## Matthew Hirabayashi MD

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EDUCATION	INSTITUTION	
Ophthalmology Residency	University of Missouri, Columbia, MO	2020-Present
M.D.	University of Missouri, Columbia, MO	2016-2020
B.S. Biology Summa Cum Laude with Honors	Saint Louis University, St. Louis, MO	2012-2016
CERTIFICATIONS, LICENSES	·	
USMLE Step 1: 259		2018
USMLE Step 2 CK: 261		2019
USMLE Step 2 CS: Pass		2019
USMLE Step 3: 251		2020
Physician/Surgeon [Temporary] (2020014715)		2020-Present
Commercial Pilot License, Instrument Rating (4359991) – Airplane Single Engine Land		2021-Present
Certificated Flight Instructor-Instrument (4359991CFII) – Airplane Single Engine Land		2021-Present
Business Foundations, Wharton Online (University of Pennsylvania)		2022
HONORS & AWARDS		
Top Five Abstract and Social Media Award, Young MD Connect Live 2023		2023
Chairman's Award for Outstanding OKAP Score, University of Missouri		2022
John Aure Buesseler Award for Excellence in Ophthalmology, University of Missouri		2020
Health Sciences Research Day Poster Award, University of Missouri		2019
MedZou Distinguished Volunteer Award, University of Missouri		2019
Research Council Small Grant Award, Missouri Orthopaedic Institute		2017
ILEX Grant Recipient, Saint Louis University		2016
Senior Legacy and Undergraduate Teaching Award, Saint Louis University		2016
Presidential Scholar, Saint Louis University		2012-2016
HONORARY & PROFESSIONAL SOCIETIE	S	
Refractive Surgery Alliance Society		2021-Present
National Association of Flight Instructors		2021-Present
American Academy of Ophthalmology		2020-Present
Alpha Sigma Nu		2013-Present
Presidential Scholarship Society, Saint Louis University		2012-Present

## RESEARCH & SCHOLARSHIP

# **Peer-Reviewed Publications:**

- **Hirabayashi M**, Barnett B. Solving STODS—Surgical Temporary Ocular Discomfort Syndrome. *Diagnostics*. 2023; 13(5):837. doi.org/10.3390/diagnostics13050837
- Hirabayashi M, Gharabagi A, Hesemann N, Johnson S, Webel A, Petroski G, Davis G. Spherical aberration of cataractous eyes and its relationship with age, ocular biometry, and various IOL platforms. *Journal of Refractive Surgery*. 2023; 39(2), 89–94. doi.org/10.3928/1081597X-20221207-01
- Hooshmand S, Voss J, Hirabayashi M, McDaniel L, An J. Outcomes of initial and repeat micro-pulse transscleral cyclophotocoagulation in adult glaucoma patients. *Therapeutic Advances in Ophthalmology*. 2022;14:251584142110644. doi: 10.1177/25158414211064433
- Pratte E, Cho J, Landreneau R, **Hirabayashi M**, An J. Predictive Factors of Outcomes in Kahook Dual Blade Excisional Goniotomy Combined with Phacoemulsification. *Journal of Current Glaucoma Practice*. 2022; 16(1):47-52. doi: 10.5005/jp-journals-10078-1313
- Xu H, Thomas M, Lee D, **Hirabayashi M**, An J. Response to netarsudil in goniotomy-treated eyes and goniotomy-naïve eyes: a pilot study. *Graefes Arch Clin Exp Ophthalmol*. 2022;260(9):3001-3007. doi: 10.1007/s00417-022-05609-6
- **Hirabayashi M**. Wing Separation and Mid-Air Breakup Analysis in Light Training Aircraft. *Aviation*. 2021;25(4):278-282. doi: 10.3846/aviation.2021.15953.
- Cho J, Hogan D, Salim M, Pratte E, King J, Bylund R, **Hirabayashi M**, An J. Comparison of Outcomes for Laser Trabeculoplasty after Kahook Dual Blade Goniotomy Versus in Goniotomy-Naive Eyes. *Ophthalmology and Therapy*. 2021;10(4):905-912. doi: 10.1007/s40123-021-00378-7
- King J, Lee D, Thomsen S, **Hirabayashi M**, An J. Relationship Between Selective Laser Trabeculoplasty and Excisional Goniotomy Combine with Phacoemulsification. *Canadian Journal of Ophthalmology*. 2021;57(2):112-117. doi: 10.1016/j.jcjo.2021.02.040.
- Hirabayashi M, Virdi G, King J, Lee D, Nguyen V, An J. Effect of Excisional Goniotomy with the Kahook Dual Blade (KDB) on Surgically Induced Astigmatism. Clinical Ophthalmology. 2020;14:4297-4303. doi: 10.2147/OPTH.S279073

## RESEARCH & SCHOLARSHIP cont.

#### **Peer-Reviewed Publications:**

- Pratte E, Landrenau J, **Hirabayashi M**, An J. Comparison of 12-Month Outcomes of Kahook Dual Blade Excisional Goniotomy Performed by Attending versus Resident Surgeons. *Journal of Academic Ophthalmology*. 2020; 12(02): e181-e187. doi: 10.1055/s-0040-1717055
- **Hirabayashi M**, Ponnusamy V, An J. Predictive Factors for Outcomes of Selective Laser Trabeculoplasty. *Scientific Reports*. 2020;10(1):9428. doi: 10.1038/s41598-020-66473-0
- Hirabayashi M, Smith D, An A. Biostatistics 101: Perspectives on Statistics in Ophthalmology. *JOJ Ophthalmol*. 2019;7(5): 555724. https://doi.org/10.19080/JOJO.2019.07.555724.
- Lee D, King J, Thomsen S, **Hirabayashi M**, An J. Comparison Of Surgical Outcomes Between Excisional Goniotomy Using The Kahook Dual Blade And iStent Trabecular Micro-Bypass Stent In Combination With Phacoemulsification. *Clinical Ophthalmology*. 2019;13:2097-2102. doi: 10.2147/ophth.s224109
- **Hirabayashi M**, McDaniel L, An J. Reversal of Toric Intraocular Lens-corrected Corneal Astigmatism after Kahook Dual Blade Goniotomy. *Journal of Current Glaucoma Practice*. 2019;13(1):42-44. doi: 10.5005/jp-journals-10078-1243
- **Hirabayashi M**, Rosenlof T, An J. Comparison of Outcome Predictors for MicroPulse Laser Trabeculoplasty and Selective Laser Trabeculoplasty. *Clinical Ophthalmology*. 2019;13:1001-1009. doi: 10.2147/opth.s205977
- **Hirabayashi M**, King J, Lee D, An J. Outcome of Phacoemulsification Combined with Excisional Goniotomy using the Kahook Dual Blade in Severe Glaucoma Patients at 6 months. *Clinical Ophthalmology*. 2019;13:715-721. doi: 10.2147/opth.s196105

#### **Non-Peer Reviewed Publications:**

- Hirabayashi M. The Laws of Learning, The Laws of Learning, Teaching, and Life. NAFI. March/April 2023.
- Hirabayashi M, Virdi G, Davis G, Hesseman N. Seeing is Believing. The Ophthalmologist. January 2023.
- Hirabayashi M, Virdi G, Davis G, Hesseman N. Toric Tolerance: 1° for 3%? The Ophthalmology Business Minute. December 2022.
- **Hirabayashi M**, Virdi G, Johnson S. The Path of Broken Ground: A timeline of technological developments in ophthalmology. *The Ophthalmologist*. December 2022.
- Barnett B, **Hirabayashi M**. The Art of Focusing Light: Refractive Surgery Fellowships. *The Ophthalmology Business Minute*. December 2022
- Hirabayashi M and An J. Laser Trabeculoplasty in the Treatment of Open-angle Glaucoma. *Glaucoma Physician*. December 2021.
- Dailey D, Thomsen S, Davis G, Davis R, **Hirabayashi M**, and Ponnusamy V. The Curious Case of Cysts and Sight. *EyeNet Magazine*. January 2019.

### **International Poster Presentations:**

- Hirabayashi M, King J, Lee D, An J. Outcome of Phacoemulsification with Kahook Dual Blade Goniotomy in Severe Glaucoma at 6 months. Poster Presented at: 8<sup>th</sup> World Glaucoma Congress; April, 2019; Melbourne, Victoria.
- Hirabayashi M, King J, Lee D, Thomsen S, An J. Comparison of ab-interno 360-degree Trabeculotomy and ab-interno Trabeculectomy using Dual Blade. Presented at: 8<sup>th</sup> World Glaucoma Congress; April, 2019; Melbourne, Victoria.
- **Hirabayashi M**, Rosenlof T, An J. Comparison of Outcome Predictors for MicroPulse Laser Trabeculoplasty and Selective Laser Trabeculoplasty. Presented at: 8<sup>th</sup> World Glaucoma Congress; April, 2019; Melbourne, Victoria.

#### **National Poster Presentations:**

- Hirabayashi M, Gharabagi A, Hesemann N, Johnson S, Webel A, Petroski G, Davis G. Spherical aberration of cataractous eyes and its relationship with age, ocular biometry, and various IOL platforms. Presented at: Young MD Connect Live; March 2023; Austin, TX.
- Hirabayashi M, Ponnusamy V, An J. Predictive Factors for Outcomes of Selective Laser Trabeculoplasty. Presented at: 2019 American Glaucoma Society Meeting; April, 2019; San Francisco, CA.

#### Books:

- Hirabayashi M. The Eye Guide: The Eye Exam. KDP; 2023. ISBN: 979-8369938799.
- Hirabayashi M. The Eye Guide: Cataract Surgery. KDP; 2022. ISBN: 979-8365363342.
- Hirabayashi M. The Eye Guide: Anatomy and Optics. KDP; 2022. ISBN: 979-8364789389.

## **Book Chapters:**

• Hirabayashi M, Johnson S. 2023. "Chapter 23: Cataract Surgery in the Hypotonous Eye." In Cataract Surgery in the Glaucoma Patients, by Johnson S. Springer Science+Business Media. doi: 10.1007/978-0-387-09408-3 23

#### **Lectures and Speaking Engagements:**

- Beyond the White Coat: Entrepreneurship in Ophthalmology, Young MD Connect Live, 2023
- Cataract Surgery: Deep Dive into the Basics, Retina Academy, 2022
- Introduction to Cataract Surgery for Interns and First Years, Sponsored by Bausch + Lomb, 2022
- Ophthalmology Interest Group Lecture Series, University of Missouri School of Medicine, 2020-Present

# RESEARCH & SCHOLARSHIP cont.

## Online Education:

- EyeFlyMD Ophthalmology Education founder: EyeFlyMD.com and twitter.com/EyeFlyMD, 2020-Present
- EyeFlyCFI Aviation Education founder: EyeFlyCFI.com, 2021-Present

#### Peer Reviewer

Journal of Glaucoma

MEDIA & PRESS MENTIONS	
Next-Generation Online IOL Resources, Cataract & Refractive Surgery Today	2023
Filling the App in Knowledge, Young MD Connect (YMDC)	
Bridging the App, The Ophthalmologist	2023 2022
IOL Reference App Allows Surgeons to Search for FDA-Approved IOLs, Ophthalmology Breaking News	2022
New App Allows Surgeons to Search for FDA Approved IOLs, eyewire	2022
Virtual Resources for Aspiring Ophthalmologists, Millenial EYE	2022
COMMUNITY SERVICE	2022
MedZou Ophthalmology Resident Volunteer, University of Missouri	2022-Present
Command Pilot, Angel Flight	2021-Present
STEM Mentor, Wings of Hope	2021-Present
Presidential Scholarship Interviewer, Saint Louis University	2021-Fresent
MedZou Student Volunteer, University of Missouri	2016-2020
Medical School Charity Band (Vocals, Guitar), University of Missouri	2010-2020
Senior Teacher Educator Partnership (STEP) Volunteer, University of Missouri	2017-2020
Labre Ministry with the Homeless Volunteer, Saint Louis University	2015-2017
Guitar Teacher, Doorways Housing St. Louis	2013-2016
LEADERSHIP & PROFESSIONAL SERVICE	2010
Assistant Editor of Technology and Innovation, Ophthalmology Business Minutes	2023-Present
eyeSpace Co-Founder (online at eyespace.ai and on the Apple App Store)	2023-Present
IOL Reference Co-Founder (online at IOLReference.com, part of the eyeSpace utility)	2022-Present
Ophthalmology Interest Group Resident Contact, University of Missouri	2022-Fresent
EyeFlyMD Ophthalmology, Surgery, and Matching Educational Resource Founder	2021-Fresent
• EyeFlyMD.com	2020-1 Tesent
<ul> <li>twitter.com/EyeFlyMD</li> </ul>	
Instagram @EyeFlyMD	
<ul> <li>YouTube @EyeFly</li> </ul>	
Ophthalmology Interest Group Resident Representative, University of Missouri	2020-Present
Medical Student Research Coordinator, University of Missouri	2020-Present
Dean-Appointed Curriculum Innovation Committee, <i>University of Missouri</i>	2017-2020
Curriculum Board Representative, University of Missouri	2017-2020
MedZou Medical Student Education Chair, University of Missouri	2016-2020
School of Medicine Student Ambassadors, University of Missouri	2016-2017
Curriculum Development Coordinator – Biology Department, Saint Louis University	2013-2016
SLU String Orchestra, Concertmaster, Saint Louis University	2013-2016
ADDITIONAL EDUCATION & CERTIFICATION	2012-2010
RSA Resident Webinar Certification, Refractive Surgery Alliance Society	2022
Introduction to Marketing, Wharton Online (University of Pennsylvania)	2022
Introduction to Marketing, wharton Online (University of Pennsylvania)  Introduction to Financial Accounting, Wharton Online (University of Pennsylvania)	2022
Managing Social and Human Capital, Wharton Online (University of Pennsylvania)	2022
Introduction to Corporate Finance, Wharton Online (University of Pennsylvania)	2022
Introduction to Corporate Finance, wharton Online (University of Fennsylvania)  Introduction to Operations Management, Wharton Online (University of Pennsylvania)	2022
INTERESTS, HOBBIES, & SKILLS	2022
INTERESTS, HUDDIES, & SKILLS	

#### Aviation

- Certificated Flight Instructor-Instrument and Instrument Rated Commercial Pilot (CFII, CPL IR HP CMP)
- Aviation Education and Resource/Content Creator: EyeFlyCFI.com and youtube.com/@EyeFlyMD

# Seascape and Wildlife Photography

- Portfolio: ouphotos.net
- Proficiency with Adobe Creative Cloud Suite

### Music

- Original Music: CuriosityandCats.com
- Jazz Guitar and String Quartet Arranging: www.youtube.com/c/CuriosityandtheCat

Sailing/Boatbuilding Wing Chun Kung Fu

Antiquity History (Rome)

Scuba Diving