3 mutations," Saudi Ophthalmology Annual Symposium, Riyadh
- 3/4/09 "Mitochondrial abnormalities in patients with LHON-like optic neuropathies," Saudi Ophthalmology Annual Symposium, Riyadh

- 4/10/09 "Genome-Wide Transcription Profile in Leukocytes of LHON Patients with the 11778 Mutation," Association for Research in Vision and Ophthalmology Annual Meeting, Ft. Lauderdale, FL
- 9/27/09 "Exceptions to the Valsalva Doctrine," Grand Rounds, KKESH and KSU Ophthalmology Department, Riyadh
- 3/1/10 "Ophthalmic Abnormalities in a de novo Terminal 6q Deletion," Saudi Ophthalmologic Society Annual Meeting, Riyadh
- 3/15/10 "The Neuro-ophthalmologic Exam," Cooper University Hospital Internal Medicine Residency Lecture Series, Camden, NJ
- 3/26/10 "The Relevance of Decussation," Neurology Grand Rounds, Cooper University Hospital, Camden, NJ
- 6/17/10 "Horizontal Gaze Palsy and Progressive Scoliosis – A Short History of a New Disease," Annual meeting of the International Society for the History of the Neurosciences, Paris
- 2/28/11 "Overview of the Congenital Cranial Dysinnervation Disorders" and "CCDDs with Limited Horizontal Gaze," Saudi Ophthalmology Symposium 2011, Riyadh
- 3/1/11 "Visual Results of Methanol Intoxication in Saudi Arabia" and "Horizontal Gaze Palsy and Progressive Scoliosis – A Short History of a New Disease," Saudi Ophthalmology Society Annual Meeting 2011
- 3/2/11 "The Importance of Genetics in Clinical Ophthalmology: A Panel Discussion," Saudi Ophthalmology Annual Meeting 2011
- 5/16/11 "Afferent and Efferent Impairment in Orbitofacial Neurofibromatosis Type 1," Neuro-ophthalmology in the 21st Century (KSU Ophthalmology Dept Symposium)
- 2/16/12 "Pupils," World Ophthalmology Conference, Abu Dhabi, UAE
- 5/7/12 "Visual Loss in Orbitofacial Neurofibromatosis Type 1," Poster presentation at ARVO Annual Meeting, Ft. Lauderdale, FL
- 6/11/12 "Visual Loss in Orbitofacial Neurofibromatosis Type 1" and "Successful Pre-implantation Genetic Diagnosis in Isolated Sulfite Oxidase Deficiency due to a Novel Mutation in the Sulfite Oxidase Gene," Poster presentations at the European Neurological Society Annual Meeting, Prague, Czech Republic
- 10/22/12 "Failures of Phenotyping," King Saud Univ Ophthalmology Grand Rounds, Riyadh
- 2/12/13 "Xq26.3 Microdeletion in a Male with Wildervanck Syndrome," North American Neuro-ophthalmologic Society Annual Meeting, Snowbird, Utah
- 3/19/13 "Xq26.3 Microdeletion in a Male with Wildervanck Syndrome," American Academy of Neurology Annual Meeting, San Diego, CA
- 10/18/13 "Orbitofacial Neurofibromatosis Type 1 and Glaucoma," Wills Eye Hospital 50th Anniversary Glaucoma Conference, Philadelphia, PA
- 11/23/13 "A Current Overview of the Congenital Cranial Dysinnervation Disorders," 21st Saudi Neurology Society Annual Meeting, Riyadh
- 4/30/14 "Neurologic Injury in Isolated Sulfite Oxidase Deficiency," American Academy of Neurology 2014 Annual Meeting, Philadelphia, PA
- 5/1/14 "Ocular Motility Disturbances in Orbitofacial Neurofibromatosis Type 1," American Academy of Neurology 2014 Annual Meeting, Philadelphia, PA
- 5/5/14 "Ocular Motility Disturbances in Orbitofacial Neurofibromatosis Type 1," Association for Research in Vision and Ophthalmology 2014 Annual Meeting, Orlando, FL
- 6/3/14 "Visual Effects of Methanol Intoxication," Grand Rounds, Dept Ophthalmology, King Saud Univ and King Khaled Eye Specialist Hospital, Riyadh
- 10/18/14 "Developing a Publication: The Example of HOXA1 and Deafness," ENT Department Symposium, KAUH, Riyadh
- 11/25/14 "CCDD Update," KSU Neuro-ophthalmology Symposium, Riyadh

Workshops

- 2/11 Coordinator, Neuro-ophthalmology Section of Saudi Ophthalmological Society Annual Meeting; invited speakers Professor Elizabeth Engle, MD (Harvard University) and Professor John Guy, MD (Bascom Palmer Eye Institute);
- 5/11 Coordinator, KSU Ophthalmology Department Symposium on Neuro-ophthalmology; invited speaker Prof Irene Gottlob, MD (Univ Leicester)

Mentoring

Advisees—(I have worked with Ophthalmology and Neurology residents and Neuro-ophthalmology Fellows from 1983 until the present; however, I have not recorded their names, dates, or current locations. Below is a partial, reconstructed listing of fellows. Fellows prior to 1997 were trained in conjunction with my colleagues in the Neuro-ophthalmology Unit at Wills Eye Hospital, while fellows between 1997 and 2005 were trained by me at the King Khaled Eye Specialist Hospital.)

1984	Mark L. Moster, MD, Wills Eye Hospital, Philadelphia PA
1985	David A. Cohen, MD, Atlanta, GA
1986	Saunders L. Hupp, MD, Mobile, AL
1988	Mitchel D. Drucker, MD, Univ of South Florida, Tampa, FL
1988	Motohiro Kiyosawa, MD, Tokyo Medical and Dental University, Tokyo, Japan
1989	Aziz S Abdul-Rahim, MD, Ft. Worth, TX
1989	Luis I. Becerra, MD, Aventura, FL
1989	Susan M. Ksiazek, MD, Univ Chicago, Chicago, IL
1990	Hitoshi Okabe, MD, Sendai, Japan
1995	Edsel B. Ing, MD, Toronto, Canada
1995	Mary E. Cullom, MD, Williamsburg, VA
1999	Mona al Saleh, MD, Kuwait City, Kuwait
2000	Amal Buhaliqa, MD, Eastern Provence, Saudi Arabia
2002	Jaber al Shaby, MD, Saudi Arabia
2016	Anna Gruener, MD, United Kingdom
2017	Lilangi Ediriwickrema, MD, United States

Thesis committees

2011	supervised Ophthalmology resident thesis for Salem Almalki, MD, thesis titled “The Neurologic and Neuro-ophthalmologic Spectrum of Genetically Defined Marble Brain Disease”
2013	supervised Ophthalmology resident thesis for Mohammed al Turki, MD, thesis titled “Afferent Visual Functioning in Neurofibromatosis Type 1”
2013	supervised Ophthalmology resident thesis for Mohammed al Mutlaq, MD, thesis titled “Congenital Cranial Dysinnervation Disorders Affect Afferent Visual Functioning”
2014	supervised Ophthalmology resident thesis for Turki al Anazi, MD, thesis titled “Surgical outcomes in CCDDs”
2015	supervised Ophthalmology resident thesis for Othman Al-Jarallah, MD, thesis titled “Clinical characteristics of non-arteritic ischemic optic neuropathy in Saudi Arabia”

Training grant participation **None**

Educational Program Building / Leadership

1989--1997	Director of the Neurology Residency Program at Pennsylvania Hospital, Philadelphia, PA
1998--2005	Founder and Director of Neuro-ophthalmology Fellowship Program at King Khaled Eye Specialist Hospital
2006--2008	Founder and Director of Neurology Residency Program at Cooper Univ Hospital, Camden, NJ

Educational Extramural Funding **None**

CLINICAL ACTIVITIES

Certification

1977	Pennsylvania (Certification No. MD-021401-E) 1977, Inactive
2005	New Jersey (Certification No. 25MA07972400) 2005, Active
2015	Maryland (Certification No. D0080410) 2015, Active

Boards

1983	American Board of Psychiatry and Neurology, 1983
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Clinical (Service) Responsibilities

1983-1997	At Wills Eye Hospital, Scheie Eye Institute, and Children's Hospital of Philadelphia, predominantly outpatient Neuro-ophthalmology; time commitment ~80%
1989-1997	At Pennsylvania Hospital, both inpatient Neurology and outpatient Neurology and Neuro-ophthalmology, time commitment ~50%
1997-2005	At King Khaled Eye Specialist Hospital, predominantly outpatient Neuro-ophthalmology, time commitment ~80%
2005-2008	At Cooper Univ Hospital, both inpatient and outpatient Neurology and Neuro-ophthalmology, time commitment ~60%
2008-2015	At King Saud Univ Hospitals (King Abdulaziz Univ Hospital and King Khaled Univ Hospital), exclusively outpatient Neuro-ophthalmology, time commitment ~60%
2016-present	At Johns Hopkins Medical Institutions, outpatient Neuro-ophthalmology, time commitment 80%

Clinical Program Building / Leadership

1989-1997	Chair, Dept Neurology; Director, Neurology Residency Program, Pennsylvania Hospital, Philadelphia
1997-2005	Chief, Neuro-ophthalmology Division; Founder and Director, Neuro-ophthalmology Fellowship Program, King Khaled Eye Specialist Hospital, Riyadh
2005-2008	Chief, Division of Neurology; Founder and Director, Neurology Residency Program, Cooper Univ Hospital

Clinical Extramural Funding None

SYSTEM INNOVATION AND QUALITY IMPROVEMENT ACTIVITIES **None**

ORGANIZATIONAL ACTIVITIES

Institutional Administrative Appointments

1989-1997	Chair, Dept Neurology, Pennsylvania Hospital
1997-2005	Chief, Neuro-ophthalmology Division, King Khaled Eye Specialist Hospital
2005-2008	Chief, Division of Neurology, Cooper Univ Hospital
2008-2015	Chief, Neuro-ophthalmology Division, Ophthalmology Dept, King Saud Univ

Editorial Activities

Board appointments

6/96-6/99	Editorial Board, Middle East Journal of Ophthalmology
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Journal peer review (I have reviewed manuscripts for a number of journals since approximately 1985, including Ophthalmology, Neurology, Journal of Neuro-ophthalmology, British Journal of Ophthalmology, Molecular Vision, Ophthalmic Genetics, Saudi Journal of Ophthalmology, and Middle East Journal of Ophthalmology. However, I have never recorded this activity, and I have done almost no reviewing in the last five years because of other activities.)

Advisory Committees, Review Groups/Study Sections

1983-1997	Chairman, Medical Advisory Board, Myasthenia Gravis Foundation of Eastern Pennsylvania
1985-1997	Advisory Board, Foerderer Eye Movement Laboratory, Wills Eye Hospital
1987-1997	Chairman, Quality Assurance Committee, Wills Eye Hospital
1989-1997	Executive Committee, Pennsylvania Hospital
1990-1997	Optic Neuritis Study Group
1994-1997	Practice Committee, American Academy Neurology
1994-1997	Medical Economics and Management Subcommittee, American Academy Neurology
1997-2001	Performance Improvement Committee, KKESH
1997-2004	Human Ethics Committee, KKESH; Chair 2000 to 2003
1997-2005	Promotions Committee, KKESH
1997-2005	Fellowship Selection Committee, KKESH
2005-2008	Division Chiefs Committee, Dept Medicine, Cooper Univ Hospital
2009-2015	Research Committee, Dept Ophthalmology, King Saud Univ
2009-2015	HEC/IRB Committee, King Khaled Eye Specialist Hospital

Professional Societies

1977--present	American Medical Association
1980-present	American Academy of Neurology (Fellow 2001)
1990-2008	Association of University Professors of Neurology (1990-1997, 2008)
1991-present	American Neurological Association (Fellow 2012)
2003-present	North American Neuro-ophthalmologic Society (Fellow)
2007-present	Association for Research in Vision and Ophthalmology

Conference Organizer, Session Chair None

Consultantships None

RECOGNITION

Awards, Honors

1968	National Merit Scholar
1968	Presidential Scholar
1972	Magna cum Laude, Yale, with Honors in Psychology
1980	American Heart Association Research Fellowship
1982	Fight for Sight Research Fellowship
1991-1997	American Board of Psychiatry & Neurology Part 2 Neurology Board Examiner
1992	Inducted into American Neurological Association
1993	President, Philadelphia Neurologic Society
1998-present	Saudi Ophthalmology Board Examiner
2005-2008	American Board of Psychiatry & Neurology Part 2 Neurology Board Examiner
2008-2016	Distinguished Researcher Program, King Saud University

Invited Talks, Panels

11/5/82	"Nystagmus," Dept Neurology Grand Rounds, Univ Alabama Medical Center, Birmingham, AL
11/15/82	"Drug Treatment of Oscillopsia," Dept Neurology and Neuroscience, Univ Utah Medical Center, Salt Lake City, UT
5/19-23/86	"Positron Emission Tomography and Vision," 90th Meeting of Japanese Ophthalmological Society, Yokaichi City, Japan
7/3-4/86	"Physiological Aspects of the Optic Chiasm," Mansell Bequest Symposium, London, England.
6/23/87	"Carotid Artery Disease," Rehobeth Beach Conference, Dept Family Medicine, Thomas Jefferson Univ Hospital, Rehobeth Beach, DE
9/17/87	"Positron Emission Tomography and Vision," Buffalo Ophthalmologic Society, Buffalo NY
3/2/88	"Optic Neuropathy: New Thoughts and Directions," Univ Medicine and Dentistry of New Jersey, Newark, NJ
3/25/88	"Positron Emission Tomography and Vision," Louisiana State Univ, Shreveport, LA
10/1/88	"Myasthenia Gravis Symposium," College of Physicians, Philadelphia, PA
4/17/90	"Abnormal Optic Disks," Our Lady of Lourdes Medical Center, Camden, NJ
5/5/91	"Overview of Treatments of Myasthenia Gravis," Annual Meeting of the Myasthenia Gravis Foundation/Eastern Pennsylvania Chapter, Wills Eye Hospital, Philadelphia, PA
2/8/93	Visiting Professor, Dept Ophthalmology, Univ Pittsburgh, Pittsburgh, PA
2/8/93	"Cardiac Emboli to the Eye and Brain," Pittsburgh Ophthalmology Society, Pittsburgh, PA
3/11/93	"The Neurologic Exam in the Elderly," Thomas Jefferson Univ, Issues in Geriatrics for the Practicing Physician, Philadelphia, PA
12/11-12/93	"Preventing Cerebrovascular Disease," "Management of Cerebrovascular Disease," "Headaches and Migraines - Vascular and Non-Vascular," and "Assessing Dizziness and Vertigo," Invited Guest Speaker, Neurology for the Non-Neurologist, Boca Raton, FL
3/17/94	"Less Common Causes of Ocular and Cerebral Emboli" and "Treatment of Pseudotumor Cerebri," Visiting Professor, Dept Ophthalmology, Univ South Florida, College of Medicine, FL
3/17/94	"New Information About the Afferent Visual System: Alzheimer's and More," Tampa Bay Ophthalmological Society, Tampa, FL
4/16/94	"Leber Hereditary Optic Neuropathy," Miyagi Prefectural Ophthalmological Association, Sendai, Japan

- 4/18/94 "Pathophysiology of Ischemic Optic Neuropathy," Dept Ophthalmology and Research Symposium, Tohoku Univ, Sendai, Japan
- 4/22/94 "Physiology of the Pregeniculate Afferent Visual System," 98th Meeting of the Japanese Ophthalmologic Society, Yokohama, Japan
- 11/5/94 "Headache & Migraines - Vascular & Non-vascular," Neurology for Non-Neurologist, Naples, FL
- 11/5/94 "Assessing Dizziness & Vertigo," Neurology for Non-Neurologist, Naples, FL
- 11/5/94 "Prevention of Cerebrovascular Disorders" and "Management of Cerebrovascular Disorders," Neurology for Non- Neurologist, Naples, FL
- 11/4/95 "The Role of Management Service Organizations in Managed Care," American Academy of Neurology, Medical Economics and Management Subcommittee, Atlanta, GA
- 3/96 "The Role of Management Service Organizations in Managed Care," American Academy of Neurology, San Francisco, CA
- 10/25/99 "Traumatic Optic Neuropathies in Saudi Arabia," Neuroscience Department Grand Rounds, Riyadh Military Hospital, Riyadh
- 11/29/99 "Diabetic Cranial Nerve Palsies in Saudi Arabia" and "Chronic Progressive External Ophthalmoplegia in Saudi Arabia," First International Symposium on General Medical Problems in Ophthalmology, Riyadh Military Hospital, Riyadh
- 6/8/00 "Microvascular Cranial Nerve Palsies Revisited, Ophthalmology Grand Rounds, Cleveland Clinic, Cleveland, OH
- 11/01 "Microvascular cranial nerve palsies" and "Visual complications of craniofacial neurofibromatosis type 1," 37th Annual Turkish Neurologic Congress, Antalya, Turkey
- 11/01 "Microvascular cranial nerve palsies," "New developments in congenital ocular motility abnormalities," and "Interesting Neuro-Ophthalmology Cases," Kuwaiti Ophthalmologic Society, Kuwait City, Kuwait.
- 5/15-16/02 "The Fundoscopic Exam" and "Eye Movement Abnormalities," Pediatric Neurology Update Symposium, Jeddah Maternity and Children's Hospital, Jeddah, Saudi Arabia
- 10/25-27/02 "110th Annual European Neuromuscular Centre Workshop (on Ocular Congenital Fibrosis Syndromes), Naarden, The Netherlands
- 12/20/02 "Congenital Cranial Dysinnervation Disorders," Ophthalmology Grand Rounds, Children's Hospital of Boston
- 5/26/03 "Congenital Cranial Dysinnervation Disorders," Ophthalmology Grand Rounds, Univ Utah, Salt Lake City
- 5/27/03 "Congenital Cranial Dysinnervation Disorders," Neurogenetics Laboratory presentation, UCLA, Los Angeles
- 10/17/03 "Congenital Eye Movement Syndromes," Grand Rounds, Hacettepe Univ Hospital, Ankara, Turkey
- 10/24/03 "Tumors Affecting Ocular Motility," Grand Rounds, Institute Jules Bordet, Brussels, Belgium
- 3/19/04 "Congenital cranial dysinnervation disorders," Institut National de Neurologie, Tunis, Tunisia
- 4/22-25/04 "Mitochondrial DNA mutations in NAION," "Optic Neuritis in Arabia," "Congenital eye movement abnormalities," and "Tumors affecting ocular motility," "Neuro-ophthalmology Update Workshop," Neurology Department, Ibn Sina Hospital, Kuwait
- 10/5-7/04 "LHON in Arabia," "Horizontal gaze palsy and progressive scoliosis: an unusual congenital eye movement disorder," and "Diabetic cranial nerve palsies," Arab Ophthalmologic Association meeting, Bahrain
- 2/21/05 "Mitochondria and Optic Nerve Injury: New Data on an Old Topic," Neurology Grand Rounds, Univ Mississippi, Jackson, MS
- 2/23/05 "A Broader Clinical and Genetic Spectrum for Leber Hereditary Optic Neuropathy," Ophthalmology Grand Rounds, Univ Utah, Salt Lake City, UT
- 2/24/05 "A Broader Clinical and Genetic Spectrum for Leber Hereditary Optic Neuropathy," Neuro-otology Rounds, UCLA, Los Angeles, CA
- 10/26/05 "A Tale of Three (autosomal recessive ocular motility) Syndromes," Ophthalmology Grand Rounds, Univ Utah, Salt Lake City, Utah
- 10/28/05 "A Tale of Three (autosomal recessive ocular motility) Syndromes," Neurology Grand Rounds, Stanford Univ Medical School, Palo Alto, CA

- 11/18/05 “A Tale of Three (autosomal recessive ocular motility) Syndromes,” Neurology Resident Lecture, St. Louis Univ Medical School, St. Louis, MO
- 11/19/05 “A Tale of Three Syndromes” and “The Optic Nerve Loves Mitochondria,” Buesseler Visiting Professor, Dept Ophthalmology, Univ Missouri, Columbia, MO
- 7/7/06 “Three Autosomal Recessive Congenital Ocular Motility Syndromes,” International Congress on Neuro-muscular Diseases, Istanbul
- 11/3/06 “Three Genetically-Defined Ocular Motility Syndromes,” 8th Neuromediterranean Society Conference, Amman, Jordan
- 11/7/06 “LHON: A new twist to an old story” and “LHON: The tip of the iceberg,” Mitochondrial Abnormalities in Various Optic Neuropathies Symposium sponsored by Prince Salman Center for Disability Research, Riyadh, Saudi Arabia
- 11/13/06 “A Tale of Three Syndromes,” Neurosciences Grand Rounds, King Fahd Medical City, Riyadh, Saudi Arabia
- 11/14/06 “A Tale of Three Syndromes,” Neurology Grand Rounds, King Khalid Univ Hospital, Riyadh, Saudi Arabia
- 11/23/06 “Mitochondria and Optic Nerve Injury,” Grand Rounds, Hong Kong Eye Hospital, Hong Kong
- 11/27/06 “Three Genetically Defined Ocular Motility Syndromes,” Ophthalmology Grand Rounds, Tokyo Medical and Dental Univ, Tokyo, Japan
- 12/1/06 “Neuro-imaging of genetically defined congenital ocular motility disorders,” International Neuro-ophthalmologic Society Meeting, Tokyo, Japan
- 3/5/07 “The optic nerve loves mitochondria,” Neuroscience Department Grand Grounds, King Faisal Specialist Hospital and Research Centre, Riyadh, Saudi Arabia
- 3/15/07 “The optic nerve loves mitochondria,” Neurology Grand Rounds, Queen’s Medical Centre, Univ Nottingham, Nottingham, UK
- 3/16/07 “The optic nerve loves mitochondria,” Keynote Lecture, Trent Regional Ophthalmic Study Day, Catalis Conferencing Centre, Derby, UK
- 3/28/08 “New genetic disorders affecting ocular motility □ CFEOM2, HGPPS, and BSAS,” Ophthalmology Grand Rounds, UCSF, San Francisco
- 2/28/08 “The optic nerve loves mitochondria,” Ophthalmology Resident Lecture Series, UCSF
- 6/4/08 “Spontaneous Bilateral Optic Neuropathies,” Lecture to Sadun Laboratory, Univ Southern California, Los Angeles, CA
- 2/23/09 “GSTM1 and GSTT1 Deletion Genotypes in Various Spontaneous Optic Neuropathies,” North American Neuro-Ophthalmology Society Annual Meeting, Lake Tahoe, Nevada
- 2/26/09 “New Genetic Disorders Affecting Ocular Motility—CFEOM2, HGPPS, and BSAS,” Grand Rounds, Bascom Palmer Eye Institute, Univ Miami, Miami, FL
- 2/26/09 “The Optic Nerve Loves Mitochondria,” Research Conference, Bascom Palmer Eye Institute, Univ Miami, Miami, FL
- 3/9/10 “Ophthalmic Abnormalities in a de novo Terminal 6q Deletion,” North American Neuro-ophthalmologic Society Annual Meeting, Tucson, AZ
- 9/24/10 “Use of CT and MRI in Strabismus Evaluation,” International Strabismological Association XI Annual Meeting, Istanbul
- 9/25/10 “Overview of CCDD Phenotypes and Genotypes,” International Strabismological Association XI Annual Meeting, Istanbul
- 1/11/11 “Visual Disability of Patients with Orbitofacial Neurofibromatosis Type 1,” Neuro-ophthalmology Update, Riyadh Military Hospital, Riyadh
- 6/21/11 “Cerebrovascular Disease: Screening, Prevention, and Acute Treatment,” 34th Annual Eastern Shore Medical Symposium, Rehoboth Beach, DE
- 5/9/14 “Visual Effects of Methanol Intoxication,” Grand Rounds, Capital Health Neuroscience Dept, Trenton, NJ
- 6/24/14 “Interesting Neuro-ophthalmology Patients,” Neurology residents and Visual Sciences Dept, Dalhousie University, Halifax, Canada
- 6/25/14 “The Afferent Visual System,” Visual Sciences Dept, Dalhousie Univ, Halifax, Canada
- 11/6/14 “Human Congenital Ocular Motility Phenotypes,” 9th Annual Gulf Cooperative Council Neurology Meeting, Muscat, Oman

Thomas M. Bosley, M.D.

1/24/15 “Visual and Neurologic Sequelae of Methanol Intoxication” and “The CCDDs: Update 2015,” 3rd
 Qatari International Ophthalmology Symposium, Doha, Qatar
6/22/15 “CCDD Update 2015,” Grand Rounds, Moorfields Eye Hospital, London

OTHER PROFESSIONAL ACCOMPLISHMENTS None