

CURRICULUM VITAE
The Johns Hopkins University School of Medicine

Natario Linard Couser, MD, MS

September 27, 2024

DEMOGRAPHIC AND PERSONAL INFORMATION

Current Appointments

2024-present Director, Genetic Bone and Connective Tissue Disorders Program, Kennedy Krieger Institute
Associate Professor of Genetic Medicine [Pending Academic Review (PAR)]
Department of Genetic Medicine, Johns Hopkins School of Medicine
Wilmer Eye Institute, Johns Hopkins Hospital

Personal Data

801 North Broadway
Baltimore, MD 21205
Tel: (443) 923-2710
E-mail: couser@kennedykrieger.org, ncouser1@jh.edu

Education and Training

Undergraduate

1998-2002 B.S., Biochemistry, University of Virginia, Charlottesville, VA

Doctoral/graduate

2002-2006 M.D., Virginia Commonwealth University School of Medicine, Richmond, VA

Postdoctoral

2006-2007 Internship, Internal Medicine, Virginia Commonwealth University School of Medicine, Richmond, VA
2007-2010 Residency, Ophthalmology, Howard University College of Medicine, Washington, DC
2010-2011 Fellowship, Pediatric Ophthalmology & Adult Strabismus, Emory University School of Medicine, Atlanta GA
2012-2013 M.S., Biotechnology, Johns Hopkins University, Baltimore, MD
2014-2017 Residency, Clinical Genetics, University of North Carolina School of Medicine, Chapel Hill, NC

Professional Experience

2009-2010 Co-Chief Resident, Howard University College of Medicine, Department of Ophthalmology, Washington, DC
2010-2011 Clinical Instructor (Fellow), Emory University, Department of Ophthalmology, Atlanta, GA
2012-2014 Consultant, Bon Secours St. Francis Family Medicine Residency Program, Richmond, VA
2012-2014 Consultant, St. Mary's Hospital Bon Secours Richmond Health System, Craniofacial Team Richmond, VA
2012-2014 Consultant, Virginia Commonwealth University School of Medicine, Department of Surgery, Division of Plastic and Reconstructive Surgery, Craniofacial Team, Richmond, VA
2013-2014 Staff Physician, Spotsylvania Regional Medical Center HCA Virginia Health System, NICU and Pediatric Services, Fredericksburg, VA
2011-2014 Staff Physician, Memorial Regional Medical Center Bon Secours Richmond Health System, NICU and Pediatric Services, Richmond, VA
2011-2014 Staff Physician, CJW (Chippenham and Johnston-Willis Hospitals) Medical Centers, HCA Virginia Health System, NICU and Pediatric Services, Richmond, VA
2011-2014 Staff Physician, St. Francis Medical Center, Bon Secours Richmond Health System NICU and Pediatric Services Richmond, VA
2011-2014 Staff Physician, St. Mary's Hospital, Bon Secours Richmond Health System Neonatal

2013-2023	Intensive Care Unit (NICU) and Pediatric Services, Richmond, VA Assistant Professor of Pediatrics, Department of Pediatrics, Virginia Commonwealth University School of Medicine, Richmond, VA
2012-2014	Medical Director, Prevent Blindness, Mid-Atlantic W.H.E.E.L.S. Vision & Screening Program (Conexus), Richmond, VA
2011-2014	Associate Physician, Group Specialty Private Practice, Stony Point Surgery Center (Medarva Healthcare Foundation)/Virginia Pediatric Ophthalmology Specialists (VPOS), Richmond, VA
2014-2016	Assistant Professor of Ophthalmology, University of North Carolina School of Medicine, Department of Ophthalmology, Chapel Hill, NC
2014-2017	Clinical Genetics Fellow (Sub-specialty Resident), University of North Carolina School of Medicine, Department of Pediatrics in the Division of Genetics and Metabolism, Chapel Hill, NC
2017-2023	Assistant Professor of Ophthalmology, Virginia Commonwealth University School of Medicine Department of Ophthalmology Richmond, VA
2017-2023	Staff Physician, Stony Point Surgery Center (Medarva Healthcare Foundation), Richmond, VA
2017-2023	Staff Physician, Piedmont Geriatric Hospital Ophthalmology Outpatient Service, Burkeville, VA
2018-2023	Director of Ophthalmic Genetic services, Children's Hospital of Richmond at Virginia Commonwealth University School of Medicine, Richmond, VA
2019-2023	Assistant Professor of Human & Molecular Genetics, Virginia Commonwealth University School of Medicine, Department of Human & Molecular Genetics, Richmond, VA
2023	Associate Professor of Pediatrics, Ophthalmology, and Human & Molecular Genetics, Virginia Commonwealth University School of Medicine, Department of Pediatrics, Richmond, VA

PUBLICATIONS:

Original Research [OR]

1. ***Couser NL**, Smith-Marshall J. The Washington metropolitan pediatric vision screening quality control assessment. *ISRN Ophthalmology* 2011;(12):1-5
2. ***Couser NL**, Lambert SR. Botulinum toxin: A treatment of consecutive esotropia in children. *Strabismus* 2012; 20(4):158-161
3. **Couser NL**, Lenhart PD, Hutchinson AK. Augmented Hummelsheim procedure to treat complete abducens nerve palsy. *J AAPOS* 2012;16(4):331-5
4. ***Couser NL**, Esmail FQ, Hutchinson AK. Vision screening in the pediatrician's office, *Open J Ophthalmol* 2012;(2):9-13
5. Pediatric Eye Disease Investigator Group. A randomized trial comparing the cost- effectiveness of 2 approaches for treating unilateral nasolacrimal duct obstruction. *Arch Ophthalmol.* 2012 Dec;130(12):1525-33. doi: 10.1001/archophthalmol.2012.2853. PMID: 23229693; PMCID: PMC3537230. Role: conceptualization, investigation, data analysis
6. ***Couser NL**, Hubbard GB, Lee LB, Hutchinson AK, Lambert SR. Candida species lens abscesses in infants with a history of neonatal Candida sepsis. *J AAPOS* 2013;17(2):208-210
7. ***Natario L. Couser.** The Preschool Vision Screening Program's Initial Outcomes W.H.E.E.L.S. for 12,402 Children Screened Using the Plusoptix Photoscreener, *International Scholarly Research Notices*, vol. 2014, Article ID 793546, 4 pages, 2014
8. Miller AM, Chandler DL, Repka MX, Hoover DL, Lee KA, Melia M, Rychwalski PJ, Silbert DI; Pediatric Eye Disease Investigator Group, Beck RW, Crouch ER 3rd, Donahue S, Holmes JM, Quinn GE, Sala NA, Schloff S, Wallace DK, Foster NC, Frick KD, Golden RP, Lambert SR, Tien DR, Weakley DR Jr.

Office probing for treatment of nasolacrimal duct obstruction in infants. *J AAPOS*. 2014 Feb;18(1):26-30. doi: 10.1016/j.jaapos.2013.10.016. PMID: 24568978; PMCID: PMC3936253. Role: conceptualization, investigation, data analysis

9. ***Couser NL**, Masood MM, Strande NT, Foreman AKM, Crooks K, Weck KE, Lu M, Wilhelmsen KC, Roche M, Evans JP, Berg JS, Powell CM. 2015. The phenotype of multiple congenital anomalies-hypotonia-seizures syndrome 1: Report and review. *Am J Med Genet Part A* 999A:1–6
10. Kristy Lee, ***Natario L. Couser**. Genetic Testing for Eye Diseases: A Comprehensive Guide and Review of Ocular Genetic Manifestations from Anterior Segment Malformation to Retinal Dystrophy. *Current Genetic Medicine Reports*. June 2016, Volume 4, Issue 2, pp 41- 48. Role: conceptualization, investigation, data analysis, writing - original draft, writing - review & editing
11. Job F, Mizumoto S, Smith L, **Couser N**, Brazil A, Saal H, Patterson M, Gibson MI, Soden S, Miller N, Thiffault I, Saunders C, Yamada S, Hoffmann K, Sugahara K, Farrow E. Functional validation of novel compound heterozygous variants in B3GAT3 resulting in severe osteopenia and fractures: expanding the disease phenotype. *BMC Med Genet*. 2016 Nov 21;17(1):86. Role: data analysis, writing - review & editing
12. Drack AV, Miraldi Utz V, Wang K, Alcorn DM, Brooks BP, Costakos DM, **Couser NL**, Heon E, Levin AV, Lloyd IC, Morse CL, Schmitt MA, Whitman MC, Traboulsi EI. Survey of practice patterns for the management of ophthalmic genetic disorders among AAPOS members: report by the AAPOS Genetic Eye Disease Task Force. *J AAPOS*. 2019 Aug;23(4):226-228.e1. Role: data analysis, writing - review & editing
13. Luoma-Overstreet GN, Kumar V, Lam K, Brown DD, ***Couser NL**. The epidemiology of strabismus and cataracts within a pediatric population in Saint Vincent and the Grenadines: an analysis of 201 consecutive cases. *Int J Mol Epidemiol Genet*. 2023;14(1):11-18. Published 2023 Apr 15. Role: conceptualization, investigation, data analysis, writing - review & editing, supervision
14. Shah AH, Park E, Luke T, Xu Q, Jewell A, ***Couser NL**. The Role of Genetic Testing in Avoiding Diagnostic Delays in Inherited Retinal Disease [published online ahead of print, 2023 Apr 27]. *Retin Cases Brief Rep*. Role: conceptualization, investigation, data analysis, writing - review & editing, supervision

Review Articles [RA]

1. ***Couser NL**, Lambert SR. The management of childhood cataracts; looking back in the past and towards the future. *Points de Vue Spring/Primavera* 2012;(66):18-21
2. ***Natario L. Couser**, Maheer M. Masood, Arthur S. Aylsworth, and Roger E. Stevenson. Ocular manifestations in the X-linked intellectual disability syndromes. *Ophthalmic Genet*. 2017, Jan 23:1-12
3. Kumar V, **Couser NL**, Pandya A. Oculodentodigital Dysplasia: A Case Report and Major Review of the Eye and Ocular Adnexa Features of 295 Reported Cases. *Case Rep Ophthalmol Med*. 2020;2020:6535974. Published 2020 Apr 4. Role: conceptualization, investigation, data analysis, writing - review & editing, supervision
4. ***Couser NL**, Brooks BP, Drack AV, Shankar SP. The evolving role of genetics in ophthalmology. *Ophthalmic Genet*. 2021 Jan 12:1-4. doi: 10.1080/13816810.2020.1868011.
5. Leffler CT, Schwartz SG, Peterson E, **Couser NL**, Salman AR. The First Cataract Surgeons in the British Isles. *Am J Ophthalmol*. 2021 Mar. Role: data analysis, writing - review & editing
6. Shah A, Bapna M, Al-Saif H, Li R, ***Couser NL**. Eye and ocular adnexa manifestations of *MED12*-related disorders. *Ophthalmic Genet*. 2021 Oct 20:1-4. doi: 10.1080/13816810.2021.1989601. Epub ahead of print. PMID: 34670449. Role: conceptualization, investigation, data analysis, writing - review & editing, supervision
7. Saadeh-Jackson S, King K, Al Saif H, Jackson-Cook C, Schleede J, ***Couser NL**. Eye, Ocular Adnexa, and Facial Manifestations of Tetrasomy 18p. *J Pediatr Ophthalmol Strabismus*. 2021 Nov-Dec;58(6):e44-e48. Role: conceptualization, investigation, data analysis, writing - review & editing, supervision
8. Pingree G, Harper A, Snajczuk J, ***Couser NL**. Eye manifestations in the *NSUN2* intellectual disability syndrome. *Int J Mol Epidemiol Genet*. 2021;12(6):129-134. Published 2021 Dec 15. Role: conceptualization, investigation, data analysis, writing - review & editing, supervision
9. Gibson D, Brar V, Li R, Kalra A, Goodwin A, ***Couser N**. The High Association of Ophthalmic Manifestations in Individuals With Mucopolidiosis Type IV [published online ahead of print, 2022

- Feb 23]. *J Pediatr Ophthalmol Strabismus*. 2022;1-6. doi:10.3928/01913913-20211206-03. Role: conceptualization, investigation, data analysis, writing - review & editing, supervision
10. Zhang L, King K, ***Couser NL**. Ocular manifestations of Nabais Sa-de Vries Syndrome type 1. *Int J Mol Epidemiol Genet*. 2022;13(1):15-23. Published 2022 Jun 15. Role: conceptualization, investigation, data analysis, writing - review & editing, supervision
 11. Simmers R, Goodwin A, Al Saif H, ***Couser N**. Ophthalmologic and facial abnormalities of Nicolaidis- Baraitser syndrome [published online ahead of print, 2022 Jun 27]. *Ophthalmic Genet*. 2022;1-4. Role: conceptualization, investigation, data analysis, writing - review & editing, supervision

Case Reports [CR]

1. ***Natario L. Couser**, MD, MS, Julie McClure, MPH, RD, Michael W. Evans, MD, Nathan R. Haines, MD, Susan K. Burden, MD, Joseph Muenzer, MD, PhD. Homocysteinemia Due to MTHFR Deficiency in a Young Adult Presenting with Bilateral Lens Subluxations. *Ophthalmic Genet*. 2016 Apr 4:1-4
2. ***Couser NL**, Pande CK, Walsh JM, Tepperberg J, Aylsworth AS. Camptodactyly and the 22q11.2 deletion syndrome. *Am J Med Genet A*. 2016 Oct 28
3. ***Natario L. Couser**, Chetna K. Pande, Christie M. Turcott, Elaine B. Spector, Arthur S. Aylsworth, Cynthia M. Powell. Mild achondroplasia/hypochondroplasia with acanthosis nigricans, normal development, and a p.Ser348Cys FGFR3 mutation. *Am J Med Genet A*. 2017 Apr;173(4):1097-1101
4. ***Couser NL**, Marchuk DS, Smith LD, Arreola A, Kaiser-Rogers KA, Muenzer J, Pandya A, Gucsavas- Calikoglu M, Powell CM. Co-occurring Down syndrome and SUCLA2-related mitochondrial depletion syndrome. *Am J Med Genet A*. 2017 Jul 27
5. Sahni DR, Wallace M, Kanhere M, Al Saif H, ***Couser N**. A Rare Case of Unilateral Morning Glory Disc Anomaly in a Patient with Turner Syndrome: Report and Review of Posterior Segment Associations. *Case Reports in Ophthalmological Medicine*. 2018;2018:5969157. doi:10.1155/2018/5969157. Role: conceptualization, investigation, data analysis, writing - review & editing, supervision
6. ***Couser NL**, Keelean-Fuller D, Davenport ML, Haverfield E, Masood MM, Henin M, Aylsworth AS. Cleft palate and hypopituitarism in a patient with Noonan-like syndrome with loose anagen hair-1. *Am J Med Genet A*. 2018 Sep;176(9):2024-2027.
7. Gupta AS, Saif HA, Lent JM, ***Couser NL**. Ocular Manifestations of the *NAA10*-Related Syndrome. *Case Rep Genet*. 2019 Apr 8;2019:8492965. Role: conceptualization, investigation, data analysis, writing - review & editing, supervision
8. Stingl CS, Jackson-Cook C, ***Couser NL**. Ocular Findings in the 16p11.2 Microdeletion Syndrome: A Case Report and Literature Review. *Case Rep Pediatr*. 2020;2020:2031701. Published 2020 Apr 20. Role: conceptualization, investigation, data analysis, writing - review & editing, supervision
9. Jamie H. Choi, Rachel Li, Rachel Gannaway, Tahnee N. Causey, Anna Harrison, ***Natario L. Couser**, "Eye Manifestations of Shprintzen–Goldberg Craniosynostosis Syndrome: A Case Report and Systematic Review", *Case Reports in Genetics*, vol. 2020. Role: conceptualization, investigation, data analysis, writing - review & editing, supervision
10. Gibson DC, **Couser NL**, King KB. Co-occurrence of incontinentia pigmenti and down syndrome: examining patients' potential susceptibility to autoimmune disease, autoinflammatory disease, cancer, and significant ocular disease. *Ophthalmic Genet*. 2021 Feb;42(1):92-95. doi: 10.1080/13816810.2020.1839917. Epub 2020 Oct 28. Role: conceptualization, investigation, data analysis, writing - review & editing, supervision
11. Choi JH, Li R, Gannaway R, Causey TN, Harrison A, ***Couser NL**. Corrigendum to "Eye Manifestations of Shprintzen-Goldberg Craniosynostosis Syndrome: A Case Report and Systematic Review". *Case Rep Genet*. 2020 Nov 11;2020:4708976. doi: 10.1155/2020/4708976. Erratum for: *Case Rep Genet*. 2020:7353452. Role: conceptualization, investigation, data analysis, writing - review

& editing, supervision

12. Rodriguez L, White JM, Richards NQ, You AX, **Couser NL**. An Adult *Loa loa* Worm in the Upper Eyelid: An Atypical Presentation of Loiasis in the United States. *Case Rep Ophthalmol Med*. 2021 Apr 16;2021:6630875. doi: 10.1155/2021/6630875. PMID: 33959400; PMCID: PMC8075677. Role: conceptualization, investigation, data analysis, writing - review & editing, supervision
13. Miller K, Iuorno J, ***Couser NL**. Corneal Crystals as an Initiating Factor for a Systemic Bone Marrow Transplant. *JAMA Ophthalmol*. 2021 Jun 1;139(6):e211539. doi: 10.1001/jamaophthalmol.2021.1539. Epub 2021 Jun 16. PMID: 34132774. Role: conceptualization, investigation, data analysis, writing - review & editing, supervision
14. Kumar V, Brar V, Prell J, Jewell A, ***Couser N**. Bietti's crystalline dystrophy in an African American patient: an unusual racial demographic for a condition more common in individuals of East Asian descent. *Int J Ophthalmol*. 2021 Aug 18;14(8):1291-1292. doi: 10.18240/ijo.2021.08.24. PMID: 34414098; PMCID: PMC8342298. Role: conceptualization, investigation, data analysis, writing - review & editing, supervision
15. Choi JH, Li R, Gannaway R, Causey TN, Harrison A, ***Couser NL**. Corrigendum #2 to "Eye Manifestations of Shprintzen-Goldberg Craniosynostosis Syndrome: A Case Report and Systematic Review". *Case Rep Genet*. 2021 Aug 28;2021:9897523. doi: 10.1155/2021/9897523. Erratum for: *Case Rep Genet*. 2020 Aug 19;2020:7353452. PMID: 34513099; PMCID: PMC8424239. Role: conceptualization, investigation, data analysis, writing - review & editing, supervision
16. Chitta S, Patel J, Renapurkar S, Loschiavo C, Rhodes J, King K, Salkey K, ***Couser N**. Nevoid basal cell carcinoma syndrome: a case report and literature review. *Ophthalmic Genet*. 2021 Oct 5:1-9. doi: 10.1080/13816810.2021.1983847. Epub ahead of print. PMID: 34608840. Role: conceptualization, investigation, data analysis, writing - review & editing, supervision
17. Comlekoglu T, Kumar V, King K, Al Saif H, Li R, ***Couser N**. Ophthalmic abnormalities in Wieacker- Wolff syndrome [published online ahead of print, 2022 Feb 1]. *J AAPOS*. 2022;S1091-8531(22)00021-0. doi:10.1016/j.jaapos.2021.10.010. Role: conceptualization, investigation, data analysis, writing - review & editing, supervision
18. Stephanie Saadeh- Jackson MS, Linnet Rodriguez MD, Christopher T. Leffler MD MPH, Casey Freymiller MD, Elizabeth Wolf, MD, MPH, Niran Wijesooriya MD, ***Natario Couser MD MS**. Ophthalmia neonatorum due to *Escherichia coli*: A rare cause or an emerging bacterial etiology of neonatal conjunctivitis?. *Clin Case Rep*. 2022;10(8):e6201. Published 2022 Aug 5. doi:10.1002/ccr3.6201. Role: conceptualization, investigation, data analysis, writing - review & editing, supervision
19. Luoma-Overstreet G, Jewell A, Brar V, ***Couser N**. Occult Macular Dystrophy: a case report and major review [published online ahead of print, 2022 Jun 29]. *Ophthalmic Genet*. 2022;1- 6. Role: conceptualization, investigation, data analysis, writing - review & editing, supervision
20. Mahmud H, Gustainis D, Jackson-Cook C, ***Couser N**. Ophthalmic manifestations of Lamb- Shaffer syndrome: a case presentation and literature review. *J AAPOS*. 2022 Sep 13:S1091- 8531(22)00420-7. Role: conceptualization, investigation, data analysis, writing - review & editing, supervision
21. Babu K, Seamon K, Jewell A, Harrison A, Harper A, Al Saif H, ***Couser N**. Hereditary motor and sensory neuropathy type VIA with optic nerve pallor in two sisters with pathologic myopia: a case series and review. *Ophthalmic Genet*. 2022 Sep 13:1-6. Role: conceptualization, investigation, data analysis, writing - review & editing, supervision
22. Lam K, Cassidy B, Arreola R, Al Saif H, King K, ***Couser NL**. A New Case and Comprehensive Review of the Ophthalmic Manifestations of 172 Individuals With Branchio- Oculo-Facial Syndrome. *J Pediatr Ophthalmol Strabismus*. 2022 Oct 20:1-7. Role: conceptualization, investigation, data analysis, writing - review & editing, supervision
23. Le H, Jin E, Jewell A, Jackson-Cook C, Haskell GT, ***Couser N**. Chromosome 6p25 deletion syndrome: A case report and review of ophthalmic features. *Am J Med Genet A*. 2023 Mar 20. Role: conceptualization, investigation, data analysis, writing - review & editing, supervision
24. Jin E, Le H, Jewell A, ***Couser NL**. Genotype-phenotype analysis of ocular findings in Rubinstein-Taybi syndrome - A case report and review of literature. *Ophthalmic Genet*. 2023 Apr 5:1-8. Role: conceptualization, investigation, data analysis, writing - review & editing, supervision
25. Shinbashi M, Jewell A, Randolph J, ***Couser N**. C21orf2 variants causing inherited retinal disease: A review of what we know and a report of two new suspected cases. *Clin Case Rep*. 2023 Mar 19;11(3):e7110. Role: conceptualization, investigation, data analysis, writing - review & editing,

supervision

26. Reddy S, Simmers R, Shah A, *Couser N. *NPHP1*-Related ciliopathies: A new case and major review of the ophthalmic manifestations of 147 reported cases. *Clin Case Rep.* 2023;11(9):e7818. Published 2023 Aug 30. Role: conceptualization, investigation, data analysis, writing - review & editing, supervision
27. Xia JL, Kadom N, Mansukhani SA, **Couser NL**, Lenhart PD. Magnetic Resonance Imaging Findings and Genetic Testing Results in Children with Congenital Corneal Opacities. *Am J Ophthalmol.* Published online October 29, 2023. Role: data analysis, writing - review & editing
28. Deshmukh SP, *Couser NL. Facial and ocular manifestations of male patients affected by the *HUWE1*-related intellectual developmental disorder. *Int J Mol Epidemiol Genet.* 2023;14(3):34-41. Published 2023 Oct 15. Role: conceptualization, investigation, data analysis, writing - review & editing, supervision

Book Chapters, Monographs [BC]

1. **Couser NL**, Hutchinson AK, Olsen TW. In: Lupin, MF, Fifth Edition, Medical Management of the Surgical Patient: A Textbook of Perioperative Medicine, Cambridge University Press; 2013, Section 23, Ophthalmic Surgery, Chapter 114, Strabismus Surgery, pp. 706-707
2. Elias I. Traboulsi, Shomoukh Al Shamekh, and **Natario L. Couser**. Human Malformations and Related Anomalies, Edition 3, Textbook edited by Roger E. Stevenson, Judith G. Hall, David B. Everman, and Benjamin D. Solomon, Oxford University Press; October 2015, Chapter 12, The Eye, Introduction, pp.403-404
3. Elias I. Traboulsi, Shomoukh Al Shamekh, and **Natario L. Couser**. Human Malformations and Related Anomalies, Edition 3, Textbook edited by Roger E. Stevenson, Judith G. Hall, David B. Everman, and Benjamin D. Solomon, Oxford University Press; October 2015, Chapter 12, The Eye, 12.1 Anophthalmia, pp. 404-406
4. Elias I. Traboulsi, Shomoukh Al Shamekh, and **Natario L. Couser**. Human Malformations and Related Anomalies, Edition 3, Textbook edited by Roger E. Stevenson, Judith G. Hall, David B. Everman, and Benjamin D. Solomon, Oxford University Press; October 2015, Chapter 12, The Eye, 12.2 Microphthalmia and Typical Uveal Coloboma, pp. 406-408
5. Elias I. Traboulsi, Shomoukh Al Shamekh, and **Natario L. Couser**. Human Malformations and Related Anomalies, Edition 3, Textbook edited by Roger E. Stevenson, Judith G. Hall, David B. Everman, and Benjamin D. Solomon, Oxford University Press; October 2015, Chapter 12, The Eye, 12.3 Cyclopia and Synophthalmia, pp. 408-410
6. Elias I. Traboulsi, Shomoukh Al Shamekh, and **Natario L. Couser**. Human Malformations and Related Anomalies, Edition 3, Textbook edited by Roger E. Stevenson, Judith G. Hall, David B. Everman, and Benjamin D. Solomon, Oxford University Press; October 2015, Chapter 12, The Eye, 12.4 Cryptophthalmos, pp. 410-412
7. Elias I. Traboulsi, Shomoukh Al Shamekh, and **Natario L. Couser**. Human Malformations and Related Anomalies, Edition 3, Textbook edited by Roger E. Stevenson, Judith G. Hall, David B. Everman, and Benjamin D. Solomon, Oxford University Press; October 2015, Chapter 12, The Eye, 12.5 Blepharophimosis, pp. 412-413
8. Elias I. Traboulsi, Shomoukh Al Shamekh, and **Natario L. Couser**. Human Malformations and Related Anomalies, Edition 3, Textbook edited by Roger E. Stevenson, Judith G. Hall, David B. Everman, and Benjamin D. Solomon, Oxford University Press; October 2015, Chapter 12, The Eye, 12.6 Other Anomalies of the Eyelids, pp. 414-417
9. Elias I. Traboulsi, Shomoukh Al Shamekh, and **Natario L. Couser**. Human Malformations and Related Anomalies, Edition 3, Textbook edited by Roger E. Stevenson, Judith G. Hall, David B. Everman, and Benjamin D. Solomon, Oxford University Press; October 2015, Chapter 12, The Eye, 12.7 Corneal Malformations, pp. 417-419
10. Elias I. Traboulsi, Shomoukh Al Shamekh, and **Natario L. Couser**. Human Malformations and Related Anomalies, Edition 3, Textbook edited by Roger E. Stevenson, Judith G. Hall, David B. Everman, and Benjamin D. Solomon, Oxford University Press; October 2015, Chapter 12, The Eye, 12.8 Aniridia, pp. 419-421
11. Elias I. Traboulsi, Shomoukh Al Shamekh, and **Natario L. Couser**. Human Malformations and Related Anomalies, Edition 3, Textbook edited by Roger E. Stevenson, Judith G. Hall, David B. Everman, and Benjamin D. Solomon, Oxford University Press; October 2015, Chapter 12, The Eye,

- 12.9 Anterior Segment Dysgenesis, pp. 421-423
12. Elias I. Traboulsi, Shomoukh Al Shamekh, and **Natario L. Couser**. Human Malformations and Related Anomalies, Edition 3, Textbook edited by Roger E. Stevenson, Judith G. Hall, David B. Everman, and Benjamin D. Solomon, Oxford University Press; October 2015, Chapter 12, The Eye, 12.10 Peters Anomaly, pp. 424-425
13. Elias I. Traboulsi, Shomoukh Al Shamekh, and **Natario L. Couser**. Human Malformations and Related Anomalies, Edition 3, Textbook edited by Roger E. Stevenson, Judith G. Hall, David B. Everman, and Benjamin D. Solomon, Oxford University Press; October 2015, Chapter 12, The Eye, 12.11 Congenital Cataract, pp. 426-428
14. Elias I. Traboulsi, Shomoukh Al Shamekh, and **Natario L. Couser**. Human Malformations and Related Anomalies, Edition 3, Textbook edited by Roger E. Stevenson, Judith G. Hall, David B. Everman, and Benjamin D. Solomon, Oxford University Press; October 2015, Chapter 12, The Eye, 12.12 Persistent Hyperplastic Primary Vitreous, pp. 428-430
15. Elias I. Traboulsi, Shomoukh Al Shamekh, and **Natario L. Couser**. Human Malformations and Related Anomalies, Edition 3, Textbook edited by Roger E. Stevenson, Judith G. Hall, David B. Everman, and Benjamin D. Solomon, Oxford University Press; October 2015, Chapter 12, The Eye, 12.13 Optic Nerve Hypoplasia, pp. 431-433
16. Elias I. Traboulsi, Shomoukh Al Shamekh, and **Natario L. Couser**. Human Malformations and Related Anomalies, Edition 3, Textbook edited by Roger E. Stevenson, Judith G. Hall, David B. Everman, and Benjamin D. Solomon, Oxford University Press; October 2015, Chapter 12, The Eye, 12.14 Optic Pit, pp. 434-435
17. Elias I. Traboulsi, Shomoukh Al Shamekh, and **Natario L. Couser**. Human Malformations and Related Anomalies, Edition 3, Textbook edited by Roger E. Stevenson, Judith G. Hall, David B. Everman, and Benjamin D. Solomon, Oxford University Press; October 2015, Chapter 12, The Eye, 12.15 Morning Glory Disc Anomaly, pp. 435-436
18. **N. Couser**, M. Gucsavas-Calikoglu. Biomarkers in Inborn Errors of Metabolism, Clinical Aspects and Laboratory Determination, 1st Edition, Textbook by Uttam Garg and Laurie Smith, Elsevier; June 2017, Chapter 8, Mitochondrial disorders, pp. 167-190
19. Cynthia Powell, Arti Pandya, Hind Al Saif, Kevin Babu, **Natario L. Couser**. Ophthalmic Genetic Diseases: A Quick Reference Guide to the Eye and External Ocular Adnexa Abnormalities, 1st Edition, Textbook by Natario Couser, Elsevier; Chapter 1, Eye Abnormalities in Patients With Chromosomal Disorders. Elsevier. Published 24th September 2018.
20. Laurie Smith, Maheer Masood, Gurjas Bajaj, **Natario L. Couser**. Ophthalmic Genetic Diseases: A Quick Reference Guide to the Eye and External Ocular Adnexa Abnormalities, 1st Edition, Textbook by Natario Couser, Elsevier; Chapter 2, Genetic Abnormalities of the Anterior Segment, Eyelids and External Ocular Adnexa. Elsevier. Published 24th September 2018.
21. Nikisha Q. Richards, Adam Pflugrath, Chetna Pande, **Natario L. Couser**. Ophthalmic Genetic Diseases: A Quick Reference Guide to the Eye and External Ocular Adnexa Abnormalities, 1st Edition, Textbook by Natario Couser, Elsevier; Chapter 3, Genetic Abnormalities with Anophthalmia, Microphthalmia, and Colobomas. Elsevier. Published 24th September 2018.
22. Jennifer Rhodes, Eleanor Love, Hind Al Saif, **Natario L. Couser**. Ophthalmic Genetic Diseases: A Quick Reference Guide to the Eye and External Ocular Adnexa Abnormalities, 1st Edition, Textbook by Natario Couser, Elsevier; Chapter 4, Craniofacial Syndromes and Conditions. Elsevier. Published 24th September 2018.
23. Maya Bitar, Yurika Hara, Dhruv Sethi, **Natario L. Couser**. Ophthalmic Genetic Diseases: A Quick Reference Guide to the Eye and External Ocular Adnexa Abnormalities, 1st Edition, Textbook by Natario Couser, Elsevier; Chapter 5, Genetic Abnormalities of the Cornea. Elsevier. Published 24th September 2018.
24. Scott Lambert, Payton Miller, Janine Smith-Marshall, **Natario L. Couser**. Ophthalmic Genetic Diseases: A Quick Reference Guide to the Eye and External Ocular Adnexa Abnormalities, 1st Edition, Textbook by Natario Couser, Elsevier; Chapter 6, Eye Genetic Abnormalities of the Crystalline Lens. Elsevier. Published 24th September 2018.
25. O'Rese Knight, Mona Kaleem, Rakhi Melvani, Jana Bregman, Thomas Hunter, **Natario L. Couser**. Ophthalmic Genetic Diseases: A Quick Reference Guide to the Eye and External Ocular Adnexa

Abnormalities, 1st Edition, Textbook by Natario Couser, Elsevier; Chapter 7, Genetic Abnormalities with Glaucoma. Elsevier. Published 24th September 2018.

26. Amy K. Hutchinson, Harrison Ngo, Evan Silverstein, **Natario L. Couser**. Ophthalmic Genetic Diseases: A Quick Reference Guide to the Eye and External Ocular Adnexa Abnormalities, 1st Edition, Textbook by Natario Couser, Elsevier; Chapter 8, Genetic Abnormalities of Ocular Motility. Elsevier. Published 24th September 2018.
27. Daniela Toffoli, Michaela Mathews, Tawany Almeida, **Natario L. Couser**. Ophthalmic Genetic Diseases: A Quick Reference Guide to the Eye and External Ocular Adnexa Abnormalities, 1st Edition, Textbook by Natario Couser, Elsevier; Chapter 9, Genetic Abnormalities of the Optic Nerve and Color Vision. Elsevier. Published 24th September 2018.
28. Suma Shankar, Jennifer Humberson, Rakhi Melvani, **Natario L. Couser**. Ophthalmic Genetic Diseases: A Quick Reference Guide to the Eye and External Ocular Adnexa Abnormalities, 1st Edition, Textbook by Natario Couser, Elsevier; Chapter 10, Neurocutaneous Syndromes (Phakomatoses). Elsevier. Published 24th September 2018.
29. Vikram Brar, Mariam Nasir, Dev Sahni, Jessica Randolph, **Natario L. Couser**. Ophthalmic Genetic Diseases: A Quick Reference Guide to the Eye and External Ocular Adnexa Abnormalities, 1st Edition, Textbook by Natario Couser, Elsevier; Chapter 11, Genetic Abnormalities of the Retina and Choroid. Elsevier. Published 24th September 2018.
30. Sara Fard, **Natario L. Couser**. Ophthalmic Genetic Diseases: A Quick Reference Guide to the Eye and External Ocular Adnexa Abnormalities, 1st Edition, Textbook by Natario Couser, Elsevier; Appendix I: Resources. Elsevier. Published 24th September 2018.
31. Sara Fard, **Natario L. Couser**. Ophthalmic Genetic Diseases: A Quick Reference Guide to the Eye and External Ocular Adnexa Abnormalities, 1st Edition, Textbook by Natario Couser, Elsevier; Appendix II: Eye Genetic Disorders by Clinical Sign. Elsevier. Published 24th September 2018.
32. Maheer Masood, Gurjas Bajaj, **Natario L. Couser**. Ophthalmic Genetic Diseases: A Quick Reference Guide to the Eye and External Ocular Adnexa Abnormalities, 1st Edition, Textbook by Natario Couser, Elsevier; Glossary. Elsevier. Published 24th September 2018.
33. Jana Bregman, Mona A. Kaleem, Janet Alexander, Sara Fard, and **Natario L. Couser**. The History of Glaucoma, Textbook edited by C.T. Leffler, Kugler Publications; Chapter 25, The History of Pediatric Glaucoma. pp 671-688. Published 2020-02-27, ISBN: 978-90-6299-467- 0.

Books, Textbooks [BK]

1. Ophthalmic Genetic Diseases: A Quick Reference Guide to the Eye and External Ocular Adnexa Abnormalities, 1st Edition, Textbook by **Natario Couser**, Elsevier. Published 24th September 2018.
2. 2022-2023 Basic and Clinical Science Course Book, Section 02: Fundamentals and Principles of Ophthalmology, American Academy of Ophthalmology BCSC Section 2 Editing Committee: Vikram S. Brar, MD, **Natario L. Couser, MD, MS**, Mandeep Singh Dhalla, MD, David J. Goldman, MD, Kai B. Kang, MD, Nikisha Q. Richards, MD, Jasleen K. Singh, MD, POACE: Bradley D. Fouraker, MD. (Minor Revision); June 2022.
3. 2023-2024 Basic and Clinical Science Course Book, Section 02: Fundamentals and Principles of Ophthalmology, American Academy of Ophthalmology BCSC Section 2 Editing Committee: Vikram S. Brar, MD, **Natario L. Couser, MD, MS**, Mandeep Singh Dhalla, MD, David J. Goldman, MD, Kai B. Kang, MD, Nikisha Q. Richards, MD, Jasleen K. Singh, MD, POACE: Bradley D. Fouraker, MD (Major Revision), June 2023.
4. 2024-2025 Basic and Clinical Science Course Book, Section 02: Fundamentals and Principles of Ophthalmology, American Academy of Ophthalmology BCSC Section 2 Editing Committee: Vikram S. Brar, MD, **Natario L. Couser, MD, MS**, Mandeep Singh Dhalla, MD, David J. Goldman, MD, Kai B. Kang, MD, Nikisha Q. Richards, MD, Jasleen K. Singh, MD, POACE: Bradley D. Fouraker, MD (Minor Revision), June 2024.

Editorials [ED]

None

[Guidelines/Protocols, Consensus Statement, Expert Opinion, Consortium Articles \[GL\]](#)

1. Pediatric Eye Evaluations; Pediatric Ophthalmology/Strabismus Preferred Practice Pattern, Pediatric Ophthalmology/Strabismus Preferred Practice Pattern Panel 2011-2012 (American Academy of Ophthalmology Preferred Practice Pattern Document; Invited AAPOS Lead Reviewer for September 2012 Revisal)

[Letters, Correspondence \[LT\]](#)

None

Other Publications

[Opinions, Perspectives, Political Commentary, Advocacy, Essays \[OP\]](#)

1. **Couser NL**, Strabismus: Questions and Answers from Dr. Natario Couser. Stony Point Surgery Center Health Matters, September 14, 2012
2. Monica S. Zhang, BA, Amy K. Hutchinson, MD, Arlene V. Drack, MD, Julia Cleveland, MSPH, and Scott R. Lambert, MD. Improved ocular alignment with adjustable sutures in adults undergoing strabismus surgery. *Ophthalmology* 2012;119(2):396-402 [Acknowledgment for contribution]
3. **Couser NL**. Keep an eye on your child's vision. Bon Secours, Winter Edition, Richmond Healthcare System 2012
4. Pediatric Eye Disease Investigator Group. Resolution of congenital nasolacrimal duct obstruction with nonsurgical management. *Arch Ophthalmol* 2012;130(6):730-734 [PEDIG Examiner]
5. **Couser NL**. Ick! Pink eye: A closer look at conjunctivitis. Richmond Family Magazine, Oct. 2012
6. **Couser NL**. McCune-Albright Syndrome (grand rounds). American Academy of Ophthalmology EyeWiki, original article contribution date: Sept. 26, 2012
7. **Couser NL**. Idiopathic Choroidal Neovascularization (grand rounds). American Academy of Ophthalmology EyeWiki, original article contribution date: Sept. 26, 2012
8. **Couser NL**, Wortham E. Recommended examination criteria for infants and children. Medarva Stony Point Surgery Center, January 2013
9. Katherine A. Lee, Danielle L. Chandler, Michael X. Repka, Michele Melia, Roy W. Beck, C. Gail Summers, Kevin D. Frick, Nicole C. Foster, Raymond T. Kraker, and Scott Atkinson, on behalf of PEDIG. A Comparison of Treatment Approaches for Bilateral Congenital Nasolacrimal Duct Obstruction. *Am J Ophthalmol*. 2013 Nov; 156(5): 1045–1050. [PEDIG Examiner]
10. Chandler B, **Couser NL**. Striving to prevent blindness in premature babies. Richmond Family Magazine, Dec. 2013
11. Miller AM, Chandler DL, Repka MX, Hoover DL, Lee KA, Melia M, Rychwalski PJ, Silbert DI; Pediatric Eye Disease Investigator Group, Beck RW, Crouch ER 3rd, Donahue S, Holmes JM, Quinn GE, Sala NA, Schloff S, Wallace DK, Foster NC, Frick KD, Golden RP, Lambert SR, Tien DR, Weakley DR Jr. Office probing for treatment of nasolacrimal duct obstruction in infants. *J AAPOS*. 2014;18(1):26-30 [PEDIG Examiner]
12. Pediatric Eye Disease Investigator Group. A randomized trial comparing part-time patching with observation for children 3-10 years old with intermittent exotropia. *Ophthalmology*. Dec 2014;121(12):2299-310 [PEDIG Examiner]
13. Masood M, **Couser NL**. Genetic Eye Diseases. American Academy of Ophthalmology EyeWiki, original article contribution date: Dec. 21, 2014
14. Masood M, **Couser NL**. Genetic Eye Disease Related Terms and Resources. American Academy of Ophthalmology EyeWiki, original article contribution date: Dec. 21, 2014
15. Martz T, **Couser NL**. Retinal Oximetry. American Academy of Ophthalmology EyeWiki, original article contribution date: Jan. 7, 2015
16. Masood M, **Couser NL**, Dysmorphology of the Eye and Periorbital Region. American Academy of Ophthalmology EyeWiki, original article contribution date: Mar. 15, 2015
17. Kolluru V, **Couser NL**, Epidemic Keratoconjunctivitis. American Academy of Ophthalmology EyeWiki, original article contribution date: Mar. 23, 2015

18. Kolluru S, **Couser NL**, Craniosynostosis Syndromes. American Academy of Ophthalmology EyeWiki, original article contribution date: Jul. 14, 2015
19. Pediatric Eye Disease Investigator Group. A randomized trial comparing part-time patching with observation for intermittent exotropia in children 12 to 35 months of age. *Ophthalmology*. Aug 2015;122:1718-25 [PEDIG (Pediatric Eye Disease Investigator Group) Examiner]
20. Levy RE, **Couser NL**, Cerebrotendinous Xanthomatosis (CTX). American Academy of Ophthalmology EyeWiki, original article contribution date: Mar. 27, 2016
21. Laurie Smith, MD, PhD, **Natario Couser, MD, MS**. Fatty Acid Oxidation Disorders (MCADD, LCHADD, VLCADD; For Patients & Families). Content updated: 5/2016
22. Laurie Smith, MD, PhD, **Natario Couser, MD, MS**. MCADD (Medium-chain acyl-CoA dehydrogenase deficiency; Diagnoses & Conditions). Content updated: 6/2016
23. AAPOS Genetic Task Force: Arlene V. Drack; Brian P. Brooks; Deborah M. Costakos; **Natario L. Couser**; Elias I. Traboulsi; Alex V. Levin; I. Christopher Lloyd; Virginia Miraldi Utz; Christina M. Ohnsman; Melanie A. Schmitt; Debroah Alcorn; Elise Heon; Mary C. Whitman. Does my child qualify for gene therapy? Dec. 2017
24. Arlene V. Drack; Brian P. Brooks; Deborah M. Costakos; **Natario L. Couser**; Elias I. Traboulsi; Alex V. Levin; I. Christopher Lloyd; Virginia Miraldi Utz; Christina M. Ohnsman; Melanie A. Schmitt; Debroah Alcorn; Elise Heon; Mary C. Whitman AAPOS Genetic Task Force Workshop: Does This Patient Have a Genetic Eye Disease? Should I Refer? (Handout article for workshop presentation at the AAPOS 2018 Meeting in Washington, D.C.)
25. AAPOS Genetic Task Force: Arlene V. Drack; Brian P. Brooks; Deborah M. Costakos; **Natario L. Couser**; Elias I. Traboulsi; Alex V. Levin; I. Christopher Lloyd; Virginia Miraldi Utz; Christina M. Ohnsman; Melanie A. Schmitt; Debroah Alcorn; Elise Heon; Mary C. Whitman. Identifying Genetic Eye Disease in Children. Oct. 2018
26. **Natario Couser, MD**. AAPOS GENETIC EYE DISORDERS CLINICAL UPDATE: Coloboma. March 2019
27. Milko LV, O'Daniel JM, DeCristo DM, Crowley SB, Foreman AKM, Wallace KE, Mollison LF, Strande NT, Ginary ZS, Boshe LJ, Aylsworth AS, Gucavas-Calikoglu M, Frazier DM, Vora NL, Roche MI, Powell BC, Powell CM, Berg JS. An Age-Based Framework for Evaluating Genome-Scale Sequencing Results in Newborn Screening. *J Pediatr*. 2019 Jun;209:68-76 [Acknowledgment for contribution]
28. The ACMG Medical Geneticist News Magazine Winter Edition contribution on section highlighting the ACMG Diversity, Equity and Inclusion (DEI) Committee, Jan. 2021
29. Contribution to A User's Guide to Your Eyes by Joey Bartolomeo, Scholastic Choices Magazine, April 2021
30. **Natario Couser, MD, MS, FACMG** and Cinthya J. Zepeda Mendoza, PhD, FACMG, Diversity, Equity and Inclusion Guiding Principles. DEI Committee Article - 2022 Fall Edition of the ACMG Medical Geneticist Newsmagazine

Media Releases or Interviews [MR]

- | | |
|------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2011 | Highlighted in Richmond Family Magazine December 2011, Richmond, VA |
| 2012 | Featured on Virginia This Morning WTVR CBS 6 News, Live Broadcast Jan. 10, 2012; Topic: Pediatric Vision Screening, Richmond, VA |
| 2012 | Featured on Virginia This Morning WTVR CBS 6 News, Live Broadcast May 1, 2012; Topic: W.H.E.E.L.S. Vision and Hearing Screening Program, Richmond, VA |
| 2012 | Highlighted in Richmond Family Magazine May, Sept., Oct., and Nov. 2012, Richmond, VA |
| 2012 | Featured in "Work It, Richmond" June 11, 2012, written by Jacob Geiger, Richmond, VA |
| 2012 | Featured on Evening News Session WRIC Channel 8 June 22, 2012; Topic: New Appointment as Medical Director of the W.H.E.E.L.S. Program, Richmond, VA |
| 2012 | Featured on Virginia This Morning WTVR CBS 6 News, Sept. 25, 2012 Topic: Children's Back to School Segment; Vision in the Classroom, Richmond, VA |
| 2012 | Featured in Richmondmom.com, Health & Fitness Section, Article titled: Dr. Couser on W.H.E.E.L.S.: Free Vision and Hearing Screening for Kids, Oct. 8, 2012, written by Rhonda Day, Richmond, VA |

2021

A Day in the Life of a Clinical Geneticist Careers in Medical Genetics: An Informational Virtual Session on behalf of ACMG for Prospective Students

FUNDING

EXTRAMURAL FUNDING

Research Extramural Funding

Current

None

Pending

None

Previous

2013-2014	Clinical Study Protocol VX12-770-115: An Ocular Safety Study of Ivacaftor- Treated Pediatric Patients 11 Years of Age or Younger with Cystic Fibrosis; Vertex Pharmaceuticals Role: Co-investigator \$10,000
2013-2014	Clinical Study Protocol VX11-770-108: A Phase 3, 2-Part, Open-Label Study to Evaluate the Safety, Pharmacokinetics, and Pharmacodynamics of Ivacaftor in Subjects With Cystic Fibrosis Who are 2 Through 5 Years of Age and Have a CFTR Gating Mutation; Vertex Pharmaceuticals Role: Co-investigator \$10,000
2013-2014	Clinical Study Protocol CL1301: A Multicenter, Randomized Study of the Efficacy and Safety of Auriclosene (NVC-422) Ophthalmic Solution 0.3% for the Treatment of Bacterial Conjunctivitis; NovaBay Pharmaceuticals Role: Co-investigator \$10,000
2015-2016	Retrophin NCT02638220 Obs. Study: An Observational, Multicenter Study of the Prevalence of Cerebrotendinous Xanthomatosis in Patient Populations Diagnosed with Early- Onset Idiopathic Bilateral Cataracts; Retrophin, Inc./Travere Therapeutics; UNC Chapel Hill Site Role: Principal Investigator \$36,000
2015-2017	Retinal and Choroidal Blood Flow Imaging with Spectral Domain Optical Coherence Tomography (SDOCT) in Children with Neurofibromatosis Type 1; National Institutes of Health Pediatric LRP Project; Funding approved by the National Eye Institute (NEI). Role: Co-investigator \$70,000
2018-2020	NCT02638220 Obs. Study: An Observational, Multicenter Study of the Prevalence of Cerebrotendinous Xanthomatosis in Patient Populations Diagnosed with Early-Onset Idiopathic Bilateral Cataracts; Retrophin, Inc./Travere Therapeutics; VCU Site Role: Principal Investigator \$36,000

INTRAMURAL FUNDING

Research Intramural Funding

Current

None

Pending

None

Previous

2021-2022	The Diagnostic Yield of Genetic Testing and Demographic Analysis of Patients Seen at VCU Ophthalmic Genetics Clinic. Internal funding from the Virginia Commonwealth University School of Medicine Dean's Summer Research Fellowship; Mentor for Arth Shah (VCU medical student, M1) Role: Principal Investigator \$5,000
2022-2023	Ocular Manifestations in Prader-Willi syndrome and Angelman syndrome. Internal funding from the Virginia Commonwealth University School of Medicine Dean's Summer Research Fellowship; Mentor for Sam Mool ("Julie") Lee (VCU medical student, M1) Role: Principal Investigator \$5,000
2023-2024	The role of genetic testing in avoiding Stargardt misdiagnosis. Internal funding from the Virginia Commonwealth University School of Medicine Dean's Summer Research Fellowship; Mentor for Rithvik Nalamalapu (VCU medical student, M1) Role: Principal Investigator \$5,000

CLINICAL ACTIVITIES

Clinical Focus

My primary clinical interest is in the field of ophthalmic genetics, involving the identification and management of genetic eye diseases including rare inherited disorders affecting the eyes. Although hereditary eye diseases are rare, genetic factors are the major underlying cause of childhood blindness and significant visual impairment in adults. Recent advances in molecular genetics have helped identify a substantial number of genes and conditions known to contribute to eye disease.

I am one of only a few individuals currently board certified by both the American Board of Ophthalmology and the American Board of Medical Genetics and Genomics, and have a unique understanding of these conditions and provide the latest diagnostic, testing and treatment options with a personalized approach to meet each affected individual and family's unique needs. These conditions include Achromatopsia, Albinism, Aniridia, Anophthalmia, Anterior segment anomalies, Chromosomal disorders with ocular features, Coloboma, Congenital cataracts, Congenital glaucoma, Congenital nystagmus, Corneal dystrophies, Craniofacial syndromes, Craniosynostosis syndromes, Dominant optic atrophy, Ectopia lentis, Hereditary optic neuropathies, Leber congenital amaurosis, Leber hereditary optic neuropathy, Macular dystrophies, Microphthalmia, Retinitis pigmentosa, Stargardt disease, Stickler syndrome, Usher syndrome, X-linked retinoschisis and the Neurocutaneous syndromes (Phakomatoses) that include Neurofibromatosis, Tuberous sclerosis and Von Hippel-Lindau syndrome.

Medical, other state/government licensure

2010-2011	State of Georgia
2011-Present	State of Virginia
2014-2018	State of North Carolina
2024-Present	State of Maryland

Boards, other specialty certification

2012-Present	Board-Certified Ophthalmologist; American Board of Ophthalmology (ABO) [*Successfully Recertified on 1/1/2023]
2019-Present	Board-Certified Clinical Geneticist; American Board of Medical Genetics and Genomics (ABMGG)

Membership in or examiner for specialty board

2023-Present American Board of Medical Specialties (ABMS) Stakeholder Council Member, Active Diplomate

Development of nationally/internationally recognized clinical standard of care

I have had the honor to serve as the founding director for the first ophthalmic genetics service in the state of Virginia, a multidisciplinary service that has garnered a strong regional reputation. This service was started in 2018 and was exceptionally successful; we built up a 2 year wait time for a new patient appointment, and had many patients travel from out of the state to attend this clinic. The service built strong relationships with referral providers in and outside of the home institution throughout the state, and significantly changed practice patterns of providers of faculty within the academic center in Richmond, VA. As such, the clinic days would regularly attract students, trainees, and other faculty members from other departments that had a motivation to learn from our patients who often had rare diseases.

EDUCATIONAL ACTIVITIES

Educational focus

I have demonstrated a sustained commitment to teaching and mentoring. On a consistent basis I have provided lectures to ophthalmology and genetics training programs. I have given grand round lectures on ophthalmic genetics topics to the Departments of Ophthalmology, Pediatrics, and Human and Molecular Genetics. I have presented invited lectures to multiple academic institutions including Emory University, the University of North Carolina, and Stanford University.

In addition, I have mentored over 50 medical students, genetic counseling students, ophthalmology residents and premedical students with independent projects, many of which have either resulted in publications in book chapter or journal article publications or are current in-progress of doing so. This includes serving as the faculty advisor of record for Tamar Luke (former VCU genetic counseling student) for her Capstone/Thesis Project, primary mentor for Virang Kumar (VCU medical student) for his VCU ACCESS Global Surgery Track Capstone Project, Preceptor for Nicholas Terz (VCU medical student) for his Practice of Clinical Medicine rotation, Mentor for Camerun Washington (former VCU genetic counseling student) for the Student Council for an Inclusive Environment (SCIE) Ambassador Program, faculty mentor for Elisse Park (ophthalmology resident) for her annual research day conference, and served as the mentor for Arth Shah (VCU medical student) for the VCU SOM Dean's Summer Research Fellowship. Having the opportunity to teach and serve as a mentor has been a rewarding and valuable aspect throughout my career.

Teaching

Classroom instruction

6/1/2003-6/30/2003

JHMI/Regional

Gross Anatomy Teaching Assistant for Health Career & Opportunities Program, Richmond, VA

3/2015

JHMI/Regional

Small Group Course Leader, Genetics M2 UNC School of Medicine Course, Chapel Hill, NC

3/15/2021

JHMI/Regional

VCU Chapter of the Student National Medical Association (VCU SNMA) Panelist for discussion of Documentary – Black Men in White Coats

3/8/2022

JHMI/Regional

Recommendations on Preparation for the Medical School Application Process and Beyond, Lecture for VCU

Undergraduate 2022 Physician Specialty Series

Clinical instruction

2/2011

JHMI/Regional

Pediatric Oculoplastic & Ocular Emergencies, Resident lecture, Emory University, Pediatric Department, Atlanta, GA

1/8/2015

JHMI/Regional

Leber's Congenital Amaurosis, Current Topics in Medical and Human Genetics Conference, UNC, Department of Genetics, Chapel Hill, NC

4/2015

JHMI/Regional

Ophthalmic Genetics; an Overview of the Subspecialty and Management of Selected Related Conditions Parts I & II, Resident lecture, UNC, Chapel Hill, NC

9/2015

JHMI/Regional

Pediatric Ophthalmic Emergencies & Oculoplastic Conditions, Pediatric Residents Conference, UNC, Department of Pediatrics, Chapel Hill, NC

9/2015

JHMI/Regional

Valuing Perceived Benefits of Genetic Services for Retinitis Pigmentosa, Current Topics in Medical and Human Genetics Conference, UNC, Department of Genetics, Chapel Hill, NC

3/3/2016

JHMI/Regional

Cerebrotendinous Xanthomatosis, Current Topics in Medical and Human Genetics Conference, UNC, Department of Genetics, Chapel Hill, NC

6/16/2016

JHMI/Regional

The Argus II Retinal Prosthesis System, Current Topics in Medical and Human Genetics Conference, UNC, Department of Genetics, Chapel Hill, NC

10/13/2016

JHMI/Regional

History of the Treatment Management of Retinoblastoma, Current Topics in Medical and Human Genetics Conference, UNC, Department of Genetics, Chapel Hill, NC

02/02/2017

JHMI/Regional

Pseudoxanthoma elasticum (PXE); A Genetic Disorder with Skin, Ocular, and Cardiac Manifestations, Current Topics in Medical and Human Genetics Conference, UNC, Department of Genetics, Chapel Hill, NC

3/26/2018

JHMI/Regional

Ophthalmic Genetics; a Comprehensive Overview, Lecture for Genetic Counseling Students, VCU Department of Human and Molecular Genetics, Richmond, VA

5/8/2018

JHMI/Regional
Ophthalmic Genetics: A New Emerging Subspecialty, Lecture for VCU medical student Ophthalmology Interest Group, Richmond, VA

9/11/2018
JHMI/Regional
Ocular Genetics I, Lecture for VCU Ophthalmology residents, Richmond, VA

10/9/2018
JHMI/Regional
Ocular Genetics II, Lecture for VCU Ophthalmology residents, Richmond, VA

10/22/2018
JHMI/Regional
M.A.P. S (Minority Association for Pre-health Students) Physician Panel

12/11/2018
Retinopathy of Prematurity, Lecture for VCU Ophthalmology residents, Richmond, VA

2/12/2019
JHMI/Regional
Pediatric Systemic Diseases, Lecture for VCU Ophthalmology residents, Richmond, VA

3/12/2019
JHMI/Regional
Pediatric Ophthalmic Emergencies and Oculoplastic Conditions, Lecture for VCU Ophthalmology residents, Richmond, VA

3/27/2019
JHMI/Regional
Ophthalmic Genetics; a Comprehensive Overview, Lecture for Genetic Counseling Students, VCU Department of Human and Molecular Genetics, Richmond, VA

1/29/2020
JHMI/Regional
Ophthalmic Genetics; a Comprehensive Overview, Lecture for Genetic Counseling Students, VCU Department of Human and Molecular Genetics, Richmond, VA

6/9/2020
JHMI/Regional
The Patient with a Suspected Genetic Eye Disorder: should I refer to an ophthalmic genetics clinic and why? Lecture for VCU Ophthalmology residents, Richmond, VA

9/29/2020
JHMI/Regional
Ocular Genetics I, Lecture for VCU Ophthalmology residents, Richmond, VA

10/20/2020
JHMI/Regional
Ocular Genetics II, Lecture for VCU Ophthalmology residents, Richmond, VA

10/13/2020
JHMI/Regional
Presenter for the Virginia State University Troyals Medical Scholars Specialization Fair,

Virtual presentation

3/9/2021

JHMI/Regional

Office of Student Outreach Panelist for 2021 VCU Physician Specialty Series

3/9/2021

JHMI/Regional

Ophthalmic Genetics; a Comprehensive Overview, Lecture for VCU Genetic counseling students, Virtual presentation

12/21/2021

JHMI/Regional

Ocular Genetics I, Lecture for VCU Ophthalmology residents, Richmond, VA

2/22/2022

JHMI/Regional

Ocular Genetics II and Pediatric Systemic Diseases, Lecture for VCU Ophthalmology residents, Richmond, VA

3/22/2022

JHMI/Regional

Updates on Retinopathy of Prematurity Management, Lecture for VCU Ophthalmology residents, Richmond, VA

3/22/2022

JHMI/Regional

Ophthalmic Genetics; a Comprehensive Overview, Lecture for VCU Genetic counseling students, Richmond, VA

1/10/2023

JHMI/Regional

Ocular Genetics I, Lecture for VCU Ophthalmology residents, Richmond, VA

1/26/2023

JHMI/Regional

Ocular Genetics II, Lecture for VCU Ophthalmology residents, Richmond, VA

1/31/2023

JHMI/Regional

Ophthalmic Genetics; a Comprehensive Overview, Lecture for VCU Genetic counseling students, Richmond, VA

2/14/2023

JHMI/Regional

Systemic Diseases, Lecture for VCU Ophthalmology residents, Richmond, VA

[CME instruction](#)

6/2008

JHMI/Regional

Pre-Operative Documentation of Functional Deficits in Resident Cataract Surgeries; a Retrospective Review, Presented at the Howard University College of Medicine Clinical Research Day, Howard University, Washington, D.C.

9/2008

JHMI/Regional

Pseudo exfoliation; A True Secondary Cause Of Glaucoma, Presented at the Roger P. Mason, Sr., M.D. Memorial Symposium, Howard University, Washington, D.C.

6/2009

JHMI/Regional

The Short-Term Effect of Travoprost Therapy on the risk for CME after Cataract Surgery, Presented at the Howard University College of Medicine Clinical Research Day, Howard University, Washington, D.C.

9/2009

JHMI/Regional

Acquired Pit of the Optic Nerve; a Glaucomatous Sign, Presented at the Roger P. Mason, Sr., M.D. Memorial Symposium, Howard University, Washington, D.C.

6/2010

JHMI/Regional

The Washington Metropolitan Pediatric Vision Questionnaire, Presented at the Howard University College of Medicine Clinical Research Day, Howard University, Washington, D.C.

9/2010

JHMI/Regional

Case Presentations of McCune Albright Syndrome, Emory Eye Center Grand Rounds, Emory University, Atlanta, GA

5/2011

JHMI/Regional

Adenovirus Mimics Orbital Cellulitis, Emory Eye Center Grand Rounds, Emory University, Atlanta, GA

6/2011

JHMI/Regional

Vision Screening in Children; their Parents & Pediatricians, Emory Eye Center Research Day, Emory University, Atlanta, GA

6/7/2013

JHMI/Regional

The 30th Annual Virginia Homeschool Convention, Richmond, Virginia.
Topic: The W.H.E.E.L.S. program success in 3 years.

7/29/2013

National

110th Annual Meeting & Scientific Assembly, Ophthalmology Section of the NMA, New Orleans, Louisiana. Topic: Pediatric Vision Screening Research

10/19/2013

JHMI/Regional

Virginia Society of Ophthalmic Medical Personnel, Fall Conference at the Virginia Eye Institute, Richmond, Virginia. Topic: Quality assessment of the roles parents and pediatricians play in pediatric vision screening.

1/16/2014

JHMI/Regional

National Black MBA Association Meeting, Richmond Chapter, Richmond Virginia. Topic: Taking care of the business of your health: It's just good business. (Medical Panel)

4/11/2015

JHMI/Regional

UNC Eye 2015 Symposium, Chapel Hill, NC. Topic: The Utility of Clinical, Research, and Direct - To - Consumer Genetic Testing for Ophthalmology in 2015

4/28/2015

JHMI/Regional

Oculofaciocardiodental syndrome, Molecular Case Conference, UNC, Molecular Genetics Laboratory, Chapel Hill, NC

5/21/2015

JHMI/Regional

Retinoblastoma, Cytogenetics Conference, UNC, Cytogenetics Laboratory, Chapel Hill, NC

5/28/2015

JHMI/Regional

McCune Albright Syndrome, Current Topics in Medical and Human Genetics Conference, UNC, Department of Genetics, Chapel Hill, NC

10/29/2015

JHMI/Regional

The Multiple Congenital Anomalies-Hypotonia-Seizures Syndrome (MCAHS), Molecular Diagnostic & Cytogenetics Biennial Course, UNC, Department of Pathology, Chapel Hill, NC

3/20/2018

National

Genetics of Colobomas; as part of AAPOS Genetic Task Force Workshop: Does This Patient Have a Genetic Eye Disease? Should I Refer? at the AAPOS 2018 Meeting, Washington, D.C.

3/28/2018

JHMI/Regional

The Role of Ophthalmic Genetics in Helping Persons with Blindness and Visual Impairments, Department for the Blind & Vision Impaired (DBVI) 2018 Regional Meeting, Virginia Science Museum, Richmond, VA

11/14/2018

JHMI/Regional

A Rare and Difficult-to-Diagnose Genetic Disorder that is Treatable (CTX), Human and Molecular Genetics Grand Rounds (Clinical Genetics), VCU, Richmond, VA

1/26/2019

National

AAPOS Webinar: Got Genes? Case Studies of the Impact of Genetic Testing in Pediatric Ophthalmology. Speakers: members of the AAPOS Genetic Eye Disease Committee: Arlene V. Drack, MD; Alina Dumitrescu, MD; Virginia Utz, MD; Brian Brooks, MD, PhD; Melanie Schmitt, MD; Mary Whitman, MD, PhD; Natario Couser, MD; Wadih Zein, MD; Elise Heon, MD; Christopher Lloyd, MD. Additional participants providing cases and data: Deborah Costakos, MD; Deborah Alcorn, MD; Elias Traboulsi, MD; Alex Levin, MD.

11/12/2019

JHMI/Regional

The Patient with a Suspected Genetic Eye Disorder: Should I refer to an ophthalmic genetics clinic and why? VCU Department of Pediatrics Grand Rounds, Richmond, VA

7/8/2020

National

When to Suspect a Genetic Disorder. Bay Area Ophthalmology Consortium and Stanford University School of Medicine Bay Area Ophthalmology Course (BAOC), Virtual presentation

10/23/2020

National

When to Suspect a Genetic Disorder. Emory Eye Center Grand Rounds, Virtual presentation

2/2/2021

JHMI/Regional

The Role of Genetics in Ophthalmology. VCU Ophthalmology Grand Rounds, Virtual presentation

11/18/2021

National

The Teenager with Decreased Vision and an Unremarkable Ophthalmic Exam, 45th Meeting of the Ophthalmic Genetics Study Club, Virtual presentation

9/29/2022

National

The Management of Inherited Retinal Disease by an Ophthalmic Genetic Service: An Analysis of Provider Referral Patterns, Delays in Diagnosis and the Diagnostic Yield of Genetic Testing. 46th Meeting of the Ophthalmic Genetics Study Club. Chicago, IL

12/6/2022

JHMI/Regional

The Role of Genetics in Ophthalmology. VCU Department of Pediatrics Grand Rounds, Richmond, VA

11/3/2023

National

Oral Presentation, The Essential Role of Genetic Testing in the Phenotypic Heterogeneity of Stargardt Disease. For the Ophthalmic Genetics Study Club Hybrid Meeting, San Francisco, CA

5/28/2024

National

Seeing Eye to Eye, Genetics and the Eye, BlackDoctor.org organization, Natario Couser, MD, MS and Cameron Washington, MS, CGC

5/29/2024

National

Oral Presentation, Pathway to Diagnosis: Genetic Testing for Inherited Retinal Diseases, National Center for Children's Vision and Eye Health, Prevent Blindness. Virtual Presentation

6/18/2024

National

Obtaining Funding from the Patient Centered Outcomes Research Institute (PCORI) and Utilizing a Recent PCORI Project to Better Support Black and Hispanic Parents of Children with Disabilities

[Workshops/seminars](#)

4/2018

National

Arlene V. Drack; Brian P. Brooks; Deborah M. Costakos; Natario L. Couser; Elias I. Traboulsi; Alex V. Levin; I. Christopher Lloyd; Virginia Miraldi Utz; Christina M. Ohnsman; Melanie A. Schmitt; Debroah Alcorn; Elise Heon; Mary C. Whitman AAOPOS Genetic Task Force Workshop: Does This Patient Have a Genetic Eye Disease? Should I Refer? workshop presentation at the AAOPOS 2018 Meeting in Washington, D.C.

9/2018

JHMI/Regional

2018 Practice of Clinical Medicine Ophthalmology workshop for VCU M2 Medical Students, Learning Studios of the McGlothlin Medical Education Center, Richmond, VA

11/2018

JHMI/Regional

Suturing workshop, Natario Couser, MD and Nikisha Richards, MD. Student National Medical Association (SNMA) 2018 Region VI Medical Education Conference, Beyond the White Coat: Wielding Policy to Enhance Health Equity, McGlothlin Medical Education Center, Richmond, VA

4/2021

National

Natario Couser, MD. A Day in the Life of a Clinical Geneticist. 2021 ACMG Virtual Meeting Student Workshop: Careers in Medical Genetics: An Informational Session for Students and Trainees. 2021 ACMG Virtual Meeting. workshop presentation at the ACMG 2021 Virtual Meeting

4/2021

National

Alina V. Dumitrescu, MD, Virginia A. Miraldi Utz, MD Mary C. Whitman, MD, PhD, Deborah M. Alcorn, MD, Natario L. Couser, MD, Arif O. Khan, MD, Alex V. Levin, MD, MHSc, I. Christopher Lloyd, MBBS, FRCOph, Melanie A. Schmitt, MD, Wadih M. Zein, MD, Aaron Nagiel, MD, PhD, Kathryn M. Haider, MD, Jefferson Doyle, MD, MBBCH, MHS, PhD, Janice Lasky Zeid, MD, Arlene V. Drack, MD. AAPOS Genetic Eye Disease Committee Workshop – Hiding in Plain Sight: Genetic Disorders in Routine Pediatric Practice. American Association of Pediatric Ophthalmology and Strabismus Virtual Meeting April 2021. workshop presentation at the AAPOS 2021 Virtual Meeting

4/2023

National

Alina Dumitrescu, MD, Arif O Khan, MD, Alex V Levin, MD, MHSc, Jaime Tejedor MD, Kathryn M Haider, MD, Natario L Couser, MD, Robert K Koenekoop MD, PhD, Arlene V Drack, MD. Myopia and amblyopia are common diagnoses in pediatric ophthalmology practice. When should you suspect more? Workshop presentation at the American Association of Pediatric Ophthalmology and Strabismus Annual Conference, April 2023 Meeting in New York City, NY

11/2023

National

Virginia Miraldi Utz, MD, Arif O Khan, MD, Alex V Levin MD, Robert K Koenekoop MD PhD, Kathryn M Haider MD, Janice Lasky Zeid MD, Natario L Couser, MD, Arlene V Drack MD. Pediatric Inherited Eye Disorders You Don't Want to Miss: How Dangerous Can It Be? Workshop presentation at the American Academy of Ophthalmology Annual Conference, November 2023 Meeting in San Francisco, CA

Mentoring

Pre-doctoral Advisees/Mentees

2/2015-8/2015

Clinical Preceptorship, Student: Radha Patel (UNC undergraduate student, junior)

5/2015-6/2015

Clinical Preceptorship, Student: Shubham Upadhyay (UNC undergraduate student, senior)

6/2015-8/2016

Clinical Preceptorship, Student: Maheer Masood (UNC medical student, M2)

11/2017-11/2018

Clinical Preceptorship, Student: Kevin Babu (VCU undergraduate student, freshman, Honors College)

12/2017-5/2017

Clinical Preceptorship, Student: Dev Sahni (VCU medical student, M4, MD/MHA program)

6/2018-7/2019

Clinical Preceptorship, Student: Clayton Egbulem (VCU undergraduate student, junior-senior)

7/2018-4/2019

Research Preceptorship, Student: Angela Gupta (VCU medical student, M3)

9/2018-9/2019

Clinical Preceptorship, Student: Yojitha Damera (VCU undergraduate student, sophomore)

12/2018-12/2019

Research Preceptorship, Student: Sonal Vijayanagar (VCU medical student, M1)

12/2018-12/2020

Research Preceptorship, Student: Virang Kumar (VCU medical student, M1)

1/2019-1/2020

Clinical Preceptorship, Student: Hazim Oraibi (VCU undergraduate student, sophomore)

1/2019-1/2020

Clinical Preceptorship, Student: Arashpreet Singh (VCU undergraduate student, sophomore)

2/4/2019-4/15/2019

VCU/MCV Student Council for an Inclusive Environment (SCIE) Ambassador Program; Mentor for Camerun Washington, second year Genetic Counseling student

3/2019-3/2020

Research Preceptorship, Student: Nishi Shah (VCU medical student, M1)

3/2019-3/2020

Research Preceptorship, Student: Sierra Stingl (VCU medical student, M1)

3/2019-3/2020

Research Preceptorship, Student: Karishma Popli (VCU medical student, M1)

8/1/202019-11/30/2019

VCU Practice of Clinical Medicine (PCM) Fall Session Preceptor, Student: Nicholas Terz (VCU medical student, M2)

10/1/2019-10/31/2019

VCU Senior Advanced Ophthalmology MEDI-44011 Fall Session Rotation Attending, Student: Seth Spencer (VCU medical student, M4)

12/2019-12/2020

Clinical and Research Preceptorship, Student: Jineet Patel (VCU medical student, M1)

12/2019-12/2020

Research Preceptorship, Student: Kimberly Seamon (VCU medical student, M3)

2/2019-2/2020

Research Preceptorship, Student: Pushpak Pondugula (VCU medical student, M1)

3/1/2020-3/2021

Faculty Advisor of Record, Research Project: Characterizing the Timeframe from Initial Onset of Visual

Symptoms to Date of the Diagnosis Confirmation of Patients Seen within a Genetic Ophthalmology Clinic;
Student: Tamara Luke (VCU genetic counseling student, first year)

7/27/2020-8/16/2020

VCU M3 Foundational Elective, Student: Stephanie Saadeh-Jackson (VCU medical student, M3)

8/2020-5/2022

VCU ACCESS (Acute Care and Systems Strengthening) program, Global Surgery Track, Capstone Project,
Student: Virang Kumar (VCU medical student, M3)

9/21/2020-10/18/2020

VCU Independent Clinical Experience: Ophthalmic Genetics, Student: David Gibson (VCU medical student, M4)

1/18/2021-1/31/2021

VCU Independent Research Elective: Hereditary Motor and Sensory Neuropathy Type VIA with Optic Atrophy in Two Sisters with Pathologic Myopia. Student: Kimberly Seamon (VCU medical student, M3)

2/1/2021-2/21/2021

VCU M3 Foundational Elective, Student: Virang Kumar (VCU medical student, M3)

2/1/2021-2/21/2021

VCU M3 Foundational Elective, Student: Vatsal Lal (VCU medical student, M3)

9/13/2021-10/10/2021

VCU Independent Research Elective, Student: Stephanie Saadeh-Jackson (VCU medical student, M4)

10/11/2021-11/7/2021

VCU Independent Research Elective, Student: Stephanie Saadeh-Jackson (VCU medical student, M4)

11/17/2021-5/1/2023

Clinical Preceptorship, Student: Natalie Bui (VCU undergraduate student, freshman)

12/13/2021-1/23/2022

VCU Independent Research Elective and Mentorship Meeting Session, Student: Virang Kumar (VCU medical student, M4)

5/2022-8/2023

VCU ACCESS (Acute Care and Systems Strengthening) program, Global Surgery Track, Capstone Project, Student: Gracia Luoma-Overstreet (VCU medical student, M3)

8/8/2022-9/8/2022

VCU Independent Research Elective, Student: Stephanie Saadeh-Jackson (VCU medical student, M4)

7/25/2022-3/6/2023

Mentor for Loretta Granum (prospective genetic counseling student)

7/25/2022-8/8/2022

VCU Independent Research Elective, Student: Kevin Lam (VCU medical student, M2)

10/17/22-10/28/22

VCU Independent Research Elective, Student: Gracia Luoma-Overstreet (VCU medical student, M2)

4/11/2023-Present

American Academy of Ophthalmology Minority Ophthalmology Mentoring program; Mentee: Demetrius

Moncrease, a M2 student at Wayne State University

Post-doctoral Advisees/Mentees

7/1/2021-6/30-2022

VCU Ophthalmology Research Project Mentor; Project title: The Role of Genetic Testing in Avoiding Diagnostic Delays in Inherited Retinal. Mentee: Elisse Park, MD (VCU Ophthalmology Resident)

Thesis committees

3/8/2023-7/12/2023

Dissertation committee: Melissa Jamerson, Robert Hufnagel, Natario Couser and Teresa Nadder; for Melissa Reeves, PhD candidate in the VCU Health Related Sciences program, concentration Clinical Laboratory Sciences. Project: Evaluation of SpliceAI for Improved Genetic Variant Classification in Inherited Retinal Disease Genes

RESEARCH ACTIVITIES

Research Focus

My primary research focus involves the identification and management of genetic eye diseases including rare inherited disorders affecting the eyes. Research and scholarly activities have been an integral component of my career path. I have been the principal investigator on 10 clinical trial/IRB studies and a co-investigator on others, have been one of the leading scientific reviewers for the Ophthalmic Genetics journal, participated with several committees or advisory panels related to research activities and related components including participating on a writing committee for the American Academy of Ophthalmology and serving on the inaugural Diversity Equity and Inclusion committee for the American College of Medical Genetics and Genomics. I have been credited with over 120 book chapter, journal article and abstract publications, and presented numerous grand round lectures in and outside my previous academic institutions.

In addition, I served as the primary author/sole editor for a textbook titled Ophthalmic Genetic Diseases: A Quick Reference Guide to the Eye and External Ocular Adnexa Abnormalities, 1st Edition, published by Elsevier in 2018, which is one of only a few textbooks published in this subject area. This textbook involved supervising nearly 40 author contributors ranging from experts in their respective fields to medical students working on their first publication. I also served as a grant review panelist for the National Eye Institute Career Development Awards.

Remaining actively engaged in clinical research and related academic endeavors has been the crux of the trajectory in my career. My consistent participation with research activities has afforded me the opportunity to improve patient care, teach and mentor students and trainees, and educate other clinicians.

Inventions, Patents, Copyrights: None

Technology Transfer Activities: None

Other Research/Professional Activities:

9/2004-5/2005	Research Project: <i>Photoreceptor Degeneration in TG9N Transgenic Mice</i> , under direction of Ching-Kang Jason Chen, Ph.D., Associate Professor of Biochemistry and Molecular Biology at VCU School of Medicine
7/2007-6/2008	Research Project: <i>Pre-Operative Documentation of Functional Deficits in Resident Cataract Surgeries; a Retrospective Review</i>
7/2008-6/2009	Research Project: The Short-Term Effect of Travoprost Therapy on the risk for CME after Cataract Surgery
7/2010-6/2011	Research Project: The Infant Aphakia Treatment Study: Post-Operative Results in Children with Microcornea
7/2010-6/2011	Research Project: Ophthalmic Features of Pelizaeus-Merzbacher Disease
7/ 2010-6/2011	F1000 Biomedical literature post-publication peer review contributor
7/2010-6/2012	Pediatric Eye Disease Investigator Group (PEDIG), Emory University certified masked examiner
9/2013-4/2014	Lens Opacities Classification System III (LOCS III) Certified for Clinical Trial examinations
12/2017-6/2021	Maintained the AAPOS Genetic Task Force Suggested Online Resources webpage on the AAPOS website

2/2018 APOS Genetic Task Force: Reviewed protocol regarding insurance coverage of gene therapy treatment

7/2018 Initiated/Founding Director of the VCU Eye Genetics Specialty Service

2/2021 Ophthalmic Examiner contribution to ReveraGen BioPharma Inc. Vamorolone Phase IIb Study, VCU Site

8/2022-Present Reviewer for Rabb-Venable medical student applications

8/2022 Invited Reviewer for An updated panel of *CFTR* variants recommended for carrier screening: A position statement of the American College of Medical Genetics and Genomics (ACMG) Document

11/2022 Invited Reviewer for American Academy of Ophthalmology (AAO) Ophthalmic Technology Assessment (OTA) Genetic Testing for Infantile Nystagmus Document

Consulting/clinical Trials/IRB Studies

2015-2016 PEDIG Co-investigator at UNC (site number 333); SAS1: A Prospective Observational Study of Adult CI, DI, and Small-angle HT, Clinical Trial ID NCT02510040
UNC Site
Role: Co-investigator

2015-2017 PEDIG Co-investigator at UNC (site number 333); ATS 18: Study of Binocular Computer Activities for Treatment of Amblyopia, Clinical Trial ID NCT02200211
UNC Site
Role: Co-investigator

2016-2017 PEDIG Principal Investigator at UNC (site number 333); PON1: Pediatric Optic Neuritis Prospective Outcomes Study, Clinical Trial ID n/a
UNC Site
Role: Principal Investigator

2016-2017 PEDIG Principal Investigator at UNC (site number 333); SAS1: A Prospective Observational Study of Adult CI, DI, and Small-angle HT, Clinical Trial ID NCT02510040
UNC Site
Role: Principal Investigator

2020-2023 Co-investigator (for Ophthalmology component) Clinical Trial ACNS1833, A Phase 3 Randomized Non-Inferiority Study of Carboplatin and Vincristine versus Selumetinib in Newly Diagnosed or Previously Untreated Low-Grade Glioma (LGG) not associated with BRAFV600E Mutations or Systemic Neurofibromatosis Type 1 (NF1)
VCU Site
Role: Co-investigator

2020-2023 Characterizing the Timeframe from Initial Onset of Visual Symptoms to Date of the Diagnosis Confirmation of Patients with Inherited Retinopathies.
VCU Site
Role: Principal Investigator

2020-2023 Diagnostic Yield of Genetic Testing of Patients Seen at VCU Ophthalmic Genetics Clinic
VCU Site
Role: Principal Investigator

2020-2023 A Retrospective Review of Ophthalmic Manifestations in COVID-19 Patients at Virginia

Commonwealth University Health Systems.
VCU Site
Role: Principal Investigator

2020-2023 Co-investigator (for Ophthalmology component at VCU) Clinical Trial ACNS1831, A Phase 3 Randomized Study of Selumetinib versus Carboplatin/Vincristine in Newly Diagnosed or Previously Untreated Neurofibromatosis Type 1 (NF1) Associated Low-Grade Glioma (LGG)
VCU Site
Role: Co-investigator

2021-2023 Principal Investigator at VCU for Epidemiology of Strabismus and Cataracts in Saint Vincent and the Grenadines: An Analysis of a Pediatric Population from 2002-2020
VCU Site
Role: Principal Investigator

2022-2023 A Retrospective Review of Ocular Manifestations in Prader-Willi Syndrome and Angelman Syndrome (15q11-13)
VCU Site
Role: Principal Investigator

1/2023-8/2023 The Role of Genetic Testing in Avoiding Stargardt Misdiagnosis; VCU Site
Role: Principal Investigator

SYSTEM INNOVATION AND QUALITY IMPROVEMENT ACTIVITIES

[System Innovation Focus:](#)

n/a

[System Innovation and Quality Improvement efforts within JHMI:](#)

n/a

[System Innovation and Quality Improvement efforts outside of JHMI](#)

7/2016-8/2016

Type of Project: Collaborative Improvement in Medical Genetics Training Program Activity

Project description:

Pediatric residents rotate on the Pediatric Genetics and Metabolism service in the UNC outpatient clinic, the pediatric ward, the critical care units, newborn nursery, the morgue, and occasionally other medical, surgical, psychiatric inpatient units and outpatient clinics, and our satellite clinics. The goal is to prepare residents for pediatric practice and/or research careers in the new age of genomic medicine. On the first day of the rotation, residents are provided access to educational materials to serve as the primary resources to highlight important concepts during the rotation. The list of educational materials provided had not been updated in several years. The specific aim of this project is to update the educational materials provided to rotating residents so they may hone prior knowledge by actively participating in the activities of our outpatient and inpatient consultation service while utilizing updated and quality educational materials. The results of the project included suggestions for recently published articles, websites, and textbooks to be included in the educational materials provided for rotating residents. These suggestions included 14 journal articles that were recommended to be added to the current list of suggested readings, 21 websites were recommended to be added to the current list of websites, and 3 textbooks/updated editions were recommended to be added to the current list of reference books.

Project Site: UNC

Role: Project Team Leader

3/2020-6/2020

Type of Project: Collaborative Improvement in Medical Ophthalmology Practice Activity

Project description:

This project involved a collaborative improvement in medical practice activity with an aim to increase infection control measures in an ophthalmology practice within an academic hospital during the COVID-19 pandemic. Measures to improve upon control measures were of particular importance as the virus can cause conjunctivitis and transmission by aerosol contact with the conjunctiva of patients with COVID-19, which is of concern to ophthalmic providers. From following recommendations by local, state and federal government, hospital leadership administration, relevant medical journal articles and the American Academy of Ophthalmology, several new policies were implemented within our department; performance measures were analyzed over a 30-day period from March 25th to April 25th, 2020. Post-implantation measures including the training of physicians and staff of new patient screening and PPE use, the use of disinfection between each patient, social distancing guidelines in clinic flow setting, changing department meetings and resident and student educational lectures converted to virtual setting, and converting patients appropriately to telemedicine or having clinic appointment deferred.

Project Site: VCU

Role: Project Team Leader

[System Innovation and Quality Improvement Program Building/Leadership](#)

n/a

ORGANIZATIONAL ACTIVITIES

[Institutional Administrative Appointments](#): None

Editorial Activities

[Editorial Board appointments/Journal Review Panels](#)

Journal/Role:	Appointment Year
Journal of Ophthalmology & Visual Sciences; Austin Publishing Group (Editorial Board)	2015
International Journal of Clinical Case Studies; Graphy Publications (Editorial Board)	2015
Austin Ophthalmology; Austin Publishing Group (Editorial Board)	2016
Open Access Journal of Ophthalmology (Associate Editor)	2016
The Scientific Pages of Ophthalmology Journal (Editorial/Review Board)	2016
Genetics in Medicine Open (Deputy Editor-in-Chief)	2022
Ophthalmic Genetics (Associate Editor)	2023
Journal of American Association for Pediatric Ophthalmology Strabismus (AAPOS) (Editorial Board)	2024

[Other peer review activities](#)

Journal/Role:	Appointment Year
Strabismus (Scientific Reviewer)	2013
Journal of Pediatric Ophthalmology & Strabismus (Scientific Reviewer)	2013

Genes (Scientific Reviewer)	2016
Ophthalmic Genetics (Scientific Reviewer)	2016
Ophthalmology Research: An International Journal (Scientific Reviewer)	2017
Genetics in Medicine (Scientific Reviewer)	2019
American Journal of Medical Genetics (Scientific Reviewer)	2020
Journal of Ophthalmology (Invited Reviewer for Special Issue Genetics in Ophthalmology 2020)	2020
Journal of American Association for Pediatric Ophthalmology Strabismus (AAPOS) (Scientific Reviewer)	2022
Ophthalmology Science (Scientific Reviewer)	2023
Retinal Cases & Brief Reports (Scientific Reviewer)	2023

Professional Societies

INTERNATIONAL:

Phi Beta Sigma Fraternity, Inc. 9/2002-Present
 (Reinstated UVA chapter after previous 10-year absence)
 (Served as Vice-President 2001-2002 Zeta Eta Chapter, UVA)
 Role: Member

International Society for Genetic Eye Diseases and
 Retinoblastoma (ISGEDR) 1/2012-Present
 Role: Member

International Association of Ophthalmology 1/2013-6/2014
 Role: Member

NATIONAL:

Christian Medical and Dental Association (CMDA) 2/2002-5/2006
 Role: Member

Student National Medical Association (SNMA) 9/2002-5/2006
 Role: Member

American Academy of Ophthalmology (AAO) 7/2007-Present
 (Fellow of AAO as of Sept. 2012)
 Role: Member

American Association for Pediatric Ophthalmology and
 Strabismus (AAPOS) (Full Active member as of 2015) 1/2010-Present

Role: Member	
Research to Prevent Blindness (RPB) Role: Member	1/2012-6/2014
AAPOS Vision Screening Committee Role: Member	1/2012-6/2016
AAPOS Genetic Eye Disorder Task Force [Committee 7/1/18] Role: Vice-Chair as of July 2023	7/2017-6/2021 & 7/2022-Present
American College of Medical Genetics and Genomics (ACMG) (Fellow of ACMG as of Feb. 2020) Role: Member	2/2020-Present
National Medical Association (NMA) Role: Member	7/2020-Present
ACMG Diversity, Equity and Inclusion (DEI) Committee Role: Vice-Chair Mar. 2022- Feb. 2024, Chair as of Mar. 2024	8/2020-Present
American Society of Human Genetics (ASHG) ACMG Alternate for the Advisory Group on Genetics and Genomics Workforce Diversity Initiative Role: Member	8/2020-8/2021
American College of Medical Genetics and Genomics (ACMG) Foundation for Genetic and Genomic Medicine Summer Scholars Advisory Committee (Diversity, Equity and Inclusion Committee Representative) Role: Member	9/2020-11/2022
American Academy of Ophthalmology (AAO) BCSC Section 2 <i>Fundamentals and Principles of Ophthalmology</i> Member Subcommittee Role: Chair as of July 2024	12/2020-Present
Patient-Centered Outcomes Research Institute (PCORI) Advisory Panel on Rare Disease Role: ACMG Liaison	9/27/2021-8/2024
American College of Medical Genetics and Genomics (ACMG) Selection Committee for fellowship funded positions in ophthalmic genetics with an emphasis on retinal diseases Role: Advisor	11/2021-Present
National Institutes of Health (NIH)/National Eye Institute (NEI) 2022 Grant Review Panelist for Career Development Awards Role: Review Panelist	2022
American College of Medical Genetics and Genomics (ACMG) Inherited Retinal Dystrophies Evidence-Based Guideline (EBG) Workgroup Role: Co-Chair as of Nov. 2022	6/2022-7/2024
American Board of Medical Specialties (ABMS) Stakeholder Council Active Diplomate	5/2023-Present

Role: Member

American College of Medical Genetics and Genomics (ACMG)
Use of Sex and Gender Identifiers in Clinical and Laboratory Genetics
and Genomics Workgroup
Role: Member
10/2023-Present

Ophthalmic Genetics Study Club (OGSC) Member
Role: Member
11/2023-Present

American Medical Association (AMA)
Role: Member
5/2024-Present

American College of Medical Genetics and Genomics (ACMG)
Gene Therapy Infrastructure Work Group; Therapeutics Committee
Role: Member
6/2024-Present

STATE:
Virginia Society of Eye Physicians and Surgeons
Role: Member
1/2012-6/2014

Richmond Academy of Medicine, Inc.
Role: Member
8/2017-8/2023
&1/2012-6/2014

UNIVERSITY:

NC NEXUS (North Carolina Newborn Exome
Sequencing for Universal Screening) Binning Committee
Role: Member
11/2014-2/2017

VCU Eye Genetics Center
Role: Founding Director
7/2018-8/2023

VCU Marfan Aortopathy Center
Role: Member
1/2019-7/2021

VCU NF1 Multidisciplinary Center
Role: Member
5/2019-8/2021

RECOGNITION

[Awards, Honors](#)

- | | |
|------|-----------------------------------------------------------------------------------------|
| 2001 | UVA Medical Center Madison House Award for 300+ hours of medical volunteer service |
| 2002 | UVA Office of Fraternity & Sorority Outstanding Community Service Award |
| 2003 | VCU School of Medicine Commonwealth Award for Medicine |
| 2003 | VCU School of Medicine Scholarship Award for medical mission trip to Cite Soleil, Haiti |

- 2004 Virginia Commonwealth University (VCU) School of Medicine Summer Research Fellowship Award
- 2006 Roman-Barnes Society of Ophthalmology Award
- 2008 Howard University College of Medicine Roger P. Mason, Sr., MD, Memorial Glaucoma Symposium Award for Best Oral Presentation
- 2010 Howard University College of Medicine Excellence in Research Award
- 2011 Research to Prevent Blindness, Emory University Departmental Award
- 2011 Selected as the American Association for Pediatric Ophthalmology and Strabismus (AAPOS) Ambassador for the American Academy of Ophthalmology (AAO) Mid-Year Forum in Washington, D.C.
- 2014 University of Virginia (UVA) Phi Beta Sigma Inc. Award for service contribution to the Zeta Eta Chapter, presented at 40th Chapter Anniversary
- 2015 National Institutes of Health Pediatric LRP Award
- 2021 Virginia Commonwealth University School of Medicine Dean's Summer Research Fellowship Award
- 2022 Virginia Commonwealth University School of Medicine Dean's Summer Research Fellowship Award
- 2023 American Association for Pediatric Ophthalmology and Strabismus (AAPOS) 2023 Honor Award
- 2023 Virginia Commonwealth University School of Medicine Dean's Summer Research Fellowship Award

[Invited Talks](#)

6/7/2013

JHMI/Regional

Invited Lecture: The 30th Annual Virginia Homeschool Convention, Richmond, Virginia.
Topic: The W.H.E.E.L.S. program success in 3 years.

7/29/2013

National

Invited Lecture: 110th Annual Meeting & Scientific Assembly, Ophthalmology Section of the NMA, New Orleans, Louisiana. Topic: Pediatric Vision Screening Research

10/19/2013

JHMI/Regional

Invited Lecture: Virginia Society of Ophthalmic Medical Personnel, Fall Conference at the Virginia Eye Institute, Richmond, Virginia. Topic: Quality assessment of the roles parents and pediatricians play in pediatric vision screening.

1/16/2014

JHMI/Regional

Invited Lecture: National Black MBA Association Meeting, Richmond Chapter, Richmond Virginia. Topic: Taking care of the business of your health: It's just good business.

3/28/2018

JHMI/Regional

Invited Lecture: The Role of Ophthalmic Genetics in Helping Persons with Blindness and Visual Impairments, Department for the Blind & Vision Impaired (DBVI) 2018 Regional Meeting, Virginia Science Museum, Richmond, VA

7/8/2020

National

Invited Lecture: When to Suspect a Genetic Disorder. Bay Area Ophthalmology Consortium and Stanford University School of Medicine Bay Area Ophthalmology Course (BAOC), Virtual presentation

10/23/2020

National

Invited Lecture: When to Suspect a Genetic Disorder. Emory Eye Center Grand Rounds, Virtual presentation

5/28/2024

National

Invited Lecture: Seeing Eye to Eye, Genetics and the Eye, BlackDoctor.org organization, Natario Couser, MD, MS and Cameron Washington, MS, CGC

5/29/2024

National

Invited Lecture: Pathway to Diagnosis: Genetic Testing for Inherited Retinal Diseases, National Center for Children's Vision and Eye Health, Prevent Blindness. Virtual Presentation

Visiting Professorship: None

OTHER PROFESSIONAL ACCOMPLISHMENTS

Peer-Reviewed Abstracts

1. Li, M, Potocki, J, **Couser, N**, Urban, NH, Jiranek, WA, Beckman, MJ.
Cell Typing of RANKL Expression in Fibroblasts and Characterization of the RANKL/OPG Ratio in Periprosthetic Membrane of Total Joint Revisions, 51st Annual Meeting of the Orthopaedic Research Society, Paper No:0173, 2005 (oral presentation at the Annual Orthopaedic Research Society Conference Proceedings in Washington, DC, Feb 2005 & oral presentation at Student Honors Day at VCU SOM May, 2005)
2. **Couser NL**, Patel G, Thiagarajah C, Jones LS, Kern MD. Case series of premature neonates with congenital glaucoma. J AAPOS 2010;14(10):e14 (poster presentation at the AAPOS 2010 Meeting in Orlando, Fl.)
3. **Couser NL**, Hutchinson, AK, Lenhart PD. Use of the augmented Hummelsheim procedure combined with ipsilateral medial rectus muscle recession to treat complete cranial nerve VI palsy. J AAPOS 2011;15(1):e16 (poster presentation at the AAPOS 2011 Meeting in San Diego, Ca.)
4. Hubbard GB, **Couser NL**, Lee L, Hutchinson AK, Lambert SL. Candida lens abscess in premature infants. American Society of Retinal Specialists. (oral presentation at the 30th Anniversary Annual Scientific Meeting of the American Society of Retina Specialists in Las Vegas, NV, August 25-29, 2012)
5. Megan Mann, **Natario Couser**, Karen Schmidt, Cynthia Powell. Severe Congenital Trismus as a Primary Feature in an Infant with an HDAC8 Mutation and Cornelia de Lange Syndrome, March 2015, American College of Medical Genetics. (poster presentation at the 2015 ACMG Annual Clinical Genetics Meeting in Salt Lake City, Utah)
6. **Natario L. Couser**, Chetna K. Pande, Jonathan M. Walsh, James Tepperberg, Arthur S. Aylsworth. Is Camptodactyly Associated with Velocardiofacial Syndrome? March 2015, American College of Medical Genetics. (poster presentation at the 2015 ACMG Annual Clinical Genetics Meeting in Salt Lake City, Utah)
7. Cynthia M. Powell, **Natario Couser**, Myra Roche, Kate M. Foreman, Karen Weck-Taylor, Tasha Strande, Mei Lu, Kirk C. Wilhelmsen, Jonathan S. Berg, James P. Evans. PIGN Mutations in a Child with Severe Developmental Disability, Epilepsy, and Dysmorphic Features: Multiple Congenital Anomalies-Hypotonia-Seizures Syndrome 1, March 2015, American College of Medical Genetics. (poster presentation at the 2015 ACMG Annual Clinical Genetics Meeting in Salt Lake City, Utah)
8. **Natario L. Couser**, Chetna K. Pande, Jonathan M. Walsh, James Tepperberg, Arthur S. Aylsworth. Is Camptodactyly Associated with Velocardiofacial Syndrome?, April 2015, (poster presentation at the UNC Department of Pediatrics 2015 Day of Scholarship in Chapel Hill, NC)
9. **Natario L. Couser, MD**, Arthur S. Aylsworth, MD, Roger E. Stevenson, MD. Ocular Manifestations in the X-Linked Intellectual Disability Syndrome, August 2015. (poster presentation at the 36th Annual David W. Smith Workshop on Malformations and Morphogenesis in St. Michaels, MD)
10. Girnary, Z, Milko, L, Strande, N, O'Daniel, J, Foreman, K, Booker, J, Boshe, L, **Couser, N**, Gucavas-Calikoglu, M, Aylsworth, AS, Frazier, D, Roche, M, Vora, N, Powell, C, Berg, J, Powell, B. Weight and See: A Systematic Overview of Category Rankings Within the Semi- quantitative Metric of the NC NEXUS Project, March 2016. (poster presentation at the 2016 ACMG Annual Clinical Genetics Meeting in Tampa, FL)
11. **Natario L. Couser, MD**, Arthur S. Aylsworth, MD, Roger E. Stevenson, MD. Ocular Manifestations in the X-Linked Intellectual Disability Syndrome, April 2016, (poster presentation at the UNC Department of Pediatrics 2016 Day of Scholarship in Chapel Hill, NC)
12. Arlene V. Drack; Brian P. Brooks; Deborah M. Costakos; **Natario L. Couser**; Elias I. Traboulsi; Alex V. Levin; I. Christopher Lloyd; Virginia Miraldi Utz; Christina M. Ohnsman; Melanie A. Schmitt; Debroah Alcorn; Elise Heon; Mary C. Whitman AAPOS Genetic Task Force Workshop: Does This Patient Have a Genetic Eye Disease? Should I Refer? (workshop presentation at the AAPOS 2018 Meeting in Washington, D.C.)
13. Arlene V. Drack; Brian P. Brooks; Deborah M. Costakos; **Natario L. Couser**; Elias I. Traboulsi; Alex V. Levin; I. Christopher Lloyd; Virginia Miraldi Utz; Melanie A. Schmitt; Debroah Alcorn; Elise Heon; Mary C. Whitman; Wadih Zein; Alinia Dumitrescu. AAPOS Genetic Committee Workshop: Does This Patient Have a Genetic Eye Disease? Should I Refer? AAPOS Genetic Eye Disorder

Committee. (workshop presentation at the AAPOS 2019 Meeting in San Diego, CA)

14. Virginia Miraldi Utz; Deborah Alcorn; **Natario L. Couser**; Arlene V. Drack; Arif O. Khan; Alex V. Levin; I. Christopher Lloyd; Melanie A. Schmitt. AAPOS Genetic Eye Disease Committee Workshop. Hiding in plain sight: genetic disorders in routine pediatric practice (*abstract was accepted for workshop presentation for the AAPOS 2020 Meeting in Austin, TX; however, meeting cancelled due to coronavirus pandemic)
15. **Natario Couser, MD**. A Day in the Life of a Clinical Geneticist. 2021 ACMG Virtual Meeting Student Workshop: Careers in Medical Genetics: An Informational Session for Students and Trainees. 2021 ACMG Virtual Meeting. (workshop presentation at the ACMG 2021 Virtual Meeting)
16. David Gibson, **Natario Couser, MD MS**, Vikram Brar, MD, Rachel Li, MD, Arun Kalra, MBBS, Allison Goodwin, MS LCGC. The High Association of Ophthalmic Abnormalities in Patients with Mucopolidosis Type IV: Case Report and Literature Review. Poster presentation at the April 2021 ACMG Virtual Meeting.
17. Vatsal Lal, Virang Kumar, **Natario L. Couser, MD**. Ocular Features in Jeune Syndrome and Other *IFT140*-Related Ciliopathies. Poster presentation at the April 2021 ACMG Virtual Meeting.
18. Kelly Miller BS, Joseph Iuorno MD, Ann Jewell MS CGC, Anna Harrison CPO, **Natario Couser MD MS**. Corneal Crystals as a Presenting Sign for Smoldering Multiple Myeloma: A New Case and Literature Review of This Rare Association. Poster presentation at the April 2021 ACMG Virtual Meeting.
19. Deividas Gustainis BSc, **Natario Couser MD, MS**. Ophthalmic Manifestations of Lamb- Shaffer Syndrome: Case Presentation and Literature Review. Poster presentation at the April 2021 ACMG Virtual Meeting.
20. Stephanie Saadeh-Jackson MS, Kayla King MS CGC, Hind Al Saif MD, Colleen Jackson- Cook PhD FFACMG, Justin Schleede PhD FFACMG, **Natario Couser MD, MS**. Eye, Ocular Adnexa, and Facial Manifestations of Tetrasomy 18p: Case Report and Literature Review. Poster presentation at the April 2021 ACMG Virtual Meeting.
21. Tien Comlekoglu, Virang Kumar, **Natario L. Couser**. Ophthalmic Features in Wieacker- Wolff syndrome: A Case Report and Systematic Review. Poster presentation at the April 2021 ACMG Virtual Meeting.
22. Christopher Leffler; Stephen G. Schwartz; **Natario L. Couser**; Abdul-Rahman Salman. *Cheselden's 1728 Report of Eye Surgery in the Congenitally Blind: New Information*. Cogan Ophthalmic History Society 33rd Annual Meeting 2021, Virtual.
23. Alina V. Dumitrescu, MD, Virginia A. Miraldi Utz, MD Mary C. Whitman, MD, PhD, Deborah M. Alcorn, MD, **Natario L. Couser, MD**, Arif O. Khan, MD, Alex V. Levin, MD, MHSc, I. Christopher Lloyd, MBBS, FRCOph, Melanie A. Schmitt, MD, Wadih M. Zein, MD, Aaron Nagiel, MD, PhD, Kathryn M. Haider, MD, Jefferson Doyle, MD, MBBCH, MHS, PhD, Janice Lasky Zeid, MD, Arlene V. Drack, MD. AAPOS Genetic Eye Disease Committee Workshop – Hiding in Plain Sight: Genetic Disorders in Routine Pediatric Practice. American Association of Pediatric Ophthalmology and Strabismus Virtual Meeting April 2021. (workshop presentation at the AAPOS 2021 Virtual Meeting)
24. Kimberly Seamon, Ann Jewell, MS, LCGC, Anna Harrison, Amy Harper, MD, Hind Al Saif, MD, **Natario Couser, MD, MS**. Hereditary Motor and Sensory Neuropathy Type VIA with Optic Atrophy in Two Sisters with Pathologic Myopia: A Case Series and Review. Poster presentation at the American Association of Pediatric Ophthalmology and Strabismus Virtual Meeting April 2021.
25. Virang Kumar; Vatsal Lal; Amy Harper, MD; Rachel Li, MD; **Natario L. Couser, MD**. Ophthalmic Features in Hereditary Sensory Neuropathy Type 1A: A Case Report and Systematic Review. Poster presentation at the American Association of Pediatric Ophthalmology and Strabismus Virtual Meeting April 2021.
26. Karishma Popli BS MBE, Ann Jewell MS CGC, **Natario Couser MD MS**. The Demographics, Clinical and Molecular Features of Pediatric Patients with Retinitis Pigmentosa due to Variants in the EYS Gene. Poster presentation at the American Association of Pediatric Ophthalmology and Strabismus Virtual Meeting April 2021.
27. Virang Kumar, Donna Brown MD, **Natario L. Couser MD**. The Epidemiology of Strabismus and Cataracts Within a Pediatric Population in Saint Vincent and the Grenadines: An Analysis of 201 Consecutive Cases. Poster presentation at the American Association of Pediatric Ophthalmology and Strabismus April 2022 Meeting in Scottsdale, AZ.

28. Arth Shah, Elisse Park, Qingguo Xu, Tammy Luke, Ann Jewell, **Natario L. Couser**. Inherited Retinal Disease: An Analysis of Provider Referral Patterns, Delays in Diagnosis and the Diagnostic Yield of Genetic Testing. Poster presentation at Global Medicine and Surgery VCU School of Medicine Student Research Day, April 2022 in Richmond, VA.
29. Virang Kumar, Donna Brown MD, **Natario L. Couser MD**. The Epidemiology of Strabismus and Cataracts Within a Pediatric Population in Saint Vincent and the Grenadines: An Analysis of 201 Consecutive Cases. Poster presentation at Global Medicine and Surgery VCU School of Medicine Student Research Day, April 2022 in Richmond, VA.
30. Gracia Luoma-Overstreet, Virang Kumar, Donna Brown MD, **Natario L. Couser MD**. Strabismus and Cataracts Within a Pediatric Population in Saint Vincent and the Grenadines, Poster presentation at 2022 ACCESS Global Health Symposium, September 2022 in Richmond, VA.
31. Kevin Lam, Benjamin Cassidy, Rolando Arreola, Hind Al Saif H, Kayla King, Natario **Couser**. A New Case and Comprehensive Review of the Ophthalmic Manifestations of 172 Individuals With Branchio-Oculo-Facial Syndrome, Poster presentation for 2022 American Medical Association (AMA) Research Challenge, Virtual presentation.
32. Gracia Luoma-Overstreet and **Natario Couser**, Using Google Trends to Predict Global Prevalence of Onchocerciasis and Awareness of Treatment Strategies. Poster presentation at the 14th Annual Southeast Region Latino Medical Student Association (LMSA) Regional Conference, March 2023 Meeting in Fort Lauderdale, FL
33. Arth Shah, Elisse Park, Tammy Luke, Qingguo Xu, Ann Jewell, **Natario L. Couser**. The Role of Genetic Testing in Avoiding Diagnostic Delays in Inherited Retinal. Poster presentation at the American Association of Pediatric Ophthalmology and Strabismus Annual Conference, April 2023 Meeting in New York City, NY
34. Shivania Reddy, Russell Simmers, Arth Shah, **Natario Couser MD MS**, Ocular manifestations of juvenile nephronophthisis. Poster presentation at the American Association of Pediatric Ophthalmology and Strabismus Annual Conference, April 2023 Meeting in New York City, NY
35. Alina Dumitrescu, MD, Arif O Khan, MD, Alex V Levin, MD, MHSc, Jaime Tejedor MD, Kathryn M Haider, MD, **Natario L Couser, MD**, Robert K Koenekoop MD, PhD, Arlene V Drack, MD. Myopia and amblyopia are common diagnoses in pediatric ophthalmology practice. When should you suspect more? Workshop presentation at the American Association of Pediatric Ophthalmology and Strabismus Annual Conference, April 2023 Meeting in New York City, NY
36. Virginia Miraldi Utz, MD, Arif O Khan, MD, Alex V Levin MD, Robert K Koenekoop MD PhD, Kathryn M Haider MD, Janice Lasky Zeid MD, **Natario L Couser, MD**, Arlene V Drack MD. Pediatric Inherited Eye Disorders You Don't Want to Miss: How Dangerous Can It Be? Workshop presentation at the American Academy of Ophthalmology Annual Conference, November 2023 Meeting in San Francisco, CA
37. **Natario Couser, MD**. The Essential Role of Genetic Testing in the Phenotypic Heterogeneity of Stargardt Disease. Ophthalmic Genetics Study Club Hybrid Meeting, November 2023, San Francisco, CA
38. Elizabeth Ransone, **Natario Couser MD MS**. A novel NHS microdeletion leading to Nance- Horan syndrome: Familial case report and literature review. Poster presentation at the American Association of Pediatric Ophthalmology and Strabismus Annual Conference, April 2024 Meeting in Austin, TX
39. Rithvik Nalamalapu, **Natario Couser MD MS**. Genetic Testing in the Phenotypic Heterogeneity of Stargardt Disease. Poster presentation at the American Association of Pediatric Ophthalmology and Strabismus Annual Conference, April 2023 Meeting in Austin, TX
40. Jane Choi, **Natario Couser, MD MS**. Vision and Enamel Anomalies in Jalili Syndrome: Case Study and Genetic Insights. Poster presentation at the ACMG Annual Clinical Genetics Conference, March 2024 Meeting in Toronto, Canada
41. Stephanie Pan, BS, **Natario Couser, MD MS**. A Pediatric Patient with a Novel Duplication of 1q21.2 to 1q25.3: A Case Report. Poster presentation at the ACMG Annual Clinical Genetics Conference, March 2024 Meeting in Toronto, Canada
42. Aashish Batheja MPH, Julie Bayer-Vile MS, CGC, Evan Silverstein MD, **Natario Couser MD, MS**. A Case of Congenital Myasthenic Syndrome with AChR Deficiency due to Biallelic Variants in *CHRNE* Gene. Poster presentation at the ACMG Annual Clinical Genetics Conference, March 2024 Meeting in Toronto, Canada