

CURRICULUM VITAE  
The Johns Hopkins University School of Medicine

Edward Kuwera, M.D.

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## DEMOGRAPHIC AND PERSONAL INFORMATION

### Personal Data

Business Address: Wilmer Eye Institute, Wilmer 233, 600 N Wolfe Street, Baltimore, MD 21287-9028

Office Tel: 410-955-5492

Fax: 410-955-0809

E-mail: [ekuwera1@jhmi.edu](mailto:ekuwera1@jhmi.edu)

### Education and Training

2002 - 2007 Bachelor of Science, Biomedical Engineering, Rutgers University School of Engineering, New Brunswick NJ, Cum Laude

2009 - 2013 Medical Doctor, Medicine, Ross University School of Medicine, Commonwealth of Dominica, Summa Cum Laude

2013 - 2014 Preliminary Intern, Internal Medicine, Jersey Shore University Medical Center, Neptune NJ

2014 - 2017 Residency, Ophthalmology, Jamaica Hospital Medical Center, Jamaica NY  
**Chief Resident** 2016 - 2017

2017 – 2018 Fellowship, Pediatric Ophthalmology and Adult Strabismus, The Johns Hopkins University School of Medicine – Wilmer Eye Institute, Baltimore MD

### Professional Experience

10/2018 – Present Assistant Professor, Johns Hopkins University School of Medicine – Wilmer Eye Institute, Baltimore MD

3/2021 – Present Associate Fellowship Program Director – Division of Pediatric Ophthalmology and Adult Strabismus – Wilmer Eye Institute, Baltimore MD

## PUBLICATIONS

### Original Research

1. **Kuwera E**, Guyton DL, et al. *Measuring Prism in Progressive Addition Spectacle Lenses*. Archives of Ophthalmology and Optometry. 2021; 4(1): 08-14. [OR]
2. Wang B, **Kuwera E**. *Vision Therapy: A Primer and Caution for Pediatricians*. Children. 2022; 9(12):1873. <https://doi.org/10.3390/children9121873> [OR]

### Case Reports

1. **Kuwera E**, Kruh JN, Explosive Nodular Scleritis, as a Primary Manifestation of Lyme Disease (Borrelia Burgdorferi), a Case Report. Advances in Ophthalmology and Optometry. 2017;2(1):385-389; [CR].
2. Jasani G, **Kuwera E**, Husain A. Isolated Medial Rectus Entrapment Due to Medial Wall Blowout Fracture: A Case Report. Archives of Ophthalmology and Optometry. 2020; 3(2): 10-12. [CR].
3. Dai X, **Kuwera E**. A Large Unilateral Temporal Pinguecula in a Young Pediatric Patient. Archives of Ophthalmology and Optometry. 2021; 4(1): 22-25. [CR]

4. **Dai X, Kuwera E.** Saccadic Intrusions in Pediatric Non-Accidental Trauma. *American Journal of Ophthalmology Case Reports*. 2022; 26; 101564. <https://doi.org/10.1016/j.ajoc.2022.101564>. [CR]

### Book Chapters

1. **Kuwera E, Lagstein O.** Chapter 13: The Treatment of Strabismic Amblyopia. *Strabismus and Amblyopia: Scientific Basis and Clinical Management*, McGraw Hill; 2022 [BC]
2. Kraus CL, **Lagstein O, Jensen A, Kuwera E.** Chapter 5: Amblyopia, *Clinical Pediatric Ophthalmology and Strabismus*. Jaypee Brothers International; 2023:34-40 [BC]
3. **Kuwera E, Jabroun M.** Chapter 23: Complex Forms of Strabismus, *Clinical Pediatric Ophthalmology and Strabismus*. Jaypee Brothers International; 2023:296-317 [BC]

### Guidelines/Protocols, Consensus Statement, Expert Opinion, Consortium Articles

1. Kraus CL, **Kuwera E.** What Is Strabismus? *JAMA*. Published online February 17, 2023. doi:10.1001/jama.2023.0052 [GL]

### Press Mentions

- 2018 Advances in Strabismus Care for Adults and Children, Johns Hopkins Clinical Connection  
<https://clinicalconnection.hopkinsmedicine.org/news/advances-in-strabismus-care-for-adults-and-children>
- 9/7/2020 Passing the Scalpel in Strabismus (with David L. Guyton, M.D.), The Wilmer Eye Institute, Wilmer Magazine Summer 2020  
<https://www.hopkinsmedicine.org/news/articles/passing-the-scalpel-in-strabismus>
- 9/7/2020 Given Children a Chance for Sight, The Wilmer Eye Institute, Wilmer Magazine Summer 2020  
<https://www.hopkinsmedicine.org/news/articles/children-chance-for-sight>
- 5/17/2022 10 on TED – questions on Thyroid Eye Disease  
<https://www.hopkinsmedicine.org/news/articles/10-on-ted>

### CLINICAL ACTIVITIES

#### Certification

- 7/2017 Licensed physician in the state of Maryland, #D0083785
- 6/2019 Board certified in ophthalmology
- 2023 – Present **Editorial Board Member** – International Journal of Pediatrics and Child Health
- 2023 – Present **Clinical Director** – Special Olympics Maryland, Opening Eyes Program. Organize and provide free vision screenings and glasses for Special Olympics athletes.

## EDUCATIONAL ACTIVITIES

### Educational Focus

Pediatric ophthalmology with a focus on complex strabismus, nystagmus, amblyopia, and retinoscopy. Certified educator of the Johns Hopkins Institute for Excellence in Education.

- 10/2018 – Present     **Co-Division Education Champion in Optics**, Wilmer ophthalmology residents and fellows, Optics clinical instruction, surgical techniques, and basic science review.
- 10/2018 – Present     **Program Evaluation Committee Member**, Wilmer Eye Institute; Planning, developing, implementing, and evaluating the educational activities of the residency program.
- 2023 – Present        American Academy of Ophthalmology Online Education Committee Member – Pediatric Ophthalmology and Strabismus

### Teaching

#### Classroom Instruction

- 2009 – 2010     Medical School Tutor, Ross University School of Medicine, Commonwealth of Dominica. Gave lecture style sessions (both one-on-one and in a group setting) to Ross medical students in all subjects of the basic sciences. Each lecture would consist of two to three topics covered in a 2-3 hour session.
- 2013 – 2014     Presenter, Residents, Jersey Shore University Medical Center
- *How to Perform a Fundoscopy*: Lecture directed towards internal medicine attending physicians and residents. Discussed techniques not taught in medical school to make a fundoscopic exam easier and more enjoyable. Included basic information on clinical findings of glaucoma and various other conditions.
  - *Fundoscopy Workshop*: Held 2 workshops for internal medicine residents and medical students on techniques for utilizing the direct ophthalmoscope.
  - *Pancreatic Cancer*: Presented basic information on the clinical signs and symptoms, diagnosis, staging, and treatment of exocrine pancreatic cancer.
  - *Ophthalmic Infections*: Presented basic information on common pediatric ophthalmic infections
- 2014 – 2017     Presenter, Residents, Jamaica Hospital Medical Center, Resident Grand Rounds Presentations
- *Retinoblastoma*: Grand rounds presentation on the etiology, pathophysiology, diagnosis, and management of retinoblastoma
  - *Radiation Induced Lacrimal Gland Injury*: Grand rounds presentation on the etiology, pathophysiology, and management of radiation induced xerophthalmia
  - *Ocular Lymphoma*: Grand rounds presentation on the etiology, pathophysiology, diagnosis, and management of ocular lymphoma
  - *Retinoscopy*: Grand rounds presentation on performing retinoscopy without lenses (based on Dr. Jack C. Copeland's techniques)
  - *Severe chemical eye injury*: Grand rounds presentation on the etiology, pathophysiology, diagnosis, and management of the problem
  - *Angioid Streaks*: Grand rounds presentation on the etiology, pathophysiology, diagnosis, and management of the underlying processes
  - *Trachoma*: Grand rounds presentation on the etiology, pathophysiology, diagnosis, and management of the problem
  - *Anisocoria*: Grand rounds presentation on the etiology, pathophysiology, diagnosis, and management of the problem
  - *Macular Dystrophy*: Grand rounds presentation on the etiology, pathophysiology, diagnosis, and management of the disease
  - *Retinal Detachment*: Grand rounds presentation on the etiology, pathophysiology, diagnosis, and management of the problem

- *Ocular Myasthenia*: Presented on the basic manifestations of the disease, diagnoses/treatment, and its association with generalized myasthenia.

### **Clinical Instruction**

- 10/13/2017 Presenter, Clinicians involved in pediatric ophthalmology, 35<sup>th</sup> Annual Joseph H. Calhoun Pediatric Ophthalmology Forum, Will's Eye Institute;  
Discussion of a case of post-partum esotropia in a young physician who was breastfeeding.  
National Conference
- 11/3/2017 Presenter, Pediatric NICU residents, Retinopathy of prematurity review, Johns Hopkins Hospital.  
JHMI
- 2018-Present Presenter, Wilmer ophthalmology residents and fellows, Strabismus OKAP Review, Wilmer Eye Institute.  
JHMI
- 1/12/2018 Presenter, Pediatric NICU residents, Retinopathy of Prematurity review, Johns Hopkins Hospital.  
JHMI
- 5/11/2018 Presenter, Ophthalmic technicians, Measuring Prism in Progressive Addition Lens Spectacles, Maryland Society of Eye Physicians and Surgeons Annual Meeting.  
Regional
- 2018-Present Moderator, Wilmer ophthalmology faculty, fellows, residents, and medical students. Optics Grand Rands, Wilmer Eye Institute  
Regional
- 2018-Present Moderator, Wilmer ophthalmology faculty, fellows, residents, and medical students. Pediatric Ophthalmology Grand Rounds, Wilmer Eye Institute  
Regional

### **CME Instruction**

- 2/21/2019 Presenter, Johns Hopkins NICU Nurse Practitioners, Retinopathy of Prematurity, Johns Hopkins Hospital.  
Regional
- 10/26/2019 Presenter, Wilmer 23<sup>rd</sup> Annual Technician Course, The Myopia Epidemic, Johns Hopkins Hospital  
Regional
- 11/4/2019 Presenter, 2019 Wilmer Bel Air Ophthalmological Education Series, Sensory Physiology and Monofixation Syndrome  
Regional
- 12/6/2019 Presenter, The Wilmer Eye Institute's 32<sup>nd</sup> Annual Current Concepts in Ophthalmology, Measuring Prism in Progressive Add Spectacles  
National
- 12/5/2020 Presenter, The Wilmer Eye Institutes 33<sup>rd</sup> Annual Current Concepts in Ophthalmology, Retinoscopy: Social Distancing Through Estimation Techniques  
National

- 12/3/2021 Presenter, The Wilmer Eye Institutes 34<sup>th</sup> Annual Current Concepts in Ophthalmology, Retinoscopy for the Cataract Surgeon  
National
- 2/15/2023 Presenter, University of Maryland Medical Center, Clinical Specialty Lecture Series, Vision Assessment and the Basic Sensorimotor Exam for Rehabilitation Professionals  
Regional
- 3/17/2023 Presenter, Pan American Congress of Ophthalmology 2023, Rapid Assessment of Refractive Error in children, Nonverbal, or Uncooperative Patients  
International
- 3/17/2023 Presenter, Pan American Congress of Ophthalmology 2023, Monogenic Forms of Myopia: Mechanistic and Therapeutic Advances (On behalf of Dr. Jefferson Doyle)  
International
- 5/19/2023 Presenter, American Association of Certified Orthoptists Eastern Regional Meeting 2023, The Neurology of Amblyopia  
National
- Mentoring**  
8/2021 Mentor, Howard County Public School System, Mentoring high school students interested in pediatric ophthalmology

## **RESEARCH ACTIVITIES**

- 2005 – 2006 Research Investigator, Scapula Tracker, Rutgers University School of Engineering  
*Objective:* To develop a fully functional computer model of the shoulder girdle, complete with muscles and ligaments. Used a scapula tracking device to obtain normal and pathological joint motion. By integrating these results with a computer model of the shoulder, we investigated patterns in abnormal joints to better understand shoulder pathology.
- 2014 – 2017 Research Investigator, Peripheral Diabetic Neuropathy and Its Relationship to the Severity and Progression of Primary Open Angle Glaucoma, Jamaica Hospital Medical Center.  
*Objective:* To evaluate the differences in severity and progression of primary open angle glaucoma in patients with and without established peripheral diabetic neuropathy.

## **SYSTEM INNOVATION AND QUALITY IMPROVEMENT ACTIVITIES**

### **System Innovation and Quality Improvement efforts outside of JHMI:**

- 2016 –2017 Primary Investigator; Jamaica Hospital Medical Center  
The evaluation of cataract surgery outcomes during residency training.

## **ORGANIZATIONAL ACTIVITIES**

### **Journal Peer Review Activities**

- 8/2017 – Present Biomed Central Ophthalmology
- 4/2020 – Present JAMA Ophthalmology
- 5/2020 – Present Graefe's Archive for Clinical and Experimental Ophthalmology

1/2023 – Present      Journal of Binocular Vision and Ocular Motility

### **Professional Societies**

2014 – Present      American Academy of Ophthalmology, Fellow

2017 – Present      American Association for Pediatric Ophthalmology and Strabismus, Member

2018 – Present      Pediatric Eye Disease Investigator Group, Investigator

2019                  Association for Research and Vision in Ophthalmology, Member

2020 – Present      Adult Strabismus Committee of the American Association for Pediatric Ophthalmology and Strabismus, Member

### **RECOGNITION**

#### **Awards, Honors**

2005 – 2006      Dean's List, Rutgers University School of Engineering

2009 – 2010      Dean's List, Ross University School of Medicine

2010                  Distinguished Scholar, Ross University School of Medicine  
For maintaining a GPA of 4.0 throughout the basic sciences

2013 – 2014      Intern Of The Year, Jersey Shore University Medical Center

2013 – 2014      Medical Student Certificate of Appreciation, Jersey Shore University Medical Center.  
In recognition for excellence in teaching, support, professionalism, and contribution to the education of Rutgers-Robert Wood Johnson medical students

12/11/2019      The Johns Hopkins Hospital Service Star Award  
In recognition of staff members who deliver outstanding patient-centered care, education for students and trainees, and innovative research.

6/14/2021      L. Harrell Pierce, M.D. Wilmer Resident Teaching Award  
In recognition of the Faculty member who has demonstrated extraordinary effort in teaching the Resident Staff.

6/30/2022      Focused Advocacy & Modeling Excellence (FAME) Award  
Presented by the Ophthalmic Division of the Department of Anesthesiology and Critical Care Medicine for exemplifying collegiality among operating room staff.

6/30/2023      The Neil R. Miller Faculty Teaching Award  
In recognition of outstanding contributions to medical student education in the discipline of ophthalmology.

6/30/2023      Wilmer Resident Surgical Teaching Award  
In recognition of the faculty member who has demonstrated extraordinary effort in the operating room to teaching the resident staff.

### **OTHER PROFESSIONAL ACCOMPLISHMENTS**

#### **Posters**

- 4/2022 American Academy for Pediatric Ophthalmology and Strabismus – Cylindrical Lens Transforms Red and Green Laser Pointers into Streak Generators Used for Lancaster Red-Green Testing at Minimal Cost.
- 4/2023 Wilmer Residents Meeting 2023 – Development of Multi-modal Ophthalmic Anesthesia Curriculum for Ophthalmology Residents
- 5/2023 Society for Ambulatory Anesthesia 2023 – Development of Multi-modal Ophthalmic Anesthesia Curriculum for Ophthalmology Residents