

# John-Michael Guest

## EDUCATION/TRAINING

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- 2020-2023     **Kresge Eye Institute, Detroit Medical Center, Ophthalmology Residency (PGY2-4)**  
Detroit, MI
- 2019-2020     **Beaumont Dearborn & Taylor, Transitional Year (PGY-1)**  
Dearborn & Taylor, MI
- 2016-2017     **Translational Medicine Research Fellowship**  
Kresge Eye Institute, Detroit, MI
- 2014-2019     **Wayne State University School of Medicine**  
Detroit, MI  
*M.D.*
- 2009-2013     **Michigan State University**  
East Lansing, MI  
*B.A. Chemistry*

## HONORS/AWARDS

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### Medical School:

- 2018     **3<sup>rd</sup> Place for Best Poster at Medical Student Research Symposium** Wayne State University, Detroit, MI
- Presented research on *Therapeutic Efficacy of Isavuconazole in Experimental Aspergillus Fumigatus Endophthalmitis*
- 2015-2018     **Robert C. Fraser, M.D. Endowed Scholarship**
- Merit based award given to medical students nominated by the Department of Ophthalmology who have shown a dedicated interest in Ophthalmology
- 2017     **Best Oral Presentation at Vision Research Day at Kresge Eye Institute, Detroit, MI**
- Presented research on *Therapeutic Efficacy of Isavuconazole in Experimental Aspergillus Fumigatus Endophthalmitis*

### Residency:

- 2021     **Top 3 Oral Presentation at the 66th Annual Clinical Conference: Update in Clinical Ophthalmology**, Kresge Eye Institute, Detroit, MI
- *Accuracy of Intravitreal Injection Volume for Aflibercept Pre-filled Syringe and Traditional One-Milliliter Syringe*
- 2021     **Chosen to Represent Kresge Eye Institute at Michigan Society of Eye Physicians and Surgeons (MiSEPS)**, Mackinac Island, MI, 2021 – Chosen to represent Kresge Eye Institute and present against top residents from other MI based ophthalmology residency programs
- *Accuracy of Intravitreal Injection Volume for Aflibercept Pre-filled Syringe and Traditional One-Milliliter Syringe*
- 2022     **Chosen to Attend Cataract Surgery: Telling It Like It Is Conference**, Orlando, FL, 2022  
Faculty from Kresge Eye Institute elect 1 resident who they feel is a young and promising cataract surgeon to attend the conference to build on experience and learn new skills

2023 **Golden Apple Award for Outstanding Resident Teacher, Kresge Eye Institute**  
Award voted on by all ophthalmology residents and given to the resident who taught them the most during residency

2023 **Top Quality Improvement Project, Kresge Eye Institute**

## MEMBERSHIPS/SOCIETIES

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2020-present American Academy of Ophthalmology  
2020-present Michigan Society of Eye Physicians and Surgeons  
2022-present American Society of Cataract and Refractive Surgery  
2020-present American Medical Association  
2014-2019 Institute for Healthcare Improvement  
2014-2019 Ophthalmology Interest Group

## WORK EXPERIENCE

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2023-present **Comprehensive Ophthalmologist**, Metropolitan Eye Center, St. Clair Shores, MI

- Specializing in cataract and refractive lens surgery
- Minimally invasive glaucoma surgery
- Eyelid surgery
- Cornea and external diseases

2013-2014 **Ophthalmic Technician and Scribe**, Associated Retinal Consultants of MI, William Beaumont Medical Office Building, Royal Oak, MI

- Obtained eye vitals and dilated patient's eyes
- Interviewed patients and performed manual visual field tests when necessary
- Took optical coherence tomography (OCT) and fundus photos
- Recorded patient visits in EMR system as physician performed exams
- Assisted in procedures done in the clinic including ultrasound, cryotherapy, intravitreal injections, and pneumatic retinopexy
- Counseled patients on common ophthalmic issues

## LEADERSHIP POSITIONS

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2023-present **Medical Advisory Board Member**, Leader dogs for the Blind, Rochester Hills, MI  
Board member tasked to help promote the programs available at leader dog for the blind to eligible patients

2022-2023 **Chief Resident**, Kresge Eye Institute, Detroit, MI  
Elected by co-residents and faculty as one of the two Chief Residents for the 2022-2023 academic year for a program with 28 total residents  
Organized a BCSC focused 45-week lecture series for all residents  
Created and manage a surgical schedule for all operating residents  
Created daily work schedules for all resident's clinical and operating experience PGY2-4

2018-2019 **Ophthalmology Interest Group Coordinator**- Wayne State University School of Medicine-  
Organized and set up meetings to discuss the field of ophthalmology and educate medical students on what it has to offer. Assisted fellow students on applying to an ophthalmology residency and provided connections within the field for mentorship.

- 2017 **Department of Ophthalmology Five Year Internal Review Committee Member-** Wayne State University School of Medicine- Was the sole medical student on the committee tasked with reviewing and improving medical student education and student involvement in ophthalmology.
- 2015-2016 **Treasurer and Project Manager for the Institute for Healthcare Improvement-** Wayne State University School of Medicine Chapter- Organized and held seminars for 1<sup>st</sup> and 2<sup>nd</sup> year medical students to help them understand the importance of patient safety and ways to improve it. Handled all financing and grant applications.
- 2015-2016 **Sight Savers Director-** Wayne State University School of Medicine/Kresge Eye Institute- Led vision/glaucoma screenings at free medical clinics around Detroit 1-2 times per month. Taught 1<sup>st</sup> and 2<sup>nd</sup> year students the basics of an eye exam/glaucoma screening. Operated visual field testing, IOP checks, visual acuity testing, EOM, and pupillary reflex testing.
- 2014-2016 **Patient Care Director for Street Medicine Detroit-** Wayne State University School of Medicine- Led a mobile inter-professional clinic and delivered care at soup kitchens, shelters, and on the streets of Detroit for those experiencing homelessness. Prepared, led, and coordinated monthly health and wellness seminars for 20-30 people at various homeless shelters in Detroit where we provided education to patients and worked with them on lifestyle modifications. Collected and processed data on our patient metrics. Held monthly chart reviews and followed up with those identified as critically homeless or considered to be at a particularly high risk.
- 2014-2016 **Co-curricular Detroit Outreach Program-** Wayne State University School of Medicine- Participated in at least 30 hours of mentoring/community outreach per year. Participated in at least 30 hours of clinical community volunteer services per year. Attended at least 15 hours of seminars per year to better understand various patient populations, especially those within our community.

## **TEACHING EXPERIENCE**

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- 2020-2023 **Ophthalmology Resident Buddy Program-** Wayne State University School of Medicine and Kresge Eye Institute- Mentor for 2 medical students applying to ophthalmology. Organize clinical and research experiences for them
- 2021-2023 **Instructor for Ophthalmic Histology Lab**  
Wayne State University School of Medicine  
Worked through virtual histology slides and then helped instruct students on dissection of a sheep eye
- 2017 **Wayne State University Campus Wide Pre-Medical Mentoring Program-** Wayne State University School of Medicine- Met with and mentored a pre-medical student from Wayne State and help guide them to become the best applicant they could
- 2016 **Created an Educational Video on How to Perform a Basic Eye Exam-** Kresge Eye Institute and Wayne State University School of Medicine- Helped create a script, shoot the video, edit the footage, and posted the video to Youtube. Video is currently used to teach Wayne State University medical students and has over 180,000 views on YouTube

## LECTURES

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- 2022      **Eye Anatomy  
The Red Eye**  
Physician Assistant Program at Wayne State University  
Gave lectures to 55 PA students
- 2106 (Nov.)      **Importance of the Inter-professional Team-** Wayne State University School of Medicine- Led a presentation and discussion for a group of 40 2<sup>nd</sup> year students on inter-professional teamwork and patient-centered care
- 2015 (Nov.)      **Institute for Healthcare Improvement, Importance of Communication-** Wayne State University School of Medicine- Led a group of 40 1<sup>st</sup> year medical students in an activity to illustrate the importance of effective communication and standardization in order to reduce medical errors

## RESEARCH EXPERIENCE

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- 2016-2017      Kresge Eye Institute, Anju Goyal, MD, and Ashok Kumar, PhD- Took an educational leave of absence and dedicated a year to research between my second and third year of medical school. Conducted both clinical and basic science research in the field of ophthalmology.
- 2016-2017      Kresge Eye Institute, Ashok Kumar, PhD- Translational Medicine Research- Basic science research using in vitro human cells and an in vivo mouse model to experiment with bacterial, fungal, and viral endophthalmitis and possible future treatment options.
- 2016-2019      Kresge Eye Institute, Anju Goyal, MD- Clinical research investigating predictive value of abnormal visual fields in glaucoma suspect patients. Research evaluating the teaching of medical students. Assisting with the Vision Detroit project which works on delivering care to the underserved populations in Detroit and researching possible barriers to care.
- 2014-2016      Henry Ford Health System, Vasilios Moutzouros, MD- Examining and extracting data on Major League Baseball pitchers in order to better understand the relationship with ulnar collateral ligament injury. Measure biceps tendon elongation from MRI and ultrasound scans after distal biceps tendon repair and compare it to patient's "Disability of the Arm, Shoulder, and Hand" (DASH) questionnaire score.

## PUBLICATIONS/PRESENTATIONS

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### Peer Reviewed Manuscripts:

- Daniel Malach, **JM Guest**, Adam C, Joffe J, Le K, Kim C, Lin X.  
*Intraocular Lens Formula Comparison of Flanged Intrascleral Intraocular Lens Fixation with Double Needle Technique.*  
Clin Ophthalmol. 2023 Mar 12;17:837-842. doi: 10.2147/OPTH.S389325
- Brett Malbin MD, **JM Guest MD**, Xihui Lin MD  
*Recalcitrant Fusarium Fungal Endophthalmitis: Novel Surgical Technique Combining Vitrectomy with Intralesional Injection of Voriconazole and Povidone Iodine.*

- **John-Michael Guest MD**, Brett Malbin MD, Gary Abrams MD, Anthony Parendo MD, Shibandri Das MD, Chinwenwa Okeagu MD, Bing X. Ross MD, Ashok Kumar PhD, Xihui Lin MD  
*Accuracy of intravitreal injection volume for aflibercept pre-filled syringe and BD Luer-Lok one-milliliter syringe*  
International Journal of Retina and Vitreous, 2022 Apr 5;8(1):27. doi: 10.1186/s40942-022-00375-3
- **John-Michael Guest BA**, Pawan Kumar Singh PhD, Sanjay Revankar MD, Pranatharthi Chandrasekar MD, Ashok Kumar PhD  
*Isavuconazole for treatment of experimental fungal endophthalmitis caused by Aspergillus fumigatus*  
Journal of Antimicrobial Agents and Chemotherapy. 2018 Oct 24;62(11):e01537-18. doi: 10.1128/AAC.01537-18.
- Pawan Kumar Singh PhD, **John-Michael Guest BA**, Mamta Kanwar PhD, Joseph Boss MD, Nan Gao PhD, Mark S. Juzych MD MHSA, Gary W Abrams MD, Fu-shin Yu PhD, Ashok Kumar PhD  
*Zika Virus Infects Primary Human Cells Lining the Blood-Retinal Barrier and Causes Chorioretinal Atrophy in Mouse Eyes*  
Journal of Clinical Investigation Insight, Feb 2017;2(4):e92340. doi: 10.1172/jci.insight.92340
- Robert A. Keller MD, Nathan E Marshall MD, Kelechi Okorooha MD, Edward Jung MD, **John-Michael Guest BA**, Vasilios Moutzouros MD  
*Major League Pitching Velocity and Pitch Type Associated with Risk of UCL Injury*  
Journal of Shoulder and Elbow Surgery. 2016 Apr;25(4):671-5. doi: 10.1016/j.jse.2015.12.027
- Kelechi Okorooha MD, Robert A. Keller MD, Nathan E Marshall MD, **John-Michael Guest BA**, Terrance Lock MD, Brian Rill MD  
*Patient Perceptions of Reimbursement for Arthroscopic Meniscectomy and ACL Reconstruction*  
Orthopedics. 2016 Jun 30;1-7. doi: 10.3928/01477447-20160623-03
- Nathan E Marshall MD, Robert A. Keller MD, Kelechi Okorooha MD, **John-Michael Guest BA**, Charles Yu MD, Stephanie Muh MD, Vasilios Moutzouros MD  
*Radiostereometric Analysis of Biceps Tendon Elongation After Distal Biceps Tendon Repair*  
Orthopaedic Journal of Sports Medicine, Nov 2016; 4(11). doi: 10.1177/2325967116672620

#### Abstracts:

- Anju Goyal MD, **John-Michael Guest BA**, Elizabeth Curtiss BS, Nariman Nassiri, MD MPH, Ingrid Ciungan BA, Ashok Kumar PhD, Mark Juzych MD MHSA  
*Collaborative Externship Between Clinical and Basic Science Departments Sparks Early Student Engagement in Ophthalmology*  
Association of University Professors of Ophthalmology Annual Meeting, Jan 2018, Austin, TX
- Kelechi Okorooha MD, Nathan E Marshall MD, Robert A. Keller MD, Charles Yu MD, **John-Michael Guest BA**, Stephanie Muh MD, Vasilios Moutzouros MD  
*Strength Changes Associated with Elongation After Distal Biceps Repair*  
Arthroscopy Association of North America Meeting, May 2017, Denver, CO
- Pawan Kumar Singh PhD, **John-Michael Guest BA**, Mamta Kanwar PhD, Joseph Boss MD, Nan Gao PhD, Gary W Abrams MD, Fu-shin Yu PhD, Ashok Kumar PhD  
*Zika Virus Causes Chorioretinal Atrophy in Mouse Eyes and Infects Primary Human Cells Lining the Blood-Retinal Barrier*

Association for Research in Vision and Ophthalmology Annual Meeting, May 2017, Baltimore, MD

- Satyesh Rana MD, Anju Goyal MD, **John-Michael Guest BA**, Dan St. Aubin MD, Chaesik Kim BSEE, Justin R. Tannir MD, Shukairy Aman MD, Nariman Nassiri MD MPH, Bret A. Hughes MD, Mark S. Juzych MD MHSA  
*Factors Associated With Glaucomatous Progression In Glaucoma Suspect Eyes: a Five-year Retrospective Study*  
Association for Research in Vision and Ophthalmology Annual Meeting, May 2017, Baltimore, MD

### **Podium Presentation:**

- **John-Michael Guest MD**, Brett Malbin MD, Gary Abrams MD, Chinwenwa Okeagu MD, Ashok Kumar PhD, Xihui Lin MD  
*Accuracy of intravitreal injection volume for aflibercept pre-filled syringe and BD Luer-Lok one-milliliter syringe*  
66th Annual Clinical Conference: Update in Clinical Ophthalmology, Kresge Eye Institute, June 2021, Detroit, MI (Top 3 oral presentation)  
Michigan Society of Eye Physicians and Surgeons, Mackinac Island, July 2021  
American Academy of Ophthalmology, New Orleans, Nov 2021
- **John-Michael Guest BA**, Pawan Kumar Singh PhD, Sanjay Revankar MD, Pranatharthi Chandrasekar MD, Ashok Kumar PhD  
*Therapeutic Efficacy of Isavuconazole in Experimental Aspergillus Fumigatus Endophthalmitis*  
Vision Research Day at Kresge Eye Institute Oct. 18<sup>th</sup> 2017, Detroit, MI (best oral presentation)
- Pawan Kumar Singh PhD, **John-Michael Guest BA**, Mamta Kanwar PhD, Mark S. Juzych MD MHSA, Gary W. Abrams MD, Manoj K. Bhasin PhD, Ashok Kumar PhD  
*Determination of system level alterations in host transcriptome due to Zika Virus (ZIKV) Infection in Retinal Pigment Epithelium*  
Vision Research Day at Kresge Eye Institute Oct. 18<sup>th</sup> 2017, Detroit, MI
- Pawan Kumar Singh PhD, **John-Michael Guest BA**, Mamta Kanwar PhD, Joseph Boss MD, Nan Gao PhD, Gary W Abrams MD, Fu-shin Yu PhD, Ashok Kumar PhD  
*Zika Virus Causes Chorioretinal Atrophy in Mouse Eyes and Infects Primary Human Cells Lining the Blood-Retinal Barrier*  
Association for Research in Vision and Ophthalmology Annual Meeting, May 2017, Baltimore, MD
- Nathan E Marshall MD, Robert A. Keller MD, **John-Michael Guest BA**, Vasilios Moutzouros MD  
*Radiostereometric Analysis of Biceps Tendon Elongation After Distal Biceps Tendon Repair*  
The 13<sup>th</sup> International Congress of Shoulder and Elbow Surgery, May 20<sup>th</sup>, 2016, Jeju, Korea
- Nathan E Marshall MD, Robert A. Keller MD, **John-Michael Guest BA**, Vasilios Moutzouros MD  
*Radiostereometric Analysis of Biceps Tendon Elongation After Distal Biceps Tendon Repair*  
2016 Mid-America Orthopedic Association Annual Meeting, April 14<sup>th</sup>, 2016, Bonita Springs, FL
- Nathan E Marshall MD, Robert A. Keller MD, **John-Michael Guest BA**, Vasilios Moutzouros MD  
*Radiostereometric Analysis of Biceps Tendon Elongation After Distal Biceps Tendon Repair*  
American Academy of Orthopedic Surgeons Annual Meeting, March 6<sup>th</sup>, 2016, Orlando, FL

### **Poster Presentation:**

- Daniel Malach MD, **John-Michael Guest MD**, Christopher Adam MD, Kim Le MD, Chaesik Kim BSEE, Xihui Lin MD  
*Intraocular Lens Formula Comparison of Flanged Intrascleral Intraocular Lens Fixation with Double Needle Technique*  
American Academy of Ophthalmology Annual Meeting, San Francisco CA, 2019
- **John-Michael Guest BA**, Pawan Kumar Singh PhD, Sanjay Revankar MD, Pranatharthi Chandrasekar MD, Ashok Kumar PhD  
*Therapeutic Efficacy of Isavuconazole in Experimental Aspergillus Fumigatus Endophthalmitis*  
Infectious Disease Society of America Infectious Disease Week, Oct 2017, San Diego, CA  
Medical Student Research Symposium, Jan. 2018, Wayne State University, Detroit, MI (3<sup>rd</sup> place for best poster)
- Tannia Rodriguez-Valenzuela BSE, Samantha Arsenault BSE, **John-Michael Guest BA**, Elizabeth Curtiss BS, Cheasik Kim BSEE, Nariman Nassiri MD MPH, Mark Juzych MD MHSA, Anju Goyal MD  
*Effects of increased accessibility to ocular health care and education in a predominantly Latino / Hispanic population*  
Medical Student Research Symposium, Jan. 2018, Wayne State University, Detroit, MI  
Graduate and Postdoctoral Research Symposium, March 2018, Wayne State University, Detroit, MI
- Tannia Rodriguez-Valenzuela BSE, **John-Michael Guest BA**, Chaesik Kim BSEE, Mark S. Juzych MD MHSA, Anju Goyal MD  
*Community-based Vision Health Educational Intervention in a Predominantly Hispanic/Latino Population*  
La Academia del Pueblo Latino/a and Latin American Studies Research Conference, April 2017, Wayne State University, Detroit, MI
- Nathan E Marshall MD, Robert A. Keller MD, **John-Michael Guest BA**, Vasilios Moutzouros MD  
*Radiostereometric Analysis of Biceps Tendon Elongation After Distal Biceps Tendon Repair*  
American Academy of Orthopedic Surgeons Annual Meeting, March 6, 2016, Orlando, FL

## **INTERESTS/EXTRACURRICULAR ACTIVITIES**

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**2013-2017**      **Ultimate Frisbee Club Team-** All-star team of players from Michigan and Ohio that travels the US playing different teams

**Other Interests:** Golf, Football, Baseball, Mountain Biking, Water skiing, Wake surfing, Skiing, Hockey, smoking meats