**CURRICULUM VITAE**

**Prem S. Subramanian, MD, PhD**

1. **BIOGRAPHICAL SKETCH**

Professor with Tenure in Ophthalmology, Neurology, and Neurosurgery

Department of Ophthalmology

Vice Chair for Academic Affairs, Ophthalmology

Division Head, Neuro-Ophthalmology

University of Colorado School of Medicine

Sue Anschutz-Rodgers/UCHealth Eye Center

1675 Aurora Court, Mailstop F731

Aurora, CO 80045

prem.subramanian@cuanschutz.edu

Appointments: 720-848-2020

Clinic Fax: 720-848-5079

Administration: 720-848-2500

Admin. Fax: 720-848-4043

[www.eyeinstitute.org](http://www.eyeinstitute.org)

1. **EDUCATION**

**PREDOCTORAL EDUCATION**

1985 – 1989 Pre-medical: Bachelor of Arts, Chemistry

 Princeton University, Princeton, NJ

*Summa cum laude*

1989 – 1997 Medical: Doctor of Medicine

 Baylor College of Medicine, Houston, TX

*High honors*

**GRADUATE EDUCATION**

1990 – 1995 Doctoral: Doctor of Philosophy, Molecular and Human Genetics

Graduate School of Biomedical Sciences

Baylor College of Medicine, Houston, TX

[Dissertation](https://link.springer.com/article/10.1007/BF02679969): Replication timing properties of the human HPRT locus on active, inactive and reactivated chromosomes

Advisor: A. Craig Chinault, Ph.D.

**POSTDOCTORAL TRAINING**

1997 – 1998 Internship: Walter Reed Army Medical Center, Bethesda, MD

1998 – 2001 Residency: Ophthalmology, Walter Reed Army Medical Center, Uniformed Services University of the Health Sciences, Bethesda, MD

2002 – 2003 Fellowship: Neuro-Ophthalmology, Wilmer Eye Institute,

 Johns Hopkins University School of Medicine, Baltimore, MD

**3. ACADEMIC APPOINTMENTS**

1999 – 2001 Instructor in Surgery, Uniformed Services University, Bethesda, MD

2001 – 2006 Assistant Professor of Surgery, Uniformed Services University, Bethesda, MD

2002 – 2003 Assistant in Ophthalmology, Johns Hopkins University, Baltimore, MD

2006 – 2021 Associate Professor of Surgery, Uniformed Services University, Bethesda, MD

2008 Visiting Associate Professor of Ophthalmology, Johns Hopkins University, Baltimore, MD

2008 – 2015 Associate Professor of Ophthalmology, Johns Hopkins University, Baltimore, MD

2010 – 2015 Associate Professor of Neurology, Johns Hopkins University, Baltimore, MD

2010 – 2015 Associate Professor of Neurological Surgery, Johns Hopkins University, Baltimore, MD

2015 – 2016 Visiting Professor of Ophthalmology, Neurology, and Neurosurgery, Department of Ophthalmology, University of Colorado School of Medicine, Aurora, CO

2016 – Professor of Ophthalmology, Neurology, and Neurosurgery, Department of Ophthalmology, University of Colorado School of Medicine, Aurora, CO

2021 – Adjunct Professor of Surgery, Uniformed Services University, Bethesda, MD

2022 – Professor with Tenure, University of Colorado School of Medicine, Aurora, CO

**4. HOSPITAL, GOVERNMENT AND PROFESSIONAL APPOINTMENTS**

 *A. Hospital Staff Memberships*

2001 – 2007 Walter Reed Army Medical Center, Washington, DC

2001 – 2007 Kimbrough Ambulatory Care Center, Fort Meade, MD

2010 – 2015 The Johns Hopkins Hospital, Baltimore, MD

2010 – 2015 Johns Hopkins Bayview Med Center, Baltimore, MD

2010 – 2015 Suburban Hospital, Bethesda, MD

2013 – 2015 Suburban Outpatient Surgical Center, Rockville, MD

2015 – University of Colorado Hospital, Aurora, CO

* Division Head, Neuro-ophthalmology- leading a cross-departmental service that attracts patients from around the world for subspecialty medical and surgical care.
* Interdisciplinary team member for skull base surgery, CNS and head/neck cancers

2015 – Children’s Hospital Colorado, Aurora, CO

2015 – Denver Health Medical Center, Denver, CO

2015 – Denver VA Eastern Colorado Health Care System, Denver, CO

 *B. Government and Professional Positions*

1986 Analytical Chemist, Firma Carl Still, GmbH & Co. KG, Haltern, West Germany

1987 Research Associate in Psychology, Princeton University, Princeton, NJ

1988 Research Associate in Chemistry, Princeton University, Princeton, NJ

1989 – 1993 Second Lieutenant, Medical Service Corps, United States Army Reserve

1993 – 1997 First Lieutenant, Medical Service Corps, United States Army Reserve

1997 – 2000 Captain, Medical Corps, United States Army Reserve

2000 – 2006 Major, Medical Corps, United States Army Reserve

2001 – 2002 Comprehensive Ophthalmologist, Walter Reed AMC, Washington, DC

2006 – 2007 Lieutenant Colonel, Medical Corps, United States Army (RA)

2013 – 2017 Consultant, Neuro-Ophthalmology, National Aeronautics and Space Agency (NASA)

* Retained on-call to evaluate, in real time as needed, the development of microgravity-associated ocular changes in ISS astronauts with potential to trigger unplanned return to Earth from spaceflight

**5. HONORS**, **AWARDS & RECOGNITION**

1988 NSF Summer Research Fellowship, Chemistry, Princeton University

1989 McCay Prize in Physical Chemistry, Princeton University

1989 Sigma Xi Research Honor Society, Princeton University

1989 Distinguished Military Graduate, Princeton University

1989 Chairman’s Award for Graduate Study, University Scholarships Canada

1996 Alpha Omega Alpha Medical Honor Society, Baylor College of Medicine

1997 Lange Book Award, Baylor College of Medicine

1998 Outstanding Intern in Pediatrics, Walter Reed Army Medical Center

2001 Best Resident Research Paper, Uniformed Services Univ. of the Health Sciences

2002 Meritorious Service Medal, United States Army (Operation Enduring Freedom)

2006 Army Commendation Medal, Walter Reed Army Medical Center (Operation Iraqi Freedom)

2009 Distinguished Service Award, American Academy of Ophthalmology

2009 Achievement Award, American Academy of Ophthalmology

2012 Neil R. Miller Teaching Award in Ophthalmology, Wilmer Eye Institute, Johns Hopkins University School of Medicine

2013 Special Recognition Award, American Academy of Ophthalmology

2017 Senior Achievement Award, American Academy of Ophthalmology

2017 Academy of Medical Educators, University of Colorado School of Medicine

2017 Resident Teaching Award, Department of Ophthalmology, CUSOM

2021 Secretariat Award, American Academy of Ophthalmology

**6. PROFESSIONAL SOCIETY MEMBERSHIPS**

1989 – Sigma Xi Research Honor Society

1996 – Alpha Omega Alpha Medical Honor Society (ΑΩΑ)

1998 – American Academy of Ophthalmology (AAO)

* Neuro-Ophthalmology Section Head, *EyeNet* Editorial Board (2019 – )
* Journal Roundup editor, *EyeNet* (2020 – )
* Councilor for NANOS, Council of the AAO (2018 – 2022)
* Vice Chair, Council of the AAO (2022 – 2024)
* Chair, Council of the AAO (2024 – 2026)
* Member, Board of Trustees (2022 – 2026)

2001 – Society of Military Ophthalmologists (SMO)

2001 – North American Neuro-Ophthalmology Society (NANOS)

* Secretary, Board of Directors officer (2012-2016)
* Treasurer, Board of Directors officer (2016-2020)
* President-elect (2020 – 2022)
* President (2022 – 2024)
* Chair, Board of Directors (2024 – 2026)
* See below for committee leadership positions

2001 – 2005 American Society of Cataract and Refractive Surgeons (ASCRS)

2006 – 2011 American Society for Ocular Trauma (ASOT)

2006 – 2011 International Society for Ocular Trauma (ASOT)

2009 – Association for Research in Vision and Ophthalmology (ARVO)

2010 – Pan-American Association of Ophthalmology (PAAO)

2015 – Colorado Society of Eye Physicians and Surgeons (CSEPS)

2018 – North American Society of Academic Orbital Surgeons (NASAOS)

* Charter/founding member
* Board Director (2021 – )

2020 – Asia-Pacific Ophthalmic Trauma Society (APOTS)

2020 – American Society of Ophthalmic Trauma (ASOT)

**7. ADMINISTRATIVE, COMMITTEE AND SERVICE RESPONSIBILITIES**

**Department of Ophthalmology, University of Colorado School of Medicine**

2015 – Selection Committee, Ophthalmology Residency Program

2015 – Division Head, Neuro-Ophthalmology

2015 – Vice Chair for Academic Affairs

2015 – Faculty Career Advisor

2017 – Chair, Faculty Promotions Committee

**Department of Neurology, University of Colorado School of Medicine**

2015 – Selection Committee, Neuro-Ophthalmology Fellowship

**University of Colorado School of Medicine**

2015 – Preceptor, Foundations of Doctoring

2017 – Member, Career Mapping Group

2017 – Member, Faculty Affairs Liaison Committee

2017 – Member, Rymer Grant Selection Committee

**UCHealth Eye Centers, University of Colorado Hospital**

2016 – Leader, Ophthalmic Technician Training Program Planning Group

2018 – Leader, Neuro-Ophthalmology Epic Development

**Wilmer Eye Institute, Johns Hopkins University School of Medicine**

2005 – 2007 Member, Interdepartmental Curriculum Committee

2008 – 2012 Member, Clinical Practice Redesign Committee

2009 – 2015 Director, Neuro-Ophthalmology and Orbital Diseases, Neurology Special Senses section, Genes to Society curriculum

2010 – 2015 Member, Resident Education Task Force

2012 – 2015 Member, Resident Education Task Force, General Eye Service Directorate

2012 – 2015 Member, Residency Education Committee

2012 – 2015 Program Director, Neuro-ophthalmology Fellowship

**Johns Hopkins Hospital**

2007 – 2015 Member, Medical Staff Conference Committee

2009 – 2011 Vice Chairman, Medical Staff Conference Committee

2009 – 2011 Representative to Hospital Bylaws Committee

2011 – 2013 Chairman, Medical Staff Conference Committee

2011 – 2013 Member, Administrative Committee, Medical Board

2011 – 2013 Member, Medical Board

**National Capital Consortium**

2004 – 2007 Member, Ophthalmology Graduate Medical Education Committee, Uniformed Services University of the Health Sciences

2004 – 2007Associate Residency Program Director, Ophthalmology, Walter Reed Army Medical Center

2005 – 2007 Medical Student Education Coordinator, Ophthalmology, Walter Reed Army Medical Center

2005 – 2007 Member, Graduate Medical Education Committee, National Capital Consortium

**National Committees and Task Forces**

2009 Member, Task Force on Resonance Raman Spectroscopy in Remote Explosives Detection, Department of Homeland Security

2011 – 2016 Member, Research and Clinical Advisory Panel (RCAP) on Vision Impairment Intracranial Pressure (VIIP) Syndrome, National Aeronautics and Space Agency (NASA)

2013 Member, Committee on Human Health Risks (Spaceflight), Institute of Medicine, National Academies of Sciences, Engineering, and Medicine

2014 – Member, Standing Committee on Aerospace Medicine and Medicine of Extreme Environments (CAMMEE), Institute of Medicine, National Academies of Sciences, Engineering, and Medicine

**Professional Societies**

2004 – 2012 Research Committee, North American Neuro-Ophthalmology Society (NANOS)

2006 – 2011 Consultant, Digital Media Committee, American Academy of Ophthalmology (AAO)

2010 – 2014 Committee Member, Basic and Clinical Science Section 5, AAO

2011 – 2016 Member, Self-Assessment Committee, AAO

2012 – 2016 Member, Continuing Medical Education (CME) Committee, NANOS

2012 – 2020 Committee Member and Content Developer, Content Development Program, American Board of Ophthalmology (ABO)

2012 – Member, AAO Committee, NANOS

2012 – 2018 Member, Neuro-Ophthalmology Section, Annual Meeting Program Committee, AAO

2012 – 2018 YONO (Young Neuro-ophthalmologists) Committee, NANOS

2012 – 2018 Membership Recruitment and Retention Committee, NANOS

2014 – Member, Frank B. Walsh Committee, NANOS

2014 – 2018 Vice Chair, AAO Committee, NANOS

2015 – Chair, Demonstration of Neuro-Ophthalmic Value Committee, NANOS

2015 – 2020 Vice Chair, Advocacy Committee, NANOS

2016 – Member, Quality Outcomes Committee, NANOS

2016 – Member, Nominating Committee, NANOS

2016 – Member, Executive Committee, NANOS

2016 – 2020 Financial Arm Chair, NANOS

2017 – 2019 Member, AAO *EyeNet* Editorial Board

2018 – Chair, AAO Committee, NANOS

2018 – 2020 Chair, Content Development Task Force, Neuro-ophthalmology, American Board of Ophthalmology

2018 – Member, Abstract Committee, NANOS

2018 – Vice Chair, Fellowship Committee, NANOS

2020 – Co-Chair, Advocacy Committee, NANOS

2020 – Member, Social Committee, NANOS

2020 – Member, Strategic Planning Committee, NANOS

2020 – Member, New Knowledge in Neuro-Ophthalmology Committee, NANOS

2020 – Member *ex officio*, Finance Committee, NANOS

2020 – Meetings Arm Chair, NANOS

2020 – 2021 Chair, Traumatic Brain Injury Treatment Taskforce, NANOS and AAO

2021 – Chair, Neuro-ophthalmology Content Development Committee, ABO

2022 – Chair, Neuro-ophthalmology and Orbit PMP (Oral Exam) Committee, ABO

2022 – Chair, Article-Based Question Writing Committee, Neuro-ophthalmology, ABO

**8. LICENSURE AND BOARD CERTIFICATION**

**SPECIALTY BOARD CERTIFICATION**

2002 – 2012 Diplomate, American Board of Ophthalmology

2013 – 2022 Diplomate, American Board of Ophthalmology (recertification)

2023 – 2032 Diplomate, American Board of Ophthalmology (maintenance of certification)

**MEDICAL LICENSES**

1998 – 2015 Physician license, Maryland (inactive)

2001 – 2016 Physician license, Virginia (inactive)

2015 – Physician license, Colorado (active)

**9. INVENTIONS AND INTELLECTUAL PROPERTY**

Patent pending: “Compositions and Methods for Lowering Intracranial Pressure by Intranasal Administration”

* Novel method for increased cerebrospinal fluid outflow by application of prostaglandin analogues to the nasal mucosa.

**10. Review and Referee work**

**Editorial Board Service**

2010 – 2017 Editorial Board Member, Journal of the American Association for Pediatric Ophthalmology and Strabismus (AAPOS)

2010 – Digital Content Editor, Journal of Neuro-Ophthalmology

2011 – Section Editor, British Journal of Ophthalmology

2015 – Editorial Board Member, Graefes Archive for Experimental and Clinical Ophthalmology

2017 – 2021 Associate Editor, Journal of AAPOS

2017 – Advisory Board Member, Indian Journal of Ophthalmology

2020 – Guest Editor, New England Journal of Medicine

2021 – Editorial Board Member, Orbit

2021 – Editorial Board Member, Frontiers in Ophthalmology

2021 – Senior Associate Editor, Journal of AAPOS

**Ad hoc Review Service, Journals**

2002 – JAMA Ophthalmology (formerly Archives of Ophthalmology)

2003 – American Journal of Ophthalmology

2003 – Ophthalmology

2004 – 2011 British Journal of Ophthalmology

2006 – 2010 Journal of Neuro-Ophthalmology

2007 – 2010 Journal of AAPOS (American Assoc. for Pediatric Ophthalmology & Strabismus)

2007 – Eye

2007 – Neuro-Ophthalmology

2008 – European Journal of Ophthalmology

2008 – Military Medicine

2009 – Neurology

2009 – Pediatric Blood & Cancer

2009 – 2015 Graefes Archive for Clinical and Experimental Ophthalmology

2010 – Clinical and Experimental Ophthalmology

2011 – Investigative Ophthalmology and Visual Sciences (IOVS)

2011 – Journal of Neurosurgery

2012 – Canadian Journal of Neurological Sciences

2013 – Experimental Eye Research

2013 – Neurosurgery

2013 – Ophthalmic Plastic and Reconstructive Surgery

2013 – Clinical Ophthalmology

2013 – Frontiers in Neurology

2014 – Journal of Neuroimmunology

2015 – American Journal of Ophthalmology (AJO) Case Reports

2015 – BMC Neurology

2015 – Ocular Oncology and Pathology

2017 – Journal of Neurological Sciences

2018 – BEAT: Bulletin of Emergency and Trauma

2019 – Journal of Neurology, Neurosurgery, and Psychiatry

2019 – Neurosurgical Review

2019 – npj Microgravity

2019 – 2021 Orbit

2019 – BMC Ophthalmology

2019 – Canadian Journal of Ophthalmology

2019 – Eye and Brain

2019 – PLoS ONE

2020 – Journal of International Medical Research

2020 – Pituitary

2021 – Neuroscience and Biobehavioral Reviews

2021 – Life Journal

2021 – Frontiers in Ophthalmology

2022 – Concussion

2022 – Scientific Reports

**Grant Review Committees/Study Sections**

2011 Vision Science Committee, NASA Research Education Support Service (NRESS)

2014 Grants-in-Aid Committee, Fight for Sight 2014

2015 Grants-in-Aid Committee, Fight for Sight 2015

2016 Grants-in-Aid Committee, Fight for Sight 2016

2017 Grants-in-Aid Committee, Fight for Sight 2017

2018 Grants-in-Aid Committee, Fight for Sight 2018

2019 Grants-in-Aid Committee, Fight for Sight 2019

2021 Department of Defense Vision Research Program (VRP)

2021 Grants-in-Aid Committee, Fight for Sight 2021

**Meeting Abstract/Program Review**

2007 North American Neuro-Ophthalmology Society, Annual Meeting

2008 North American Neuro-Ophthalmology Society, Annual Meeting

2009 North American Neuro-Ophthalmology Society, Annual Meeting

2010 American Academy of Ophthalmology, Annual Meeting

2010 North American Neuro-Ophthalmology Society, Annual Meeting

2011 All India Ophthalmological Society, Annual Conference

2011 American Academy of Ophthalmology, Annual Meeting

2011 North American Neuro-Ophthalmology Society, Annual Meeting

2012 All India Ophthalmological Society, Annual Conference

2012 American Academy of Ophthalmology, Annual Meeting

2012 Asia-Pacific Academy of Ophthalmology, Annual Meeting

2012 North American Neuro-Ophthalmology Society, Annual Meeting

2013 American Academy of Ophthalmology, Annual Meeting

2013 North American Neuro-Ophthalmology Society, Annual Meeting

2014 American Academy of Ophthalmology, Annual Meeting

2014 Asia-Pacific Academy of Ophthalmology, Annual Meeting

2014 North American Neuro-Ophthalmology Society, Annual Meeting

2015 American Academy of Ophthalmology, Annual Meeting

2015 Asia-Pacific Academy of Ophthalmology, Annual Meeting

2015 North American Neuro-Ophthalmology Society, Annual Meeting

2016 American Academy of Ophthalmology, Annual Meeting

2016 Asia-Pacific Academy of Ophthalmology, Annual Meeting

2016 Middle East-Africa Council of Ophthalmology, International Congress

2017 All India Ophthalmological Society, Annual Conference

2017 American Academy of Ophthalmology, Annual Meeting

2017 Asia-Pacific Academy of Ophthalmology, Annual Meeting

2017 Pan-American Association of Ophthalmology Congress

2018 Asia-Pacific Academy of Ophthalmology, Annual Meeting

2018 World Ophthalmology Congress, Biennial Meeting

2019 Asia-Pacific Academy of Ophthalmology, Annual Meeting

2019 Pan-American Association of Ophthalmology Congress

2019 American Academy of Ophthalmology, Annual Meeting

2020 Asia-Pacific Academy of Ophthalmology, Annual Meeting (virtual)

2020 World Ophthalmology Congress, Biennial Meeting (virtual)

2021 Asia-Pacific Academy of Ophthalmology, Annual Meeting (virtual)

**11. LECTURES, PRESENTATIONS AND VISITING PROFESSORSHIPS (invited)**

**Keynote Speaker, Named Lectures**

1. Artificial Vision and Vision Restoration. Joint Military Technology Symposium, Las Vegas, NV, November 2006. Keynote Speaker
2. Demyelinating Optic Neuritis- Past, Present, and Future. Royal College of Surgeons Named Lecturer. Clinical Day: 50th Anniversary Celebration of Ivey Eye Institute, London, Ontario, Canada, April 2009.
3. Increased ICP: It May be Idiopathic but is Rarely Benign. Royal College of Surgeons Named Lecturer. Clinical Day: 50th Anniversary Celebration of Ivey Eye Institute, London, Ontario, Canada, April 2009.
4. Developing a Neuro Hemifield Test. Continuing Optometric Education Program, Sankara Nethralaya, Chennai, India, January 2011. Keynote Speaker
5. Diagnosis of Carotid-Cavernous Fistulae. Continuing Optometric Education Program, Sankara Nethralaya, Chennai, India, January 2011. Keynote Speaker
6. Diplopia and Optic Neuropathy in Orbital Reconstruction. Advanced Orbital Surgery: A Tribute to the Surgery of Paul Tessier, Baltimore, MD, May 2012. Keynote Speaker
7. Optic Nerve Sheath Meningioma: Diagnosis and Treatment. Argentine Council of Ophthalmology Jornadas, Buenos Aires, Argentina, May 2013. Keynote Lecture
8. Medical and Surgical Management of Thyroid Eye Disease. Ophthalmic Society of West Bengal, Kolkata, India, November 2013. Dr. S. C. Dutt Memorial Oration (named lecture)
9. Low Vision in Neuro-Ophthalmology. Confluence: Eye and Beyond, Hyderabad, India, December 2013. Special Guest Oration: Invited Neuro-Ophthalmology Faculty.
10. Diplopia Diagnosis. Pittsburgh Ophthalmology Society, Pittsburgh, PA, February 2015. Keynote Speaker
11. Advances in Treatment of PTC Syndrome. Pittsburgh Ophthalmology Society, Pittsburgh, PA, February 2015. Keynote Speaker
12. Movement Disorders and Eye Movement Disturbances. Madras Medical College, Chennai, India, January 2016. Keynote Speaker
13. Risk Factors for Vision Loss in PTC. Reunión Club Latinoamericano Neurooftalmología (CLAN), Medellin, Colombia, September 2016. Keynote Speaker
14. Botox in Neuro-Ophthalmology. Reunión Club Latinoamericano Neurooftalmología (CLAN), Medellin, Colombia, September 2016. Keynote Speaker
15. Role of Angiogenesis in Papilledema and CRVO. Angiogenesis Club Meeting, Narayana Nethralaya, Bengaluru, India, September 2017. Keynote Speaker
16. Advances in Giant Cell Arteritis. Angiogenesis Club Meeting, Narayana Nethralaya, Bengaluru, India, September 2017. Keynote Speaker
17. Global Eye Trauma Trends. Ocular TraumaCON. Chennai, India. July 2018. Keynote Presentation
18. GCA and VZV. 34th Annual Neuro-Ophthalmology Society of Australia Meeting. September 2018. Melbourne, Australia. Keynote Lecture
19. Advances in Thyroid Eye Disease. 34th Annual Neuro-Ophthalmology Society of Australia Meeting. September 2018. Melbourne, Australia. Keynote Lecture
20. Brain Injury and Visual Dysfunction. 34th Annual Neuro-Ophthalmology Society of Australia Meeting. Melbourne, Australia. September 2018. Plenary Lecture
21. The Eye and Microgravity. XXVI Congreso Chileno de Oftalmología. Viña del Mar, Chile. November 2018. Plenary Lecture.
22. Landmark Trials in Neuro-Ophthalmology. Annual Meeting of Phillipines Academy of Ophthalmology, Manila, Philippines. December 2018. Plenary Lecture.
23. Current Management Strategies in Pseudotumor Cerebri as of August 2019. Ophthafusion 2019, Coimbatore, India. August 2019. The Prof. Prem Prakash Oration (named lecture)
24. Traumatic Optic Neuropathy. 4th Asia-Pacific Ophthalmic Trauma Society Webinar/JEC Ophthalmic Trauma Webinar: “Overcoming the Challenges in Ophthalmic Trauma.” August 2020. Keynote Lecture.
25. Traumatic Optic Neuropathy and Brain Injury. 5th APOTS Virtual Conference. September 5, 2020. Keynote Lecture.
26. Toxic, nutritional, and drug-induced optic neuropathies. All-India Ophthalmology Society ARC Webinar. September 17, 2020. Keynote Lecture.
27. Supranuclear gaze control and disorders. All-India Ophthalmology Society ARC Webinar. December 10, 2020. Keynote Lecture.
28. Neurologic Strabismus in Children. Strabismus and Pediatric Ophthalmology Society of India (SPOSI)- STRAIGHT 2020. December 12, 2020. Keynote Lecture.
29. Ophthalmic Imaging in Neuro-Ophthalmology: A Window to the Eye and the Brain. Everett L. Goar Memorial Lecture, Houston Ophthalmological Society, Houston, TX. November 4, 2021.
30. Neuro-Trauma and the Eye. Gujarat Ophthalmology Society Meeting, September 24, 2022 (virtual). Keynote Lecture.
31. OCT Angiography in Neuro-ophthalmology. INOS Oration, 4th Annual Indian Neuro-Ophthalmology Society Meeting, New Delhi, India. November 26, 2002.
32. Is it *Really* an Emergency? Neuro-Ophthalmology Nightmares! 5th Annual 20/20 Borderland Vision Symposium, El Paso, TX. March 25, 2023. Keynote Address.

**Visiting Professorships**

1. Top Neuro-Ophthalmologic Diagnoses You Don’t Want to Miss! 56th Annual Rochester Ophthalmology Conference, Rochester, NY, March 2011.
2. Carotid-Cavernous Fistulae. 56th Annual Rochester Ophthalmology Conference, Rochester, NY, March 2011.
3. Pseudotumor Cerebri: Is it Still Idiopathic? Ophthalmology Grand Rounds: The Methodist Hospital, Houston, TX, February 2012.
4. Predicting Visual Recovery in Optic Neuropathies. 70th All India Ophthalmology Congress, Kochi, India, February 2012. Distinguished Guest Faculty
5. Advances in Thyroid-Related Eye Disease. Great Lakes Neuro-Ophthalmology Meeting, East Lansing, MI, August 2012.
6. Skull Base Tumors: Meningioma. Great Lakes Neuro-Ophthalmology Meeting, East Lansing, MI, August 2012.
7. What I have Learned/My Biggest Mistakes. Great Lakes Neuro-Ophthalmology Meeting, East Lansing, MI, August 2012.
8. Advances in Thyroid Eye Disease. Endocrinology Grand Rounds, University of Maryland Medical School, Baltimore, MD, August 2012.
9. Update in Neuro-Ophthalmology. Datte Meghe Institute of Medical Sciences, Wardha, India, November 2012.
10. Advances in Thyroid Related Eye Disease. Nagpur Academy of Ophthalmology, Nagpur, India, November 2012. Distinguished Guest Faculty
11. First National Conference on Neuro-Ophthalmology (NCNO), Postgraduate Institute of Medical Research, Chandigarh, India, March 2013.
12. Pseudotumor Cerebri: Is it Still Idiopathic? First National Conference on Neuro-Ophthalmology (NCNO), Postgraduate Institute of Medical Research, Chandigarh, India, March 2013.
13. Neuroimaging in Neuro-Ophthalmology. First National Conference on Neuro-Ophthalmology (NCNO), Postgraduate Institute of Medical Research, Chandigarh, India, March 2013.
14. Advances in Thyroid-Related Eye Disease. First National Conference on Neuro-Ophthalmology (NCNO), Postgraduate Institute of Medical Research, Chandigarh, India, March 2013.
15. Clinical Approach to Anterior Visual Pathway Disorders. First National Conference on Neuro-Ophthalmology (NCNO), Postgraduate Institute of Medical Research, Chandigarh, India, March 2013.
16. Clinicoradiologic Correlations in Urgent Orbital Disease. 2nd Diagnostic Symposium on Imaging in Ophthalmology, King Khaled Eye Specialist Hospital, Riyadh, Saudi Arabia, September 2013.
17. Differential Diagnosis in Neuro-Ophthalmic Imaging. 2nd Diagnostic Symposium on Imaging in Ophthalmology, King Khaled Eye Specialist Hospital, Riyadh, Saudi Arabia, September 2013.
18. Static and Dynamic Echography in Evaluation of Orbital Vascular Lesions. 2nd Diagnostic Symposium on Imaging in Ophthalmology, King Khaled Eye Specialist Hospital, Riyadh, Saudi Arabia, September 2013.
19. Utility of Orbit and Brain Imaging in New-Onset Diplopia. 2nd Diagnostic Symposium on Imaging in Ophthalmology, King Khaled Eye Specialist Hospital, Riyadh, Saudi Arabia, September 2013.
20. Clinical and Surgical Planning in Orbital Tumor Management. 2nd Diagnostic Symposium on Imaging in Ophthalmology, King Khaled Eye Specialist Hospital, Riyadh, Saudi Arabia, September 2013.
21. Pseudotumor Cerebri: Is it Still Idiopathic? Storm Eye Institute Grand Rounds, Charleston, SC, November 2013.
22. Pseudotumor Cerebri: Is it Still Idiopathic? Montefiore Medical Center Dept of Ophthalmology Grand Rounds, Bronx, NY, January 2014.
23. Pseudotumor Cerebri - Treatment in 2014. University of Maryland Ophthalmology Grand Rounds, Baltimore, MD, November 2014.
24. Medical and Surgical Treatments of PTC Syndrome. University of Colorado Ophthalmology Grand Rounds, Aurora, CO, December 2014.
25. Thyroid Eye Disease. Sanmenxia Ophthalmology Society Meeting, Sanmenxia, China, April 2015.
26. Nystagmus. People’s Liberation Army General Hospital, Beijing, China, April 2015.
27. Thyroid Eye Disease. People’s Liberation Army General Hospital, Beijing, China, April 2015.
28. Diplopia: Diagnosis and Management. University of Maryland Neurology Grand Rounds, Baltimore, MD, May 2015.
29. Surgical Management of Thyroid Eye Disease. Ho Chi Minh Eye Hospital, Ho Chi Minh City, Vietnam, June 2015.
30. Treatment of Thyroid Eye Disease. Ho Chi Minh University School of Medicine and Pharmacy, Ho Chi Minh City, Vietnam, June 2015.
31. Neuroimaging for the Ophthalmologist. Ho Chi Minh University School of Medicine and Pharmacy, Ho Chi Minh City, Vietnam, June 2015.
32. Typical and Atypical Optic Neuritis. Ho Chi Minh University School of Medicine and Pharmacy, Ho Chi Minh City, Vietnam, June 2015.
33. Difficult Cases in Neuro-Ophthalmology. University of Pittsburgh Medical Center Ophthalmology Grand Rounds, Pittsburgh, PA, February 2016.
34. Thyroid Eye Disease. Cho Ray Hospital, Ho Chi Minh City, Vietnam, April 2016.
35. Traumatic Optic Neuropathy. Cho Ray Hospital, Ho Chi Minh City, Vietnam, April 2016.
36. Functional Imaging in Neuro-Ophthalmology. Cho Ray Hospital, Ho Chi Minh City, Vietnam, April 2016.
37. Case Presentations. University of Minnesota Ophthalmology Grand Rounds, Minneapolis, MN, October 2017.
38. The Eye and Vision in Microgravity. University of Copenhagen, Copenhagen, Denmark, October 2017.
39. The Eye and Vision in Microgravity. National Eye Institute/Walter Reed National Military Medical Center Combined Grand Rounds. Bethesda, MD. Feb 2018.
40. Managing Cranial Nerve 3, 4, and 6 Palsies. 90th Annual Spring Postgraduate Conference: Challenges in Neuro-Ophthalmology, Kellogg Eye Center, University of Michigan, Ann Arbor, MI. June 2, 2018.
41. Interpreting Ancillary Testing in Neuro-Ophthalmology (OCT, VEP, ERG). 90th Annual Spring Postgraduate Conference: Challenges in Neuro-Ophthalmology, Kellogg Eye Center, University of Michigan, Ann Arbor, MI. June 2, 2018.
42. Approach to Unexplained Vision Loss. 90th Annual Spring Postgraduate Conference: Challenges in Neuro-Ophthalmology, Kellogg Eye Center, University of Michigan, Ann Arbor, MI. June 2, 2018.
43. Giant Cell Arteritis: An Infectious Disease? UCLA/Jules Stein Eye Institute Grand Rounds, Los Angeles, CA. February 13, 2019.
44. Bedside Neuro-Ophthalmology: Eye Movement Disorders. Texas Tech University Health Sciences Center, El Paso, TX. March 24, 2023.
45. Neuro-Ophthalmology Visiting Professor. Wills Eye Hospital, Philadelphia, PA. April 19, 2023.

**Local Lectures and Presentations**

1. Enhancing Optic Nerve Regeneration after Axonal Injury. 62nd Clinical Meeting of the Wilmer Residents’ Association, Baltimore, MD, May 2003.
2. Plasma Ghrelin Levels in Patients with Idiopathic Intracranial Hypertension. 63nd Clinical Meeting of the Wilmer Residents’ Association, Baltimore, MD, May 2004.
3. The Man Who Saw Double. Alper Neuro-Ophthalmology Lecture Series, Washington National Eye Center, Washington, DC, October 2004.
4. Ocular Injuries on the Modern Battlefield. VA Medical Center Neurology Grand Rounds, Washington, DC, June 2005.
5. Idiopathic Intracranial Hypertension- What’s New? National Capital Consortium Neurology Grand Rounds, Washington, DC, August 2005.
6. Neuro-ophthalmic Injuries in Modern Warfare. Wilmer Eye Institute Grand Rounds, Baltimore, MD, December 2005.
7. Optic Neuritis, Optic Neuropathies, and Disc Swelling. Annual Review Course and CE Course for Ophthalmic Medical Personnel, Washington, DC, May 2006.
8. Nystagmus: Diagnosis and Management. National Capital Consortium Neurology Grand Rounds, Washington, DC, October 2006.
9. Visual Field Defects in Neuro-Ophthalmology. Annual Review Course and CE Course for Ophthalmic Medical Personnel Washington, DC, May 2007.
10. Visual Field Defects in Neuro-Ophthalmologic Disease. Maryland Society of Eye Physicians and Surgeons Annual Meeting, Baltimore, MD, May 2008.
11. Botulinum Toxin in the Management of Neuro-Ophthalmologic Disease. Maryland Society of Eye Physicians and Surgeons Annual Meeting, Baltimore, MD, May 2010.
12. Thyroid-related Eye Disease. Alper Lecture Series in Neuro-Ophthalmology, Washington, DC, September 2010.
13. Mimickers of the Red Eye. Maryland Society of Eye Physicians and Surgeons Annual Meeting, Baltimore, MD, May 2011.
14. Pseudotumor Cerebri: Is it Still Idiopathic? Alper Lecture Series in Neuro-Ophthalmology, Washington, DC, October 2011.
15. Visual Outcomes in Skull Base Tumor Treatment. Johns Hopkins Department of Neurosurgery Grand Rounds, Baltimore, MD, March 2015.
16. Medical Management of Thyroid Eye Disease. Suburban Hospital Grand Rounds, Baltimore, MD, May 2013.
17. Papilledema: What’s New for the Neurosurgeon? Johns Hopkins Department of Neurosurgery Grand Rounds, Baltimore, MD, March 2015.
18. Pupillary Disorders: When Should I Worry? University of Colorado Neurology Grand Rounds, Aurora, CO, September 2015.
19. Management of Anterior Ischemic Optic Neuropathy. 17th University of Colorado Ophthalmology Symposium, Aurora, CO, September 2015.
20. Microgravity and the Eye. University of Colorado Ophthalmology Grand Rounds, Aurora, CO, March 2017.
21. Diplopia Diagnosis. Department of Internal Medicine Grand Rounds/M&M, University of Colorado Hospital, February 2019.
22. Neuro-Ophthalmic Complications of Radiation Therapy. Department of Radiation Oncology, University of Colorado SOM, November 2020.
23. Diplopia: Recognizing Urgent Cases and Fellow Travelers. Colorado Retina Virtual Visionaries. November 2020.
24. Physician Burnout in Ophthalmology (co-presenters Leo Seibold, MD, Darren Gregory, MD). University of Colorado Ophthalmology Grand Rounds, Aurora, CO, December 2022.
25. Predicting Visual Recovery in Patients with Suprasellar Tumors. CUSOM Pituitary Conference, April 11, 2023.

**Regional Lectures and Presentations**

1. Management of the Red Eye. Eisenhower Army Medical Center Grand Rounds, Augusta, GA, October 2005.
2. Optic Neuritis Update 2007. Current Concepts in Ophthalmology, Baltimore, MD, December 2007.
3. Functional Neuro-Imaging in Neuro-Ophthalmology. Current Concepts in Ophthalmology, Baltimore, MD, December 2008.
4. Graves’ Eye Disease: Ophthalmology-Endocrine Collaboration in Care. 13th Current Concepts in Thyroid Disease: Horizons in Thyroidology, Baltimore, MD, March 2009.
5. New Strategies in the Management of Thyroid Eye Disease. Current Concepts in Ophthalmology, Baltimore, MD, November 2009.
6. New Treatments for Ischemic Optic Neuropathy. Current Concepts in Ophthalmology, Baltimore, MD, December 2010.
7. Predicting Visual Recovery in Optic Neuropathies. Current Concepts in Ophthalmology, Baltimore, MD, December 2011.
8. Venous Sinus Stenosis and its Treatment in Pseudotumor Cerebri. Current Concepts in Ophthalmology, Baltimore, MD, December 2012.
9. Advances in Thyroid Eye Disease Management. Oregon Academy of Ophthalmology Post Graduate Convention, Portland, OR, March 2013.
10. Atypical Optic Neuritis. Oregon Academy of Ophthalmology Post Graduate Convention, Portland, OR, March 2013.
11. Neuro-Ophthalmology of Skull Base Tumors. Oregon Academy of Ophthalmology Post Graduate Convention, Portland, OR, March 2013.
12. Challenging Cases in Neuro-Ophthalmology. Oregon Academy of Ophthalmology Post Graduate Convention, Portland, OR, March 2013.
13. Double Trouble: Diplopia in Adults. Nebraska Academy of Eye Physicians and Surgeons Annual Fall Meeting, Omaha, NE, September 2017. Invited Faculty
14. Optic Neuritis: What’s New in Diagnosis and Treatment. Nebraska Academy of Eye Physicians and Surgeons Annual Fall Meeting, Omaha, NE, September 2017. Invited Faculty
15. NAION Management and Treatment. Minnesota Eye Society Annual Meeting, Minneapolis, MN, October 2017. Invited Faculty
16. What’s New in Myasthenia Gravis? Minnesota Eye Society Annual Meeting, Minneapolis, MN, October 2017. Invited Faculty
17. Is This Disc Truly Swollen? 22nd University of Colorado Ophthalmology Symposium, Aurora, CO, September 2020 (Virtual).
18. Diagnosis and Management of Thyroid Eye Disease. Southern Colorado Optometric Society, Colorado Springs, CO, September 2021. Invited Faculty
19. An Approach to the Patient with Diplopia. 23rd University of Colorado Ophthalmology Symposium, Aurora, CO, September 2021 (virtual)
20. Diagnosis and Management of Thyroid Eye Disease. Big Sky Regional Ophthalmology CME Conference. Big Sky, MT, February 2023.
21. Neuro-ophthalmic emergencies. Big Sky Regional Ophthalmology CME Conference. Big Sky, MT, February 2023.
22. What’s New in Optic Neuritis? Big Sky Regional Ophthalmology CME Conference. Big Sky, MT, February 2023.
23. ICP Disorders: What Should the Ophthalmologist Do and When? Big Sky Regional Ophthalmology CME Conference. Big Sky, MT, February 2023.
24. Disorders of Elevated ICP: What to Do, and When? Tufts University School of Medicine Neurology Grand Rounds, Boston, MA, 6 April 2023.

**National Lectures and Presentations**

1. Basic Neuro-ophthalmology Instruction Course: evaluation of the optic disc, use of new technologies for diagnosis of optic nerve disease. Annual Meeting of the American Academy of Ophthalmology, Chicago, IL, October 2005.
2. Optic Neuritis. Annual Meeting of the Joint Commission on Allied Health Personnel in Ophthalmology, Chicago, IL, October 2005.
3. Ophthalmic War Surgery - Between Iraq and a Hard Place: orbital repair and enucleation. Annual Meeting of the American Academy of Ophthalmology, Las Vegas, NV, November 2006.
4. Neuroimaging in the Diagnosis of IIH. Current Concepts in Ophthalmology: A Forum for Global Ophthalmic Innovators, Baltimore, MD, April 2007.
5. Idiopathic Intracranial Hypertension. Annual Meeting of the Joint Commission on Allied Health Personnel in Ophthalmology, New Orleans, LA, November 2007.
6. Thyroid Eye Disease. Breakfast with the Experts, Annual Meeting of the American Academy of Ophthalmology, New Orleans, LA, November 2007.
7. Optic Disc Swelling: Differential Diagnosis. Neuro-ophthalmology Subspecialty Day Program, Annual Meeting of the American Academy of Ophthalmology, New Orleans, LA, November 2007.
8. Ophthalmic War Surgery - Between Iraq and a Hard Place: orbital repair and enucleation. Annual Meeting of the American Academy of Ophthalmology, New Orleans, LA, November 2007.
9. Intracranial Causes of ‘Glaucoma’. Neuro-Ophthalmology Symposium, Annual Meeting of the American Academy of Ophthalmology, Atlanta, GA, November 2008.
10. Idiopathic Intracranial Hypertension: Diagnosis and Treatment in 2008. Annual Meeting of the American Academy of Ophthalmology, Atlanta, GA, November 2008.
11. Spontaneous Venous Pulsations: Revisited. Best of Posterior Segment Papers session, Annual Meeting of the American Academy of Ophthalmology, Atlanta, GA, November 2008.
12. Idiopathic Intracranial Hypertension. Annual Meeting of the Joint Commission on Allied Health Personnel in Ophthalmology, Atlanta, GA, November 2008.
13. Realities of TBI Treatment in Returning Soldiers from Afghanistan and Iraq. 35th Annual Meeting of the North American Neuro-Ophthalmology Society, Lake Tahoe, NV, February 2009.
14. Idiopathic Intracranial Hypertension. Senior Instructor. Annual Meeting of the American Academy of Ophthalmology, San Francisco, CA, October 2009.
15. Swollen Discs, Headache, and Vision Loss: What’s New in Idiopathic Intracranial Hypertension. Annual Meeting of the American Academy of Ophthalmology, Chicago, IL, October 2010.
16. Management of Idiopathic Intracranial Hypertension and Cerebral Venous Abnormality. Spotlight Session on Neuro-Ophthalmology, Annual Meeting of the American Academy of Ophthalmology, Chicago, IL, October 2010.
17. Meningioma: Surgical Approaches, Future Directions. 38th Annual Meeting of the North American Neuro-Ophthalmology Society, February 2012, San Antonio, TX.
18. Vision-Related Disorders in NF2. Children’s Tumor Foundation NF Forum, New Orleans, LA, June 2012.
19. Papilledema. Space Life Sciences Research Conference, Baltimore, MD, August 2012.
20. Swollen Discs, Headache, and Vision Loss: A Case-Based Approach to Pseudotumor Cerebri. Annual Meeting of the American Academy of Ophthalmology, Chicago, IL, November 12, 2012. [course #384]
21. What is Telemedicine, and How is it Relevant to Neuro-Ophthalmology. 399h Annual Meeting of the North American Neuro-Ophthalmology Society, Snowbird, UT, February 2013.
22. Clinical Course of Orbital Lymphatic Malformations. Pediatric Ophthalmology Subspecialty Day, Annual Meeting of the American Academy of Ophthalmology, New Orleans, LA, November 2013.
23. Swollen Discs, Headache, and Vision Loss: A Case-Based Approach to Pseudotumor Cerebri. Annual Meeting of the American Academy of Ophthalmology, New Orleans, LA, November 19, 2013. [course #559]
24. Do Astronauts Develop Papilledema? Unraveling VIIP Etiology: An Exploratory Symposium, Houston, TX, February 2014.
25. Disc Swelling, Ocular Blood Flow, and ‘VIIP’. Unraveling VIIP Etiology: An Exploratory Symposium, Houston, TX, February 2014.
26. Skull Base Tumors and Visual Outcomes. 409h Annual Meeting of the North American Neuro-Ophthalmology Society, Rio Grande, PR, March 2014.
27. Swollen Discs, Headache, and Vision Loss: A Case-Based Approach to Pseudotumor Cerebri. Annual Meeting of the American Academy of Ophthalmology, Chicago, IL, October 19, 2014. [course #231]
28. Swollen Discs, Headache, and Vision Loss: A Case-Based Approach to Pseudotumor Cerebri. Annual Meeting of the American Academy of Ophthalmology, Las Vegas, NV, November 16, 2015. [course #459]
29. IOP, ICP, and Papilledema. New Orleans Academy of Ophthalmology, 65th Annual Meeting, New Orleans, LA, February 2016.
30. Venous Sinus Stenosis/Thrombosis in PTC. New Orleans Academy of Ophthalmology, 65th Annual Meeting, New Orleans, LA, February 2016.
31. Diplopia and Visual QoL. New Orleans Academy of Ophthalmology, 65th Annual Meeting, New Orleans, LA, February 2016.
32. Medical and Surgical Management of TRO. New Orleans Academy of Ophthalmology, 65th Annual Meeting, New Orleans, LA, February 2016.
33. The Swollen Optic Nerve. Roundtable Moderator, New Orleans Academy of Ophthalmology, 65th Annual Meeting, New Orleans, LA, February 2016.
34. Swollen Discs, Headache, and Vision Loss: A Case-Based Approach to Pseudotumor Cerebri. Annual Meeting of the American Academy of Ophthalmology, Chicago, IL, October 18, 2016. [course #663]
35. Swollen Discs, Headache, and Vision Loss: A Case-Based Approach to Pseudotumor Cerebri. Annual Meeting of the American Academy of Ophthalmology, New Orleans, LA, November 12, 2017. [course #287]
36. Instruction Course: Swollen Discs, Headache, and Vision Loss: A Case-Based Approach to Pseudotumor Cerebri. Annual Meeting of the American Academy of Ophthalmology, Chicago, IL, October 28, 2018. [course #231]
37. Neuro-Ophthalmology: Find the Wolf in Sheep’s Clothing. Hawaiian Eye 2019, Waikoloa, HI, January 24, 2019.
38. Headache for the Ophthalmologist. Hawaiian Eye 2019, Waikoloa, HI, January 25, 2019.
39. Traumatic Optic Neuropathy. 2nd Annual NASAOS Meeting, Orlando, FL, April 5, 2019.
40. Giant Cell Arteritis. 2nd Annual NASAOS Meeting, Orlando, FL, April 6, 2019.
41. Ischemic Optic Neuropathies. Lancaster Course in Ophthalmology. Colby College, Waterville, ME. July 2019.
42. Typical and Atypical Optic Neuritis. Lancaster Course in Ophthalmology. Colby College, Waterville, ME. July 2019.
43. Visual field defects. Lancaster Course in Ophthalmology. Colby College, Waterville, ME. July 2019.
44. Functional vision loss. Lancaster Course in Ophthalmology. Colby College, Waterville, ME. July 2019.
45. Instruction Course: Swollen Discs, Headache, and Vision Loss: A Case-Based Approach to Pseudotumor Cerebri. Annual Meeting of the American Academy of Ophthalmology, San Francisco, CA, October 14, 2019. [course #433]
46. Ophthalmological Care in Patients with Vascular Dementia. Annual Meeting of the American Academy of Ophthalmology, San Francisco, CA, October 14, 2019.
47. Instruction Course: Orbital Disorders: A Conceptualized Approach to Diagnosis and Optimized Decision Making. Annual Meeting of the American Academy of Ophthalmology, San Francisco, CA, October 13, 2019. [course #210]
48. Instruction Course: Ocular and Adnexal Trauma: Principles, Challenges, and Enhancing Outcomes. Annual Meeting of the American Academy of Ophthalmology, San Francisco, CA, October 15, 2019. [course #646]
49. Instruction Course: Curbside Consultation in Neuro-Ophthalmology. Annual Meeting of the American Academy of Ophthalmology, San Francisco, CA, October 15, 2019. [course #673]
50. Neuromyelitis Optica Spectrum Disorder: Recognizing the Need for Early Diagnosis to Improve Treatment Outcomes. Vindico MedEd CME course with enduring online content. Hawaiian Eye 2020, Koloa, HI, January 21, 2020.
51. Neuro-Ophthalmology: Red Flag or Red Herring? Hawaiian Eye 2020, Koloa, HI, January 23, 2020.
52. Eyelids/Thyroid/Myasthenia Gravis. Hawaiian Eye 2020, Koloa, HI, January 24, 2020.
53. Leadership in Ophthalmology. EnVision Summit, San Juan, PR, February 15, 2020.
54. Becoming an Effective Ophthalmic Administrator. EnVision Summit, San Juan, PR, February 15, 2020.
55. Recruiting and Retaining Talent. EnVision Summit, San Juan, PR, February 15, 2020.
56. New Treatments in Thyroid Eye Disease. 46th Annual Meeting of the North American Neuro-Ophthalmology Society, Amelia Island, FL, March 12, 2020.
57. The 2020 Update on Neuro-ophthalmology for Non-specialists. American Academy of Ophthalmology Webinar, May 14, 2020.
58. Update on Orbital Inflammatory Disease. NASAOS Meeting (Virtual), June 17, 2020.
59. Instruction Course: Ocular and Adnexal Trauma: Principles, Challenges, and Enhancing Outcomes. Annual Meeting of the American Academy of Ophthalmology, November 2020 (virtual).
60. Instruction Course: A Case-Based Approach to Pseudotumor Cerebri: What to Do, and When to Do It! Annual Meeting of the American Academy of Ophthalmology, November 2020 (virtual).
61. Management of Ocular Emergencies in the Elderly: UK vs US – Carotid or Vertebral Dissection. Annual Meeting of the American Academy of Ophthalmology, November 2020 (virtual).
62. Neuroimaging in Neuro-ophthalmology. IJCAHPO ACE 2020 Virtual Meeting. November 2020.
63. Academy Café: Neuro-Ophthalmology. Annual Meeting of the American Academy of Ophthalmology, November 2020 (virtual).
64. Neuromyelitis Spectrum Disorder: Improving Diagnosis and Treatment. Simulive and enduring online content, Vindico Medical Education for ABO CME credit. November 2020, released in conjunction with Annual Meeting of AAO.
65. Neuromyelitis Optica Spectrum Disorder: Applying Newer Diagnostic Criteria and Examining Expanding Options for Treatment. Simulive and enduring online content, Vindico Medical Education for ABO CME credit. February 2021, released in conjunction with Annual Meeting of NANOS.
66. Neuromyelitis Optica Spectrum Disorder: Novel Therapeutic Options to Manage a Difficult-to-Diagnose Disorder. Vindico MedEd CME course with enduring online content. Hawaiian Eye 2021, Wailea (Maui), HI. May 11, 2021.
67. Ischemic Optic Neuropathies. Lancaster Course in Ophthalmology. Colby College, Waterville, ME (virtual), August 2021.
68. Typical and Atypical Optic Neuritis. Lancaster Course in Ophthalmology. Colby College, Waterville, ME (virtual), August 2021.
69. Visual field defects. Lancaster Course in Ophthalmology. Colby College, Waterville, ME (virtual), August 2021.
70. Functional vision loss. Lancaster Course in Ophthalmology. Colby College, Waterville, ME (virtual), August 2021.
71. Mitigating Thyroid Eye Disease Through Prompt Diagnosis and Treatment. OSN NY Meeting, New York, NY, October 17, 2021 with enduring online CME content at Healio.com.
72. Diagnostic Challenges in Neuromyelitis Optica Spectrum Disorder. Live CME Program at the Annual Congress of the CMSC, Orlando, FL, October 25, 2021.
73. Neuromyelitis Optica Spectrum Disorder: Reducing Relapse Through Early Intervention. Live CME Program and enduring online content. Presented at the Annual Meeting of the American Academy of Ophthalmology, New Orleans, LA. November 13, 2021.
74. Neuro-Ophthalmic Emergencies You Don’t Want to Miss! IJCAHPO ACE 2021 Annual Meeting, New Orleans, LA. November 13, 2021.
75. Managing Thyroid Eye Disease: A Wheel of Knowledge Challenge. Live CME Program and enduring online content. Presented at the Annual Meeting of the American Academy of Ophthalmology, New Orleans, LA. November 14, 2021.
76. Multidisciplinary Approaches to Proptosis: Neuro-Ophthalmology and Oculoplastics (Academy Learning Lounge). Annual Meeting of the American Academy of Ophthalmology, New Orleans, LA. November 14, 2021.
77. Instruction Course: A Case-Based Approach to Pseudotumor Cerebri: What to Do, and When to Do It! Annual Meeting of the American Academy of Ophthalmology, November 2021, offered on-demand.
78. Thyroid Eye Disease: Managing a Disfiguring Orbital Disease. Live CME Program and enduring online content. Hawaiian Eye 2022, Wailea, HI, January 15, 2022.
79. What If….The Pupil Showed This? Hawaiian Eye 2022, Wailea, HI, January 15, 2022.
80. Neuromyelitis Optica Spectrum Disorder: Rise of the Biologics. Live CME Program and enduring online content. Hawaiian Eye 2022, Wailea, HI, January 18, 2022
81. Difficult Strabismus in Neuro-Ophthalmology (speaker/panelist). 48th Annual Meeting of the North American Neuro-Ophthalmology Society, Austin, TX, February 14, 2022.
82. Diagnosis and Differential for Thyroid Eye Disease. TED360 Forum. Newport Beach, CA, March 26, 2022.
83. Mentorship Throughout Your Career. Instruction Course, Annual Meeting of the American Academy of Neurology, Seattle, WA, April 4, 2022.
84. Understanding NMOSD: Burden and Diagnosis. Live CME Program at CMSC Symposium, Washington DC, June 3, 2022.
85. Neuro-Ophthalmologic Emergencies You Do Not Want to Miss! IJCAHPO ACE 2022 Annual Meeting, Chicago, IL. September 30, 2022.
86. Update on Treatment of Thyroid Eye Disease. Glaucoma Subspecialty Day, Annual Meeting of the AAO, Chicago, IL, September 30, 2022.
87. Orbital Radiology: Foundations for Diagnosis and Treatment of Orbital Disease. Instruction Course, Annual Meeting of the AAO, Chicago, IL, October 2, 2022.
88. Thyroid Eye Disease: A Game On Challenge! CME Program presented at the Annual Meeting of the AAO, Chicago, IL, October 2, 2022.
89. Curbside Consultation in Neuro-Ophthalmology. Instruction Course, Annual Meeting of the AAO, Chicago, IL, October 3, 2022.
90. An Interactive Case-Based Approach to Pseudotumor Cerebri: What to Do, and When to Do It! Annual Meeting of the American Academy of Ophthalmology, Chicago, IL, October 3, 2022.
91. The Role of Optic Nerve Decompression and Steroids in the Treatment of TON. Controversies in Ophthalmic Emergencies Symposium, Annual Meeting of the American Academy of Ophthalmology, October 3, 2022.
92. Orbiting Around The Effective Treatment of TED. Live CME Program and enduring online content. Hawaiian Eye 2023, Poipu, HI, January 14, 2023.
93. Scan or No Scan? Decision Making in Neuro-ophthalmology. Hawaiian Eye 2023, Poipu, HI, January 14, 2023.
94. When is this IIH a Surgical Oculoplastics Emergency? Telling It Like It Is 2023. Tampa, FL. February 15, 2023.
95. When is the Oculoplastic Clinic Ptosis Dangerous? Telling It Like It Is 2023. Tampa, FL. February 15, 2023.
96. Neuromyelitis Optica Spectrum Disorder: Management Updates and Challenging Clinical Cases. Course Director. 49th Annual Meeting of the North American Neuro-Ophthalmology Society, Orlando, FL. March 14, 2023.
97. Thyroid Eye Disease: Hiding in Plain Sight?Course Director. 49th Annual Meeting of the North American Neuro-Ophthalmology Society, Orlando, FL. March 15, 2023.
98. Academic Medicine and Orbital Practice. 4th Annual Meeting of the North American Society of Academic Orbital Surgeons, Nashville, TN, April 13, 2023.
99. How to Attract Industry Attention: Investigator-Initiated Trials. 4th Annual Meeting of the North American Society of Academic Orbital Surgeons, Nashville, TN, April 13, 2023.
100. Cataract Surgery in the Neuro-Ophthalmic Patient. Annual Meeting of the American Society of Cataract and Refractive Surgery, San Diego, CA, May 8, 2023.

**International Lectures and Presentations**

1. Functional Neuroimaging in Neuro-ophthalmology. Asia-Association for Research in Vision and Ophthalmology, Hyderabad, India, January 2009.
2. Neuroprotection: Basic Science Concepts. Asia-Association for Research in Vision and Ophthalmology, Hyderabad, India, January 2009.
3. HIV Disorders in Neuro-ophthalmology. International Neuro-Ophthalmology Update, Chennai, India, January 2009.
4. Developing a Neuro Hemifield Test. World Ophthalmology Congress 2010, Berlin, Germany, June 2010.
5. Neuro-ophthalmic Manifestations of Paraneoplastic Disorders. 69th All India Ophthalmology Congress, Ahmedabad, India, January 2009.
6. Medical and Surgical Management of Thyroid Disease. 69th All India Ophthalmology Congress, Ahmedabad, India, January 2009.
7. Orbital Decompression 69th All India Ophthalmology Congress, Ahmedabad, India, January 2009.
8. Optic Neuritis: Diagnostic Dilemmas. 29th Pan American Congress of Ophthalmology, Buenos Aires, Argentina, July 2011.
9. Horner Syndrome. 29th Pan American Congress of Ophthalmology, Buenos Aires, Argentina, July 2011.
10. Nanoparticles and Neuro-Ophthalmology. Annual Meeting of the Asia-Pacific Academy of Ophthalmology, Busan, South Korea, April 2012.
11. Neuroimaging of the Orbit and Optic Nerve. Annual Meeting of the Asia-Pacific Academy of Ophthalmology, Busan, South Korea, April 2012.
12. Vision Loss: Again and Again. Annual Meeting of the Asia-Pacific Academy of Ophthalmology, Busan, South Korea, April 2012.
13. Radiation Therapy for Thyroid Orbitopathy: Pro. Joint Meeting of the Asia-Pacific Academy of Ophthalmology and All-India Ophthalmology Society, Hyderabad, India, January 2013.
14. Stem Cells: Should I Refer My Patients? Joint Meeting of the Asia-Pacific Academy of Ophthalmology and All-India Ophthalmology Society, Hyderabad, India, January 2013.
15. Ptosis, Diplopia, and Anisocoria: Occasionally. Joint Meeting of the Asia-Pacific Academy of Ophthalmology and All-India Ophthalmology Society, Hyderabad, India, January 2013.
16. Evaluation of CN III Palsy: Urgent! Argentine Council of Ophthalmology Jornadas, Buenos Aires, Argentina, May 2013.
17. Atypical Optic Neuritis. Argentine Council of Ophthalmology Jornadas, Buenos Aires, Argentina, May 2013.
18. Isolated Cranial Nerve Palsies. Argentine Council of Ophthalmology Jornadas, Buenos Aires, Argentina, May 2013.
19. Burkholderia and Giant Cell Arteritis. Argentine Council of Ophthalmology Jornadas, Buenos Aires, Argentina, May 2013.
20. Initial Results of QPI-1007 in Treatment of NAION. Argentine Council of Ophthalmology Jornadas, Buenos Aires, Argentina, May 2013.
21. Surgical Treatment of IIH. Argentine Council of Ophthalmology Jornadas, Buenos Aires, Argentina, May 2013. [Webinar]
22. Compressive optic neuropathies. 30th Pan-American Congress of Ophthalmology, Rio de Janeiro, Brazil, August 2013.
23. Pediatric Vascular Malformations. World Ophthalmology Congress, Tokyo, Japan, April 2014.
24. Challenging Cases in Neuro-Ophthalmology. World Ophthalmology Congress, Tokyo, Japan, April 2014. Panelist and Speaker
25. Optic Neuritis. 5th Biennial Imperial City Eye Meeting, Hue, Vietnam, April 2014.
26. Functional Vision Loss. 5th Biennial Imperial City Eye Meeting, Hue, Vietnam, April 2014.
27. Diplopia. 5th Biennial Imperial City Eye Meeting, Hue, Vietnam, April 2014.
28. Papilledema and Pseudotumor Cerebri. 3rd Annual Chinese Neuro-Ophthalmology Society Meeting, Suzhou, China, June 2014.
29. Typical and Atypical Optic Neuritis. 6th Neuro-Ophthalmology Update, Aravind Eye Care System, Madurai, India, July 2014.
30. Functional Vision Loss. 6th Neuro-Ophthalmology Update, Aravind Eye Care System, Madurai, India, July 2014.
31. Pseudotumor Cerebri: Diagnosis & Management. 6th Neuro-Ophthalmology Update, Aravind Eye Care System, Madurai, India, July 2014.
32. Diplopia and Ptosis- Uncommon Causes. Reunión Club Latinoamericano Neurooftalmología (CLAN), Buenos Aires, Argentina, September 2014.
33. Surgical Treatment of Pseudotumor Cerebri. Joint Meeting of the Asia-Pacific Academy of Ophthalmology and Chinese Ophthalmology Society, Guangzhou, China, April 2015.
34. Thyroid Eye Disease- Efferent Problems. Joint Meeting of the Asia-Pacific Academy of Ophthalmology and Chinese Ophthalmology Society, Guangzhou, China, April 2015.
35. Atypical Optic Neuritis. Joint Meeting of the Asia-Pacific Academy of Ophthalmology and Chinese Ophthalmology Society, Guangzhou, China, April 2015.
36. A Simple Case of Ischemic Optic Neuropathy. Joint Meeting of the Asia-Pacific Academy of Ophthalmology and Chinese Ophthalmology Society, Guangzhou, China, April 2015.
37. Transient Monocular Blindness. 31st Congress of the Pan American Association of Ophthalmology, Bogotá, Colombia, August 2015.
38. Optic Neuritis and Optic Atrophy. 31st Congress of the Pan American Association of Ophthalmology, Bogotá, Colombia, August 2015.
39. Pseudotumor Cerebri: Diagnosis and Treatment Advances. 31st Congress of the Pan American Association of Ophthalmology, Bogotá, Colombia, August 2015. Senior Instructor
40. Diplopia Diagnosis and Management. 2nd Myanmar Eye Meeting, Hawaiian Eye Foundation, Yangon Eye Hospital, Yangon, Myanmar, August 24-27, 2015.
41. Typical and Atypical Optic Neuritis. 2nd Myanmar Eye Meeting, Hawaiian Eye Foundation, Yangon Eye Hospital, Yangon, Myanmar, August 24-27, 2015.
42. Nystagmus. 2nd Myanmar Eye Meeting, Hawaiian Eye Foundation, Yangon Eye Hospital, Yangon, Myanmar, August 24-27, 2015.
43. The Role of Cerebral Venous Sinus Disease in High ICP. Reunión Club Latinoamericano Neurooftalmología (CLAN), Concepción, Chile, September 2015.
44. Sequential Vision Loss in an Elderly Woman. Reunión Club Latinoamericano Neurooftalmología (CLAN), Concepción, Chile, September 2015.
45. Transient Visual Loss: Is My Patient Having a Stroke? Symposium in Neuro-Ophthalmology: Afferents Plus Efferents (Synapse 2k16), Advances in Neuro-Ophthalmology, Chennai, India, January 2016.
46. Cancer-Associated Vision Loss. Symposium in Neuro-Ophthalmology: Afferents Plus Efferents (Synapse 2k16), Advances in Neuro-Ophthalmology, Chennai, India, January 2016.
47. Atypical Optic Neuritis. Symposium in Neuro-Ophthalmology: Afferents Plus Efferents (Synapse 2k16), Advances in Neuro-Ophthalmology, Chennai, India, January 2016.
48. Surgical Treatment of Pseudotumor Cerebri. World Ophthalmology Congress, Guadalajara, Mexico, February 2016.
49. A Toothache that Wouldn’t Go Away. World Ophthalmology Congress, Guadalajara, Mexico, February 2016.
50. Approach to the Patient with Ptosis. World Ophthalmology Congress, Guadalajara, Mexico, February 2016.
51. Thyroid Eye Disease: Are There Any Rules? World Ophthalmology Congress, Guadalajara, Mexico, February 2016.
52. Management of Thyroid Eye Disease. 31st Asia-Pacific Academy of Ophthalmology Annual Congress, Taipei, Taiwan, April 2016. International Coordinator
53. Proptosis and More. 31st Asia-Pacific Academy of Ophthalmology Annual Congress, Taipei, Taiwan, April 2016. International Coordinator
54. Examination of the Pupil. 31st Asia-Pacific Academy of Ophthalmology Annual Congress, Taipei, Taiwan, April 2016. International Coordinator
55. Orbital Vascular Malformations. 6th Biennial Imperial City Eye Meeting, Hue, Vietnam, April 2016.
56. Mechanical/Myopathic Strabismus. Middle East Africa Congress of Ophthalmology, Manama, Bahrain, May 2016.
57. Third Nerve Palsy. Middle East Africa Congress of Ophthalmology, Manama, Bahrain, May 2016.
58. Differential Diagnosis in Neuro-Ophthalmology. Middle East Africa Congress of Ophthalmology, Manama, Bahrain, May 2016.
59. A Case of Sequential Vision Loss. Middle East Africa Congress of Ophthalmology, Manama, Bahrain, May 2016.
60. Papilledema vs pseudopapilledema. Update in Neuro-Ophthalmology, Aravind Eye Hospital, Coimbatore, India, July 2016.
61. Update on Optic Neuritis Treatment. Update in Neuro-Ophthalmology, Aravind Eye Hospital, Coimbatore, India, July 2016.
62. Transient Vision Loss. Update in Neuro-Ophthalmology, Aravind Eye Hospital, Coimbatore, India, July 2016.
63. An Approach to Orbital Disease. Update in Neuro-Ophthalmology, Aravind Eye Hospital, Coimbatore, India, July 2016.
64. Treatment of NAION. 75th All-India Ophthalmology Society Conference, Jaipur, India, February 2017. Invited International Guest Speaker
65. Transient Visual Loss: Diagnosis and Management. 75th All-India Ophthalmology Society Conference, Jaipur, India, February 2017. Invited International Guest Speaker
66. Visual Field Defects in Neuro-Ophthalmology. 75th All-India Ophthalmology Society Conference, Jaipur, India, February 2017. Invited International Guest Speaker
67. Con: Venous Sinus Stenting for PTC. 32nd Asia-Pacific Academy of Ophthalmology Annual Congress, Singapore, Republic of Singapore, March 2017. Invited Faculty
68. What’s New in Neuroimaging. 32nd Asia-Pacific Academy of Ophthalmology Annual Congress, Singapore, Republic of Singapore, March 2017. Invited Faculty
69. Intermittent Diplopia: OMG or Something Else? 32nd Asia-Pacific Academy of Ophthalmology Annual Congress, Singapore, Republic of Singapore, March 2017. Invited Faculty
70. The Elevated Optic Disc: Papilledema or Pseudopapilledema. 25th Annual Meeting of the Lebanese Ophthalmological Society, Beirut, Lebanon, May 2017. Invited Faculty
71. The Swollen Optic Disc: Ischemia, Inflammation, or What? 25th Annual Meeting of the Lebanese Ophthalmological Society, Beirut, Lebanon, May 2017. Invited Faculty
72. Giant Cell Arteritis: What is New? 25th Annual Meeting of the Lebanese Ophthalmological Society, Beirut, Lebanon, May 2017. Invited Faculty
73. Giant Cell Arteritis. European Society of Ophthalmology Meeting, Barcelona, Spain, June 2017. Invited Faculty
74. Myasthenia Gravis. European Society of Ophthalmology Meeting, Barcelona, Spain, June 2017. Invited Faculty
75. Photopsias. European Society of Ophthalmology Meeting, Barcelona, Spain, June 2017. Invited Faculty
76. Con: Neuroimaging for Cranial Nerve Palsy. 33rd Congress of the Pan American Association of Ophthalmology, Lima, Perú, August 2017. Invited Faculty
77. Management of NAION. 33rd Congress of the Pan American Association of Ophthalmology, Lima, Perú, August 2017. Invited Faculty
78. Neuroimaging in Neuro-Ophthalmology. 3rd Myanmar Eye Meeting, Yangon, Myanmar, September 2017. Invited Faculty
79. Emergency Neuro-Ophthalmology. 3rd Myanmar Eye Meeting, Yangon, Myanmar, September 2017. Invited Faculty
80. Eye movements and Movement Disorders. 3rd Myanmar Eye Meeting, Yangon, Myanmar, September 2017. Invited Faculty
81. Common Optic Neuropathies. 3rd Myanmar Eye Meeting, Yangon, Myanmar, September 2017. Invited Faculty
82. Pro: Use of Immunosuppression in OMG. XXVII Reunión del Club Latino-Americano de Neuroftalmología (CLAN), Los Angeles, CA, October 2017. Invited Faculty
83. Pro: NAION Is Associated with Vitreopapillary Traction. XXVII Reunión del Club Latino-Americano de Neuroftalmología (CLAN), Los Angeles, CA, October 2017. Invited Faculty
84. The Role of VZV in Giant Cell Arteritis. 33rd Asia-Pacific Academy of Ophthalmology Annual Congress, Hong Kong SAR, China. February 8, 2018.
85. “My Pupil is Small.” “No It’s Not, It’s Really too Big!” 33rd Asia-Pacific Academy of Ophthalmology Annual Congress, Hong Kong SAR, China. February 10, 2018.
86. Ocular Motor Issues in Traumatic Brain Injury. 33rd Asia-Pacific Academy of Ophthalmology Annual Congress, Hong Kong SAR, China. February 10, 2018.
87. PRO: Corticosteroids Should Be Used in the Treatment of NAION. World Ophthalmology Congress, Barcelona, Spain, June 18, 2018. [presentation 6847]
88. Diplopia - History and Exam. World Ophthalmology Congress, Barcelona, Spain, June 18, 2018. [presentation 7151]
89. What’s New in Traumatic Optic Neuropathy? Ocular TraumaCON, Chennai, India. July 2018. Invited Faculty
90. Management of Traumatic Strabismus. Ocular TraumaCON, Chennai, India. July 2018. Invited Faculty
91. Management of NAION. Kunming International Ophthalmology Forum. Kunming, China. September 2018. Invited Faculty
92. Third nerve palsy: pearls and pitfalls. NeuroVision Training Weekend in Neuro-Ophthalmology. Melbourne, Australia. September 2018.
93. Ocular myasthenia gravis. NeuroVision Training Weekend, Neuro-Ophthalmology Society of Australia. Melbourne, Australia. September 2018.
94. Thyroid eye disease and other orbital disease. NeuroVision Training Weekend, Neuro-Ophthalmology Society of Australia. Melbourne, Australia. September 2018.
95. Investigaciones Espaciales NASA y Visión. XXX Reunión del Club Latino-Americano de Neuroftalmología (CLAN). Buenos Aires, Argentina. September 2018.
96. Journal Club- XXX Reunión del Club Latino-Americano de Neuroftalmología (CLAN). Buenos Aires, Argentina. September 2018.
97. Diagnosis and Management of Thyroid Eye Disease. 1st Cambodia Eye Meeting, Phnom Penh, Cambodia, October 2018. Invited Faculty.
98. Optic Neuropathies: NAION, LHON, and Others. 1st Cambodia Eye Meeting, Phnom Penh, Cambodia, October 2018. Invited Faculty.
99. Neuro-ophthalmic Emergencies: Diagnoses You Don’t Want to Miss. 1st Cambodia Eye Meeting, Phnom Penh, Cambodia, October 2018. Invited Faculty.
100. Neuroimaging in Ophthalmology. 1st Cambodia Eye Meeting, Phnom Penh, Cambodia, October 2018. Invited Faculty.
101. Double Vision: Management of CN 3, 4, and 6 Palsies. 1st Cambodia Eye Meeting, Phnom Penh, Cambodia, October 2018. Invited Faculty.
102. Papilledema vs Pseudopapilledema. XXVI Congreso Chileno de Oftalmología, Viña del Mar, Chile. November 2018. Invited Faculty.
103. Neuritis óptica en niños. XXVI Congreso Chileno de Oftalmología, Viña del Mar, Chile. November 2018. Invited Faculty.
104. Neurogenic causes of diplopia. NeuroConnect CME 2018. Aravind Eye Hospital, Chennai, India. December 2018. Invited Faculty.
105. Painless vision loss. NeuroConnect CME 2018. Aravind Eye Hospital, Chennai, India. December 2018. Invited Faculty.
106. OCT in Neuro-Ophthalmology. NeuroConnect CME 2018. Aravind Eye Hospital, Chennai, India. December 2018. Invited Faculty.
107. Medical and surgical management of thyroid eye disease. Annual Meeting of Philippines Academy of Ophthalmology, Manila, Philippines. December 2018. Invited Faculty.
108. Nystagmus for the general ophthalmologist. Annual Meeting of Philippines Academy of Ophthalmology, Manila, Philippines. December 2018. Invited Faculty.
109. Chief complaint: Ptosis. Annual Meeting of Philippines Academy of Ophthalmology, Manila, Philippines. December 2018. Invited Faculty.
110. Swollen optic disc- Differential diagnosis. Annual Meeting of Philippines Academy of Ophthalmology, Manila, Philippines. December 2018. Invited Faculty.
111. Steroids for traumatic optic neuropathy? Annual Meeting of Philippines Academy of Ophthalmology, Manila, Philippines. December 2018. Invited Faculty.
112. Transient visual loss: Is your patient having a stroke? Annual Meeting of Philippines Academy of Ophthalmology, Manila, Philippines. December 2018. Invited Faculty.
113. Anomalous Disc Elevation 2: Without Drusen. 34th Congress of the Asia Pacific Academy of Ophthalmology. Bangkok, Thailand, March 6, 2019. Invited Faculty.
114. Current status of venous sinus stenting for IIH. 34th Congress of the Asia Pacific Academy of Ophthalmology. Bangkok, Thailand, March 7, 2019. Invited Faculty.
115. Optic neuritis in children. 34th Congress of the Asia Pacific Academy of Ophthalmology. Bangkok, Thailand, March 9, 2019. Invited Faculty.
116. Ptosis en neurooftalmología. XXXIV Congreso Panamericano de Oftalmología. Cancun, Mexico. May 2019. Invited Faculty
117. Caso: Encuentro de dos ciencias. XXXIV Congreso Panamericano de Oftalmología. Cancun, Mexico. May 2019. Invited Faculty
118. Third nerve palsy. XXXIV Congreso Panamericano de Oftalmología. Cancun, Mexico. May 2019. Invited Faculty
119. Pearls for Neuro-Ophthalmology: OCT. European Society of Ophthalmology Meeting, Nice, France. June 2019. Invited Faculty
120. Diagnostic Dilemmas- Panel Discussion of Four Typical Neuro-Ophthalmological Cases. European Society of Ophthalmology Meeting, Nice, France. June 2019. Invited Faculty
121. Giant Cell Arteritis: Top 6 Neuro-Ophthalmologic Emergencies You Cannot Miss! European Society of Ophthalmology Meeting, Nice, France. June 2019. Invited Faculty
122. Nystagmus from the neuro-ophthalmologist’s viewpoint. Ophthafusion 2019, Coimbatore, India. August 2019, Invited Faculty
123. Management options for ischemic optic neuropathies. Ophthafusion 2019, Coimbatore, India. July 2019, Invited Faculty
124. Medical and surgical interventions for thyroid eye disease. Ophthafusion 2019, Coimbatore, India. July 2019, Invited Faculty
125. What’s new and hot in neuro-ophthalmology. Ophthafusion 2019, Coimbatore, India. July 2019, Invited Faculty
126. Visual Fields: 10 Rules to Live By. 4th Myanmar Eye Meeting, Yangon, Myanmar, September 2019. Invited Faculty
127. AAION and NAION. 4th Myanmar Eye Meeting, Yangon, Myanmar, September 2019. Invited Faculty
128. Not all men with thick skulls have high testosterone. British Isles Neuro-Ophthalmology Club, Cambridge, UK, September 2019. Invited Guest.
129. Management of Idiopathic Intracranial Hypertension. 24th World Congress of Neurology, Dubai, UAE, October 2019. Invited Faculty.
130. Evaluation and Management of the Patient with Papilledema. 24th World Congress of Neurology, Dubai, UAE, October 2019. Invited Faculty.
131. Typical and Atypical Optic Neuritis. 122nd Annual Meeting of the Korean Ophthalmology Society, Seoul, S. Korea, November 2019. Invited Faculty.
132. Management of Pseudotumor Cerebri. 122nd Annual Meeting of the Korean Ophthalmology Society, Seoul, S. Korea, November 2019. Invited Faculty.
133. OCT-Angiography in Neuro-Ophthalmology. 122nd Annual Meeting of the Korean Ophthalmology Society, Seoul, S. Korea, November 2019. Invited Faculty.
134. Vascular Occlusions, Ectasias, and Aneurysms. Academy of Ophthalmic Practice Annual Symposium, Paris, France, January 2020. Invited Faculty.
135. Ischemic Optic Neuropathy: NAION, AAION and their Pitfalls. Academy of Ophthalmic Practice Annual Symposium, Paris, France, January 2020. Invited Faculty.
136. Optic Neuritis: Current Paradigm. Virtual Lecture to all-India Audience, April 6, 2020.
137. An Approach to Diplopia. Bolivian Ophthalmology Society (virtual), April 9, 2020.
138. Managing the Patient with Diplopia. Centre For Sight, Hyderabad, India (virtual), April 13, 2020.
139. Headache and Eye Pain for the Ophthalmologist. Bolivian Ophthalmological Society (virtual), May 28, 2020.
140. Typical and atypical optic neuritis: diagnosis and management. World Ophthalmology Congress Virtual, June 26, 2020.
141. Papilledema: What to Do and When! World Ophthalmology Congress Virtual, June 26, 2020.
142. Uses of botulinum toxin in ophthalmology. Peruvian Society of Ophthalmology, August 18, 2020 (virtual).
143. Vision problems after multiple TBI in elite athletes. Ophthalmic Trauma Society of India Silver Jubilee (Virtual), August 22, 2020.
144. Traumatic optic neuropathy. Peruvian Society of Ophthalmology, September 11, 2020 (virtual).
145. Bloody and Swollen Nerve: Now What? Neuro-Ophthalmology Special Interest Group worldwide webinar. September 26, 2020.
146. Optic neuritis: diagnostic workup and management. All-India Ophthalmology Society Webinar. October 2, 2020.
147. Ophthalmic trauma pearls. “Brain Teasers” webinar (India/Asia). October 18, 2020.
148. Steroids and Neuroprotection in Neuro-Ophthalmology: A Case Based Approach. Indonesia Eye Meeting, Bali, Indonesia (virtual). October 29, 2020.
149. OCT- Your Best Buddy. Eye on the Future, LV Prasad Eye Institute, Hyderabad, India (virtual). January 2, 2021.
150. Pediatric Optic Neuritis. All-India Ophthalmology Society Webinar. February 19, 2021.
151. Ischemic Optic Neuropathy and Traumatic Optic Neuropathy: Pearls and Pitfalls. Masterclass in Ophthalmology (virtual- India). April 21, 2021.
152. Neuro-Ophthalmology and COVID-19. Indian Neuro-Ophthalmology Society (INOS) webinar. June 5, 2021.
153. Optic Neuropathy with a Normal Disc. All-India Ophthalmology Society Webinar. August 12, 2021.

|  |
| --- |
| 1. Debate 1: Patients with Acute Optic Neuritis Typically Should Have an Assay for Anti-Aquaporin-4 Antibodies, Anti-MOG Antibodies, or Both. Controversies in Ophthalmology (COPHy) Global Webinar, August 20, 2021.
 |
| 1. Debate 2: A Temporal Artery Biopsy is Necessary in Almost Every Patient with Suspected Giant Cell Arteritis. Controversies in Ophthalmology (COPHy) Global Webinar, August 21, 2021.
 |

1. Diagnosis and Management of Traumatic Optic Neuropathy. All-India Ophthalmology Society Webinar. August 26, 2021.
2. Non-glaucomatous Visual Field Defects. Global Education & Research Society of Ophthalmology (GERSO) Webinar. August 28, 2021.
3. Dry and Painful- Really? 36th Congress of the Asia Pacific Academy of Ophthalmology (virtual). September 6, 2021.
4. Diagnostic Dilemmas in NMOSD and MOGAD. XXXII Reunión del Club Latino-Americano de Neuroftalmología (CLAN) (virtual), September 25, 2021.
5. Management Dilemmas in NMOSD and MOGAD. XXXII Reunión del Club Latino-Americano de Neuroftalmología (CLAN) (virtual), September 25, 2021.
6. Traumatic Brain Injury in the Ophthalmic Trauma Victim.
7. Treatment of Neuromyelitis Optica Spectrum Disorder. 3rd Annual Meeting of the Indian Neuro-Ophthalmology Society (INOS) (virtual), October 23, 2021.
8. Treatment of Thyroid Eye Disease. 3rd Annual Meeting of the Indian Neuro-Ophthalmology Society (INOS) (virtual), October 24, 2021.
9. Therapeutic Strategies in Thyroid Eye Disease. Annual Meeting of the Japanese Neuro-Ophthalmology Society (virtual), December 17, 2021.
10. Neuro-Ophthalmology Masterclass, Singapore National Eye Center (virtual), January 11, 2022.
11. Traumatic Brain Injury in the Ophthalmic Trauma Victim. 36th Anniversary NUH Department of Ophthalmology Conference (virtual), Singapore, January 22, 2022.
12. My Approach to the Patient with Diplopia. European Neuro-Ophthalmology Society Meeting, Birmingham, UK, June 20, 2022.
13. Can We Treat Nystagmus? (Against) European Neuro-Ophthalmology Society Meeting, Birmingham, UK, June 20, 2022.
14. Teprotumumab for Thyroid Eye Disease with CAS >3: YES. Controversies in Ophthalmology 2022 (virtual), June 26, 2022.
15. Tocilizumab for Giant Cell Arteritis: NO. Controversies in Ophthalmology 2022 (virtual), June 26, 2022.
16. Update on Optic Neuritis: How I Recognize and Investigate Optic Neuropathies. Cambodia Eye Meeting, Phnom Penh, Cambodia. September 1, 2022.
17. Diplopia: Recognizing Urgent Cases and Fellow Travelers. Cambodia Eye Meeting, Phnom Penh, Cambodia. September 1, 2022.
18. Diagnosis and Management of Papilledema. Cambodia Eye Meeting, Phnom Penh, Cambodia. September 1, 2022.
19. Update on Thyroid Eye Disease. Cambodia Eye Meeting, Phnom Penh, Cambodia. September 1, 2022.
20. Pupil Exam and Evaluation of Anisocoria. Cambodia Eye Meeting, Phnom Penh, Cambodia. September 1, 2022.
21. Update on Optic Neuritis: How I Recognize and Investigate Optic Neuropathies. Hanoi Eye Meeting, Hanoi, Vietnam. September 4, 2022.
22. Diagnosis and Management of Papilledema. Hanoi Eye Meeting, Hanoi, Vietnam. September 4, 2022.
23. Update on Thyroid Eye Disease. Hanoi Eye Meeting, Hanoi, Vietnam. September 4, 2022.
24. Diplopia: Recognizing Urgent Cases and Fellow Travelers. Hanoi Eye Meeting, Hanoi, Vietnam. September 4, 2022.
25. Traveling Down the Wrong Track. British Isles Neuro-Ophthalmology Club Meeting, Manchester, UK. September 17, 2022.
26. Novel Methods of Lowering Intracranial Pressure. 4th Annual Meeting of the Indian Neuro-Ophthalmology Society, New Delhi, India. November 27, 2022.
27. Steroid Sparing Agents and New Biologic Treatments in Thyroid Eye Disease. 15th Annual Meeting of the IISEMS, Tel Aviv, Israel. February 10, 2023.
28. The role of ocular imaging in neuro-ophthalmic diseases. 15th Annual Meeting of the IISEMS, Tel Aviv, Israel. February 10, 2023.
29. Idiopathic Intracranial Hypertension: Overview and New Insights. 15th Annual Meeting of the IISEMS, Tel Aviv, Israel. February 10, 2023.
30. IIH Diagnostic Criteria and Efficacy of Alternative Therapies. Pan American Association of Ophthalmology. Buenos Aires, Argentina. March 18, 2023.

**12. TEACHING**

**Medical Students**

**Uniformed Services University of the Health Sciences**

1997 – 2005 Principles of Ocular Fundoscopy, MS-II, annually

1998 – 2006 Ocular Trauma Lab, MS-IV, annually

2003 – 2007 Ethics and Genetic Discrimination, annually

**Walter Reed Army Medical Center, Uniformed Services University of the Health Sciences**

2004 – 2007 Intro to Ophthalmology, 2-week rotation, MS-III, annually

2004 – 2007 Acute eye diseases and their management, MS-III, quarterly

**Johns Hopkins University School of Medicine**

2007 – 2010 Optic nerve evaluation and optic neuropathy, elective lecture, quarterly

2010 – 2012 Optic neuropathy and its causes, learning exercise, Genes to Society Curriculum, Neuroscience/Special Senses section, annually

2010 – 2015 Optic nerve, normal and diseased, and pupillary function, lecture, Genes to Society Curriculum, Neuroscience/Special Senses section, annually

2010 – 2015 Visual field/anterior pathway disease, lab & learning exercise, Genes to Society Curriculum, Neuroscience/Special Senses section, annually

**University of Colorado School of Medicine**

2015 – 2022 Preceptor, Foundations of Doctoring, MS-II, annually

2022 – Preceptor, Advanced Science Course, annually

2023 – IDPT 5041: Space and Austere Medicine elective, SANS instruction

**House Staff**

**Walter Reed Army Medical Center**

2001 – 2002 Cataract Surgery, PGY-3, PGY-4, 4 hours/week

2001 – 2002 Clinical teaching & supervision, PGY-2, 40+ hours/week

2001 – 2007 Neuro-ophthalmology, lectures, Ophthalmology Residents, 10-15 hours annually

2001 – 2007 Neuro-ophthalmology and neurology, lectures, Neurology Residents, 2 hours annually

2003 – 2007 Clinical teaching & supervision, neuro-ophthalmology clinic, PGY-3, 16 hours/week

2003 – 2007 Surgical instruction & supervision, PGY-2, 4 hours/week

**Uniformed Services University of the Health Sciences**

2002 – 2006 Tri-Service Cataract Surgery Course, Lectures & Wet Lab, annually

2002 – 2014 Military Ocular Trauma Course, Lectures & Wet Lab, annually

**Washington DC Ophthalmology Residency Consortium, George Washington University School of Medicine**

2003 – 2009 Introductory Course in Ophthalmology, lectures and lab, PGY-2

2003 – 2009 Neuro-Ophthalmology lectures

**Wilmer Eye Institute, Johns Hopkins University School of Medicine**

2007 – 2015 Neuro-Ophthalmology, lectures, 4-5 hours, annually

2007 – 2015 Clinical teaching & supervision, neuro-ophthalmology, ophthalmology and neurology residents, 30 hours/week

2007 – 2015 Surgical instruction, orbital, skull base, and strabismus surgery, residents and fellows, 4 hours/week

2011 – 2015 Creation of neuro-ophthalmic education curriculum, Division Education Champion

**Department of Ophthalmology, University of Colorado School of Medicine**

2015 – Clinical teaching & supervision, neuro-ophthalmology, ophthalmology and neurology residents, 12 hours/week

2015 – Surgical instruction, orbital and strabismus surgery, ophthalmology residents, 4 hours/week

**Professional Teaching Leadership**

2004 Section Organizer, neuro-ophthalmology, orbital, and oculoplastic diseases. Update in Ophthalmology: Current Topics. Division of Ophthalmology, Uniformed Services University and Walter Reed Ophthalmology Alumni Association Meeting

2007 Co-Chair, Neuro-ophthalmology Session, Current Concepts in Ophthalmology, Wilmer Eye Institute

2007 – 2014 Scientific Program Committee, NANOS

2008 Chairman, Neuro-Ophthalmology Session, 67th Annual Meeting of the Wilmer Residents’ Association, Wilmer Eye Institute

2009 Symposium Organizer, Traumatic Brain Injury, North American Neuro-Ophthalmology Society Annual Meeting

2009 Symposium Co-Chair, On Time and On Budget: Economical and Efficient Approaches to Common Neuro-Ophthalmological Problems. American Academy of Ophthalmology Annual Meeting

2009 Session Chair, Neuro-Ophthalmology. 22nd Annual Current Concepts in Ophthalmology, Wilmer Eye Institute

2010 – 2014 Topic Reviewer, Annual Meeting Program Committee, AAO

2010 Symposium Organizer, Research Free Papers. North American Neuro-Ophthalmology Society Annual Meeting

2010 Chairman, Neuro-Ophthalmology Session. 69th Annual Meeting of the Wilmer Residents’ Association, Wilmer Eye Institute

2010 Session Co-Chair, Hemanopia: Features and Interventions. World Ophthalmology Congress

2010 Session Chair, Neuro-Ophthalmology. 23rd Annual Current Concepts in Ophthalmology, Wilmer Eye Institute

2011 Symposium Organizer, What is Wrong with this Pupil/Eyelid? American Academy of Ophthalmology Annual Meeting: Neuro-Ophthalmology Sub-Specialty Day

2011 Session Chair, Neuro-Ophthalmology. 24th Annual Current Concepts in Ophthalmology, Wilmer Eye Institute

2012 Symposium Moderator, Research Free Papers. North American Neuro-Ophthalmology Society Annual Meeting

2012 Symposium Organizer, Advances in Neurosurgery. North American Neuro-Ophthalmology Society Annual Meeting

2012 Session Chair, Controversies in Neuro-Ophthalmology. Asia-Pacific Academy of Ophthalmology Annual Meeting

2013 Session Chair, Common Neuro-Ophthalmology Scenarios 2: Diplopia & Ptosis. Joint Meeting of the Asia-Pacific Academy of Ophthalmology and All-India Ophthalmology Society

2013 Symposium Organizer, What to Make of This Chief Complaint or Presenting Symptom? American Academy of Ophthalmology Annual Meeting: Neuro-Ophthalmology Sub-Specialty Day

2013 Session Chair, Neuro-Ophthalmology. 26th Annual Current Concepts in Ophthalmology, Wilmer Eye Institute

2014 Program Chair, 46th Annual Frank B. Walsh Meeting, North American Neuro-Ophthalmology Society, San Juan, Puerto Rico

* + Selected top 19 cases (from 54 submitted) and supervised preparation of a full-day clinicopathological conference including teaching by a guest neuroradiologist and neuropathologist

2014 Co-organizer, Neuro-ophthalmology for the Clinician: A Practical Approach. Johns Hopkins University School of Medicine

2014 Session Chair, Neuro-Ophthalmology. 27th Annual Current Concepts in Ophthalmology, Wilmer Eye Institute

2015 Session Chairman: Neuro-Ophthalmology and Systemic Diseases. Joint Meeting of the Asia-Pacific Academy of Ophthalmology and Chinese Ophthalmology Society. Guangzhou, China

2015 Symposium Organizer, Neuro-Ophthalmology Made Ridiculously Simple, American Academy of Ophthalmology Annual Meeting: Neuro-Ophthalmology Sub-Specialty Day

* + Created teaching program covering key areas of neuro-ophthalmology for comprehensive ophthalmologists in an interactive, full-day format engaging younger and seasoned members of the profession.

2016 Program Committee Member and Session Chair. World Ophthalmology Congress, Guadalajara, Mexico

2016 International Coordinator for Neuro-Ophthalmology. 30th Asia-Pacific Academy of Ophthalmology Congress, Taipei, Taiwan

* + Developed and executed neuro-ophthalmic education sessions for a global audience of over 5000 delegates.

2016 Scientific Program Committee member, Middle East Africa Congress of Ophthalmology, Manama, Bahrain

2017 International Coordinator for Neuro-Ophthalmology. 31st Asia-Pacific Academy of Ophthalmology Congress, Singapore

* + Invited and supervised speakers and developed the teaching program for a global audience of over 6000 delegates

2017 Session Chair, 25th Annual Meeting of the Lebanese Ophthalmology Society, Beirut, Lebanon

2017 Coordinator for US Region, Neuro-Ophthalmology Program, Pan American Ophthalmology Congress, Lima, Peru

2017 Symposium Organizer, When Should I Worry? Dangerous Signs, Symptoms, and Findings in Neuro-Ophthalmology, American Academy of Ophthalmology Annual Meeting: Neuro-Ophthalmology Sub-Specialty Day

2018 Session Chair, 32nd Asia-Pacific Academy of Ophthalmology Congress, AAPOS Symposium

2018 Program Chair, 50th Annual Frank B. Walsh Meeting, North American Neuro-Ophthalmology Society, Waikoloa, HI

2018 Session Coordinator: Neuroftalmología Pediátrica Journal Club. XXX Reunión del Club Latino-Americano de Neuroftalmología (CLAN). Buenos Aires, Argentina

2019 International Coordinator for Neuro-Ophthalmology. 33rd Asia-Pacific Academy of Ophthalmology Congress, Bangkok, Thailand

2019 Session Chair, European Society of Ophthalmology (SOE) Meeting, Nice, France

2019 Symposium Organizer, Pearls and Pitfalls: Avoiding the Diagnostic Traps in Neuro-Ophthalmology, American Academy of Ophthalmology Annual Meeting: Neuro-Ophthalmology Sub-Specialty Day, San Francisco, CA.

2019 Organizer, Great Debate in Neuro-Ophthalmology. Annual Meeting of the American Academy of Ophthalmology. San Francisco, CA.

2020 International Coordinator for Neuro-Ophthalmology. 34th Asia-Pacific Academy of Ophthalmology Congress, Xiamen, China (cancelled for COVID-19)

2020 Specialty Coordinator, Neuro-Ophthalmology. World Ophthalmology Congress Virtual.

2021 Scientific Program Committee and Meeting Chair, 47th Annual Meeting of the North American Neuro-Ophthalmology Society (NANOS) – Virtual

* Converted a 5 day in-person scientific meeting into a 4-day virtual live and on-demand meeting that attracted 30% higher attendance than any prior in-person meeting of the society (1009 attendees worldwide).

2021 International Coordinator for Neuro-Ophthalmology. 36th Asia-Pacific Academy of Ophthalmology Congress (virtual).

2021 Symposium Organizer, Common Concerns, Uncommon Problems: Clues to Finding the Hidden Dangers! American Academy of Ophthalmology Annual Meeting: Neuro-Ophthalmology Sub-Specialty Day

2021 Free Papers Session Chair, Annual Meeting of the American Academy of Ophthalmology, New Orleans, LA.

2022 Scientific Program Committee and Meeting Chair, 48th Annual Meeting of the North American Neuro-Ophthalmology Society (NANOS). Austin, TX.

2023 Neuro-ophthalmology Program Co-Chair. 35th Congress of the Pan American Association for Ophthalmology. Buenos Aires, Argentina. March 17-20, 2023.

**Other Teaching & Courses**

1. **Subramanian PS**, Costello FE, Jirawuthivorawong GV. [Acute demyelinating optic neuritis](http://www.aao.org/course/acute-demyelinating-optic-neuritis-2). O.N.E Network of the American Academy of Ophthalmology. 2014 September. [CME education course]
2. Givre SJ, **Subramanian PS**, Grosser SJ. [Focal Points 2015 Module: Ancillary Testing in Neuro-ophthalmology](https://store.aao.org/focal-points-2015-module-ancillary-testing-in-neuro-ophthalmology.html). American Academy of Ophthalmology. 2015 September. [eBook, CME education]
3. Learning Lounge: Diagnostic Dilemmas in Neuro-Ophthalmology. Annual Meeting of the American Academy of Ophthalmology, Chicago, IL, November 12, 2017. [course #LL13]
4. Learning Lounge: Acute Vision Loss Optic Neuropathy: Work Up and Management. Annual Meeting of the American Academy of Ophthalmology, Chicago, IL, October 28, 2018. [course #LL10]
5. Podcast: Ocular Disease in the Older Population- siRNA and NAION. American Academy of Ophthalmology, September 2018.
6. Podcast: Ocular Disease in the Older Population- Tocilizumab and Giant Cell Arteritis. American Academy of Ophthalmology, September 2018.
7. Podcast: Heavy Eye vs Sagging Eye Syndrome. American Academy of Ophthalmology, February 2019.
8. Podcast: Central Retinal Artery Occlusion in the Elderly. American Academy of Ophthalmology, December 2019.
9. Podcast: Postoperative Visual Loss in the Elderly. American Academy of Ophthalmology, January 2021.
10. Podcast: Gadolinium Deposition Disorder. American Academy of Ophthalmology, November 2021.

**MENTORING ACTIVITIES** (current position)

**Clinical Fellows, Neuro-Ophthalmology**

2016– 2018 Alaa Bou-Ghannam, MD (Assistant Professor, Neuro- and Pediatric Ophthalmology, American University of Beirut, Lebanon)

2019 – 2020 Yosbelkys Martin Paez, MD (Assistant Professor of Neurology and Ophthalmology, Tufts University Medical Center, Boston, MA)

See Teaching Portfolio for full details

**Research Mentees**

See Research and Teaching Portfolios

**13. RESEARCH ACTIVITIES, SUPPORT AND GRANTS**

**Active Research Projects, Support and Grants**

1. **Horizon Therapeutics**: Outcomes of clinical interventions for diplopia and/or compressive optic neuropathy in patients with Thyroid Eye Disease

PI: **Prem S. Subramanian, MD, PhD** (investigator-initiated, not corporate sponsored)

Performance period: 6/1/21-5/30/22

Total amount: $1.523M

Commitment: 5% effort

1. **NIH/National Institute on Aging**: A major contributor of serious multisystem disease in the elderly: varicella zoster virus-induced inflammation

PI: Maria Nagel, MD (University of Colorado Anschutz Medical Center)

Sponsoring Agency: contact Mitchell Whitfield

Performance period: 3/1/19-12/31/24

Total amount: $800,000/yr

Commitment: 2.5% effort (0.3 calendar months/yr)

1. **Department of Defense**: Ocular Motor Function and Related Brain Morphology, Network, and Circuitry Metrics in Military Veterans with Mild Traumatic Brain Injury

PI: Jeffrey Hebert, PhD, PT (University of Colorado Anschutz Medical Center)

Sponsoring Agency: contact Mitchell Whitfield

Performance period: 7/1/22-06/30/24

Total amount: $200,000/yr

Commitment: 2.5% effort (0.3 calendar months/yr)

1. **GenSight Biologics**, GS-LHON-CLIN-05, Subramanian (PI): “Efficacy and Safety of Bilateral Intravitreal Injection of GS010: A Randomized, Double-Masked, Placebo-Controlled Trial in Subjects Affected With G11778A ND4 Leber Hereditary Optic Neuropathy (LHON) for Up to One Year”, Principal Investigator, 2018-2021.

**Pending Projects**

1. Augmentation of Nasal Lymphatic Drainage as a Countermeasure to the Spaceflight

Associated Neuro-Ocular Syndrome

PI: Prem Subramanian, M.D., Ph.D.

Sponsoring Agency: TRISH, contract number pending

Performance period: 10/1/21-9/30/23

Total amount: $250,000/year

Commitment: 2.4 months (20%) calendar months per year

**Completed Research Projects, Support and Grants**

1. **Santhera**, SNT-IV-005, Subramanian (Site PI): “External Natural History Controlled, Open-Label Intervention Study to Assess the Efficacy and Safety of Long-Term Treatment with Idebenone (Raxone®) in Leber’s Hereditary Optic Neuropathy (LHON)”, Site Principal Investigator, $61,540, 2017-2021.
2. **Sockwell Family Foundation, Johns Hopkins University**, IRB00094787, McCulley (PI): “An Open Label Trial of Celecoxib in the Treatment of Mild Thyroid Eye Disease”, Site Principal Investigator, $10,000/yr, 2014-2016.
3. **National Institutes of Health**, U10EY017281, Wall (PI): “A Multicenter, Double-blind, Randomized, Placebo-controlled Study of Weight-Reduction and/or Low Sodium Diet Plus Acetazolamide vs Diet Plus Placebo in Subjects With Idiopathic Intracranial Hypertension With Mild Visual Loss (NORDIC)”, Site Principal Investigator, 2011-2015.
4. **North American Neuro-ophthalmology Society**, 90037815, Subramanian (PI): “Predicting Clinical Outcomes in Adult Diplopic Patients”, Principal Investigator, $25,000, 2009-2010.
5. **Pfizer**, A1481282, Subramanian (Site PI): “The Detection and Epidemiology of Non-arteritic Anterior Ischemic Optic Neuropathy (NAION) in a Commercially Insured Population in the United States”, Site Principal Investigator, $10,000/yr, 2008-2012.
6. **Titus Family Foundation**, 80001222, Subramanian (PI): “Regulation of Optic Nerve Blood Flow”, Principal Investigator, $39,578/yr, 2008-2011.
7. **Department of Clinical Investigation, North Atlantic Regional Medical Command, US Army**, WU #04-3156, Donnelly (PI): “Incidence of Spontaneous Venous Pulsations: Revisited”, Co-Investigator/Mentor, $10,000, 2004-2007.
8. **Department of Clinical Investigation, North Atlantic Regional Medical Command, US Army**, WU #00-2302, Subramanian (PI): “Expression of Markers of Vascular Proliferation in Human Choroidal Neovascular Membranes”, Principal Investigator, $10,500, 2000-2002.

*Ongoing Research Interests*

* Characterization of efferent disorders after traumatic brain injury
* Natural history and treatment of traumatic optic neuropathy
* Causes of giant cell arteritis
* Pharmacological mitigation of spaceflight-associated neuro-ocular syndrome

**14. BIBLIOGRAPHY**

**Peer Reviewed Publications – PubMed Indexed**

1. **Subramanian PS**, Versalovic J, McCabe ER, Lupski JR. [Rapid mapping of Escherichia coli::Tn5 insertion mutations by REP-Tn5 PCR.](https://www.ncbi.nlm.nih.gov/pubmed/1335324) PCR Methods Appl. 1992 Feb;1(3):187-92. PubMed PMID: 1335324.<https://www.ncbi.nlm.nih.gov/pmc/articles/pmid/12623815/citedby/?tool=myncbi><https://www.ncbi.nlm.nih.gov/pubmed?Db=pubmed&DbFrom=pubmed&Cmd=Link&LinkName=pubmed_pubmed&IdsFromResult=12623815>
2. **Subramanian PS**, Nelson DL, Chinault AC. [Large domains of apparent delayed replication timing associated with triplet repeat expansion at FRAXA and FRAXE.](https://www.ncbi.nlm.nih.gov/pubmed/8755928) Am J Hum Genet. 1996 Aug;59(2):407-16. PubMed PMID: 8755928; PubMed Central PMCID: PMC1914744.
3. **Subramanian PS**, Chinault AC. [Replication timing properties of the human HPRT locus on active, inactive and reactivated X chromosomes.](https://www.ncbi.nlm.nih.gov/pubmed/9330638) Somat Cell Mol Genet. 1997 Mar;23(2):97-109. PubMed PMID: 9330638.
4. **Subramanian PS**, O'Kane B, Stefanik R, Stevens J, Rabin J, Bauer RM, Bower KS. [Visual performance with night vision goggles after photorefractive keratectomy for myopia.](https://www.ncbi.nlm.nih.gov/pubmed/12623815) Ophthalmology. 2003 Mar;110(3):525-30. PubMed PMID: 12623815.
5. **Subramanian PS**, Kerrison JB, Calvert PC, Miller NR. [Orbital inflammatory disease after pamidronate treatment for metastatic prostate cancer.](https://www.ncbi.nlm.nih.gov/pubmed/12963622) Arch Ophthalmol. 2003 Sep;121(9):1335-6. PubMed PMID: 12963622.
6. **Subramanian PS**, Bressler NM, Miller NR. [Radiation retinopathy after fractionated stereotactic radiotherapy for optic nerve sheath meningioma.](https://www.ncbi.nlm.nih.gov/pubmed/15019337) Ophthalmology. 2004 Mar;111(3):565-7. Erratum in: Ophthalmology. 2006 Sep;113(9):1622. Dosage error in article text. PubMed PMID: 15019337.
7. **Subramanian PS**, Goldenberg-Cohen N, Shukla S, Cheskin LJ, Miller NR. [Plasma ghrelin levels are normal in obese patients with idiopathic intracranial hypertension (pseudotumor cerebri).](https://www.ncbi.nlm.nih.gov/pubmed/15234288) Am J Ophthalmol. 2004 Jul;138(1):109-13. PubMed PMID: 15234288.
8. Hammond MD, Ward TP, Katz B, **Subramanian PS**. [Elevated intracranial pressure associated with idiopathic retinal vasculitis, aneurysms, and neuroretinitis syndrome.](https://www.ncbi.nlm.nih.gov/pubmed/15348989) J Neuroophthalmol. 2004 Sep;24(3):221-4. PubMed PMID: 15348989.
9. Han PJ, Shukla S, **Subramanian PS**, Hoffman PN. [Cyclic AMP elevates tubulin expression without increasing intrinsic axon growth capacity.](https://www.ncbi.nlm.nih.gov/pubmed/15380480) Exp Neurol. 2004 Oct;189(2):293-302. PubMed PMID: 15380480.
10. **Subramanian PS**, Gailloud PH, Heck DV, Tamargo RJ, Murphy KJ, Miller NR. [Cook detachable coil embolization of a symptomatic, isolated orbital arteriovenous fistula via a superior ophthalmic vein approach.](https://www.ncbi.nlm.nih.gov/pubmed/15633053) Neuroradiology. 2005 Jan;47(1):62-5. Epub 2005 Jan 5. PubMed PMID: 15633053.
11. Burka JM, Bower KS, Cute DL, Stutzman RD, **Subramanian PS**, Rabin JC. [Comparison of two techniques of marking the horizontal axis during excimer laser keratorefractive surgery for myopic astigmatism.](https://www.ncbi.nlm.nih.gov/pubmed/15808184) Am J Ophthalmol. 2005 Apr;139(4):735-7. PubMed PMID: 15808184.
12. **Subramanian PS**, Miller NR, Renard V, Tamargo RJ. [Delayed progressive visual loss following wrapping of bilateral clinoidal aneurysms: recovery of vision and improvement in neuroimaging during corticosteroid treatment.](https://www.ncbi.nlm.nih.gov/pubmed/16299157) Br J Ophthalmol. 2005 Dec;89(12):1666-8. PubMed PMID: 16299157; PubMed Central PMCID: PMC1772962.
13. Bower KS, Burka JM, **Subramanian PS**, Stutzman RD, Mines MJ, Rabin JC. [Night firing range performance following photorefractive keratectomy and laser in situ keratomileusis.](https://www.ncbi.nlm.nih.gov/pubmed/16808122) Mil Med. 2006 Jun;171(6):468-71. PubMed PMID: 16808122.
14. Brooks DB, **Subramanian PS**. [Monocular temporal hemianopia with septo-optic dysplasia.](https://www.ncbi.nlm.nih.gov/pubmed/16966940) J Neuroophthalmol. 2006 Sep;26(3):195-6. PubMed PMID: 16966940.
15. **Subramanian PS**, Gailloud PH, Heck DV, Tamargo RJ, Murphy KJ, Miller NR. [Embolization of orbital arteriovenous fistulas.](https://www.ncbi.nlm.nih.gov/pubmed/17121150) J Neurosurg. 2006 Nov;105(5):797; author reply 797-8. PubMed PMID: 17121150.
16. Colyer MH, Bower KS, Ward TP, Hidayat AA, **Subramanian PS**. [Mitochondrial myopathy presenting with segmental corneal oedema and retrocorneal membrane.](https://www.ncbi.nlm.nih.gov/pubmed/17446514) Br J Ophthalmol. 2007 May;91(5):696-7. PubMed PMID: 17446514; PubMed Central PMCID: PMC1954746.
17. Weber ED, Colyer MH, Lesser RL, **Subramanian PS**. [Posterior ischemic optic neuropathy after minimally invasive prostatectomy.](https://www.ncbi.nlm.nih.gov/pubmed/18090562) J Neuroophthalmol. 2007 Dec;27(4):285-7. PubMed PMID: 18090562.
18. **Subramanian PS**, Birdsong RH. [Surgical management of traumatic strabismus after combat-related injury.](https://www.ncbi.nlm.nih.gov/pubmed/18700606) Mil Med. 2008 Jul;173(7):693-6. PubMed PMID: 18700606.
19. Bababeygy SR, Repka MX, **Subramanian PS**. [Minocycline-associated pseudotumor cerebri with severe papilledema.](https://www.ncbi.nlm.nih.gov/pubmed/20339567) J Ophthalmol. 2009;2009:203583. doi: 10.1155/2009/203583. Epub 2010 Feb 16. PubMed PMID: 20339567; PubMed Central PMCID: PMC2836895.
20. Donnelly SJ, **Subramanian PS**. [Relationship of intraocular pulse pressure and spontaneous venous pulsations.](https://www.ncbi.nlm.nih.gov/pubmed/18789795) Am J Ophthalmol. 2009 Jan;147(1):51-55.e2. doi: 10.1016/j.ajo.2008.07.035. Epub 2008 Sep 13. PubMed PMID: 18789795.
21. **Subramanian PS**, Williams ZR. [Arteriovenous malformations and carotid-cavernous fistulae.](https://www.ncbi.nlm.nih.gov/pubmed/19584623) Int Ophthalmol Clin. 2009 Summer;49(3):81-102. doi: 10.1097/IIO.0b013e3181a8d7ac. Review. PubMed PMID: 19584623.
22. Deschler EK, Miller NR, **Subramanian PS**. [Papilloedema and vision loss with elevated cerebrospinal fluid protein in a patient with systemic lupus erythematosus: diagnosis and management challenges.](https://www.ncbi.nlm.nih.gov/pubmed/18658171) Br J Ophthalmol. 2010 Jan;94(1):131-42. doi: 10.1136/bjo.2008.140053. Epub 2008 Jul 25. PubMed PMID: 18658171.
23. Farrell SK, Hiremath GS, **Subramanian PS**, Venkatesan A. [The peaks and valleys of ocular histoplasmosis syndrome.](https://www.ncbi.nlm.nih.gov/pubmed/20185100) Lancet Infect Dis. 2010 Mar;10(3):212. doi: 10.1016/S1473-3099(10)70007-4. PubMed PMID: 20185100.
24. Danesh-Meyer HV, Boland MV, Savino PJ, Miller NR, **Subramanian PS**, Girkin CA, Quigley HA. [Optic disc morphology in open-angle glaucoma compared with anterior ischemic optic neuropathies.](https://www.ncbi.nlm.nih.gov/pubmed/19737875) Invest Ophthalmol Vis Sci. 2010 Apr;51(4):2003-10. doi: 10.1167/iovs.09-3492. Epub 2009 Sep 8. PubMed PMID: 19737875; PubMed Central PMCID: PMC2868394.
25. Decanini-Mancera A, Lessell S, Lee MS, **Subramanian PS**. [Syphilis and the monk.](https://www.ncbi.nlm.nih.gov/pubmed/21056446) Surv Ophthalmol. 2011 May-Jun;56(3):267-73. doi: 10.1016/j.survophthal.2010.08.004. Epub 2010 Nov 5. PubMed PMID: 21056446.
26. Wu-Chen WY, Christoff A, **Subramanian PS**, Eggenberger ER. [Diplopia and quality of life.](https://www.ncbi.nlm.nih.gov/pubmed/21724046) Ophthalmology. 2011 Jul;118(7):1481-1481.e2. doi: 10.1016/j.ophtha.2011.01.052. PubMed PMID: 21724046.
27. **Subramanian PS**. [Pediatric optic neuritis and multiple sclerosis: who is at risk for progression?](https://www.ncbi.nlm.nih.gov/pubmed/21958904) J AAPOS. 2011 Oct;15(5):419-20. doi: 10.1016/j.jaapos.2011.06.002. Epub 2011 Sep 29. PubMed PMID: 21958904.
28. Boland MV, McCoy AN, Quigley HA, Miller NR, **Subramanian PS**, Ramulu PY, Murakami P, Danesh-Meyer HV. [Evaluation of an algorithm for detecting visual field defects due to chiasmal and postchiasmal lesions: the neurological hemifield test.](https://www.ncbi.nlm.nih.gov/pubmed/21896843) Invest Ophthalmol Vis Sci. 2011 Oct 10;52(11):7959-65. doi: 10.1167/iovs.11-7868. PubMed PMID: 21896843; PubMed Central PMCID: PMC3207952.
29. Ko F, DiBernardo CW, Oak J, Miller NR, **Subramanian PS**. [Confirmation of and differentiation among primary vascular lesions using ultrasonography.](https://www.ncbi.nlm.nih.gov/pubmed/21785379) Ophthal Plast Reconstr Surg. 2011 Nov-Dec;27(6):431-5. doi: 10.1097/IOP.0b013e31822323af. PubMed PMID: 21785379.
30. Nickerson JP, Lane AP, **Subramanian PS**, Izbudak I. [Onodi cell mucocele causing acute vision loss: radiological and surgical correlation.](https://www.ncbi.nlm.nih.gov/pubmed/21461693) Clin Neuroradiol. 2011 Nov;21(4):245-8. doi: 10.1007/s00062-011-0056-7. Epub 2011 Apr 2. PubMed PMID: 21461693.
31. Liu D, Cruz FM, **Subramanian PS**. [Bilateral vision loss associated with radiofrequency exposure.](https://www.ncbi.nlm.nih.gov/pubmed/23271888) Clin Ophthalmol. 2012;6:2069-73. doi: 10.2147/OPTH.S38783. Epub 2012 Dec 12. PubMed PMID: 23271888; PubMed Central PMCID: PMC3526913.
32. Kanagalingam S, Gailloud P, Tamargo RJ, **Subramanian PS**, Miller NR. [Visual sequelae after consensus-based treatment of ophthalmic artery segment aneurysms: the Johns Hopkins experience.](https://www.ncbi.nlm.nih.gov/pubmed/22146516) J Neuroophthalmol. 2012 Mar;32(1):27-32. doi: 10.1097/WNO.0b013e31823b6c60. PubMed PMID: 22146516.
33. Chaichana KL, Jackson C, Patel A, Miller NR, **Subramanian P**, Lim M, Gallia G, Olivi A, Weingart J, Brem H, Quiñones-Hinojosa A. Predictors of visual outcomes following surgical resection of medial sphenoid wing meningiomas. J Neurol Surg B. 2012;73:321-326. PubMed PMID: 24083123.
34. Latimer K, Pendleton C, Martinez A, **Subramanian PS**, Quiñones-Hinojosa A. [Insight into glaucoma treatment in the early 1900s: Harvey Cushing's 1905 operation.](https://www.ncbi.nlm.nih.gov/pubmed/22491921) Arch Ophthalmol. 2012 Apr;130(4):510-3. doi: 10.1001/archophthalmol.2011.1184. PubMed PMID: 22491921.
35. **Subramanian PS**. [Pediatric neurovascular disorders.](https://www.ncbi.nlm.nih.gov/pubmed/22668540) Int Ophthalmol Clin. 2012 Summer;52(3):61-71, xiii. doi: 10.1097/IIO.0b013e31825a1373. Review. PubMed PMID: 22668540.
36. Radvany MG, Solomon D, Nijjar S, **Subramanian PS**, Miller NR, Rigamonti D, Blitz A, Gailloud P, Moghekar A. [Visual and neurological outcomes following endovascular stenting for pseudotumor cerebri associated with transverse sinus stenosis.](https://www.ncbi.nlm.nih.gov/pubmed/23502837) J Neuroophthalmol. 2013 Jun;33(2):117-22. doi: 10.1097/WNO.0b013e31827f18eb. PubMed PMID: 23502837.
37. Cruz FM, Blitz AM, **Subramanian PS**. [Partial third nerve palsy and ocular neuromyotonia from displacement of posterior communicating artery detected by high-resolution MRI.](https://www.ncbi.nlm.nih.gov/pubmed/23912769) J Neuroophthalmol. 2013 Sep;33(3):263-5. doi: 10.1097/WNO.0b013e31829eb397. PubMed PMID: 23912769.
38. Loo JL, Tian J, Miller NR, **Subramanian PS**. [Use of optical coherence tomography in predicting post-treatment visual outcome in anterior visual pathway meningiomas.](https://www.ncbi.nlm.nih.gov/pubmed/23966371) Br J Ophthalmol. 2013 Nov;97(11):1455-8. doi: 10.1136/bjophthalmol-2013-303449. Epub 2013 Aug 21. PubMed PMID: 23966371.
39. Tamhankar MA, Biousse V, Ying GS, Prasad S, **Subramanian PS**, Lee MS, Eggenberger E, Moss HE, Pineles S, Bennett J, Osborne B, Volpe NJ, Liu GT, Bruce BB, Newman NJ, Galetta SL, Balcer LJ. [Isolated third, fourth, and sixth cranial nerve palsies from presumed microvascular versus other causes: a prospective study.](https://www.ncbi.nlm.nih.gov/pubmed/23747163) Ophthalmology. 2013 Nov;120(11):2264-9. doi: 10.1016/j.ophtha.2013.04.009. Epub 2013 Jun 6. PubMed PMID: 23747163; PubMed Central PMCID: PMC3795864.
40. **Subramanian PS**. [Intracranial pressure and the eye. Preface.](https://www.ncbi.nlm.nih.gov/pubmed/24296378) Int Ophthalmol Clin. 2014 Winter;54(1):xi-xii. doi: 10.1097/IIO.0000000000000004. PubMed PMID: 24296378.
41. Killer HE, **Subramanian PS**. [Compartmentalized cerebrospinal fluid.](https://www.ncbi.nlm.nih.gov/pubmed/24296374) Int Ophthalmol Clin. 2014 Winter;54(1):95-102. doi: 10.1097/IIO.0000000000000010. Review. PubMed PMID: 24296374.
42. **Subramanian PS**, Haq A. [Cerebral venous sinus thrombosis and stenosis in pseudotumor cerebri syndrome.](https://www.ncbi.nlm.nih.gov/pubmed/24296372) Int Ophthalmol Clin. 2014 Winter;54(1):61-71. doi: 10.1097/IIO.0000000000000005. Review. PubMed PMID: 24296372.
43. Leyngold I, Olivi A, Ishii M, Blitz A, Burger P, **Subramanian PS**, Gallia G. [Acute chiasmal abscess resulting from perineural extension of invasive sino-orbital aspergillosis in an immunocompetent patient.](https://www.ncbi.nlm.nih.gov/pubmed/23973515) World Neurosurg. 2014 Jan;81(1):203.e1-6. doi: 10.1016/j.wneu.2013.08.018. Epub 2013 Aug 20. PubMed PMID: 23973515; PubMed Central PMCID: PMC4696048.
44. McCoy AN, Quigley HA, Wang J, Miller NR, **Subramanian PS**, Ramulu PY, Boland MV. [Development and validation of an improved neurological hemifield test to identify chiasmal and postchiasmal lesions by automated perimetry.](https://www.ncbi.nlm.nih.gov/pubmed/24448263) Invest Ophthalmol Vis Sci. 2014 Feb 20;55(2):1017-23. doi: 10.1167/iovs.13-13702. PubMed PMID: 24448263; PubMed Central PMCID: PMC3931297.
45. **Subramanian PS**. [Perioperative vision loss: what's the cause?](https://www.ncbi.nlm.nih.gov/pubmed/24843901) Ann Card Anaesth. 2014 Apr-Jun;17(2):97-9. PubMed PMID: 24843901.
46. **Subramanian PS**. [How urgent is the treatment of transient vision loss?](https://www.ncbi.nlm.nih.gov/pubmed/24344224) Br J Ophthalmol. 2014 Jun;98(6):719-20. doi: 10.1136/bjophthalmol-2013-304473. Epub 2013 Dec 16. PubMed PMID: 24344224.
47. Fard MA, Fakhree S, Abdi P, Hassanpoor N, **Subramanian PS**. [Quantification of peripapillary total retinal volume in pseudopapilledema and mild papilledema using spectral-domain optical coherence tomography.](https://www.ncbi.nlm.nih.gov/pubmed/24727146) Am J Ophthalmol. 2014 Jul;158(1):136-43. doi: 10.1016/j.ajo.2014.03.008. Epub 2014 Apr 12. PubMed PMID: 24727146.
48. Ahn ES, **Subramanian PS**. [Treatment modalities of thyroid related orbitopathy.](https://www.ncbi.nlm.nih.gov/pubmed/25449934) Indian J Ophthalmol. 2014 Oct;62(10):999-1002. doi: 10.4103/0301-4738.145994. Review. PubMed PMID: 25449934; PubMed Central PMCID: PMC4278128.
49. Dave SB, **Subramanian PS**. [Pseudotumor cerebri: an update on treatment options.](https://www.ncbi.nlm.nih.gov/pubmed/25449933) Indian J Ophthalmol. 2014 Oct;62(10):996-8. doi: 10.4103/0301-4738.145991. Review. PubMed PMID: 25449933; PubMed Central PMCID: PMC4278127.
50. Fonseca PL, Rigamonti D, Miller NR, **Subramanian PS**. [Visual outcomes of surgical intervention for pseudotumour cerebri: optic nerve sheath fenestration versus cerebrospinal fluid diversion.](https://www.ncbi.nlm.nih.gov/pubmed/24820047) Br J Ophthalmol. 2014 Oct;98(10):1360-3. doi: 10.1136/bjophthalmol-2014-304953. Epub 2014 May 12. PubMed PMID: 24820047.
51. Sharma K, Kalakoti P, Juneja R, Sahu S, Singh V, **Subramanian PS**. [Re-emphasizing Thygeson's warning: conjunctival phlyctenulosis as presenting sign of impending clinical tuberculosis.](https://www.ncbi.nlm.nih.gov/pubmed/25433746) Can J Ophthalmol. 2014 Dec;49(6):e135-7. doi: 10.1016/j.jcjo.2014.08.006. PubMed PMID: 25433746.
52. Kanagalingam S, **Subramanian PS**. [Cerebral venous sinus stenting for pseudotumor cerebri: A review.](https://www.ncbi.nlm.nih.gov/pubmed/25859134) Saudi J Ophthalmol. 2015 Jan-Mar;29(1):3-8. doi: 10.1016/j.sjopt.2014.09.007. Epub 2014 Sep 27. Review. PubMed PMID: 25859134; PubMed Central PMCID: PMC4314570.
53. Padula WV, **Subramanian P**, Spurling A, Jenness J. [Risk of fall (RoF) intervention by affecting visual egocenter through gait analysis and yoked prisms.](https://www.ncbi.nlm.nih.gov/pubmed/26484522) NeuroRehabilitation. 2015;37(2):305-14. doi: 10.3233/NRE-151263. PubMed PMID: 26484522.
54. McCoy AN, Quigley HA, Miller NR, **Subramanian PS**, Ramulu PY, Boland MV. [Author Response: Neurological Hemifield Test in Binasal Defects.](https://www.ncbi.nlm.nih.gov/pubmed/26066602) Invest Ophthalmol Vis Sci. 2015 Apr;56(4):2570. doi: 10.1167/iovs.15-16824. PubMed PMID: 26066602.
55. Elder BD, Goodwin CR, Kosztowski TA, Radvany MG, Gailloud P, Moghekar A, **Subramanian PS**, Miller NR, Rigamonti D. [Venous sinus stenting is a valuable treatment for fulminant idiopathic intracranial hypertension.](https://www.ncbi.nlm.nih.gov/pubmed/25579238) J Clin Neurosci. 2015 Apr;22(4):685-9. doi: 10.1016/j.jocn.2014.10.012. Epub 2015 Jan 8. PubMed PMID: 25579238.
56. Zhao J, Davé SB, Wang J, **Subramanian PS**. [Clinical color vision testing and correlation with visual function.](https://www.ncbi.nlm.nih.gov/pubmed/26116263) Am J Ophthalmol. 2015 Sep;160(3):547-552.e1. doi: 10.1016/j.ajo.2015.06.015. Epub 2015 Jun 24. PubMed PMID: 26116263.
57. Miller NR, **Subramanian PS**. [Should Visual Restoration Therapy be Used in Patients With Visual Field Loss?](https://www.ncbi.nlm.nih.gov/pubmed/25887305) J Neuroophthalmol. 2015 Sep;35(3):319-22. doi: 10.1097/WNO.0000000000000252. PubMed PMID: 25887305.
58. **Subramanian PS**, Fonseca PL, Rigamonti D, Miller NR. [Improvement on Automated Perimetry After Surgery for Idiopathic Intracranial Hypertension: Comment.](https://www.ncbi.nlm.nih.gov/pubmed/26285124) J Neuroophthalmol. 2015 Sep;35(3):332. doi: 10.1097/WNO.0000000000000287. PubMed PMID: 26285124.
59. Kontzialis M, Choudhri AF, Patel VR, **Subramanian PS**, Ishii M, Gallia GL, Aygun N, Blitz AM. [High-Resolution 3D Magnetic Resonance Imaging of the Sixth Cranial Nerve: Anatomic and Pathologic Considerations by Segment.](https://www.ncbi.nlm.nih.gov/pubmed/26576019) J Neuroophthalmol. 2015 Dec;35(4):412-25. doi: 10.1097/WNO.0000000000000313. PubMed PMID: 26576019.
60. Garrity ST, Pistilli M, Vaphiades MS, Richards NQ, **Subramanian PS**, Rosa PR, Lam BL, Osborne BJ, Liu GT, Duncan KE, Shin RK, Volpe NJ, Shindler KS, Lee MS, Moster ML, Tracey EH, Cuprill-Nilson SE, Tamhankar MA. [Ophthalmic presentation of giant cell arteritis in African-Americans.](https://www.ncbi.nlm.nih.gov/pubmed/27636230) Eye (Lond). 2017 Jan;31(1):113-118. doi: 10.1038/eye.2016.199. Epub 2016 Sep 16. PubMed PMID: 27636230; PubMed Central PMCID: PMC5233930.
61. Dua S, Sharma K, Juneja R, Kalakoti P, Kamble M, **Subramanian P**. Unusual presentation of unilateral intra-orbital optic nerve pilocytic astrocytoma of the juvenile type in a geriatric patient. J Clin Neurosci 2016;25:143-44.
62. Frolov A, Feuerstein J, **Subramanian PS**. [Homonymous Hemianopia and Vision Restoration Therapy.](https://www.ncbi.nlm.nih.gov/pubmed/27886894) Neurol Clin. 2017 Feb;35(1):29-43. doi: 10.1016/j.ncl.2016.08.010. Review. PubMed PMID: 27886894.
63. **Subramanian PS**, Zhao J, Davé SB, Wang J. [Dyschromatopsia in Multiple Sclerosis Patients: A Marker of Subclinical Involvement?: Comment.](https://www.ncbi.nlm.nih.gov/pubmed/28098582) J Neuroophthalmol. 2017 Mar;37(1):107-108. doi: 10.1097/WNO.0000000000000485. PubMed PMID: 28098582.
64. Sharma S, Kwan S, Fallano KA, Wang J, Miller NR, **Subramanian PS**. [Comparison of Visual Outcomes of Nonarteritic Anterior Ischemic Optic Neuropathy in Patients with and without Diabetes Mellitus.](https://www.ncbi.nlm.nih.gov/pubmed/28017420) Ophthalmology. 2017 Apr;124(4):450-455. doi: 10.1016/j.ophtha.2016.11.029. Epub 2016 Dec 22. PubMed PMID: 28017420.
65. **Subramanian PS**, Gordon LK, Bonelli L, Arnold AC. [Progression of asymptomatic optic disc swelling to non-arteritic anterior ischaemic optic neuropathy.](https://www.ncbi.nlm.nih.gov/pubmed/27565987) Br J Ophthalmol. 2017 May;101(5):671-675. doi: 10.1136/bjophthalmol-2016-309250. Epub 2016 Aug 26. PubMed PMID: 27565987.
66. Mader TH, Gibson CR, Otto CA, Sargsyan AE, Miller NR, **Subramanian PS**, Hart SF, Lipsky W, Patel NB, Lee AG. [Persistent Asymmetric Optic Disc Swelling After Long-Duration Space Flight: Implications for Pathogenesis.](https://www.ncbi.nlm.nih.gov/pubmed/27930421) J Neuroophthalmol. 2017 Jun;37(2):133-139. doi: 10.1097/WNO.0000000000000467. PubMed PMID: 27930421.
67. Friedman DI, Quiros PA, **Subramanian PS**, Mejico LJ, Gao S, McDermott M, Wall M; and the NORDIC IIHTT Study Group. [Headache in Idiopathic Intracranial Hypertension: Findings From the Idiopathic Intracranial Hypertension Treatment Trial.](https://www.ncbi.nlm.nih.gov/pubmed/28752894) Headache. 2017 Jul 28. doi: 10.1111/head.13153. [Epub ahead of print] PubMed PMID: 28752894.
68. Bou Ghannam A, **Subramanian PS**. [Delayed Onset Cranial Nerve Palsies After Endovascular Coil Embolization of Direct Carotid-Cavernous Fistulas.](https://www.ncbi.nlm.nih.gov/pubmed/28837440) J Neuroophthalmol. 2017 Aug 22. doi: 10.1097/WNO.0000000000000568. [Epub ahead of print] PubMed PMID: 28837440.
69. Kumpe DA, Seinfeld J, Huang X, Mei Q, Case DE, Roark CD, **Subramanian PS**, Lind KE, Pelak VS, Bennett JL. [Dural sinus stenting for idiopathic intracranial hypertension: factors associated with hemodynamic failure and management with extended stenting.](https://www.ncbi.nlm.nih.gov/pubmed/27935482) J Neurointerv Surg. 2017 Sep;9(9):867-874. doi: 10.1136/neurintsurg-2016-012810. Epub 2016 Nov 8. PubMed PMID: 27935482.
70. Ghannam ASB, **Subramanian PS**. [Neuro-ophthalmic manifestations of cerebrovascular accidents](https://www.ncbi.nlm.nih.gov/pubmed/28984724). Curr Opin Ophthalmol. 2017 Nov;28(6):564-572. doi:10.1097/ICU. 0000000000000414. PubMed PMID: 28984724.
71. Mader TH, Gibson CR, Otto CA, Sargsyan AE, Miller NR, **Subramanian PS**, Hart SF, Lipsky W, Patel NB, Lee AG. [Why a One-Way Ticket to Mars May Result in One-Way Directional Glymphatic Flow to the Eye: Response](https://www.ncbi.nlm.nih.gov/pubmed/28991102). J Neuroophthalmol. 2017 Dec;37(4):463-464. doi: 10.1097/WNO.0000000000000579. PubMed PMID: 28991102.
72. Chen L, Jiang L, Yang B, **Subramanian PS**. [Clinical features of visual disturbances secondary to isolated sphenoid sinus inflammatory diseases](https://www.ncbi.nlm.nih.gov/pubmed/29212484). BMC Ophthalmol. 2017 Dec 6;17(1):237. doi: 10.1186/s12886-017-0634-9. PubMed PMID: 29212484; PubMed Central PMCID: PMC5717843.
73. Manoharan N, **Subramanian PS**. [A case of non-arteritic anterior ischemic optic neuropathy after completion of Harvoni therapy](https://www.ncbi.nlm.nih.gov/pubmed/29260058). Am J Ophthalmol Case Rep. 2017 Mar 8;6:55-57. doi: 10.1016/j.ajoc.2017.03.002. eCollection 2017 Jun. PubMed PMID: 29260058; PubMed Central PMCID: PMC5722139.
74. Neems L, Echalier EL, **Subramanian PS**. Orbital Tumors and Inflammatory Disorders: Diagnosis and Management. Int Ophthalmol Clin. 2018 Spring;58(2):181-195. doi: 10.1097/IIO.0000000000000217. PubMed PMID: [29517650](https://www.ncbi.nlm.nih.gov/pubmed/29517650).
75. **Subramanian PS**. Fixation Instability: A New Measure of Neurologic Dysfunction in Multiple Sclerosis. Invest Ophthalmol Vis Sci. 2018 Jan 1;59(1):202. doi:10.1167/iovs.17-23603. PubMed PMID: [29340647](https://www.ncbi.nlm.nih.gov/pubmed/29340647).
76. Aghsaei Fard M, Okhravi S, Moghimi S, **Subramanian PS**. Optic Nerve Head and Macular Optical Coherence Tomography Measurements in Papilledema Compared With Pseudopapilledema. J Neuroophthalmol. 2018 Feb 22. doi: 10.1097/WNO.0000000000000641. [Epub ahead of print] PubMed PMID: [29474199](https://www.ncbi.nlm.nih.gov/pubmed/29474199).
77. **Subramanian PS**, Guerin-Calvert M, Frohman LP, Biousse V; Quality of Neuro-Ophthalmic Care Committee of the North American Neuro-Ophthalmology Society. Impact of the Elimination of Consultation Codes on Neuro-Ophthalmology in the United States. J Neuroophthalmol. 2018 Mar;38(1):4-6. doi: 10.1097/WNO.0000000000000630. PubMed PMID: [29438262](https://www.ncbi.nlm.nih.gov/pubmed/29438262).
78. Fard MA, Jalili J, Sahraiyan A, Khojasteh H, Hejazi M, Ritch R, **Subramanian PS**. Optical Coherence Tomography Angiography in Optic Disc Swelling. Am J Ophthalmol. 2018 May 4. pii: S0002-9394(18)30197-1. doi: 10.1016/j.ajo.2018.04.017. [Epub ahead of print] PubMed PMID: [29733809](https://www.ncbi.nlm.nih.gov/pubmed/29733809).
79. Anderson AP, Butterfield JS, **Subramanian PS**, Clark TK. Intraocular Pressure and Cardiovascular Alterations Investigated in Artificial Gravity as a Countermeasure to Spaceflight Associated Neuro-ocular Syndrome. J Appl Physiol (1985). 2018 May 10. doi: 10.1152/japplphysiol.00082.2018. [Epub ahead of print] PubMed PMID: [29745798](https://www.ncbi.nlm.nih.gov/pubmed/29745798).
80. Kanagalingam S, **Subramanian PS**. Update on Idiopathic Intracranial Hypertension. Curr Treat Options Neurol. 2018 May 28;20(7):24. doi:10.1007/s11940-018-0512-7. Review. PubMed PMID: [29808423](https://www.ncbi.nlm.nih.gov/pubmed/29808423).
81. Yates JR, Mines MJ, **Subramanian PS**, Rivera-Michlig R, Cummings TJ, Eberhart CG. Periocular histiocytoid carcinoma: potential diagnostic challenges. Ocul Oncol Pathol 2019;5:94-101. PMID: 30976586 doi:[10.1159/000490250](https://www.karger.com/Article/Abstract/490250).
82. **Subramanian PS**, Arnold AC. Controversies in Neuro-Ophthalmology: Where the Evidence Leads Us. Asia Pac J Ophthalmol (Phila). 2018 Jul-Aug;7(4):215-217. doi:10.22608/APO.2018327. PubMed PMID: [30124239](https://www.ncbi.nlm.nih.gov/pubmed/30124239).
83. Aref M, Kunigelis KE, Yang A, **Subramanian PS**, Ramakrishnan VR, Youssef AS. [The Effect of Preoperative Direct Ligation of Ethmoidal Arteries on the Perioperative Outcomes of Large Anterior Skull Base Meningiomas Surgery: A Clinical Study](https://www.ncbi.nlm.nih.gov/pubmed/30196172). World Neurosurg. 2018 Dec;120:e776-e782. doi: 10.1016/j.wneu.2018.08.166. Epub 2018 Sep 6. PubMed PMID: [30196172](https://www.ncbi.nlm.nih.gov/pubmed/30196172).
84. Aghsaei Fard M, Ghahvechian H, Sahrayan A, Ritch R, **Subramanian PS**. [Early macular vessel density loss in acute ischemic optic neuropathy compared to papilledema: implications for pathogenesis.](https://www.ncbi.nlm.nih.gov/pubmed/30271677) Transl Vis Sci Tech 2018 Sep 26;7(5):10. doi: 10.1167/tvst.7.5.10. eCollection 2018 Sep. PubMed PMID: 30271677.
85. Kahana A, Cho RI, **Subramanian PS**. An ophthalmic perspective on the treatment of autoimmune thyroid disease: a white paper.Ophthal Plast Reconstr Surg 2019, *in review*.
86. Aghsaei Fard M, Jalili J, Sahraiyan A, Khojasteh H, Hejazi M, Ritch R, **Subramanian PS**. [Optical Coherence Tomography Angiography in Papilledema Compared to Pseudopapilledema.](https://www.ncbi.nlm.nih.gov/pubmed/30640969) Invest Ophthalmol Vis Sci 2019;60:168-175. PubMed PMID: 30640969.
87. **Subramanian PS**. [Traumatic brain injury in children: how does it affect the eye and vision?](https://www.ncbi.nlm.nih.gov./pubmed/30366050) J AAPOS 2018 Oct 23 pii: S1091-8531(18)30550-0. doi: 10.1016/j.jaapos.2018.10.001. PubMed PMID: 30366050.
88. Hebert JR, **Subramanian PS**. Perceptual postural instability and visual vertigo. Curr Neurol Neurosci Rep 2019;19:19. PMID: 30877392 doi: 10.1007/s11910-019-0939-6
89. Aghsaei Fard M, Yadegari S, Ghavechian H, Moghimi S, **Subramanian PS**. Optical coherence tomography angiography of pale optic disc in demyelinating optic neuritis and ischemic optic neuropathy. J Neuroophthalmol 2019 Sep;39(3):339-344. doi: 10.1097/WNO.0000000000000775.
90. Aghsaei Fard M, **Subramanian** PS, Ritch R. Early ganglion cell or macular vessel loss after acute nonarteritic anterior ischemic optic neuropathy [Letter]? Transl Vis Sci Tech 2019;8:12. https://doi.org/10.1167/tvst.8.2.12
91. Mader TH, Gibson CR, Miller NR, **Subramanian PS**, Patel NB, Lee AG**.** An overview of spaceflight-associated neuro-ocular syndrome (SANS). Neurol India 2019;67:206-11*.*
92. Liu TYA, Ting DSW, Yi PH, Wei J, Zhu H, Li T, **Subramanian PS**, Hui FK, Hager GD, Miller NR. Deep Learning and Transfer Learning for Optic Disc Laterality Detection: Implications for Machine Learning in Neuro-ophthalmology. J Neuroophthalmol 2020;40:178-184. doi: 10.1097/WNO.0000000000000827.
93. Akbari M, Nikdel M, **Subramanian PS**, Aghsaei Fard M. Effect of Foveal Location on Retinal Nerve Fiber Layer Thickness Profile in Superior Oblique Palsy Eyes. J Glaucoma 2019 Oct;28(10):916-921. doi: 10.1097/IJG.0000000000001347.
94. Liu KC, Bhatti MT, Chen JJ, Fairbanks A, Foroozan R, McClelland CM, Lee MS, Satija CE, Francis CE, Wildes MT, **Subramanian PS**, Williams ZR, El-Dairi MA. Presentation and progression of papilledema in cerebral venous sinus thrombosis. Am J Ophthalmol2020 Jan 9. pii: S0002-9394(20)30002-7. doi: 10.1016/j.ajo.2019.12.022.
95. Williams ER, **Subramanian PS**. Perineural Spread of Squamous Cell Carcinoma Without Enlargement or Enhancement of Involved Nerves. J Neuroophthalmol 2020;40:e3-e4.
96. Aghsaei Fard M, Golizadeh A, Yadegari S, Ghahvechian H, **Subramanian PS**, Ritch R. Photoreceptor Outer Nuclear Layer Thickness Changes in Optic Neuritis Follow up. Mult Scler2019 Dec 20;39:101905. doi: 10.1016/j.msard.2019.101905.
97. Aghsaei Fard M, Salabati M, Mahmoudzadeh R, Kafieh R, Hojati S, Safizadeh M, Moghimi S, Ritch R, **Subramanian PS**. Automated Evaluation of Parapapillary Choroidal Microvasculature in Ischemic Optic Neuropathy and Open Angle Glaucoma. Invest Ophthalmol Vis Sci 2020;61:35.
98. Aghsaei Fard M, Ghahvechian H, **Subramanian PS**. Optical coherence tomography in ischemic optic neuropathy. Ann Eye Sci 2020, http://dx.doi.org/10.21037/aes.2019.12.05.
99. Aghsaei Fard M, Ghahvechian H, **Subramanian PS**. Follow-up of nonarteritic anterior ischemic optic neuropathy with optical coherence tomography angiography. J Neuroophthal 2020, in press.
100. Hamann S, Malmqvist L, Wegener M, Biousse V, Bursztyn L, Citirak G, Costello F, Crum AV, Digre K, Fard MA, Fraser JA, Huna-Baron R, Katz B, Lawlor M, Newman NJ, Peragallo JH, Petzold A, Sibony PA, **Subramanian PS**, Warner JE, Wong SH, Fraser CL. Young adults with anterior ischemic optic neuropathy: A multicenter optic disc drusen study. Am J Ophthalmol 2020;217:174-181.
101. Sibony PA, Biousse V, Bursztyn L, Costello F, Digre KJ. Fraser A, Fraser CL, Huna-Baron R, Katz B, Lawlor M, Malmqvist L, Newman NJ, Peragallo J, Petzold A, **Subramanian PS**, Warner J, Wegener M, Wong S, Hamann S.  Comment on: Morphologic Features of Buried Optic Disc Drusen on En Face Optical Coherence Tomography and Optical Coherence Tomography Angiography. Am J Ophthalmol 2020;219:369-370.
102. Ifantides C, Deitz GA, Christopher KL, Slingsby TJ, **Subramanian PS**. Less-lethal resulting in ophthalmic injuries: a review and recent example of eye trauma. Ophthalmol Ther 2020 Jun 13. doi: 10.1007/s40123-020-00271-9
103. Martin Paez Y, Pelak VS, **Subramanian PS**, Bennett JL. Considerations for the treatment of inflammatory neuro-ophthalmologic disorders during the COVID-19 pandemic. J Neuroophthalmol 2020, **Error! Hyperlink reference not valid.**
104. Patel VR, **Subramanian PS**, Fortin E, Carey AR, Journal of Neuro-Ophthalmology Technology-Based Content Team. New Initiatives at Journal of Neuro-Ophthalmology: Highlighting Technology, Social Media, and Content for Trainees. J Neuroophthalmol 2020, PMID: 32796284 DOI: 10.1097/WNO.0000000000001044.
105. Petzold A, Biousse V, Bursztyn L, Costello F, Crum A, Digre K, Fraser C, Fraser JA, Katz B, Jurkute N, Newman N, Lautrup-Battistini J, Lawlor M, Liskova P, Lorenz B, Malmqvist L, Peragallo J, Sibony P, **Subramanian P**, Rejdak R, Nowomiejska K, Touitou V, Warner J, Wegener M, Wong S, Yu-Wai-Man P, Hamann S. Multirater Validation of peripapillary hyperreflective ovoid mass-like structures (PHOMS). Neuro-ophthalmology 2020.
106. Ifantides C, Christopher KL, Deitz GA, Smith J, Patnaik J, SooHoo JR, Gelinas N, Slingsby TJ, **Subramanian PS**. Ophthalmic injuries by less-lethal kinetic weapons during the United States spring 2020 protests. JAMA Ophthalmol 2020, doi: 10.1001/jamaophthalmol.2020.5325.
107. Coerver KA, **Subramanian PS**. Visual hallucinations in psychiatric, neurologic, and ophthalmologic disease. Curr Opin Ophthalmol 2020;31:475-482. doi: 10.1097/ICU. 0000000000000701
108. Martin Paez Y, Mudie LI, **Subramanian PS**. Spaceflight Associated Neuro-ocular Syndrome (SANS): a systemic review and future directions. Eye Brain 2020;12:105-117.
109. Hoang TT, Tran HMD, Truong BV, **Subramanian PS**. Presentation of High-Flow Cerebral Proliferative Angiopathy With Adie's-Like Pupil and Proptosis. J Neuroophthalmol 2020, PMID: 32235214 DOI: 10.1097/WNO.0000000000000946.
110. Sun MM, Seleme N, Chen JJ, Zekeridou A, Sechi E, Walsh RD, Beebe JD, Sabbagh O, Mejico LJ, Gratton S, Skidd PM, Bellows DA, Falardeau J, Fraser CL, Cappelen-Smith C, Haines SR, Hassanzadeh B, Seay MD, **Subramanian PS**, Williams Z, Gordon LK. Neuro-ophthalmic complications in patients treated with CTLA-4 and PD-1/PD-L1 checkpoint blockade. J Neuroophthalmol 2021;41:519-530. PMID 33136674.
111. Aghsaei Fard M, **Subramanian PS**. Comment on: Morphologic Features of Buried Optic Disc Drusen on En Face Optical Coherence Tomography and Optical Coherence Tomography Angiography. Am J Ophthalmol 2020;219:367-368. PMID: 32451062 DOI: 10.1016/j.ajo.2020.03.040.
112. Catarino CB, von Livonius B, Priglinger C, Banik R, Matloob S, Tamhankar MA, Castillo L, Friedburg C, Halfpenny CA, Lincoln JA, Traber GA, Acaroglu G, Black GCM, Doncel C, Fraser CL, Jakubaszko J, Landau K, Langenegger SJ, Muñoz-Negrete FJ, Newman NJ, Poulton J, Scoppettuolo E, **Subramanian P**, Toosy AT, Vidal M Vincent AL, Votruba M, Zarowski M, Zermansky A, Lob F, Rudolph G, Mikazans O, Silva M, Lloria X, Metz G, Klopstock T. Real-world clinical experience with idebenone in the treatment of Leber hereditary optic neuropathy. J Neuroophthalmol 2020;40:558-565.
113. Mader TH, Gibson CR, Barratt MR, Miller NR, **Subramanian PS**, Killer HE, Tarver WJ, Sargsyan AE, Garcia K, Hart SF, Kramer LA, Riascos R, Brunstetter TJ, Lipsky W, Wostyn P, Lee AG. Persistent globe flattening in astronauts following long duration spaceflight. Neuroophthalmology 2020;45:29-35. PMID 33762785.
114. Kostic M, **Subramanian PS**, Falcone SF, El-Swaify ST, Sur S, Spasic S, Miller NR, Morcos JJ, Lam BL. Cavernous Malformation of the Optic Nerve and Chiasm: Prompt Suspicion and Surgery Matter. J Neuroophthalmol 2021, doi: 10.1097/WNO.0000000000001238.
115. DeBusk A, **Subramanian PS**, Bryan MS, Moster ML, Calvert PC, Frohman LP. Mismatch in supply and demand in neuro-ophthalmic care. J Neuroophthalmol 2021, doi: 10.1097/WNO.0000000000001214.
116. Sears CM, Wang Y, Bailey LA, Kossler AL, Turbin R, **Subramanian PS**, Douglas RS, Cockerham K. Early Efficacy of Teprotumumab for the Treatment of Dysthyroid Optic Neuropathy: A Retrospective Multicenter Study. AJO Case Reports 2021, https://doi.org/10.1016/j.ajoc.2021.101111
117. Larochelle R, Koduri V, Chen R, **Subramanian PS**. Embolic abducens palsy and central retinal artery occlusion in a patient with COVID-19. J Neuroophthalmol 2021, doi: 10.1097/WNO.0000000000001291.
118. Pedler MG, Petrash JM, **Subramanian PS**. Effect of Prostaglandin Analogs on Cerebrospinal Fluid Reabsorption Via Nasal Mucosa PLoS ONE 2021 Dec 31, <https://doi.org/10.1371/journal.pone.0248545>. PMID 34971554.
119. Bubak AN, Mescher T, Mariani M, Frietze SE, Hassell JL Jr, Niemeyer CS, Como CN, Burnet AM, **Subramanian PS**, Cohrs RJ, Mahalingam R, Nagel MA. Targeted RNA sequencing of formalin-fixed, paraffin-embedded temporal arteries from giant cell arteritis cases reveals viral signatures. Neurol Neuroimmunol Neuroinflamm 2021;8:e1078. doi:10.1212/NXI.0000000000001078.
120. Hoang TT, Van Le T, Tran D, Ho TD, Thi Le NH, **Subramanian PS**. [Acute Complete Oculomotor Nerve Palsy in a Young Male Due to a Skull Base Myofibroma.](https://pubmed.ncbi.nlm.nih.gov/33449492/) J Neuroophthalmol 2021;41:e759-e760. PMID 33449492.
121. Nguyen NT, Hoang TT, **Subramanian PS**. Ocular, orbital, and sinus damage induced by a fierce fishhook trauma. Asia Pac J Ophthalmol (Phila) 2021;10:226-227. PMID 33793444.
122. Echalier EL, **Subramanian PS**. Meningiomas of the planum sphenoidale and tuberculum sella. J Neurol Surg B Skull Base 2021;82:72-80. PMID 33777619.
123. Hoang TT, Nguyen CN, Nguyen AQ, Nguyen HL, **Subramanian PS**, Pham VT. [Contralateral Ocular Manifestations of a Carotid Cavernous Fistula Associated With Primitive Persistent Trigeminal Artery.](https://pubmed.ncbi.nlm.nih.gov/33449487/) J Neuroophthalmol 2021;41:e803-e805. PMID 33449487.
124. Liu TYA, Wei J, Zhu H, **Subramanian PS**, Myung D, Yi PH, Hui FK, Unberath M, Ting DSW, Miller NR. Detection of optic disc abnormalities in color fundus photographs using deep learning. J Neuroophthalmol 2021;41:368-374. doi: 10.1097/WNO.0000000000001358. PMID 34415271.
125. Tugizova M, Siegel DT, Huang S, Su E, **Subramanian PS**, Beres S, Vora N. Case series: optic neuritis after COVID-19 vaccination. J Neuroophthalmol 2022 Jan 10, doi: 10.1097/WNO.0000000000001519. PMID 35020705.
126. Sedhom JA, Patnaik JL, McCourt EA, Liao SD, **Subramanian PS**, Davidson RS, Palestine AG, Kahook MY, Seibold LK. Physician burnout in ophthalmology: a national survey. J Cataract Refract Surg 2021 Sep 30, doi: 10.1097/j.jcrs.0000000000000837. PMID 34596630.
127. **Subramanian PS**. Protecting patients from the harm we can cause. Ophthalmology 2021;128:1363-1364. PMID 34420596.
128. Ng SMS, Low R, Hoskin AK, Rousselot A, Gunasekeran DV, Natarajan S, Sundar G, Chee CKL, Mishra C, Sen P, Pradhan E, Irawati Y, Kamalden TA, Shah M, Yan H, Woreta FA, **Subramanian PS**, Kuhn F, Watson SL, Agrawal R for IGATES Study Group. The application of clinical registries in ophthalmic trauma-the International Globe and Adnexal Trauma Epidemiology Study (IGATES). Graefes Arch Clin Exp Ophthalmol 2021 Nov 23, doi:10.1007/s00417-021-05493-6. PMID 34812939.
129. Aghsaei Fard J, Ghahvechian H, **Subramanian PS**. Follow-up of non-arteritic anterior ischemic optic neuropathy with optical coherence tomography angiography. J Neuroophthalmol 2021;41:e433-e439. doi: 10.1097/WNO.0000000000000997. PMID 34788242.
130. Khatri A, Shrestha SM, Kuhn F, **Subramanian P**, Hoskin AK, Pradhan E, Agrawal R. Ophthalmic Trauma Correlation Matrix (OTCM): a potential novel tool for evaluation of concomitant ocular tissue damage in open globe injuries. Graefes Arch Clin Exp Ophthalmol 2021 Nov 18, doi:10.1007/s00417-04591-8. PMID 34792638.
131. Hoang TT, Nguyen CN, Ha TTH, **Subramanian PS**. A lesson learnt from the dural carotid cavernous fistula-induced superior ophthalmic vein occlusion with posterior ischemic optic neuropathy. Neuroophthalmology 2022;46:199-202. doi: 10.1080/01658107.2021.2000622.
132. Sriram A, Miao Y, **Subramanian P**, Schultz JS, Zhang C. A differential loss of nerve fiber layer thickness and retinal ganglion cell complex in toxic and nutritional optic neuropathy. Adv Ophthalmol Pract Res 2022, doi.org/10.1016/j.aopr.2022.100026.
133. Douglas RS, Dailey R, **Subramanian PS**, Barbasino G, Ugradar S, Batten R, Qadeer RA, Cameron C. Proptosis and diplopia response in moderate-to-severe thyroid eye disease: a meta-analysis and matching-adjusted indirect comparison of teprotumumab and placebo versus the recommended treatment regimen with IV methylprednisolone. JAMA Ophthalmol 2022;140:328-335.
134. Pelak VS, Martin Paez Y, Patnaik JL, Holden SK, **Subramanian PS**, Mathias MT, Mandava N, Lynch AM. An exploratory study to investigate the utility of clinical screening for neurodegenerative disease in age-related eye disease research. J Neuroophthalmol 2022;42:346-352.
135. Coburn W, Fonteh CN, **Subramanian PS**. Isolated Compressive Optic Neuropathy Due to Cavernous Carotid Aneurysms: A Two-Patient Case Report. J Neuroophthalmol 2022 Apr 19. doi: 10.1097/WNO.0000000000001591.
136. Nguyen AAK, Sammel AM, Mollan SP, **Subramanian PS**, Fraser CL. Giant cell arteritis incidence during the CoVID pandemic. J Neuroophthalmol 2022 Jul 8. doi: 10.1097/WNO.0000000000001638.
137. Larochelle RD, Mandava N, **Subramanian PS**. Binasal center-involving hemianopia of presumed congenital etiology. J Neuroophthalmol 2022, doi: 10.1097/WNO.0000000000001653.
138. Strong Caldwell A, Mehta N, **Subramanian PS**. Malignant Idiopathic Intracranial Hypertension. Ophthalmology 2022, Oct 10:S0161-6420(22)00693-5. doi: 10.1016/j.ophtha.2022.09.006.
139. **Subramanian PS**, Barton JJS, Ranalli P, Smith C, Francis CE, Frishberg B. Consensus statement on visual rehabilitation in mild traumatic brain injury. Neurology Clin Pract 2022, <https://doi.org/10.1212/CPJ.0000000000200071>.
140. Razaghi G, Hedayati E, Hejazi M, Kafieh R, Samadi M, Ritch R, **Subramanian PS**, Aghsaei Fard M. Measurement of retinal nerve fiber layer thickness with a deep learning algorithm in ischemic optic neuropathy and optic neuritis. Sci Rep 2022 Oct 12;12(1):17109. doi: 10.1038/s41598-022-22135-x.
141. **Subramanian PS**, Newman NJ, Moster ML, Wang A-G, Yu-Wai-Man Y, Donahue SP, Leroy BP, Carelli V, Biousse V, Vignal-Clermont C, Sergott RC, Sadun AA, Fernández GR, Fortin E, Banik R, Bazin F, Cox E, Roux M, Taiel M, Sahel JA. Study design and baseline cahracteristics for the REFLECT gene therapy trial of m.11778G>A/*ND4*-LHON. Br J Ophthalmol Open, 2022, in press.
142. Carelli V, Newman NJ, Yu-Wai-Man P, Biousse V, Moster ML, **Subramanian PS**, Vignal-Clermont C, Wang A-G, Donahue SP, Leroy BP, Sergott RC, Klopstock T, Sadun AA, Fernández GR, Chwalisz BK, Banik R, Girmens JF, La Morgia C, DeBusk AA, Jurkute N, Priglinger C, Karanjia R, Josse C, Salzmann J, Montestruc F, Roux M, Taiel M, Sahel J-A. Indirect Comparison of Lenadogene Nolparvovec Gene Therapy versus Natural History in Leber Hereditary Optic Neuropathy Patients Carrying the m.11778G>A MT-ND4 Mutation. Ophthalmol Ther 2022, submitted.
143. Newman NJ, Yu-Wai-Man P, **Subramanian PS**, Moster ML, Wang A-G, Donahue SP, Leroy BP, Carelli V, Biousse V, Vignal-Clermont C, Sergott RC, Sadun AA, Fernández GR, Chwalisz BK, Banik R, Bazin F, Roux M, Cox ED, Taiel M, Sahel J-A. Randomized trial of gene therapy injection for m.11778G>A *MT-ND4* Leber optic neuropathy. Brain 2022, <https://doi.org/10.1093/brain/awac421>.
144. Vignal-Clermont C, Yu-Wai-Man P, Newman NJ, Carelli V, Moster ML, Biousse V, **Subramanian PS**, Wang A-G, Donahue SP, Leroy BP, Sadun AA, Klopstock T, Sergott RC, Fernández GR, Chwalisz BK, Banik R, Taiel M, Roux M, Sahel J-A. Safety of lenadogene nolparvovec gene therapy over 5 years in 189 patients with Leber hereditary optic neuropathy. Am J Ophthalmol 2022, DOI:<https://doi.org/10.1016/j.ajo.2022.11.026>.
145. Asseyer S, Asgari N, Bennett J, Bialer O, Blanco Y, Bosello F, Camós Carreras A, Carnero Contentti E, Carta S, Chen JJ, Chien C, Chomba M, Dale RC, Dalmau J, Feldmann K, Flanagan E, Tilikete CF, Garcia-Alfonso CU, Havla J, Hellmann M, Kim HJ, Klyscz P, Konietschke F, La Morgia C, Lana-Peixoto MA, Da Silva Leite, MI, Levin N, Levy M, Llufriu S, Adrián López P, Lotan I, Lugaresi A, MARIGNIER R, Mariotto S, Mollan SP, Ocampo C, Oertel FC, Olszewska M, Palace J, Pandit L, Peralta Uribe JL, Pittock SJ, Ramanathan S, Rattanathamsakul N, Saiz A, Samadzadeh S, Sanchez B, Saylor D, Scheel M, Schmitz-Hübsch T, Shifa J, SIRITHO S, Sperber PS, **Subramanian P**, Tiosano A, Vaknin-Dembinsky A, Mejia Vergara AJ, Wilf-Yarkoni A, Zarco LA, Zimmermann HG, Paul F, Stiebel-Kalish H.  The Acute Optic Neuritis Network (ACON): Study protocol of a non-interventional prospective multicenter study on diagnosis and treatment of acute optic neuritis. Front Neurol 2023, in press.
146. Williams ZR, Lee AG, Fraser CL, Falardeau J, **Subramanian PS,** Chen JJ, Al Othman B, Dinkin MJ, Mollan SP, Al-Zubaidi N, Vates E. Opinion Article: Neurosurgical Treatment for Neuro-ophthalmologic Conditions. Front Ophthamol 2023, in press.
147. Steinhardt B, Brooks-Russell A, Kosnett MJ, **Subramanian PS,** Wrobel J. A Video Segmentation Pipeline for Assessing changes in Pupil Response to Light After Cannabis Consumption. bioRxiv 2023, doi: 10.1101/2023.03.17.533144.
148. Vali M. Mohammadi M, Zarei N, Samadi M, Atapour-Abarghouei A, Supakontanasan W, Suwan Y, **Subramanian PS**, Miller NR, Kafieh R, Fard MA. [Differentiating Glaucomatous Optic Neuropathy from Non-Glaucomatous Optic Neuropathies Using Deep Learning Algorithms.](https://pubmed.ncbi.nlm.nih.gov/36868341/) Am J Ophthalmol 2023, doi: 10.1016/j.ajo.2023.02.016.
149. Echalier EL, Larochelle RD, Patnaik JL, Echalier BR, Wagner A, Hink EM, **Subramanian PS**, Liao SD. [Orbital Compartment Syndrome in Severe Burns: Predictive Factors, Timing, and Complications of Intervention.](https://pubmed.ncbi.nlm.nih.gov/36700833/) Ophthal Plast Reconstr Surg 2022, doi: 10.1097/IOP.0000000000002313.
150. **Subramanian PS.** [Spaceflight-Associated Neuro-Ocular Syndrome and Increased Intracranial Pressure-Are We Closer to Understanding the Relationship?](https://pubmed.ncbi.nlm.nih.gov/36602792/) JAMA Ophthalmol 2023;141:176-177.
151. Marin AI, Zarubina A, Bennett JL, **Subramanian PS**. Seropositive neuromyelitis optica spectrum disorder presenting with optic nerve sheath enhancement and optic disc edema resembling optic nerve sheath meningioma. J Neuroophthalmol 2023, in press.
152. Chen H, **Subramanian PS**. Conversion of superior oblique myokymia to superior oblique neuromyotonia in a patient with a history of superior oblique palsy. J Neuroophthalmol 2023, in press.
153. Jalili J, Mohadeseh Nadimi M, Jafari B, Esfandiari A, Mojarad M, **Subramanian PS**,Aghsaei Fard M. Vessel Density Features of Optical Coherence Tomography Angiography for Classification of Optic Neuropathies Using Machine Learning. J Neuroophthalmol 2023, in press.

**Clinical Trial Group Publications**

1. Keltner JL, Johnson CA, Cello K, Wall M for the NORDIC Idiopathic Intracranial Hypertension Study Group (**Subramanian PS** site investigator). Baseline visual field findings in the The Idiopathic Intracranial Hypertension Treatment Trial. Invest. Ophthalmol. Vis. Sci. 2014; 55: 3200-3207.
2. Wall M, Kupersmith MJ, Kieburtz KD, Corbett JJ, Feldon SE, Friedman DI, Katz DM, Keltner JL, Schron E, McDermott MP, for the NORDIC Idiopathic Intracranial Hypertension Study Group (**Subramanian PS** site investigator). The idiopathic intracranial hypertension treatment trial: clinical profile at baseline. JAMA Neurol. 2014;71:693-701.
3. Friedman DI, McDermott MP, Kieburtz K, Kupersmith M, Stoutenberg A, Keltner JL, Feldon SE, Schron E, Corbett JJ, Wall M, for the NORDIC IIHTT Study Group (**Subramanian PS** site investigator). The idiopathic intracranial hypertension treatment trial: design considerations and methods. J. Neuroophthalmol. 2014;34:107-117.
4. OCT Sub-Study Committee for the NORDIC Idiopathic Intracranial Hypertension Study Group (**Subramanian PS** site investigator). Baseline OCT measurements in the idiopathic intracranial hypertension treatment trial, Part I: Quality control, comparisons, and variability. Invest. Ophthalmol. Vis. Sci. 2014;55:8180-8188.
5. OCT Sub-Study Committee for the NORDIC Idiopathic Intracranial Hypertension Study Group (**Subramanian PS** site investigator). Baseline OCT measurements in the idiopathic intracranial hypertension treatment trial, Part II: Correlations and relationships to clinical features. Invest. Ophthalmol. Vis. Sci. 2014;55:8173-8179.
6. The NORDIC Idiopathic Intracranial Hypertension Study Group Writing Committee (**Subramanian PS** site investigator). Effect of acetazolamide on visual function in patients with idiopathic intracranial hypertension and mild visual loss. JAMA 2014; 311: 1641-1651.
7. The Optical Coherence Tomography Substudy Committee and the NORDIC Idiopathic Intracranial Hypertension Study Group (**Subramanian PS** site investigator). Papilledema outcomes from the optical coherence tomography substudy of the Idiopathic Intracranial Hypertension Treatment Trial. Ophthalmology 2015; 122: 1939-1945.e2.
8. Fischer WS, Wall M, McDermott MP, Kupersmith MJ, Feldon SE for the NORDIC Idiopathic Intracranial Hypertension Study Group (**Subramanian PS** site investigator). Photographic reading center of the Idiopathic Idiopathic Intracranial Hypertension Treatment Trial (IIHTT): Methods and baseline results. Invest. Ophthalmol. Vis. Sci. 2105: 56: 3292-3303.
9. Sibony PA, Kupersmith MJ, Feldon SE, Wang J-K, Garvin M, OCT Substudy Group for the NORDIC Idiopathic Intracranial Hypertension Treatment Trial (**Subramanian PS** site investigator). Retinal and choroidal folds in papilledema. Invest. Ophthalmol. Vis. Sci. 2015; 56: 5670-5680.
10. Digre KB, Bruce BB, McDermott MP, Galetta KM, Balcer LJ, Wall M on behalf of the NORDIC Idiopathic Intracranial Hypertension Study Group (**Subramanian PS** site investigator). Quality of life in idiopathic intracranial hypertension at diagnosis: IIH Treatment Trial results. JAMA Neurology 2015; 84: 2449-2456.
11. Wall M, Falardeau J, Fletcher WA, Granadier RJ, Lam BL, Longmuir RA, Patel AD, Bruce BB, He H, McDermott MP for the NORDIC Idiopathic Intracranial Hypertension Study Group (**Subramanian PS** site investigator). Risk factors for poor visual outcome in patients with idiopathic intracranial hypertension. Neurology 2015; 85: 799-805.
12. Kattah JC, Pula JH, Mejico LJ, McDermott MP, Kupersmith MJ, Wall M for the NORDIC Idiopathic Intracranial Hypertension Study Group (**Subramanian PS** site investigator). CSF pressure, papilledema grade, and response to acetazolamide in the Idiopathic Intracranial Hypertension Treatment Trial. J. Neurol. 2015;262:2271-2274.
13. Wang J-K, Sibony PA, Kardon RH, Kupersmith MJ, Garvin MK on behalf of the OCT Sub-Study Committee for the NORDIC Idiopathic Intracranial Hypertension Study Group (**Subramanian PS** site investigator). Semi-automated 2D Bruch’s membrane shape analysis in papilledema using spectral-domain optical coherence tomography. Proc SPIE9417, Medical Imaging 2015: Biomedical Applications in Molecular, Strucural, and Functional Imaging. <http://doi.org/10.1117/12.2077797>
14. ten Hove MW, Friedman DI, Patel AD, Irrcher I, Wall M, McDermott MP for the NORDIC Idiopathic Intracranial Hypertension Study Group (**Subramanian PS** site investigator). Safety and tolerability of acetazolamide in the idiopathic intracranial hypertension treatment trial. J. Neuroophthalmol. 2016;36:13-19.
15. Cello KE, Keltner JL, Johnson CA, Wall M for the NORDIC Idiopathic Intracranial Hypertension Study Group (**Subramanian PS** site investigator). Factors affecting visual field outcomes in the idiopathic intracranial hypertension treatment trial. J. Neuroophthalmol. 2016;36:6-12.
16. Sibony PA, Kupersmith MJ for the OCT Sub-Study Group of the NORDIC Idiopathic Intracranial Hypertension Treatment Trial (**Subramanian PS** site investigator). “Paton’s folds” revisited: peripapillary wrinkles, folds, and creases in papilledema. Ophthalmology 2016;123:1397-9. doi: 10.1016/j.ophtha.2015.12.017.
17. Wall M, Johnson CA, Cello KE, Zamba KD, McDermott MP, Keltner JL for the NORDIC Idiopathic Intracranial Hypertension Study Group (**Subramanian PS** site investigator). Visual field outcomes for the the Idiopathic Intracranial Hypertension Treatment Trial (IIHTT). Invest. Ophthalmol. Vis. Sci. 2016;57:805-12.
18. Kupersmith MJ, Sibony PA, Feldon SE, Wang JK, Garvin M, Kardon R for the OCT Sub-Study Group of the NORDIC Idiopathic Intracranial Hypertension Treatment Trial (**Subramanian PS** site investigator). The Effect of Treatment of Idiopathic Intracranial Hypertension on Prevalence of Retinal and Choroidal Folds. Am J Ophthalmol. 2017;176:77-86.
19. Wall M, Kupersmith MJ, Thurtell MJ, Moss HE, Moss EA, Auinger P; NORDIC Idiopathic Intracranial Hypertension Study Group (**Subramanian PS** site investigator). The Longitudinal Idiopathic Intracranial Hypertension Trial: Outcomes From Months 6-12. Am J Ophthalmol. 2017 Apr; 176:102-107. doi: 10.1016/j.ajo.2017.01.004. Epub 2017 Jan 17. PubMed PMID: [28104417](https://www.ncbi.nlm.nih.gov/pubmed/28104417); PubMed Central PMCID: PMC5376520.
20. Wang JK, Kardon RH, Ledolter J, Sibony PA, Kupersmith MJ, Garvin MK; OCT Sub-Study Committee and the NORDIC Idiopathic Intracranial Hypertension Study Group (**Subramanian PS** site investigator). Peripapillary Retinal Pigment Epithelium Layer Shape Changes From Acetazolamide Treatment in the Idiopathic Intracranial Hypertension Treatment Trial. Invest Ophthalmol Vis Sci. 2017 May 1;58(5):2554-2565. doi:10.1167/iovs.16-21089. PubMed PMID: 28492874; PubMed Central PMCID: [PMC5425231](https://www.ncbi.nlm.nih.gov/pubmed/28492874).
21. Malmqvist L, Sibony PA, Fraser CL, Wegener M, Heegaard S, Skougaard M, Hamann S; Optic Disc Drusen Studies Consortium (**Subramanian PS** is member). Peripapillary Ovoid Hyperreflectivity in Optic Disc Edema and Pseudopapilledema. Ophthalmology. 2018 Oct;125(10):1662-1664. doi: 10.1016/j.ophtha.2018.04.036. Epub 2018 Jun 8. PubMed PMID: [29891127](https://www.ncbi.nlm.nih.gov/pubmed/29891127).
22. Costello F, Rothenbeuhler SP, Sibony PA, Hamann S; Optic Disc Drusen Studies Consortium (**Subramanian PS** is member). Diagnosing Optic Disc Drusen in the Modern Imaging Era: A Practical Approach. Neuro-Ophthalmology 2020, <https://doi.org/10.1080/01658107.2020.1810286>.
23. Fraser JA, Sibony PA, Petzold A, Thaung C, Hamann S; Optic Disc Drusen Studies Consortium (**Subramanian PS** is member). [Peripapillary Hyper-reflective Ovoid Mass-like Structure (PHOMS): An Optical Coherence Tomography Marker of Axoplasmic Stasis in the Optic Nerve Head.](https://pubmed.ncbi.nlm.nih.gov/33630781/) J Neuroophthalmol 2021 Feb 19 (online ahead of print).
24. Hoskin AK, Fliotsos MJ, Rousselot A, Ng SMS, Justin GA, Blanch R, Colyer MH, Shukla B, Natarajan S, Kuhn F, Sundar G, Woreta FA, Watson SL, Agrawal R; International Globe and Adnexal Trauma Epidemiology Study (IGATES) Ophthalmic Trauma Terminology Consensus Group (**Subramanian PS** is member). [Globe and Adnexal Trauma Terminology Survey.](https://pubmed.ncbi.nlm.nih.gov/35862061/) JAMA Ophthalmol. 2022 Aug 1;140(8):819-826.

**Enduring Online Content (peer reviewed)**

**Subramanian PS.** <https://www.neurodiem.ie/news/optimizing-oct-a-refined-method-to-distinguish-papilledema-from-5cdkX8ZP57Qoy29BwTfC1L>

Lee AG, **Subramanian PS**. Neuromyelitis Optica Spectrum Disorder: Recognizing the Need for Early Diagnosis to Improve Treatment Outcomes. <https://cme.healio.com/ophthalmology/20200226/neuromyelitis-optica-spectrum-disorder/overview>

Lee AG, Moss HE, **Subramanian PS**. Neuromyelitis Optica Spectrum Disorder: Improving Diagnosis and Treatment. <https://cme.healio.com/neurocme/making-the-diagnosis/2021/01_january/neuromyelitis-optica-spectrum-disorder-improving-diagnosis-and-treatment/cme-information>

**Subramanian PS**, Coyle PK. Neuromyelitis Optica Spectrum Disorder: Applying Newer Diagnostic Criteria, and Examining Expanding Options for Treatment. <https://cme.healio.com/ophthalmology/20210211/neuromyelitis-optica-spectrum-disorder-applying-newer-diagnostic-criteria/overview>

**Non-Peer Reviewed Publications**

Invited Commentaries and Reviews

1. **Subramanian PS**. [Active vision: the psychology of looking and seeing](http://journals.lww.com/jneuro-ophthalmology/Citation/2006/03000/Active_Vision__The_Psychology_of_Looking_and.18.aspx) (book review). J. Neuroophthalmol. 2006 Mar;26(1): 69-70.
2. **Subramanian PS**. [Molecular neurosurgery with targeted toxins](http://journals.lww.com/jneuro-ophthalmology/Fulltext/2006/12000/Molecular_Neurosurgery_With_Targeted_Toxins.23.aspx) (book review). J. Neuroophthalmol. 2006 Sep;26(4): 302.
3. **Subramanian P**: Faculty of 1000 Medicine, 16 Apr 2009 <http://f1000medicine.com/article/id/1158822/evaluation>
4. **Subramanian P**: Faculty of 1000 Medicine, 16 Apr 2009 <http://f1000medicine.com/article/id/1158822/evaluation>
5. Ko M, **Subramanian P**: Faculty of 1000 Medicine, 17 Jun 2009 <http://f1000medicine.com/article/id/1161123/evaluation>
6. **Subramanian P**: Faculty of 1000 Medicine, 17 Aug 2009 <http://f1000medicine.com/article/id/1163360/evaluation>
7. **Subramanian P**: Faculty of 1000 Medicine, 5 Nov 2009 <http://f1000medicine.com/article/id/1165847/evaluation>
8. Ko M, **Subramanian P**: Faculty of 1000 Medicine, 5 Jan 2010
9. **Subramanian P**: Faculty of 1000 Medicine, 12 Mar 2010 <http://f1000medicine.com/article/id/2473956/evaluation>
10. Ko M, **Subramanian P**: Faculty of 1000 Medicine, 17 May 2010
11. **Subramanian P**: Faculty of 1000 Medicine, 19 Jul 2010 <http://f1000medicine.com/article/id/4152956/evaluation>
12. Ko M, **Subramanian P**: Faculty of 1000 Medicine, 27 Sep 2010 <http://www.f1000medicine.com/article/id/5243956/evaluation>
13. Williams Z, **Subramanian P**: "This study demonstrates that interferon beta is not only ineffective in neuromyelitis optica (NMO) spectrum..." Evaluation of: [Shimizu J et al. IFNbeta-1b may severely exacerbate Japanese optic-spinal MS in neuromyelitis optica spectrum. Neurology. 2010 Oct 19; 75:1423-7; doi: 10.1212/WNL.0b013e3181f8832e] Faculty of 1000, 05 Jan 2011. [f1000.com/6533956](http://f1000.com/6533956)
14. Williams Z, **Subramanian P**: "Treatment options for optic pathway glioma (OPG) have increased in the past two decades with..." Evaluation of: [Shofty B et al. Visual outcome following chemotherapy for progressive optic pathway gliomas. Pediatr Blood Cancer. 2011 Sep; 57(3):481-5; doi: 10.1002/pbc.22967] Faculty of 1000, 22 Feb 2011. [f1000.com/845695](http://f1000.com/845695)
15. Williams Z, **Subramanian P**: "This study demonstrates that serum inflammatory markers (erythrocyte sedimentation rate [ESR] and C-reactive..." Evaluation of: [Hegg R et al. Statin or nonsteroidal anti-inflammatory drug use is associated with lower erythrocyte sedimentation rate in patients with giant cell arteritis. J Neuroophthalmol. 2011 Jun; 31(2):135-8; doi: 10.1097/WNO.0b013e31820c4421] Faculty of 1000, 21 Apr 2011. [f1000.com/9726956](http://f1000.com/9726956).
16. Williams Z, **Subramanian P**: "This study, the largest optical coherence tomography (OCT) study of dominant optic atrophy (DOA) patients..." Evaluation of: [Barboni P et al. Retinal Nerve Fiber Layer Thickness in Dominant Optic Atrophy Measurements by Optical Coherence Tomography and Correlation with Age. Ophthalmology. 2011 May 27; doi: 10.1016/j.ophtha.2011.02.027] Faculty of 1000, 22 Jun 2011. [f1000.com/11433956](http://f1000.com/11433956)
17. **Subramanian PS,** Williams Z: F1000Prime Recommendation of [Hwang TN et al., Ophthalmology 2011, 118(11):2286-95] In F1000Prime, 25 Aug 2011; DOI: 10.3410/f.12929956.14222054. [F1000Prime.com/12929956#eval14222054](http://F1000Prime.com/12929956#eval14222054)
18. **Subramanian P,** Williams Z: F1000Prime Recommendation of [Pineles SL and Arnold AC, J Neuroophthalmol 2012, 32(1):17-22] In F1000Prime, 05 Dec 2011; DOI: 10.3410/f.13383003.14750243. [F1000Prime.com/13383003#eval14750243](http://F1000Prime.com/13383003#eval14750243)
19. **Subramanian P**: F1000Prime Recommendation of [Fraser CL et al., Arch Neurol 2012] In F1000Prime, 30 Apr 2012; DOI: 10.3410/f.14267342.15779545. [F1000Prime.com/14267342#eval15779545](http://F1000Prime.com/14267342#eval15779545)
20. **Subramanian P**: F1000Prime Recommendation of [Copland DA et al., Am J Pathol 2012, 180(2):672-81] In F1000Prime, 16 Feb 2012; DOI: 10.3410/f.13829957.15269057. [F1000Prime.com/13829957#eval15269057](http://F1000Prime.com/13829957#eval15269057)
21. **Subramanian P** and Williams Z: F1000Prime Recommendation of [Ohshima KI et al., Jpn J Ophthalmol 2012] In F1000Prime, 02 Jul 2012; DOI: 10.3410/f.717497901.792952851. [F1000Prime.com/717497901#eval792952851](http://F1000Prime.com/717497901#eval792952851)
22. **Subramanian P** and Williams Z: F1000Prime Recommendation of [Falardeau J et al., J Neuroophthalmol 2012] In F1000Prime, 04 Sep 2012; DOI: 10.3410/f.717953754.793459359. [F1000Prime.com/717953754#eval793459359](http://F1000Prime.com/717953754#eval793459359)
23. **Subramanian P**: F1000Prime Recommendation of [Bartalena L et al., J Clin Endocrinol Metab 2012] In F1000Prime, 12 Dec 2012; DOI: 10.3410/f.717961927.793466461. [F1000Prime.com/717961927#eval793466461](http://F1000Prime.com/717961927#eval793466461)
24. Batra S, Miller NR, **Subramanian PS**, Radvany MG, Gailloud PH, Rigamonti D. [Pseudotumor cerebri syndrome: a review](http://ovidsp.tx.ovid.com/sp-3.24.1b/ovidweb.cgi?QS2=434f4e1a73d37e8ca9c2ed569e2a6bcb6a09207feb1c8f14bef6947e756dcd3081d8a742f0ed68cc2dbaf7dd5c8614ba4ac6533ccd2f791719079ce9ab0f1555977b90103177520b07ac415da41fa69f01b37fe21f2be792fc26d625777814d2c042ec56d83d42b2129c2bf333083653b6fb53ff8163dd422f368511de502d767e4a7ef3178f5ed4511160c83c9d5ac952db0920946806785c8369ac9df0900da56f70738619854697f4e2c832f46a4d6b643829c566a1e6ed9b2f6e42c63e71cf666f681ea9e6bf336222edb12c4754d8e4e7d0886885736bba90f572bc171b9446f60b9161f2d887424b7684be206cb8fb839a98b046dcbb550e9e0bd697fc). Contemporary Neurosurgery 2013;35:1-8.
25. **Subramanian P**: F1000Prime Recommendation of [Rudolph G et al., J Neuroophthalmol 2013, 33(1):30-6] In F1000Prime, 27 Mar 2013; DOI: 10.3410/f.717989812.793472958. [F1000Prime.com/717989812#eval793472958](http://F1000Prime.com/717989812#eval793472958)
26. **Subramanian P**: F1000Prime Recommendation of [Massey LA et al., Neurology 2013 80(20):1856-1861]. In F1000Prime, 01 Jul 2013; 10.3410/f.718021967.793479058.
27. **Subramanian P**: F1000Prime Recommendation of [Lange AP et al., J Neuroophthalmol 2013] In F1000Prime, 15 Aug 2013; DOI: 10.3410/f718041037.793481086. [F1000Prime.com/718041037#eval793481086](http://F1000Prime.com/718041037#eval793481086)
28. Weiner G interviewing Friedman DI, **Subramanian PS**, Wall M. [Managing idiopathic intracranial hypertension: the evidence builds](https://www.aao.org/eyenet/article/managing-idiopathic-intracranial-hypertension-evid?february-2015). EyeNet 2015 (Feb.): 29-30.
29. **Subramanian P**: F1000Prime Recommendation of [Wang X et al., J Neuroophthalmol 2014 34(4):324-330]. In F1000Prime, 16 Dec 2014; 10.3410/f.718473621.793502276.
30. **Subramanian P**: F1000Prime Recommendation of [Lee YC et al., Am J Ophthalmol 2016 170:183-189]. In F1000Prime, 25 Aug 2016; 10.3410/f.726641608.793522376.
31. **Subramanian P**: F1000Prime Recommendation of [Lim JH et al., Nat Neurosci 2016 19(8):1073-1084]. In F1000Prime, 10 Jan 2017; 10.3410/f.726494209.793526837.
32. **Subramanian P**: F1000Prime Recommendation of [Andron A et al., Orbit 2017 36(6):1-6]. In F1000Prime, 31 Aug 2017; 10.3410/f.729085530.793536137.
33. **Subramanian P**: F1000Prime Recommendation of [van de Graaf ES et al., Graefes Arch Clin Exp Ophthalmol 2017 255(9):1851-1858]. In F1000Prime, 23 Jun 2017; 10.3410/f.727671409.793533387.
34. **Subramanian P**: F1000Prime Recommendation of [Bowen M et al., J AAPOS 2017 21(2):127-130]. In F1000Prime, 19 Apr 2017; 10.3410/f.727420509.793530556.
35. **Subramanian P**: F1000Prime Recommendation of [Fang C et al., JAMA Ophthalmol 2017 135(1):23-28]. In F1000Prime, 08 Mar 2017; 10.3410/f.727038495.793529147.
36. **Subramanian P**: F1000Prime Recommendation of [Stunkel L et al., JAMA Ophthalmol 2017 136(1):76-81]. In F1000Prime, 19 Dec 2017; 10.3410/f.732267610.793540507.
37. **Subramanian P**: F1000Prime Recommendation of [Malmqvist L et al., J Neuroophthalmol 2017]. In F1000Prime, 10 Nov 2017; 10.3410/f.732069653.793538597.
38. **Subramanian P**: F1000Prime Recommendation of [Clark RA and Demer JL, Ophthalmology 2018 125(8):1234-1238]. In F1000Prime, 17 Apr 2018; 10.3410/f.732961716.793544612.
39. **Subramanian P**: F1000Prime Recommendation of [Bonnan M et al., J Neurol Neurosurg Psychiatr 2018 89(4):346-351]. In F1000Prime, 12 Jun 2018; 10.3410/f.731998174.793546722.
40. **Subramanian P**: F1000Prime Recommendation of [Tooley AA et al., Ophthal Plast Reconstr Surg 2018]. In F1000Prime, 30 Oct 2018; 10.3410/f.733842460.793551767.
41. **Subramanian P**: F1000Prime Recommendation of [Sim PY et al., J AAPOS 2018 22(4):266-271.e3]. In F1000Prime, 02 Jan 2019; 10.3410/f.733634927.793554600.
42. **Subramanian P**: Faculty Opinions Recommendation of [Clark RA and Demer JL,Ophthalmology 2018 125(8):1234-1238]. In Faculty Opinions, 17 Apr 2018; [10.3410/f.732961716.793544612](https://doi.org/10.3410/f.732961716.793544612)
43. **Subramanian P**: Faculty Opinions Recommendation of [Pineles SL et al., J AAPOS 2019]. In Faculty Opinions, 02 May 2019; [10.3410/f.735586569.793559492](https://doi.org/10.3410/f.735586569.793559492)
44. **Subramanian P**: Faculty Opinions Recommendation of [Bachar Zipori A et al., Int Ophthalmol 2019]. In Faculty Opinions, 09 Sep 2019; 10.3410/f.736365843.793563711.
45. **Subramanian P**: Faculty Opinions Recommendation of [Hatt SR et al., Am J Ophthalmol 2019 208:41-46]. In Faculty Opinions, 09 Dec 2019; [10.3410/f.736222831.793563307](https://doi.org/10.3410/f.736222831.793563307)
46. **Subramanian P**: Faculty Opinions Recommendation of [Goseki T et al., Am J Ophthalmol 2019]. In Faculty Opinions, 05 Mar 2020; [10.3410/f.736628982.793566598](https://doi.org/10.3410/f.736628982.793566598)
47. **Subramanian P**: Faculty Opinions Recommendation of [Sami MB et al.,Schizophr Bull Open 2020 1(1)]. In Faculty Opinions, 22 Jul 2020; [10.3410/f.738274102.793576354](https://doi.org/10.3410/f.738274102.793576354)
48. **Subramanian P**: Faculty Opinions Recommendation of [Vijay V et al., JAMA Ophthalmol 2020]. In Faculty Opinions, 23 Nov 2020; [10.3410/f.738879987.793579989](https://doi.org/10.3410/f.738879987.793579989)
49. **Subramanian P**: Faculty Opinions Recommendation of [Kim SH et al., Neurol Neuroimmunol Neuroinflamm 2021 8(2)]. In Faculty Opinions, 14 Apr 2021; [10.3410/f.739618266.793584228](https://doi.org/10.3410/f.739618266.793584228)
50. Subramanian P: Faculty Opinions Recommendation of [Stunkel L et al., Ophthalmology 2021]. In Faculty Opinions, 22 Jul 2021; [10.3410/f.739739666.793586935](https://doi.org/10.3410/f.739739666.793586935)
51. Subramanian P: Faculty Opinions Recommendation of [Crouch ER et al., J AAPOS 2021]. In Faculty Opinions, 10 Sep 2021; [10.3410/f.740489006.793587997](https://doi.org/10.3410/f.740489006.793587997)

**BOOKS**

1. Foorozan R, Bhatti MT, Falardeau J, Gordon LK, Lee MS, **Subramanian PS**. Basic and Clinical Science Course Volume 5: Neuro-Ophthalmology. San Francisco: American Academy of Ophthalmology; 2013.
2. Committee to Review NASA’s Evidence Reports on Human Health Risks (**Subramanian PS** lead author for vision impairment). [Review of NASA’s Evidence Reports on Human Health Risks](https://www.nap.edu/catalog/18575/review-of-nasas-evidence-reports-on-human-health-risks-2013). Vision Impairment Report: Risk of Spaceflight-Induced Intracranial Hypertension and Vision Alterations. Scott-Conner CEH, Masys DR, Liverman CT, McCoy MA eds. Washington DC: The National Academies Press; 2014.
3. Miller NR, **Subramanian PS**, Patel VR. Walsh & Hoyt’s Clinical Neuro-Ophthalmology: The Essentials (3rd Ed). Baltimore: Wolters Kluwer; 2016.
4. **Subramanian PS**, editor. Essentials in Ophthalmology: Ophthalmology in Extreme Environments. Cham, Switzerland: Springer; 2017.
5. Prajna V, **Subramanian PS** editor. Principles and Practice of Ophthalmology. New Delhi: Jaypee Brothers; 2018.
6. Miller NR, **Subramanian PS**, Patel VR. Walsh & Hoyt’s Clinical Neuro-Ophthalmology: The Essentials (4th Ed). Baltimore: Wolters Kluwer; 2020.

**BOOK CHAPTERS (invited)**

1. **Subramanian PS**. Walsh & Hoyt’s Clinical Neuro-Ophthalmology. 6th ed, vol 2. Miller NR, Newman NJ, Biousse V, Kerrison JB, editors. Baltimore, MD: Lippincott Williams & Wilkins; 2005. Chapter 49, Bacteria and bacterial diseases, p.2647-73.
2. Moshiri A, **Subramanian PS**. Principles and Practice of Hospital Medicine. McKean S, Ross J, Dressler D, Brotman D, Ginsberg J, editors. New York: McGraw Hill; 2010. Disorders of the Eye, p.566-573.
3. Raza S, Quiñones-Hinojosa A, **Subramanian PS**. Schmidek and Sweet’s Operative Neurosurgical Techniques: Indications, Methods, and Results. 6th ed, vol 2. Quiñones-Hinojosa A, editor. Philadelphia: Elsevier; 2012. Chapter 50, Multimodal Treatment of Orbital Tumors, p.597-602.
4. Batra S, Moghekar A, Solomon D, Blitz A, San Millán Ruíz D, Gailloud P, **Subramanian P**, Miller NR, Rigamonti D. Schmidek and Sweet’s Operative Neurosurgical Techniques: Indications, Methods, and Results. 6th ed, vol 2. Quiñones-Hinojosa A, editor. Philadelphia: Elsevier; 2012. Chapter 95, Adult Pseudomotor Cerebri Syndrome, p1135-42.
5. Ko F, Sachdeva U, Muthappan V, **Subramanian PS**. Master Techniques in Ophthalmic Surgery. 2nd ed. Roy FH, Tindall R, editors. New Delhi, India: Jaypee Brothers Medical Publishers; 2015. Chapter 106, Optic Nerve Sheath Hematoma, p.749-53.
6. Muthusamy B, **Subramanian PS**. Master Techniques in Ophthalmic Surgery. 2nd ed. Roy FH, Tindall R, editors. New Delhi, India: Jaypee Brothers Medical Publishers; 2015. Chapter 117, Pseudomotor Cerebri, p835-45.
7. **Subramanian PS**. Curbside Consultation in Oculoplastics: 49 Clinical Questions. 2nd ed. Kersten RD, McCulley TJ, editors. Thorofare, NJ: Slack; 2015. Chapter 10, Is there ever a genetic basis for acquired blepharoptosis? p55-58.
8. Jun B, **Subramanian PS**. Thyroid Eye Disease. Douglas RM, McCoy AL, Gupta S, editors. New York: Springer; 2015. Chapter 9, Strabismus in thyroid eye disease, p99-114.
9. Rincon-Torroella J, Abd Elazim A, Quiñones-Hinojosa A, **Subramanian P**. Minimal Access Skull Base Surgery: Open and Endoscopic Assisted Approaches. 1st ed. Boahene KD, Quiñones-Hinojosa A, eds. New Delhi, India: Jaypee Brothers Medical Publishers; 2016. Chapter 5, Surgical anatomy of the orbit for transorbital approaches to anterior skull base lesions, p.55-61.
10. Benet A, Rincon-Torroella J, Albathi M, **Subramanian P**, Boahene K, Quiñones-Hinojosa A. Minimal Access Skull Base Surgery: Open and Endoscopic Assisted Approaches. 1st ed. Boahene KD, Quiñones-Hinojosa A, editors. New Delhi, India: Jaypee Brothers Medical Publishers; 2016. Chapter 7, Transpalpebral orbitofrontal approaches to intracranial lesions, p.73-78.
11. Rincon-Torroella J, Benet A, Albathi M, **Subramanian P**, Boahene K, Quiñones-Hinojosa A. Minimal Access Skull Base Surgery: Open and Endoscopic Assisted Approaches. 1st ed. Boahene KD, Quiñones-Hinojosa A, editors. New Delhi, India: Jaypee Brothers Medical Publishers; 2016. Chapter 24, Transpalpebral orbitocranial approach to sellar and suprasellar pituitary adenoma, p.203-208.
12. **Subramanian PS**, Dave SB. Differential Diagnosis in Neurology. 1st ed. Prabhakar S, Singh G, editors. New Delhi, India: Jaypee Brothers Medical Publishers; 2016. Chapter 15, Approach to visual loss; p.180-95.
13. Echalier EL, **Subramanian PS**. Essentials in Ophthalmology: Ophthalmology in Extreme Environments. Subramanian PS, editor. Cham, Switzerland: Springer; 2017. Chapter 1, Neuro-ophthalmologic Sequelae of Sustained Microgravity, p.1-14.
14. Subramanian AM, **Subramanian PS**. Essentials in Ophthalmology: Ophthalmology in Extreme Environments. Subramanian PS, editor. Cham, Switzerland: Springer; 2017. Chapter 7, Industrial and Military Eye Injuries and Eye Protection Challenges, p. 97-107.
15. **Subramanian PS**. Clinical Neuro-Ophthalmology. Patil P, editor. New York: Springer Nature; 2017. Emerging trends in optic neuritis and associated demyelinating diseases.
16. **Subramanian PS**. Peyman's Principles and Practice of Ophthalmology. 2nd ed. Prajna NV, Subramanian PS, editors. New Delhi: Jaypee Brothers Medical Publishing; 2018. Section 12, Neuro Ophthalmology.
17. **Subramanian PS**. Chapter 90: The Neuro-Ophthalmic Examination. Prajna NV, Subramanian PS, editors. New Delhi: Jaypee Brothers Medical Publishing; 2018. Peyman's Principles and Practice of Ophthalmology. 2nd ed.
18. Kim S, **Subramanian PS**, Cockerham KP. Ophthalmology in Military and Civilian Casualty Care. Calvano CJ, Enzenauer RW, Johnson AJ, editors. Cham, Switzerland: Springer, 2018. Neuro-ophthalmic manifestations of trauma.
19. Tow SL, **Subramanian PS**. Neuro-Ophthalmology: Global Trends in Diagnosis, Treatment and Management.Lee AG, Sinclair AJ, Sadaka A, Berry S, Mollan SP, editors. Berlin: Springer; 2018. Treatment of Traumatic Optic Neuropathy.
20. Hanson KS, Lewerenz DC, **Subramanian PS**. Newer Developments in Ophthalmic Techniques. Ichhpujani P, editor. Cham, Switzerland: Springer, 2019. Newer Techniques in Vision Restoration and Rehabilitation.
21. **Subramanian PS**. Clinical Approaches to Neuro-Ophthalmic Disorders. Lal V, ed. New York: CRC Press, 2022. Papilledema: Diagnosis and Management.
22. McCourt EA, **Subramanian PS**. Fundamentals of Pediatric Neuro-Ophthalmology. Heidary G, Phillips PH, editors. Cham, Switzerland: Springer, 2022. Intermittent Diplopia After Tumor Treatment.

**Letters to the Editor**

1. **Subramanian PS**, Gailloud PH, Heck DV, Tamargo RJ, Murphy KJ, Miller NR. [Embolization of orbital arteriovenous fistulas.](https://www.ncbi.nlm.nih.gov/pubmed/17121150) J Neurosurg. 2006 Nov;105(5):797; author reply 797-8. PubMed PMID: 17121150.
2. **Subramanian PS**. [Intraocular pulse pressure affects the sensitivity and specificity of spontaneous venous pulsation test: reply](http://www.sciencedirect.com/science/article/pii/S0002939409000385). Am. J. Ophthalmol. 2009; 147:945.
3. McCoy AN, Quigley HA, Miller NR, **Subramanian PS**, Ramulu PY, Boland MV. [Author Response: Neurological Hemifield Test in Binasal Defects.](https://www.ncbi.nlm.nih.gov/pubmed/26066602) Invest Ophthalmol Vis Sci. 2015 Apr;56(4):2570. doi: 10.1167/iovs.15-16824. PubMed PMID: 26066602.
4. **Subramanian PS**, Fonseca PL, Rigamonti D, Miller NR. [Improvement on Automated Perimetry After Surgery for Idiopathic Intracranial Hypertension: Comment.](https://www.ncbi.nlm.nih.gov/pubmed/26285124) J Neuroophthalmol. 2015 Sep;35(3):332. doi: 10.1097/WNO.0000000000000287. PubMed PMID: 26285124.
5. **Subramanian PS**, Zhao J, Davé SB, Wang J. [Dyschromatopsia in multiple sclerosis patients: a marker of subclinical involvement?: comment](https://www.ncbi.nlm.nih.gov/pubmed/28098582). J. Neuroophthalmol. 2017 Jan 16. doi: 10.1097/WNO.0000000000000485.
6. Larochelle RD, Koduri V, Chen R, **Subramanian PS**. Reply to comment on embolic abducens palsy and central retinal artery occlusion in a patient with COVID-19. J Neuroophthalmol 2022 Mar 23. 10.1097/WNO.0000000000001552.
7. Tugizova M, Siegel DT, Huang S, Su E, **Subramanian PS**, Beres S, Vora N. Reply to Letter to the Editor: Atypical optic neuritis after COVID-19 Vaccination: Response. J Neuroophthalmol. 2022 Mar 30. doi: 10.1097/WNO.0000000000001596.

**SELECTED ABSTRACTS**

**National/international, competitive**

1. **Subramanian PS**, O’Kane B, Stefanik R, Stevens J, Rabin J, Bower KS. Night-vision Performance in US Army Soldiers after PRK. ASCRS Annual Symposium, San Diego, CA. May 2001. [oral presentation]
2. **Subramanian PS,** Schramm L, Hoffman PN. Electrical Stimulation to Enhance Axonal Regeneration after Optic Nerve Injury. 29th Annual Meeting of the North American Neuro-Ophthalmology Society, Snowbird, UT. February 2003. [oral presentation]
3. **Subramanian PS**, Goldenberg-Cohen N, Shukla S, Cheskin LJ, Miller NR. Plasma Ghrelin Levels in Patients with Idiopathic Intracranial Hypertension. 30th Annual Meeting of the North American Neuro-Ophthalmology Society, Orlando, FL. March 2004. [poster presentation]
4. **Subramanian PS**, Eiseman AS, Dick JSB II, Ward TP. Neuro-ophthalmologic Injury Patterns in Military-related Trauma. 31st Annual Meeting of the North American Neuro-Ophthalmology Society, Copper Mountain, CO. February 2005. [poster presentation]
5. **Subramanian PS**, Birdsong RH. Surgical Treatment of Strabismus Following Severe Blast-Related Trauma. 32nd Annual Meeting of the North American Neuro-Ophthalmology Society, Tucson, AZ. February 2006. [poster presentation]
6. **Subramanian PS**, Colyer M, Bower K, Ward T. Mitochondrial Myopaty with Corneal Clouding. 32nd Annual Meeting of the North American Neuro-Ophthalmology Society, Tucson, AZ. February 2006. [poster presentation]
7. Donnelly SJ, **Subramanian PS**. Spontaneous Venous Pulsations: Revisited. Annual Meeting of the American Academy of Ophthalmology, New Orleans, LA. November 2007. [poster presentation]
8. Donnelly SJ, **Subramanian PS**. Incidence of Spontaneous Venous Pulsation Revisited. 34th Annual Meeting of the North American Neuro-Ophthalmology Society, Orlando, FL. March 2008. [oral presentation]
9. Almer Z, **Subramanian PS**. Don’t Ignore the Obvious. Frank B. Walsh Session of the 34th Annual Meeting of the North American Neuro-Ophthalmology Society, Orlando, FL. March 2008. [oral presentation]
10. Zheng C, Kanagalingam S, Sinha D, **Subramanian PS**. Localization of Alpha-1 Adrenergic Receptors on the Optic Nerve Vasculature. International Neuro-Ophthalmology Society Meeting, Napa, CA. June 2008. [oral presentation]
11. Wu-Chen H, Christoff A, Eggenberger E, **Subramanian P**. Quantitative Diplopia Measurement and Correlation with Visual Quality of Life. 36th Annual Meeting of the North American Neuro-Ophthalmology Society, Tucson, AZ. March 2010. [poster presentation]
12. Wu-Chen H, Christoff A, Eggenberger E, **Subramanian P**. Quantitative Diplopia Measurement and Correlation with Visual Quality of Life. International Neuro-Ophthalmology Society Meeting, Lyon, France. June 2015. [poster presentation]
13. Loo J-L, Miller N, **Subramanian P**. Use of the Optical Coherence Tomography in Predicting Post-Treatment Visual Outcome in Anterior Visual Pathway Meningiomas. 37th Annual Meeting of the North American Neuro-Ophthalmology Society, Vancouver, BC. February 2011. [poster presentation]
14. Ko F, Dibernardo C, Oak J, **Subramanian P**. Ultrasound as the Primary Diagnostic Tool of Orbital Vascular Lesions. 37th Annual Meeting of the North American Neuro-Ophthalmology Society, Vancouver, BC. February 2011. [poster presentation]
15. Katz B, Koening C, Patel B, Kim C-H, Digre K, Warner J, Kaplan J, DiDomenico I, Neuro-Ophthalmology GCA Consortium (**Subramanian P** consortium member). Identification of *Burkholderia* in the Temporal Arteries and Blood of Patients with Giant Cell Arteritis. 37th Annual Meeting of the North American Neuro-Ophthalmology Society, Vancouver, BC. February 2011. [oral presentation]
16. **Subramanian PS**, Fonseca PL, Rigamonti D, Miller NR. Visual Outcomes of the Surgical Treatment of Idiopathic Intracranial Hypertension. 39th Annual Meeting of the North American Neuro-Ophthalmology Society, Snowbird, UT. February 2013. [poster presentation]
17. Kanagalingam S, Gailloud P, **Subramanian PS**. Ruptured Paraclinoid Aneurysm Presenting as Retrobulbar Optic Neuropathy. 39th Annual Meeting of the North American Neuro-Ophthalmology Society, Snowbird, UT. February 2013. [poster presentation]
18. **Subramanian P**, Fonseca P, Miller N, Rigamonti D. Visual Outcomes of the Surgical Treatment of Idiopathic Intracranial Hypertension. Annual Meeting of Association for Research in Vision and Ophthalmology. IOVS June 2013, Vol.54, 4573. [oral presentation]
19. Harris JH, Khan A, Gailloud PH, Radvany M, Moghekar AR, Solomon D, Wang J, Patel VR, **Subramanian PS**. Long-term Clinical Outcomes as a Function of BMI in Pseudotumor Cerebri Patients Who Have Been Stented for Severe Cerebral Venous Sinus Stenosis. 40th Annual Meeting of the North American Neuro-Ophthalmology Society, Rio Grande, PR. March 2014. [poster presentation]
20. Tamhankar MA, Garrity ST, Pistilli M, Richards NQ, **Subramanian PS**, Osborne BJ, Duncan KE, Shin RK, Liu GT, Volpe NJ, Shindler KS, Lee MS, Moster ML, Vaphiades MS, Lam BL. Ophthalmic Presentation of Giant Cell Arteritis in African Americans. 40th Annual Meeting of the North American Neuro-Ophthalmology Society, Rio Grande, PR. March 2014. [poster presentation]
21. **Subramanian PS**, Zhao J, Davé S, Wang J. Pseudoisochromatic Plate Testing: Are We Measuring Color Vision or Something Else? 40th Annual Meeting of the North American Neuro-Ophthalmology Society, Rio Grande, PR. March 4, 2014. [poster presentation #199]
22. Kupersmith M on behalf of the NORDIC Idiopathic Intracranial Hypertension Study Group (**Subramanian PS** study investigator). OCT Imaging in Patients with Idiopathic Intracranial Hypertension: Explorations, Issues, Technical Difficulties, and NORDIC IIHTT Baseline Results. 40th Annual Meeting of the North American Neuro-Ophthalmology Society, Rio Grande, PR. March 2014. [oral presentation]
23. Keltner J on behalf of the NORDIC Idiopathic Intracranial Hypertension Study Group (**Subramanian PS** study investigator). 2014 IIHTT NANOS Symposium: Baseline Visual Field Findings. 40th Annual Meeting of the North American Neuro-Ophthalmology Society, Rio Grande, PR. March 2014. [oral presentation]
24. Digre K on behalf of the NORDIC Idiopathic Intracranial Hypertension Study Group (**Subramanian PS** study investigator). Quality of Life in Idiopathic Intracranial Hypertension at Diagnosis: A Prospective Study. 40th Annual Meeting of the North American Neuro-Ophthalmology Society, Rio Grande, PR. March 2014. [oral presentation]
25. Wall M on behalf of the NORDIC Idiopathic Intracranial Hypertension Study Group (**Subramanian PS** study investigator). The Idiopathic Intracranial Hypertension Treatment Trial: Clinical Profile at Baseline. 40th Annual Meeting of the North American Neuro-Ophthalmology Society, Rio Grande, PR. March 2014. [oral presentation]
26. **Subramanian PS**. Now You See It, Now You Don’t. Frank B. Walsh Session of the 41st Annual Meeting of the North American Neuro-Ophthalmology Society, Coronado, CA. February 22, 2015. [[oral presentation](http://www.nanosweb.org/files/public/Final%202015%20Walsh%20Packet.pdf)]
27. **Subramanian PS**, Gordon LK, Bonelli L, Arnold AC. Documented Progression of ‘Impending NAION’ to Permanent Visual Loss. 42nd Annual Meeting of the North American Neuro-Ophthalmology Society, Tucson, AZ. February 2016. [[poster #30](http://www.nanosweb.org/files/Annual%20Meeting%27/2016/Attendee%20Portal/NANOS%202016%20Poster%20Session%20I_Posters%201_116.pdf)]
28. **S**harma S, Kwan S, Fallano K, Wang J, **Subramanian P**. Visual outcomes of diabetics and prognostic factors in non-arteritic ischaemic optic neuropathy. 42nd Annual Meeting of the North American Neuro-Ophthalmology Society, Tucson, AZ. February 2016. [[poster #144](http://www.nanosweb.org/files/Annual%20Meeting%27/2016/Attendee%20Portal/NANOS%202016%20Poster%20Session%20II_%20Posters%20117_237.pdf)]
29. Moradi A, Kanagalingam S, Diener-West M, Glaros DS, **Subramanian PS**, Miller NR. Timing of non-arteritic anterior ischemic optic neuropathy (NAION) after modern cataract extraction. 42nd Annual Meeting of the North American Neuro-Ophthalmology Society, Tucson, AZ. February 2016. [[poster #117](http://www.nanosweb.org/files/Annual%20Meeting%27/2016/Attendee%20Portal/NANOS%202016%20Poster%20Session%20II_%20Posters%20117_237.pdf)]
30. Wall M, Kupersmith MJ, Moss E-A, Auinger P on behalf of the NORDIC Idiopathic Intracranial Hypertension Study Group (**Subramanian PS** study investigator). The Idiopathic Intracranial Hypertension Treatment Trial: Outcomes from Months 6-12. 42nd Annual Meeting of the North American Neuro-Ophthalmology Society, Tucson, AZ. February 2016. [oral presentation #244]
31. Sibony PA, Kupersmith MJ, Feldon SE, Wang J-K, Garvin M on behalf of the NORDIC Idiopathic Intracranial Hypertension Study Group (**Subramanian PS** study investigator). *En face* and raster SD-OCT imaging of retinal and choroidal folds in papilledema. 42nd Annual Meeting of the North American Neuro-Ophthalmology Society, Tucson, AZ. February 29, 2016. [[oral presentation #249](https://collections.lib.utah.edu/details?id=185321)]
32. Bou Ghannam A, McCourt E, Pelak V, Bennett J, **Subramanian PS**, Smits D. A “Frosty” Altered Level of Consciousness. 43rd Annual Meeting of the North American Neuro-Ophthalmology Society, Washington, DC. April 2017. [Walsh abstract]
33. Bou Ghannam A, **Subramanian PS**. Delayed Onset Cranial Nerve Palsies After Endovascular Coil Embolization of Direct Carotid-Cavernous Fistulas. 43rd Annual Meeting of the North American Neuro-Ophthalmology Society, Washington, DC. April 2, 2017. [poster #112]
34. Lai K, **Subramanian PS**. What Do We Want? Results of the YONO 2016 Survey. 43rd Annual Meeting of the North American Neuro-Ophthalmology Society, Washington, DC. April 2017. [poster #216]
35. Bou Ghannam A, **Subramanian PS**, Bennett J, Pelak V, Lazcano Gomez G. Evaluation of Optic Disc Vascularization in Patients with NAION using Optical Coherence Tomography Angiography (OCTA). 43rd Annual Meeting of the North American Neuro-Ophthalmology Society, Washington, DC. April 2017. [[poster #152](http://cdn-uploads.preciscentral.com/Download/Submissions/3892FB29CC0AD2A6/797CAB4A54693DD8.ppt)]
36. Friedman D, Quiros P, **Subramanian PS**, Mejico L, McDermott M. Headache Outcomes in the Idiopathic Intracranial Hypertension Treatment Trial. 43rd Annual Meeting of the North American Neuro-Ophthalmology Society, Washington, DC. April 3, 2017. [platform session 1]
37. **Subramanian PS**, Aghsaei Fard M, Ritch R. Early Macular Vessel Density Loss in Acute Ischemic Optic Neuropathy Compared to Papilledema: Implications for Pathogenesis. American Academy of Ophthalmology Annual Meeting. Chicago, IL. October 29, 2018. [poster PO417]
38. Stein JD, Andrews C, Chen C-M, Lynch AM, **Subramanian PS,** Mwanza J-C, Sun CQ, Diener M, Stagg BC, Shrivastava A, Schultz JC, Salim SM, Pasquale LR, Amin SR, Edwards PA, Woodward MA, Mian SI. Use of Machine Learning Algorithms to Predict CME Following Cataract Surgery. American Academy of Ophthalmology Annual Meeting. San Francisco, CA. October 15, 2019. [free paper PA081]
39. **Subramanian PS**, Pedler M, Petrash JM. Effect of Prostaglandin Analogs on Cerebrospinal Fluid Reabsorption Via Nasal Mucosa. 47th Annual Meeting of the North American Neuro-Ophthalmology Society (virtual), February 21, 2021. [platform session]
40. Anderson AP, Clark TJ, Butterfield J, **Subramanian PS**. Countermeasures for Spaceflight-Associated Neuro-Ocular Syndrome: An Investigation of Artificial Gravity. Aerospace Medical Association 91st Annual Meeting, Reno NV. May 24, 2021 [free paper 6081].
41. **Subramanian PS**, Moster ML, Wang A-G, Yu-Wai-Man P, Donahue SP, Leroy BP, Biousse V, Vignal C, Sadun AA, Rebolleda G, Fortin E, Banik R, Blouin L, Taiel M, Sahel JA, Newman NJ. The Phase 3 REFLECT Trial: Efficacy and Safety of Bilateral Gene Therapy for LHON. American Academy of Ophthalmology Annual Meeting. New Orleans, LA. November 15, 2021 [free paper PA050].
42. Koulisis N,Satija C, Hou JH, Ifantides C, Thanos A, Prasad PS, Yonekawa Y, Peck TJ, Trese M, Chee YE, Lee MD, Rezaei KA, Park J, Leng T, Hudson LE, Jain N, Levinson JD, Rosenberg JB, Boente CS, Compton CJ, Cohen AR, Kim FHY, Coleman SL, Liaboe CA, Gelinas N, Slingsby TJ, **Subramanian PS**, Meallet MA, Regillo CD, Haller JA, Coleman AL, Williams GA, Anders MD, Flowers CW Jr, Heur JM, Moshfeghi AA, Humayan MS, Rao NA, Sanfilippo CJ, Guerami AH, Dadgostar H, Engstrom RE, Hanscom TA, Moysidis SN. Ocular Trauma and Death During the Protests and Riots of 2020: Decision Analysis Informed by Data and Dynamic Mathematical Modeling. American Academy of Ophthalmology Annual Meeting. New Orleans, LA. November 14, 2021 [free paper PA047].
43. **Subramanian PS**, Mollan SP, Nguyen AAK, Samet AM, Fraser CL. Changes in the Incidence of Giant Cell Arteritis during the CoVID Pandemic. 48th Annual Meeting of the North American Neuro-Ophthalmology Society, Austin TX. February 15, 2022. [analytical studies poster session]
44. **Subramanian PS**, Sile S, Holt R, Douglas RS. Sustainability of Teprotumumab Efficacy in Thyroid Eye Disease. 48th Annual Meeting of the North American Neuro-Ophthalmology Society, Austin TX. February 15, 2022. [platform session III]