

# Maria Anneke Woodward, M.D., M.Sc.

Alan Sugar, M.D. Research Professor of Ophthalmology and Visual Sciences  
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## EDUCATION AND TRAINING

- 1999 Bachelor of Science, Molecular Biophysics & Biochemistry  
*Yale University*  
New Haven, Connecticut
- 2004 Doctor of Medicine  
*Columbia University, College of Physicians & Surgeons*  
New York, New York
- 2004-2005 Transitional Internship Program, Department of Medicine  
*Emory University School of Medicine*  
Atlanta, Georgia
- 2005-2008 Ophthalmology Residency, Chief Resident 2007-08  
*Emory University School of Medicine, Department of Ophthalmology*  
Atlanta, Georgia
- 2008-2009 Fellow, Cornea, External Disease, & Refractive Surgery  
*Emory University School of Medicine, Department of Ophthalmology*  
Atlanta, Georgia
- 2014-2016 Robert Wood Johnson Clinical Scholars Program  
Master of Science in Health and Healthcare Research  
*University of Michigan, Rackham Graduate School*  
Ann Arbor, Michigan
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## CERTIFICATION AND LICENSURE

- 2009 Diplomate: American Board of Ophthalmology, #29627  
2010 State of Michigan Medical License, #4301096475  
2010 State of Michigan Pharmacy License, #5315045446
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## ACADEMIC AND CLINICAL APPOINTMENTS

### Academic Appointments:

- 2009-2010 Assistant Professor of Ophthalmology and Visual Sciences  
Emory University, School of Medicine; Atlanta, GA
- 2010-2014 Clinical Lecturer of Ophthalmology and Visual Sciences  
University of Michigan, School of Medicine; Kellogg Eye Center; Ann Arbor, MI
- 2013-Present Faculty Associate, Institute for Healthcare Policy and Innovation

2014-2020 Assistant Professor of Ophthalmology and Visual Sciences  
University of Michigan, School of Medicine; Kellogg Eye Center; Ann Arbor, MI  
2014-Present Faculty Associate, Global REACH (Research, Education, and Collaboration in Health)  
2020-Present Associate Professor of Ophthalmology and Visual Sciences  
University of Michigan, School of Medicine; Kellogg Eye Center; Ann Arbor, MI

Clinical Appointments:

2009-2010 Staff Physician, Section of Cornea, External Disease, & Refractive Surgery  
Emory Healthcare, Emory Eye Center; Atlanta, GA  
2010-Present Staff Physician, Department of Ophthalmology and Visual Sciences  
Section of Cornea, External Disease, & Refractive Surgery  
Kellogg Eye Center; Ann Arbor, MI  
2010-Present Staff Physician, Department of Ophthalmology and Visual Sciences  
Veterans Administration Ann Arbor Healthcare System; Ann Arbor, MI  
2019-Present Chief of Service, Cornea, External Disease, & Refractive Surgery  
2019-Present Director, Technology-Based Eye Care Services, Veterans Administration Ann Arbor  
Healthcare System; Ann Arbor, MI

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**RESEARCH INTERESTS:**

1. eHealth and Anterior Eye Diseases
2. Microbial Keratitis
3. Corneal Transplantation: Eye Bank Practices

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**CURRENT GRANTS:**

*University of Michigan Vision Research Center*  
National Eye Institute  
Co-I with Effort (PI: Antonetti, D)  
09/2022-06/2027

*Developing Standardized Quality Metrics Following Corneal Transplantation Using a Delphi  
Technique*  
EBAA Pilot Research Grant.  
Co-I (Principal Investigator: Fasika Woreta)  
07/2022-06/2023.

*Building Non-Communicable Eye Disease Research Capacity in India*  
National Institutes of Health  
Co-I with Effort (Principal Investigator: Musch, David C.)  
07/2021-06/2026.

*Automated Quantitative Ulcer Analysis Study: Diagnosing Organism Type*  
Research to Prevent Blindness, Inc.  
Woodward, Maria A, PI  
01/2021-12/2022.

*Quantifying Microbial Keratitis to Predict Outcomes: An Imaging and Epidemiologic Approach*  
National Institutes of Health  
Woodward, Maria A, PI  
03/2020-02/2024.

*Sustainable Community Clinic Telemedicine-Based Glaucoma Screening*  
Center for Disease Control  
Co-I with Effort (Principal Investigator: Newman-Casey, Paula Anne)  
09/2019-09/2024.

*A New Mentorship Program for Ophthalmology Residents: A Look at Who Applies*  
American Academy of Ophthalmology, Minority Ophthalmology Mentoring program  
10/2022 – 09/2023

**PRIOR GRANTS:**

*Technology-based Eye Care Services (TECS) for Ann Arbor Medical Center*  
Veterans Administration Office of Rural Health (ORH)  
Woodward, Maria A, PI  
09/2019-09/2021

*University of Michigan Assessment of Native American Michiganders' Eyecare Needs (ANAMEN)*  
SEVA Foundation  
Newman-Casey, Paula Anne, mPI; Woodward Maria A, mPI; Hirth, Richard, co-I  
01/2020-12/2020.

*Quantifying Microbial Keratitis*  
MICHR Pilot Grant Program. Promoting Progress in Statistics Award (ProPS)  
Woodward, Maria A, PI  
01/2020-12/2020.

*Acute Eye Infections Managed in Primary Care Settings: Identifying At-Risk Patients and Clinical Risk Factors*  
Blue Cross Blue Shield Foundation of Michigan  
Woodward, Maria A, PI  
07/2019-05/2020.

*Computerized Measurement Tools for Corneal Ulcers*  
Alliance for Vision Research  
Woodward, Maria A, PI  
07/2018-06/2019.

*Telemedicine and Refractive Error*  
Warby Parker  
Woodward, Maria A, PI  
02/2018-12/2018.

*U10: Zoster Eye Disease Study*  
National Eye Institute  
Co-I (Principal Investigator: Elisabeth Cohen) (Dr. Woodward recruited patients with corneal infections at University of Michigan)  
07/2016-06/2021.

*Development of Clinical Tools for Telemedicine in Ophthalmology*  
Alliance for Vision Research

Woodward, Maria A, PI  
05/2016-05/2017.

*Re-Design of Diabetic Retinopathy Patient Materials*  
Intelligent Retinal Imaging Systems  
Woodward, Maria A, PI  
05/2016-12/2016.

*Smartphone-Based Retinal Imaging for Screening of Eye Disease* U-M Michigan  
Translational Research and Commercialization of Life Sciences Program  
Woodward, Maria A, mPI; Paulus, Yanni, mPI  
01/2016-01/2018.

*Deep-Monitoring Chronic Disease in Underserved and Remote Populations*  
Third Century Initiative: Global  
Challenges Grant: University of Michigan  
Burke, David T, PI; Woodward, Maria A, Co-I  
06/2015-07/2018.

*3D Plenoptic Imaging in Medical Diagnostics*  
MCubed  
Woodward, Maria A, mPI. Burke, David mPI, Sick, Volker mPI  
01/2015-01/2017.

*MISight Portable Eye Camera*  
Fostering Innovation Grant  
Woodward, Maria A, PI  
01/2014-01/2015.

*K23 EY023596-05: Telemedicine For Anterior Eye Diseases*  
National Institutes of Health  
Woodward, Maria A, PI  
09/2013-02/2019.

*Trends in endothelial and penetrating keratoplasty for treatment of corneal endothelial disease*  
Eversight Michigan  
Shtein, Roni M, PI; Woodward, Maria A, Co-I  
07/2013-06/2015.

*Tissue Processing Techniques for Ultra-thin Descemet's Stripping Endothelial Keratoplasty*  
Midwest Eye Banks  
Woodward, Maria A, PI  
07/2012-06/2013.

*DMEK Tissue Preparation*  
Midwest Eye-Banks Grant  
Mian, Shahzad, PI; Woodward, Maria A, Co-I  
01/2012-01/2014.

*Effect of Time on Endothelial Health in DSAEK Preparation*  
Richard Lindstrom Research Grant

Woodward, Maria A, PI; Titus, Michael S, Co-I  
01/2012-01/2013.

*Visual Outcomes and Surgical Techniques for Descemet's Stripping Automated Endothelial Keratoplasty*

Center for Research on Learning and Training: Lecturers' Professional Development Grant  
Woodward, Maria A, PI  
01/2011-01/2012.

*Corneal Donor Tissue Processing Techniques*

Anthony P. Adams Scholar Grant  
Woodward, Maria A, PI  
01/2011-01/2012.

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## HONORS AND AWARDS

2004 Alvin Behrens Memorial Fund Award: Outstanding Graduate Entering Ophthalmology, College of Physicians & Surgeons, Columbia University  
2007 Chief Resident, Department of Ophthalmology, Emory University  
2007 AMO Residency Writers Award Program: Second Place Prize.  
2009 Best Paper of Session: Patient Dissatisfaction with Multifocal Intraocular Lenses. American Society of Cataract and Refractive Surgery. San Francisco, CA.  
2010 Best Paper of Session: Ocular Response Analyzer Evaluation After Collagen Cross-linking for Corneal Ectasia. American Society of Cataract and Refractive Surgery. Boston, MA.  
2013 Bartley R. Frueh Surgical Teaching Award. University of Michigan  
2015 American Academy of Ophthalmology, Achievement Award  
2017-2018 ARVO Leadership Development Program for Women, mentor Anne Coleman  
2017 Biomedical Innovation Cup, winner – Cellscope Retina, University of Michigan  
2017 Colleen Conway Grace, MD Lectureship, Department of Ophthalmology and Visual Sciences, University of Maryland  
2018 Token of Appreciation from Medical Students (TAMS) Award  
2019-2020 Health Policy Leadership Development Fellowship recipient, Cornea Society  
2020-2022 American Academy of Ophthalmology, Leadership Development Program  
2021 Token of Appreciation from Medical Students (TAMS) Award  
2021 American Academy of Ophthalmology, Secretariat Award  
2022 American Academy of Ophthalmology, Senior Achievement Award  
2022-2023 American Academy of Ophthalmology, Deputy Section Lead

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## MEMBERSHIPS IN PROFESSIONAL SOCIETIES:

2000-2004 American Medical Student Association  
2000-2008 American Medical Association  
2004-present Association for Research in Vision and Ophthalmology (ARVO)  
2005-present American Academy of Ophthalmology  
2006-2008 Political Action Committee, Medical Association of Georgia  
2006-2010 Georgia Society of Ophthalmology  
2006-present American Society of Cataract and Refractive Surgeons  
2009-2010 European Society of Cataract and Refractive Surgeons

2010-present Michigan Society of Eye Physicians and Surgeons  
2010-present R. Townley Paton Society  
2010-present Cornea Society: Member with Thesis  
2018-present Detroit Ophthalmology Club, Member  
2019-present Cornea Society Council

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## **PEER-REVIEW JOURNAL SERVICES:**

### **Editorial Board:**

2017-2018 BMC Ophthalmology, Associate editor  
2018-present International Journal of Eye Banking, Associate editor  
2019- 2021 Survey of Ophthalmology, Public Health and the Eye, Co-Editor  
2020-2021 Cornea Journal, Assistant Editor  
2021-present Cornea Journal, Senior Editor

### **Reviewer:**

2009-present Clinical Ophthalmology  
2009-present Eye  
2009- present Journal of Cataract and Refractive Surgery  
2009- present Journal of Refractive Surgery  
2009- present Cornea  
2011- present JAMA Ophthalmology (formerly Archives of Ophthalmology)  
2012- present Ophthalmology  
2013- present Journal of the American Medical Association  
2014- present PLOS ONE  
2016-present Translational Vision Science & Technology  
2016- present American Journal of Ophthalmology  
2017- present British Journal of Ophthalmology  
2017- present Survey of Ophthalmology

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## **COMMITTEE, ORGANIZATIONAL, AND VOLUNTEER SERVICE:**

### **Departmental**

2009-2010 Education Committee, Emory University, Dept of Ophthalmology;  
2007-08 – chief resident representative  
2009-2010 Residency Selection Committee, Emory University, Dept of Ophthalmology;  
2007-08 – chief resident representative  
2010-2013 Residency Selection Committee, University of Michigan, Dept of Ophthalmology  
2011-2013 Fellowship Director, University of Michigan, Dept of Ophthalmology  
2011-2013 Education Committee, University of Michigan, Dept of Ophthalmology  
2011-present Faculty Career Advisor, University of Michigan, Dept of Ophthalmology  
2012-2013 Oculoplastics Faculty Selection Committee, Dept of Ophthalmology  
2012-2013 Faculty Strategic Planning Committee, Dept of Ophthalmology  
2012-2015 Advisory Board member, Marketing & Communications, Dept of Ophthalmology  
2012-present Health Services Research Workgroup, Dept of Ophthalmology  
2013-present Committee member, Goldsmith Medical Student Award in Ophthalmology  
2013-2014 Pediatric Faculty Selection Committee, Dept of Ophthalmology  
2013-present Kellogg Eye Center for eHealth – Strategic director  
2016-2017 Faculty Strategic Planning Committee, Dept of Ophthalmology  
2016-2017 Cornea Clinical Faculty Selection Committee, Dept of Ophthalmology  
2016-2021 Director, Eye Bank Fellowship, University of Michigan, Ann Arbor, MI  
2018-2019 Cornea Research Faculty Selection Committee, Dept of Ophthalmology, co-chair

2018-2019 Research Imaging Faculty Selection Committee, Dept of Ophthalmology  
 2019-present Director, Technology-based Eye Care Services (TECS), Ann Arbor Veterans Affairs Medical Center  
 2020-2021 Fellowship director, Cornea, External Disease, Refractive Surgery, Dept of Ophthalmology  
 2020-2021 Cornea Clinical Faculty Selection Committee, Dept of Ophthalmology

**Institutional**

2014-2015 Care @ Home - Disruptive Innovation Program Task Force  
 2014-present Global REACH, faculty associate  
 2014-present Institute for Healthcare Policy and Innovation, faculty associate  
 2015-present Academy of Medical Educators - Educational Excellence and Scholarship  
 2016-present Michigan Center for Diabetes Translational Research, faculty member  
 2016-2019. Institute for Healthcare Policy and Innovation (IHPI), Early Career Faculty Advisory Council  
 2018 IHPI, Early Career Development Workshop, co-lead  
 2020-present. Michigan Medicine, Faculty Success Program, co-developer and lead  
 2021-present University of Michigan, Faculty Launch Program, Covener

**National**

2011-2018 Eye Bank Association of America, Career Development Committee  
 2012-2016 American Academy of Ophthalmology (AAO), Clinical Education Committee  
 2012-2024 Eye Bank Association of America, Research Committee  
     Vice-Chair: 2016-2018; Chair: 2018-2020  
 2013-2021 Eversight Eye Banks, Medical Director of Michigan Eye Bank  
 2014-2021 Eversight Eye Banks, Research Committee  
 2015-2017 American Academy of Ophthalmology, EyeWiki Editorial Board  
 2015-2020 American Academy of Ophthalmology, Telemedicine Task Force  
 2016-2020 Eye Bank Association of America, medical advisory board Ad Hoc Antifungal Supplementation RFP Selection Subcommittee  
 2017-2018 American Academy of Ophthalmology, EyeWiki Lead Editor, Cornea & External Disease  
 2017-2019 Association for Research in Vision and Ophthalmology, Women in Eye in Vision Research, participant and drop-in mentor  
 2017-2022 American Academy of Ophthalmology, Research, Regulatory & External Scientific Relations Committee  
 2017 NIH Special Emphasis Panel for National Cancer Institute, member  
 2018-present American Academy of Ophthalmology, Ophthalmic Advocacy Leadership Group, The Cornea Society representative  
 2019-2021 American Academy of Ophthalmology, IRIS database Research Committee  
 2019 National Eye Institute, Special Emphasis Panel, member  
 2020-present Troutman Prize Selection Committee, Cornea Society/Cornea Journal  
 2020-2024 Food and Drug Administration, Dermatologic and Ophthalmic Drugs Advisory Committee  
 2020 National Eye Institute, Special Emphasis Panel, member  
 2021-2022 American Academy of Ophthalmology, Council Leadership, Subspecialty/Specialized Section, Section Nominating Committee  
 2021-present American Academy of Ophthalmology, IRIS Registry Analytics Committee  
 2022-present American Academy of Ophthalmology, Awards Committee  
 2022-present Claes H. Dohlman Fellow Award Selection Committee,

## International

- 2020-present The Cornea Society, Board Member  
2021 – 2022 JAMA Ophthalmology Advisory Committee, member  
2021-present Cornea Journal, Senior Editor

## Volunteer Services

- 2017-present Impact 100 Oakland County, member  
2021 Kirk in the Hills, Sunday school teacher  
2021 Care House volunteer

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## BIBLIOGRAPHY:

### *Peer-Reviewed Publications*

1. **Woodward M**, Randleman JB. Bilateral Methicillin-Resistant Staphylococcus Aureus Keratitis After Photorefractive Keratectomy. *J Cataract Refract Surg.* 2007; 33: 316-319.
2. Randleman JB, Wolfe JD, **Woodward M**, Lynn MJ, Cherwek DH, Srivastava SK. The Resident Surgeon Phacoemulsification Learning Curve. *Arch Ophthalmol.* 2007; 125: 1215-1219.
3. **Woodward M**, Newman NJ, Biousse V. Angiographic Shaded Surface Display Artifact Falsely Suggests Ophthalmic Artery Stenosis. *J Neuroophthalmol.* 2007; 27: 241-242.
4. **Woodward M**, Randleman JB, Larson PM. In Vivo Confocal Microscopy of Polymorphic Amyloid Degeneration and Posterior Crocodile Shagreen. *Cornea.* 2007; 26: 98-101.
5. Bengtzen R, **Woodward M**, Lynn MJ, Newman NJ, Biousse V. The "Sunglasses Sign" Predicts Nonorganic Visual Loss in Neuro-ophthalmologic Practice. *Neurology.* 2008; 70: 218-221.
6. Randleman JB, **Woodward M**, Lynn MJ, Stulting RD. Risk Assessment for Ectasia After Corneal Refractive Surgery. *Ophthalmol.* 2008; 115: 37-50.
7. **Woodward MA**, Randleman JB, Russell B, Lynn MJ, Ward MA, Stulting RD. Visual Rehabilitation and Outcomes for Ectasia After Corneal Refractive Surgery. *J Cataract Refract Surg.* 2008; 34: 383-388.
8. **Woodward MA**, Randleman JB, Stulting RD. Dissatisfaction after Multifocal Intraocular Lens Implantation. *J Cataract Refract Surg.* 2009; 35: 992-997.
9. Bromley JG, **Woodward MA**, Grossniklaus HE. Mycobacterium Avium Complex Conjunctival Granuloma in a Human Immunodeficiency Virus–Positive Patient. *Arch Ophthalmol.* 2011; 129: 1609.
10. Khandelwal SS, **Woodward MA**, Hall T, Grossniklaus HE, Stulting RD. Treatment of Microsporidia Keratitis with Topical Voriconazole Monotherapy. *Arch Ophthalmol.* 2011; 129:509-510.
11. Sood P, **Woodward MA**. Patient Acceptability of the Tecnis Multifocal Intraocular Lens. *Clin Ophthalmol.* 2011; 5: 403-410.
12. **Woodward MA**, Edelhauser HF. Corneal Endothelium After Refractive Surgery. *J Cataract*



*Refract Surg.* 2011; 37: 767-777.

13. Laird PW, **Woodward MA**, Williams JG, Lee WB, Grossniklaus HE. Cystic Benign Melanosis of the Conjunctiva. *Cornea.* 2012; 31: 1273-1277.
14. Wilkinson JE, Burmeister L, Brooks SV, Chan CC, Friedline S, Harrison DE, Hejtmancik JF, Nadon N, Strong R, Wood LK, **Woodward MA**, Miller RA. Rapamycin Slows Aging in Mice. *Aging Cell.* 2012; 11: 675-682.
15. **Woodward MA**, Titus M, Mavin K, Shtein RM. Corneal Donor Tissue Preparation for Endothelial Keratoplasty. *J Vis Exp.* 2012; 64: e3847.
16. Fante RJ, Shtein RM, Titus MS, **Woodward MA**. Anterior Segment Optical Coherence Tomography Versus Ultrasound Pachymetry to Measure Corneal Thickness in Endothelial Keratoplasty Donor Corneas. *Cornea.* 2013; 32: e79-82.
17. Hood CT, **Woodward MA**, Bullard ML, Shtein RM. Influence of Preoperative Donor Tissue Characteristics on Graft Dislocation Rate After Descemet Stripping Automated Endothelial Keratoplasty. *Cornea.* 2013; 32:1527-1530.
18. Ple-plakon PA, Shtein RM, Musch DC, Blachley T, Saponara F, **Woodward MA**. Tissue Characteristics and Reported Adverse Events After Corneal Transplantation. *Cornea.* 2013; 32: 1339-1343.
19. **Woodward MA**, Raoof-Daneshvar D, Mian S, Shtein RM. Relationship of Visual Acuity and Lamellar Thickness in Descemet Stripping Automated Endothelial Keratoplasty. *Cornea.* 2013; 32: e69-73.
20. **Woodward MA**, Ross KW, Requard JJ, Sugar A, Shtein RM. Impact of Surgeon Acceptance Parameters on Cost and Availability of Corneal Donor Tissue for Transplantation. *Cornea.* 2013; 32: 737-740.
21. Boynton GE, **Woodward MA**. Eye-Bank Preparation of Endothelial Tissue. *Curr Opin Ophthalmol.* 2014; 25: 319-324.
22. Hussain M, Shtein RM, Sugar A, Soong HK, **Woodward MA**, DeLoss K, Mian SI. Long-Term Use of Autologous Serum 50% Eye drops for the Treatment of Dry Eye Disease. *Cornea.* 2014; 33: 1245-1251.
23. Peron T, Shtein RM, Titus MS, **Woodward MA**. Tissue Processing for Ultra-Thin Descemet Stripping Automated Endothelial Keratoplasty. *Int J Eye Banking.* 2014; 2. Available at: <http://eyebankingjournal.org/wp-content/uploads/2015/12/61-823-1-PB.pdf>. Accessed November 7, 2016.
24. **Woodward MA**, Titus MS, Shtein RM. Effect of Microkeratome Pass on Tissue Processing for Descemet Stripping Automated Endothelial Keratoplasty. *Cornea.* 2014; 33: 507-509.
25. Peeler CE, Dhakhwa K, Mian SI, Blachley T, Patel S, Musch DC, **Woodward MA**. Telemedicine for Corneal Disease in Rural Nepal. *J Telemed Telecare.* 2014; 20: 263-266.
26. Tausif HN, Johnson L, Titus M, Mavin K, Chandrasekaran N, **Woodward MA**, Shtein RM, Mian

- SI. Corneal Donor Tissue Preparation for Descemet's Membrane Endothelial Keratoplasty. *J Vis Exp*. 2014; 51919.
27. Bashshur RL, Shannon GW, Smith BR, **Woodward MA**. The Empirical Evidence for the Telemedicine Intervention in Diabetes Management. *Telemed J E Health*. 2015; 21: 321-354.
28. Boynton GE, **Woodward MA**. Evolving Techniques in Corneal Transplantation. *Curr Surg Rep*. 2015; 3:1. Available at: <http://link.springer.com/article/10.1007/s40137-014-0079-5/fulltext.html>. Accessed November 7, 2016.
29. Tozer K, **Woodward MA**, Newman-Casey PA. Telemedicine and Diabetic Retinopathy: Review of Published Screening Programs. *J Endocrinol Diabetes*. 2015; 2: 1-10. Available at: <https://symbiosisonlinepublishing.com/endocrinology-diabetes/endocrinology-diabetes31.php>. Accessed September 28, 2021.
30. **Woodward MA**, Ple-Plakon P, Blachley T, Musch DC, Newman-Casey PA, De Lott LB, Lee PP. Eye Care Providers' Attitudes Towards Tele-ophthalmology. *Telemed J E Health*. 2015; 21: 271-273.
31. Nudleman E, Wolfe JD, **Woodward MA**, Yonekawa Y, Williams GA, Hassan TS. Worsening Anatomic Outcomes Following Aflibercept for Neovascular Age-Related Macular Degeneration in Eyes Previously Well Controlled with Ranibizumab. *Clin Ophthalmol*. 2016; 10: 1053-1057.
32. Thomas BJ, Mehta N, Yonekawa Y, Sridhar J, Kuriyan AE, Rehlan N, Liang MC, **Woodward MA**, Witkin AJ, Shah C, Flynn HW, Jr., Garg SJ, Wolfe JD. Pars Plana Vitrectomy for Late Vitreoretinal Sequelae of Infectious Endophthalmitis: Surgical Management and Outcomes. *Retina*. 2017; 37: 651-656.
33. Todorich B, Thanos A, **Woodward MA**, Wolfe JD. Sutureless Intrasceral Fixation of Secondary Intraocular Lens Using 27-gauge Vitrectomy System. *Ophthalmic Surg Lasers Imaging Retina*. 2016; 47: 376-379.
34. Wolle MA, Randleman JB, **Woodward MA**. Complications of Refractive Surgery: Ectasia After Refractive Surgery. *Int Ophthalmol Clin*. 2016; 56: 127-139.
35. **Woodward MA**, Blachley TS, Stein JD. The Association Between Sociodemographic Factors, Common Systemic Diseases, and Keratoconus: An Analysis of a Nationwide Health Care Claims Database. *Ophthalmology*. 2016; 123: 457-465.e452.
36. Guo W, **Woodward MA**, Heisler M, Blachley T, Corneil L, Cederna J, Kaplan AD, Newman-Casey PA. Risk Factors for Visual Impairment in an Uninsured Population and the Impact of the Affordable Care Act. *Clin Surgery*. 2016; 1: 1236.
37. **Woodward MA**, Bavinger JC, Amin S, Blachley TS, Musch DC, Lee PP, Newman-Casey PA. Telemedicine for Ophthalmic Consultation Services: Use of a Portable Device and Layering Information for Graders. *J Telemed Telecare*. 2017; 23: 365-370.
38. Valikodath NG, Leveque TK, Wang SY, Lee PP, Newman-Casey PA, Hansen SO, **Woodward MA**. Patient Attitudes Toward Telemedicine for Diabetic Retinopathy. *Telemed J E Health*. 2017; 23: 205-212.

39. Todorich B, Thanos A, Yonekawa Y, Mane G, Hasbrook M, Thomas BJ, **Woodward MA**, Williams GA, Capone A Jr, Wolfe JD, Faia L, Hassan TS. Simultaneous Dexamethasone Intravitreal Implant and Anti-VEGF Therapy for Neovascular Age-Related Macular Degeneration Resistant to Anti-VEGF Monotherapy. *J Vitreo-Ret Disease*. 2017; 1: 65-74.
40. Valikodath NG, Wolle M, Sand D, Johnson L, **Woodward MA**. Tissue Processing Factors Influencing Descemet Stripping Automated Endothelial Keratoplasty Thickness and Endothelial Outcomes. *Int J Eye Banking*. 2017; 5:1-4.
41. Valikodath NG, Newman-Casey PA, Lee PP, Musch DC, Niziol LM, **Woodward MA**. Agreement of Ocular Symptom Reporting Between Patient-Reported Outcomes and Medical Records. *JAMA Ophthalmol*. 2017; 135: 225-231.
42. Parikh P, Valikodath NG, Estopinal CB, Shtein RM, Sugar A, Niziol LM, **Woodward MA**. Precision of Epithelial Defect Measurements. *Cornea*. 2017; 36: 419-424.
43. Stagg BC, Shah MM, Talwar N, Padovani-Claudio DA, **Woodward MA**, Stein JD. Factors Affecting Visits to the Emergency Department for Urgent and Nonurgent Ocular Conditions. *Ophthalmol*. 2017; 124: 720-729.
44. Jeganathan VSE, Robin AL, **Woodward MA**. Refractive Error in Underserved Adults: Causes and Potential Solutions. *Curr Opin Ophthalmol*. 2017; 28: 299-304.
45. Valikodath NG, Fausett BV, Oren GA, Whitney K, **Woodward MA**, Mian SI. Impact of a Dedicated Research Rotation During Ophthalmology Residency. *J Acad Ophthalmol*. 2017; 9: e1-e6.
46. Stem MS, Todorich B, **Woodward MA**, Hsu J, Wolfe JD. Scleral-Fixated Intraocular Lenses: Past and Present. *J Vitreo-Ret Disease*. 2017; 1: 144-152.
47. Davila JR, Sengupta SR, Niziol LM, Sindal MD, Besirli CG, Upadhyaya S, **Woodward MA**, Venkatesh R, Robin AL, Grubbs J Jr, Newman-Casey PA. Predictors of Photographic Quality with a Handheld Nonmydriatic Fundus Camera Used for Screening of Vision-Threatening Diabetic Retinopathy. *Ophthalmologica*. 2017; 238: 89-99.
48. Shah AR, Yonekawa Y, Todorich B, Van Laere L, Hussain R, **Woodward MA**, Abbey AM, Wolfe JD. Prediction of Anti-VEGF Response in Diabetic Macular Edema After One Injection. *J Vitreo-Ret Disease*. 2017; 1:169-174.
49. **Woodward MA**, Musch DC, Hood CT, Greene JB, Niziol LM, Jeganathan VSE, Lee PP. Tele-ophthalmic Approach for Detection of Corneal Diseases: Accuracy and Reliability. *Cornea*. 2017; 36: 1159-1165.
50. Wolle MA, DeMill DL, Johnson L, Lentz SI, **Woodward MA**, Mian SI. Quantitative Analysis of Endothelial Cell Loss in Preloaded Descemet Membrane Endothelial Keratoplasty Grafts. *Cornea*. 2017; 36: 1295-1301.
51. Chen H, **Woodward MA**, Burke DT, Jeganathan VSE, Demirci H, Sick V. Human Iris Three-Dimensional Imaging at Micron Resolution by a Micro-Plenoptic Camera. *Biomedical Optics Express*. 2017; 8: 4514-4522.

52. Miller SE, Thapa S, Robin AL, Niziol LM, Ramulu PY, **Woodward MA**, Paudyal I, Pitha I, Kim TN, Newman-Casey PA. Glaucoma Screening in Nepal: Cup-to-Disc Estimate with Standard Mydriatic Fundus Camera Compared to Portable Nonmydriatic Camera. *Am J Ophthalmol*. 2017; 182: 99-106.
53. **Woodward MA**, Jeganathan VSE, Guo W, Cederna J, Newman-Casey PA. Barriers to Attending Eye Appointments Among Underserved Adults. *J Ophthalmic Vis Res*. 2017; 12: 449-450.
54. Todorich B, Stem MS, Kooragayala K, Thanos A, Faia LJ, Williams GA, Hassan TS, **Woodward MA**, Wolfe JD. Structural Analysis and Comprehensive Surgical Outcomes of the Sutureless Intrasclear Fixation of Secondary Intraocular Lenses in Human Eyes. *Retina*. 2018; 38: S31-S40.
55. Sengupta S, Sindal MD, Besirli CG, Upadhyaya S, Venkatesh R, Niziol LM, Robin AL, **Woodward MA**, Newman-Casey PA. Screening for Vision-Threatening Diabetic Retinopathy in South India: Comparing Portable Non-Mydriatic and Standard Fundus Cameras and Clinical Exam. *Eye (Lond)*. 2018; 32: 375-383.
56. Newman-Casey PA,\* **Woodward MA**,\* Niziol LM, Lee PP, De Lott LB. Brand Medications and Medicare Part D: How Eye Care Providers' Prescribing Patterns Influence Costs. *Ophthalmol*. 2018; 125:332-339.
57. **Woodward MA**, Valikodath N, Newman-Casey PA, Niziol LM, Musch DC, Lee PP. Eye Symptom Questionnaire to Evaluate Anterior Eye Health. *Eye & Contact Lens*. 2018; 44:384-389.
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85. De Lott LB, Newman-Casey PA, Lee PP, Ballouz D, Azzouz L, Cho J, Valicevic AN, **Woodward MA**. Change in Ophthalmic Clinicians' Attitudes Toward Telemedicine During the Coronavirus 2019 Pandemic. *Telemed J E Health.* 2021; 27:231-235.
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87. Ballouz D, Cho J, **Woodward MA**, Elam AR, Musch DC, Zhang J, Moroi SE, Johnson L, Cederna J, Newman-Casey PA. Facilitators and Barriers to Glaucoma Screening Identified by Key Stakeholders in Underserved Communities: A Community-engaged Research Approach. *J Glaucoma.* 2021; 30:402-409.
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89. Khan M, Michelson S, Newman-Casey PA, **Woodward MA**. Medication Adherence Among Patients with Corneal Diseases. *Cornea* 2021; 40: 1554-1560.

90. Dunbar GE, Titus M, Stein JD, Meijome TE, Mian SI, **Woodward MA**. Patient-Reported Outcomes After Corneal Transplantation. *Cornea* 2021; 40:1316-1321
91. Newman-Casey PA, Musch DC, Niziol LM, Elam AR, Zhang J, Moroi SE, Johnson L, Kershaw M, Saadine J, Winter S, **Woodward MA**. Michigan Screening and Intervention for Glaucoma and Eye Health Through Telemedicine (MI-SIGHT): Baseline Methodology for Implementing and Assessing a Community-Based Program. *J Glaucoma*. 2021; 30:380-387.
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93. **Woodward MA**, Maganti N, Niziol LM, Amin S, Hou A, Singh K. Development and Validation of a Natural Language Processing Algorithm to Extract Descriptors of Microbial Keratitis from the Electronic Health Record. *Cornea*. 2021; 40: 1548-1553.
94. Newman-Casey PA, DeLott L, Cho J, Ballouz D, Azzouz L, Saleh S, **Woodward MA**. Telehealth-based eye care during the COVID-19 Pandemic: Utilization, Safety and the Patient Experience. *Am J Ophthalmol*. 2021; 230: 234-242 [Epub ahead of print]
95. Ung C, Yonekawa Y, Waljee JF, Gunaseelan V, Lai Y, Woodward MA. Persistent Opioid Use After Ophthalmic Surgery in Opioid-Naive Patients and Associated Risk Factors. *Ophthalmol*. 2021; 128: 1266-1273.
96. Singh K, Thibodeau A, Niziol LM, Nakai TK, Bixler JE, Khan M, **Woodward MA**: Development and Validation of a Model to Predict Anterior Segment Vision-Threatening Eye Disease Using Primary Care Clinical Notes, *Cornea*: August 2022 - Volume 41 - Issue 8 - p 974-980 [Epub ahead of print]
97. Elam AR, Sidhom D, Ugoh P, Andrews CA, DeLott LB, **Woodward MA**, Lee PP, Newman-Casey PA. Disparities in Eye Care Utilization During the COVID-19 Pandemic. *Am J Ophthalmol* 2021; 233: 163-170.
98. Thibodeau A, Niziol LM, Tannen BL, Ballouz D, **Woodward MA**. Opioid Prescribing Patterns for Ulcerative Keratitis. *Cornea* 2021. [Epub ahead of print]
99. Loo J, **Woodward MA**, Prajna V, Krieger MF, Pawar M, Khan M, Niziol LM, Farsiu S. Open-Source Automatic Biomarker Measurement on Slit-Lamp Photography to Estimate Visual Acuity in Microbial Keratitis. *Transl Vis Sci Technol*. 2021; 10: 2.
100. Ballouz D, Cho J, **Woodward MA**, Elam AR, Musch DC, Zhang J, Moroi SE, Johnson L, Cederna J, Newman-Casey PA. Facilitators and Barriers to Glaucoma Screening Identified by Key Stakeholders in Underserved Communities: A Community-engaged Research Approach. *J Glaucoma*. 2021 May 1;30(5):402-409.
101. Redd TK, Prajna NV, Srinivasan M, Lalitha P, Krishnan T, Rajaraman R, Venugopal A, Lujan B, Acharya N, Seitzman GD, Rose-Nussbaumer J, Lietman TM, Campbell JP, Keenan JD; **Corneal Ulcer Image Interpretation Study Group**. Expert Performance in Visual Differentiation of Bacterial and Fungal Keratitis. *Ophthalmology*. 2021 [Epub ahead of print]

102. Hicks PM, Elam AR, **Woodward MA**, Newman-Casey PA, Asare A, Akrobetu D, Gupta D, Stagg BC. Perceptions of Respect From Clinicians by Patients in Racial and Ethnic Minority Groups With Eye Disease . *JAMA Ophthalmol*. 2021 [Epub ahead of print]
103. **Woodward MA**, Hughes K, Ballouz D, Hirth RA, Errickson J, Newman-Casey PA. Assessing Eye Health and Eye Care Needs Among North American Native Individuals. *JAMA Ophthalmol*. 2022;140:134-142.
104. Singh K, **Woodward MA**. The Rigorous Work of Evaluating Consistency and Accuracy in Electronic Health Record Data. *JAMA Ophthalmol*. 2021;139:894-895.
105. Killeen OJ, Zhou Y, Musch DC, Woodward M, Newman-Casey PA, Moroi S, Speck N, Mukhtar A, Dewey C. Access to eye care and prevalence of refractive error and eye conditions at a high school-based eye clinic in southeastern Michigan. *Journal of American Association for Pediatric Ophthalmology and Strabismus*. 2022. Epub ahead of print
106. Kang L, Ballouz D, **Woodward MA**. Artificial Intelligence and Corneal Diseases. *Current Opinion of Ophthalmology*. 2022; 22: 407-417
107. **Woodward MA**, Niziol LN, Ballouz D, Lu MC, Kang L, Thibodeau A, Singh K. Prediction of Visual Acuity in Patients with Microbial Keratitis. *Cornea*. October 17, 2022 epub ahead of print
108. Hicks PM, Karandeeep S, N. Venkatesh P, Lu M, Niziol LM, Greenwald MF, Verkade A, Amescua G, Farsiu S, **Woodward MA**, and the Cornea Ulcer Research Group. Quantifying clinicians' diagnostic uncertainty when making initial treatment decisions for microbial keratitis. *Cornea*. October 17, 2022 epub ahead of print
109. Elam AR, Mobolaji I, Flaharty K, Niziol LM, **Woodward MA**, Zhang J, Musch DC, Johnson L, Kershaw M, Bicket A, Saaddine J, John D, Newman-Casey PA. Engagement in the MI-SIGHT Glaucoma Screening Program: Comparing the Effect of Clinic Versus Community-Based Recruitment Strategies. *Ophthalmology Glaucoma*. 2022
110. Hicks PM, **Woodward MA**, Newman-Casey PA. Considerations for Using Large Data Sets to Assess Disparities in Eye Care and Vision Health. *JAMA Ophthalmol*. Published online November 03, 2022. doi:10.1001/jamaophthalmol.2022.4601
111. Meijome TE, Wozniak R, Kang L, Azzouz L, Niziol LM, Johnson WL, Kriegel M, **Woodward MA**. Assessment of keratitis severity using quantitative image analysis in an in vivo murine model of Staphylococcus aureus bacterial keratitis. *Translational Vision Science and Technology*. 2022(11).
112. Kang L, Lu MC, Niziol LM, Greenwald M, Mian SI, Thibodeau A, Pawar M, **Woodward MA**. Microbial Keratitis Isolates at a Midwestern Tertiary Eye Care Center. *Cornea*. 2022 epub ahead of print.
113. Meijome TE, Wozniak R, Kang L, Azzouz L, Niziol LM, Johnson WL, Kriegel M, **Woodward MA**. Assessment of keratitis severity using quantitative image analysis in an in vivo murine model of staphylococcus aureus bacterial keratitis. *Transl Vis Sci Technol*. 2022;11(11):12.
114. Ramachandran R, Niziol L, Elam A, **Woodward M**, Bicket AB, Killeen O, John D, Wood SD, Zhang JY, Musch DC, Johnson L, Kershaw MO, Newman-Casey PA. Moving Beyond Race in



Diagnostic Criteria for Glaucoma Screening: A Preliminary Analysis. American Glaucoma Society. 2023; Austin, TX, United States.

115. Hicks PM, **Woodward MA**, Niziol LM, Lu MC, Kang L, Stagg BC, Jakpor O, Elam AR, Newman-Casey PA. The association of redlining with visual impairment and blindness. *Ophthalmology*. 2022 [Epub ahead of print]. <http://doi.org/10.1016/j.ophtha.2022.12.005>
116. Ballouz D, Venkatesh P, Niziol LM, Mian SI, Nallasamy N, Hood C, Shtein RM, Tannen B, Verkade A, Sugar A, Soong HK, Selvaraj S, Prabhleen K, Enright J, Thibodeau A, **Woodward MA**. Symptom Severity and Association with Visual Acuity at Microbial Keratitis Presentation. Association for Research in Vision and Ophthalmology. New Orleans, LA. 2023.
117. Hicks PM, **Woodward MA**, Lu MC, Niziol LM, Darnley-Fisch D, Heisler M, Resnicow K, Musch DC, Mitchell J, Imami NR, and Newman-Casey PA. Neighborhood-Level Social Risk Factors Associated with Presenting Glaucoma Severity at a Tertiary Eye Care Center. Association for Research in Vision and Ophthalmology. New Orleans, LA. 2023.
118. Miller KD, Toiv A, Deng C, Lu MC, Niziol LM, Hart JN, Sherman E, Mian S, Lephart PR, Sugar A, Kang L, **Woodward MA**. The Effect of ES wabs on Laboratory Test Utilization and Positivity Rates in Microbial Keratitis Patients. Association for Research in Vision and Ophthalmology. New Orleans, LA. 2023
119. Eric Sherman, Leslie M. Niziol, Mikaelah A. Johnson-Griggs, Angela Elam, Maria A. Woodward, Amanda Bicket, Olivia Killeen, Sarah Wood, Denise John, Leroy Johnson, Martha Kershaw, Jason Zhang, David Musch, Paula Anne Newman-Casey. Eye Care Utilization Among Participants in the First Year of the Michigan Screening and Intervention for Glaucoma and Eye Health through Telemedicine (MI-SIGHT) Program. Association for Research in Vision and Ophthalmology. New Orleans, LA. 2023

*Extramural Invited Presentations:*

1. Clinical Applications of Confocal Microscopy, Emory Cornea Conference, Atlanta, GA. 2006
2. Patient dissatisfaction with Multifocal Intraocular Lenses, Cornea Grand Rounds, Atlanta, GA. 2007.
3. Managing Unwelcome Outcomes in Refractive and Presbyopic Patients. Cleveland Clinic, Cleveland, OH. January, 2008.
4. Evaluation of Orbscan II Indices for Refractive Surgery Screening, Emory Ophthalmology Department Senior Thesis Presentation, Atlanta, GA. June, 2008.
5. Understanding and Managing Unwelcome Outcomes, Wayne State University, Detroit, MI. 2010.
6. Update on corneal diseases. Michigan Society of Eye Physicians and Surgeons Annual Conference. Mackinaw Island, MI. 2011.
7. Management of Salzmann's nodular degeneration. Cornea Subspecialty Day. American Society of Cataract and Refractive Surgery. San Francisco, CA. 2013.
8. Cornea surgery begins at the eye bank. World Cornea Congress. San Diego, CA. 2015.
9. Update on United States eye banking research. Aravind Eye Hospitals. Madurai, India. 2016
10. Cornea 2016: advancements in cornea and external disease: what's the issue with donor tissue? transmission of disease. Cornea Subspecialty Day. American Academy of Ophthalmology. Chicago, IL. 2016.
11. Writing stronger research grant proposals & scientific abstracts. Eye Bank Association of America. Webinar. 2016.

12. Keratoconus and systemic diseases. Cornea Connect. Aravind Eye Hospitals. Madurai, India, Sept. 2017
13. Eye banking in the United States. Cornea Connect. Aravind Eye Hospitals. Madurai, India, September 2017
14. A challenging case. Cornea Connect. Aravind Eye Hospitals. Madurai, India, September 2017
15. eHealth and anterior segment diseases. Colleen Conway Grace MD Memorial lectureship. University of Maryland. Baltimore, MD. October 3, 2017.
16. Anterior segment trauma. University of Maryland. Baltimore, MD. October 3, 2017.
17. Mentorship. University of Maryland. Baltimore, MD. October 3, 2017.
18. Panelist, Ophthalmic Digital Health Workshop, Food and Drug Admin, Gaithersburg, MD. Oct 23, 2017.
19. Telemedicine and Patient Focused Digital Applications. Am Acad of Ophth, Mid-Year Forum. April 28, 2017.
20. Seeing the human eye in four dimensions: pistons, portabellas, and patients. MCubed symposium. Ann Arbor, MI. November 1, 2017.
21. Assessing Quality of Corneal Tissue: Current Evidence and Old Misconceptions. Eye Bank Association of America, annual meeting. Philadelphia, PA. June 9, 2018.
22. Factors to Consider: Evaluating Safety & Effectiveness of Ophthalmic Digital Healthcare. American Academy of Ophthalmology, Fall Council Meeting. Chicago, IL. October 28, 2018.
23. Acanthamoeba Keratitis: Are you kidding? Double or Triple Them Up! Cornea360. Phoenix, AZ. Apr. 5, 2019
24. Artificial Intelligence and Telemedicine in Ophthalmology. Women in Ophthalmology annual meeting. Coeur D'alene, Idaho. August 25, 2019.
25. Growing Your Career in Research. Expert Panel Session. Women in Ophthalmology annual meeting. Coeur D'alene, Idaho. August 25, 2019
26. Safety and Effectiveness of Ophthalmic Telemedicine. New England Ophthalmological Society annual meeting. Boston, MA. September 6, 2019.
27. Telemedicine and the Anterior Segment. New England Ophth Society annual meeting. Boston, MA. Sept. 6, 2019.
28. Improving Telemedicine Implementation. New England Ophth Society annual meeting. Boston, MA. Sept. 6, 2019.
29. Managing Post-LASIK and Other Ectasias. American Academy of Ophthalmology Annual Meeting. Cornea Subspecialty Day. San Francisco, CA. October 12, 2019.
30. Taste of the Summer Symposium: Artificial Intelligence and Telemedicine in Ophthalmology. Women in Ophthalmology reception at American Academy of Ophthalmology. San Francisco, CA. October 12, 2019
31. Telemedicine During COVID. Michigan Society of Eye Physicians and Surgeons. Ann Arbor, MI. April 29, 2020
32. Eye Banking. Panel Moderator, World Cornea Congress, Boston, MA. May 2020.
33. Perspectives on Tele-Ophthalmology during the COVID-19 pandemic. Michigan Society of Eye Physicians and Surgeons Annual Meeting. Virtual. August 7, 2020.
34. Moderator, Cornea and Eye Banking Forum, Eye Bank Association of America, Virtual. November 2020.
35. Do you see what I see? Massachusetts Eye & Ear Infirmary, Harvard Medical School, December 10, 2020.
36. Telehealth: Pandemic & Post-Pandemic. Association of University Professors in Ophthalmology (AUPO). February 5, 2021.
37. Novel strategies to assess corneal ulcers in 2021. University of Rochester Visiting Professor Grand Rounds, Rochester, NY. May 21, 2021.
38. Different Perspectives of the Cornea. Kimura Lecture, University of California, San Francisco, Department of Ophthalmology Grand Rounds Series. September 23, 2021.

39. Cornea Society Virtual Grand Rounds. Infectious Keratitis. April 12, 2022.
40. Deep Learning for Cornea. American Society of Cataract and Refractive Surgery annual meeting. Washington, D.C. April 24, 2022.
41. Managing Cornea Ulcers in 2022. University of Virginia. Charlottesville, VA. June 16, 2022.
42. Wellness of Women Physicians. Women in Ophthalmology. Monterey, CA. August 26, 2022.
43. Telemedicine in Corneal Management, World Cornea Congress, Chicago, IL. September 29, 2022.
44. Machine Learning for Corneal Infections. New York University. February 2, 2023.
45. Corneal Trauma. New York University. February 2, 2023.

#### *Book Chapters*

1. **Woodward MA**, Randleman JB. Corneal ectasia: management. In: Krachmer JH, Mannis MJ, Holland EJ, eds. *Cornea*, 3<sup>rd</sup> Edition, vol.2. Philadelphia, PA: Mosby Elsevier; 2009. p.1889-92.
2. **Woodward MA**, Stulting RD. Treatment of keratoconus. In: Henderson BA, Gills JP. *A Complete Surgical Guide for Correcting Astigmatism: An Ophthalmic Manifesto*, 2<sup>nd</sup> Edition. Thorofare, NJ: Slack Inc; 2009. p. 21-4.
3. **Woodward MA**, Randleman JB: Chapter 168 Corneal Ectasia Management. *Cornea*, Elsevier, (2011), p.1889-92.
4. Randleman JB, **Woodward MA**. Evaluation and diagnosis of postoperative corneal ectasia. In: Randleman JB, Hafezi F. *Collagen Cross-linking*. 2013; 31-8.
5. **Woodward MA**, Mian S, Sugar A. Corneal degenerations. In: Yanoff M, Duker J. *Ophthalmology*, 4<sup>th</sup> Edition, Chapter 4.22. Elsevier; 2014; 269-73.
6. **Woodward MA**. Acknowledgment for editorial work. In: Randleman JB. *Refractive Surgery: An interactive case-based series*. Slack Inc; 2014.
7. **Woodward MA**. Behavioral and neurologic disorders. In: American Academy of Ophthalmology. *Basic and Clinical Science Course series: Update on General Medicine*. Chapter 11. 2014.
8. **Woodward MA**. Medical emergencies. In: American Academy of Ophthalmology. *Basic and Clinical Science Course series: Update on General Medicine*. Chapter 15. 2014.
9. **Woodward MA**, Demill D. Current procedure. In: Randleman JB, Hafezi F. *Collagen Cross-linking*. Elsevier; 2015.
10. **Woodward MA**, Vijayakumar N. Eye Banking. *Principles and Practice of Ophthalmology*. 2017
11. **Woodward MA**, DeMill DL, Price FW J, Price MO: The Standard Protocol and Its Parameters. *CORNEAL CROSS-LINKING, SECOND EDITION*,(2017), 93-98
12. **Woodward MA**, Mian SI, Sugar A. Corneal degenerations. In: Yanoff M, Duker J. *Ophthalmology*, 5<sup>th</sup> Edition, Chapter 4.22. Elsevier; 2019.

#### *Invention disclosures*

1. Smartphone Photos of Anterior Eye - University of Michigan, Office of Technology Transfer Invention Report #2021-372

2. Eye Symptom Questionnaire – University of Michigan, Office of Technology Transfer Invention Report #2021-373

*Non Peer-Reviewed Publications*

1. **Woodward MA.** Review: Crosslinking for keratoconus. *Cataract and Refractive Surgery Today Europe.* 2010.
2. **Woodward MA.** Unusual cataract case presentation. *Cataract and Refractive Surgery Today.* 2012.
3. Demill D, **Woodward MA.** Descemet membrane endothelial keratoplasty. *EyeWiki.* American Academy of Ophthalmology. 2015.
4. Stem M, **Woodward MA.** Telemedicine for diabetic retinopathy. *Retinal Physician.* Nov/Dec 2016.
5. Li K, Chen J, **Woodward MA.** How the old-fashioned telephone could become a new way for some to see their doctor. *The Conversation,* 2020. Available at: <https://theconversation.com/how-the-old-fashioned-telephone-could-become-a-new-way-for-some-to-see-their-doctor-142474>. Accessed August 12, 2020.

*National Didactic Courses:*

1. **Woodward MA.** Patient dissatisfaction with multifocal intraocular lenses. Emory Ophthalmology Department: Annual Postgraduate Course. Atlanta, GA. December 2007.
2. **Woodward MA.** Resident phacoemulsification course instructor: American Academy of Ophthalmology. 2009, 2010, 2011, 2012, 2013, 2014
3. **Woodward MA.** Intraocular lenses. Georgia Eye Meeting: Technicians' CME Course. Atlanta, GA. 2010.
4. Clark G, Hardten D, **Woodward MA.** It's not working, Doc: systematic approach to treating unhappy multifocal IOL patients. American Society of Cataract and Refractive Surgery. Boston, MA. 2010
5. **Woodward MA.** Allied health course: anterior uveitis. Ann Arbor, MI. 2011.
6. Jeng B, **Woodward MA,** Neef K, Shtein RM, Macsai M, Glasser D, Montoya M, Mannis M. Follow the cornea: eye banking for the early career cornea specialist. Eye Bank Association of America Symposium at the American Academy of Ophthalmology. Orlando, FL. 2012.
7. Shtein RM, **Woodward MA,** Mian SI, Moroi S. Anterior segment imaging. American Academy of Ophthalmology. 2011, 2012, 2013, 2014, 2015, 2016, 2017.
8. **Woodward MA,** Jeng B, Neef K, Shtein RM, Macsai M, Glasser D, Montoya M, Mannis M. Follow the cornea: where does your cornea tissue come from? American Academy of Ophthalmology. 2012, 2013, 2014.

9. Wolfe JD, **Woodward MA**, Dresner K, Hassan T, Williams G. Retina pearls for the anterior segment surgeon. American Academy of Ophthalmology. Chicago, IL. 2012.
10. **Woodward MA**. Cornea review. Michigan Ophthalmology Basic Science Clinical Course. 2013, 2014, 2015.
11. Trese M, Dresner K, Capone A, Lee PP, **Woodward MA**. Ophthalmic telemedicine. Michigan Society of Eye Physicians and Surgeons. Mackinac Island, MI. 2015.
12. Trese M, Dresner K, Capone A, Lee PP, **Woodward MA**. Ophthalmic telemedicine. American Academy of Ophthalmology. 2015, 2016, 2018.

*National Presentations / Abstracts / Posters:*

1. **Woodward MA**, Airiani S, Trokel S, Braunstein R. Precision of non-contact pachymetry with rapid optical low-coherence reflectometry. Association for Research in Vision and Ophthalmology. Ft. Lauderdale, FL. 2004;45;139.
2. **Woodward MA**. Ocular argyrosis. Southeastern Cataract, Cornea, Refractive Conference. Atlanta, GA. 2006.
3. **Woodward MA** and Randleman JB. Outcomes and methods of visual correction of corneal ectasia after LASIK. American Society of Cataract and Refractive Surgery. San Diego, CA. 2007.
4. Bengtzen R, **Woodward MA**, Lynn MJ, Newman NJ, Biousse V. The sunglasses sign predicts non-organic visual loss in neuro-ophthalmic practice. American Academy of Neurology Annual Meeting. Boston, MA. 2007.
5. Randleman JB, **Woodward MA**, Lynn MJ, Stulting RD. Stratified risk factors for corneal ectasia after LASIK. American Society of Cataract and Refractive Surgery. San Diego, CA. 2007.  
*Winner: Best Paper of Session*
6. **Woodward MA**. Corneal crystal deposits. Southeastern Cataract, Cornea, Refractive Conference. Miami, FL. 2007.
7. Wolfe JD, **Woodward MA**, Randleman JB. Resident surgeon phacoemulsification learning curve. Georgia Society of Ophthalmology. Sea Island, GA. 2007. *Winner: best resident paper*
8. **Woodward MA**. Outcomes and methods of visual correction of corneal ectasia after LASIK. Georgia Society of Ophthalmology. Sea Island, GA. 2007.
9. Bengtzen R, **Woodward MA**, Lynn MJ, Newman NJ, Biousse V. Are sunglasses predictive of non-organic visual loss in neuro-ophthalmic practice? North American Neuro-Ophthalmology Society Annual Meeting. Salt Lake City, UT. 2007.
10. **Woodward MA**, Larson PM, Randleman JB. Confocal microscopy findings in keratoectasia after laser in situ keratomileusis. Association for Research in Vision and Ophthalmology. Ft. Lauderdale, FL. 2007; 48:5351.

11. **Woodward MA**, Stulting RD, Randleman JB. Decreased posterior keratocyte density in post-LASIK ectasia corneas. American Academy of Ophthalmology Annual Meeting. New Orleans, LA. 2007.
12. **Woodward MA**. Multifocal lens case. AMO residency writers award program. New Orleans, LA. 2007. *Second place prize*
13. **Woodward MA**, Randleman JB, Stulting RD. Reasons for patient dissatisfaction after multifocal intraocular lens implantation. Association for Research in Vision and Ophthalmology. Ft. Lauderdale, FL. 2008;49:5282.
14. **Woodward MA**. Off-axis toric lens. Southeastern Cataract, Cornea, Refractive Conference. Asheville, NC. 2008.
15. Hebson C, **Woodward MA**, Randleman JB. Pseudoaccomodation with monofocal intraocular lenses. American Society of Cataract and Refractive Surgery. San Francisco, CA. 2009.
16. **Woodward MA**, Stulting RD, Randleman JB. Dissatisfaction with multifocal intraocular lenses. American Society of Cataract and Refractive Surgery, San Francisco, CA. 2009. *Winner: Best Paper of Session*
17. Randleman JB, **Woodward MA**, Stulting RD. Flap thickness in eyes with post-LASIK ectasia. European Society of Cataract and Refractive Surgery. Barcelona, Spain. 2009.
18. **Woodward MA**, Rocha KM, Bruce BB, Randleman JB, Stulting RD. Measurement of collagen cross-linking in ectatic eyes with the ocular response analyzer. European Society of Cataract and Refractive Surgery. Barcelona, Spain. 2009.
19. **Woodward MA**, Stulting RD. Clinical update on corneal collagen cross-linking for keratoconus. 11<sup>th</sup> Annual Wavefront Congress. San Francisco, CA. 2010.
20. White A, Randleman JB, **Woodward MA**, Rocha KM. Correlation between computerized preoperative keratometry measurements and manual keratometry in LASIK and PRK. American Society of Cataract and Refractive Surgery. Boston, MA. 2010.
21. **Woodward MA**, Rocha KM, Bruce BB, Randleman JB, Stulting RD. Ocular response analyzer evaluation after collagen crosslinking for corneal ectasia. American Society of Cataract and Refractive Surgery. Boston, MA. 2010. *Winner: Best Paper of Session*
22. Hebson CB, Randleman JB, **Woodward MA**, Rocha K. A comparison of ocular response analyzer evaluation after collagen crosslinking for corneal ectasia. Association for Research in Vision and Ophthalmology. Ft. Lauderdale, FL. 2010.
23. **Woodward MA**, Mian SI, Clark D, Shtein RM. Visual acuity and lamellar thickness in descemet stripping automated endothelial keratoplasty (DSAEK). Eye Bank Association of America Annual Meeting. Orlando, FL. 2011.
24. Ross K, Requard JJ, Shtein RM, **Woodward MA** (*presenter*). Impact of tissue selection practices on eye banking costs and processing fees. Eye Bank Association of America Annual Meeting. Orlando, FL. 2011.

25. **Woodward MA**, Hebson CB, Rocha K, Randleman JB. A comparison of ocular response analyzer, Orbscan II, and Pentacam for refractive surgery screening. American Society of Cataract and Refractive Surgery. San Diego, CA. 2011.
26. **Woodward MA**. Managing unhappy presbyopic lens patients. 83<sup>rd</sup> Annual University of Michigan Postgraduate Spring Conference. Kellogg Eye Center. Ann Arbor, MI. 2011.
27. Raoof-Daneshvar D, Shtein RM, Terry MA, **Woodward MA**. Correlation of Descemet stripping automated endothelial keratoplasty (DSAEK) postoperative graft thickness with visual acuity over time. Association for Research in Vision and Ophthalmology. Ft. Lauderdale, FL. 2012.
28. Bullard ML, **Woodward MA**, Shtein RM. Descemet's stripping automated endothelial keratoplasty (DSAEK) dislocation rates and preoperative donor tissue characteristics. Association for Research in Vision and Ophthalmology. Ft. Lauderdale, FL. 2012.
29. Fante RJ, Shtein RM, Titus MS, **Woodward MA**. Anterior segment optical coherence tomography versus ultrasound pachymetry measurements for endothelial keratoplasty donor corneas. Association for Research in Vision and Ophthalmology. Ft. Lauderdale, FL. 2012.
30. Balakrishnan S, Musch DC, **Woodward MA**. Demographics and ocular characteristics of patients undergoing screening for refractive surgery. Refractive Surgery Subspecialty Day, International Society of Refractive Surgery (ISRS). Chicago, IL. 2012.
31. Raoof-Daneshvar D, **Woodward MA**, Elnor VM, Shtein RM. Vital dye staining of endothelial cells following ultra-thin graft preparation for Descemet's stripping endothelial keratoplasty. American Academy of Ophthalmology. Chicago, IL. 2012.
32. Raoof-Daneshvar D, Hussain M, **Woodward MA**, Shtein RM, Soong HK, Sugar A, Mian SI. Treatment of ocular graft-vs.-host disease with topical loteprednol etabonate 0.5%. American Academy of Ophthalmology. Chicago, IL. 2012.
33. Hussain MT, Shtein RM, Sugar A, Soong K, **Woodward MA**, Mian SI. Long-term outcome of autologous serum tears for treatment of dry eye disease. American Academy of Ophthalmology. Chicago, IL. 2012.
34. Mian SI, Ross K, Tenant B, **Woodward MA**, Stein RM, Sugar A. Eye bank distribution of corneal tissue by surgeon. American Academy of Ophthalmology. Chicago, IL. 2012.
35. **Woodward MA**, Mian SI, Shtein RM. Visual acuity and lamellar thickness in descemet's stripping automated endothelial keratoplasty (DSAEK). Association for Research in Vision and Ophthalmology. Ft. Lauderdale, FL. 2012.
36. **Woodward MA**, Titus M, Fante R, Mavin K, Shtein RM. Ultra-thin tissue preparation for DSAEK. Eye Bank Association of America. Hollywood, FL. 2012.
37. Ple-Plakon P, Shtein RM, Musch DC, Saponara F, O'Keefe M, **Woodward MA**. Tissue characteristics and reported adverse events after corneal transplantation. Cornea Society Meeting. Chicago, IL. November 2012. *Winner of Best Resident or Fellow Presentation.*

38. Peron T, **Woodward MA**, Shtein RM. Outcomes of traumatic dehiscence of penetrating keratoplasty versus severe open-globe injury. Association for Research in Vision and Ophthalmology. Seattle, WA. 2013
39. Reddy VC, de Melo Franco R, **Woodward MA**, Vadakkepattath I, O'Keefe M, Shtein RM. Donor cornea characteristics in relation to microbiologic culture results and postkeratoplasty infections. Association for Research in Vision and Ophthalmology. Seattle, WA. 2013
40. Raoof-Daneshvar D, Shtein RM, Blachley TS, **Woodward MA**, Mian SI, Sugar A, Stein JD. Comparison of resource consumption in penetrating versus endothelial keratoplasty from 2009-2010. Association for Research in Vision and Ophthalmology. Seattle, WA. 2013.
41. **Woodward MA**. Diagnosis from afar: telemedicine for ophthalmology. Kellogg Eye Center Alumni Day. 2013.
42. Titus MS, Shtein RM, **Woodward MA**. Effect of time on endothelial health in DSAEK preparation. Eye Bank Association of America Annual Meeting. Chicago, IL. 2013.
43. Raoof-Daneshvar D, Shtein RM, Blachley TS, **Woodward MA**, Mian SI, Sugar A, Stein JD. Comparison of resource consumption in penetrating versus endothelial keratoplasty from 2009-2010. Eye Bank Association of America Annual Meeting. Chicago, IL. 2013.
44. Ple-Plakon PA, **Woodward MA**, He Y, Musch D, Blachley T, Tennant B, Mian SI. Surgeon characteristics associated with adverse events in corneal transplantation. Eye Bank Association of America. Chicago, IL. 2013.
45. Titus MS, Johnson L, **Woodward MA**, Mian SI. Outcomes of eye-bank prepared descemet membrane endothelial keratoplasty tissue. American Academy of Ophthalmology. New Orleans, LA. 2013.
46. Ple-Plakon PA, He Y, Shtein RM, **Woodward MA**, Ross K, Tennant B, Mian SI. Trends in eye bank tissue utilization. American Academy of Ophthalmology. New Orleans, LA. 2013.
47. **Woodward MA**. Cornea review. Michigan Ophthalmology Basic Science Clinical Course. Ann Arbor, MI. 2014.
48. Ple-Plakon PA, Musch D, Lee PP, Blachley T, **Woodward MA**. Attitudes toward tele-ophthalmology. Association for Research in Vision and Ophthalmology. Orlando, FL. 2014.
49. Peeler C, Mian SI, **Woodward MA**. Telemedicine for corneal disease in rural Nepal. Association for Research in Vision and Ophthalmology. Orlando, FL. 2014.
50. Cohen S, Boynton GE, Besirli CG, **Woodward MA**, Newman-Casey PA. Hand-held non-mydratic digital fundus imaging for the detection of diabetic retinopathy. Association for Research in Vision and Ophthalmology Imaging Conference. Orlando, FL. 2014.
51. Wang GM, **Woodward MA**, O'Keefe M, Vadakkepattath I, Titus MS, Blachley T, Musch DC, Shtein RM. Factors associated with thickness of eye-bank prepared DSAEK graft tissue. Association for Research in Vision and Ophthalmology. Orlando, FL. 2014.



52. **Woodward MA.** Top five corneal diagnoses you don't want to miss. Optometric Continuing Education Conference. Ann Arbor, MI. 2014.
53. Shtein RM, Blachley T, **Woodward MA**, Sugar A, Mian SI, Stein JD. Characteristics of patients undergoing endothelial versus penetrating keratoplasty for corneal endothelial disease, 2009 to 2011. American Academy of Ophthalmology. Chicago, IL. 2014.
54. **Woodward MA**, Bavinger JC, Amin S, Milliken A, Newman-Casey PA. Telemedicine for ophthalmic consultation services. Association for Research in Vision and Ophthalmology. Denver, CO. 2015.
55. **Woodward MA.** Corneal considerations in cataract surgery. 87<sup>rd</sup> Annual University of Michigan Postgraduate Spring Conference. Kellogg Eye Center. Ann Arbor, MI. 2015.
56. **Woodward MA.** Telemedicine for the anterior segment. Mid-Winter Symposium. Kellogg Eye Center. University of Michigan. Ann Arbor. 2016.
57. Valikodath N, Niziol LM, Newman-Casey PA, **Woodward MA.** Patient self-reported questionnaire for eye complaints to identify anterior segment pathology. Association for Research in Vision and Ophthalmology. Seattle, WA. 2016.
58. Hansen S, Valikodath N, Wang S, Leveque T, Lee PP, Newman-Casey PA, **Woodward MA.** Attitudes toward telemedicine in ophthalmology. Association for Research in Vision and Ophthalmology. Seattle, WA. 2016.
59. Kim TN, Thapa SS, Niziol LM, Shrestha S, Pitha IF, Ramulu PY, Robin AL, **Woodward MA**, Newman-Casey PA. Portable non-mydratric imaging: a useful tool in a tele-glaucoma assessment. Association for Research in Vision and Ophthalmology. Seattle, WA. 2016.
60. Wolle MA, DeMill D, **Woodward MA**, Johnson L, Mian SI. The endothelial safety of using preloaded descemet membrane endothelial keratoplasty grafts. Association for Research in Vision and Ophthalmology. Seattle, WA. 2016.
61. Wolle MA, Niziol LM, Grossman G, Ross K, Shtein RM, **Woodward MA.** Donor cornea tissue characteristics and associations with surgical suitability. Eye Bank Association of America annual meeting. St. Louis, MO. 2016.
62. **Woodward MA.** Technology for access to care and disease monitoring. Club Vit. Miami, FL. 2016.
63. Valikodath N, Faucett B, Oren G, Whitney K, **Woodward MA**, Mian SI. Impact of a dedicated research rotation on research training in ophthalmology. American Academy of Ophthalmology. Chicago, IL. 2016.
64. Newman-Casey PA, **Woodward MA**, De Lott L, Ophthalmologist prescribing patterns: brand medications, an important driver of Medicare part D drug cost. American Academy of Ophthalmology. Chicago, IL. 2016.
65. Bhaskaranand M, Bhat S, Ramachandra C, Kim TN, Paulus YM, Davila JR, **Woodward MA**, Fletcher DA, Margolis TP, Solanki K. Automated, end-to-end diabetic retinopathy screening using

- smartphone-based retinal fundus camera. American Academy of Ophthalmology. Chicago, IL. 2016.
66. Vallabanath N, Mian SI: Impact of a Dedicated Research Rotation during Ophthalmology Residency, American Academy of Ophthalmology Annual Meeting, Chicago, Illinois, 2016
  67. Chen H, Sick V, **Woodward MA**, Burke D. Human Iris 3D Imaging using a micro-plenoptic camera. Bio-Optics: Design and Application. San Diego, CA. 2017.
  68. Parikh P, Valikodath N, Estopinal CB, Shtein RM, Sugar A, Niziol LM, **Woodward MA**. Precision of epithelial defect measurements. American Society of Cataract and Refractive Surgery. Los Angeles, CA. 2017.
  69. Jaganathan SV, Hood C, Greene JB, Lok E, Niziol LM, **Woodward MA**. Portable cameras for anterior segment imaging. American Society of Cataract and Refractive Surgery. Los Angeles, CA. 2017.
  70. Chen H, Sick V, **Woodward MA**. A micro-plenoptic imaging system for 3D imaging of human iris. Association for Research in Vision and Ophthalmology, Imaging conference. Baltimore, MD. 2017.
  71. **Woodward MA**, Niziol LM, Musch DC, Lee PP. Limitations of Portable Cameras for Detecting Anterior Segment Pathology. Association for Research in Vision and Ophthalmology. Baltimore, MD. 2017.
  72. Stagg BC, Anduka CK, **Woodward MA**. Cataract surgery in the National Health and Aging Trends Study. Association for Research in Vision and Ophthalmology. Baltimore, MD. 2017.
  73. Valikodath N, Prajna NV, Dudeja L, **Woodward MA**. Variability in corneal ulcer measurements. Association for Research in Vision and Ophthalmology. Baltimore, MD. 2017.
  74. Patel T, Prajna NV, Dudeja L, Valikodath N, **Woodward MA**. Automated analysis of corneal ulcer from external photography of the eye. Association for Research in Vision and Ophthalmology. Baltimore, MD. 2017.
  75. Jaganathan VS, **Woodward MA**, Stagg BC, Talwar N, Stein JS. Large geographic variation in rates of visits to the emergency department for ocular problems among communities throughout the United States. Association for Research in Vision and Ophthalmology. Baltimore, MD. 2017.
  76. Kim T, Li P, Niziol LM, Bhaskaranand M, Bhat S, Ramachandra C, Solanki K, Davila J, Myers F, Reber C, Musch DC, Margolis TP, Fletcher D, **Woodward MA**, Paulus YM. Comparison of automated and expert human grading of diabetic retinopathy using smartphone-based retinal photography. Association for Research in Vision and Ophthalmology. Baltimore, MD. 2017.
  77. Wa CA, Todorich B, **Woodward MA**, Walsh MK, Wolfe JD. 27-Gauge sutureless intrascleral fixation of intraocular lenses with haptic flanging: clinical outcomes and a disinsertion force Study. American Society of Retinal Specialists, 2018 Annual Meeting.
  78. Liles N, Newman-Casey PA, De Lott L, **Woodward MA**. Geographic Variation in Medicare Part D Spending on Ophthalmic Drugs. Association for Research in Vision and Ophthalmology. Honolulu, HI. 2018.

79. Patel T., **Woodward MA**. Semi-automated detection of corneal ulcer lesions. World Association of Eye Hospitals annual meeting. Ann Arbor, MI. 2018.
80. Paulus Y, Patel TP, Kim TN, Yu G, Dedania VS, Lieu P, Besirli CG, Demirci H, Margolis T, Fletcher DA, **Woodward MA**. Automated, Smartphone-based pediatric retinal imaging. American Academy of Ophthalmology. Chicago, IL. 2018.
81. Maganti N, Tan H, Niziol LM, Amin S, Hou A, Singh K, **Woodward MA**. Accuracy of natural language processing to extract quantitative data for microbial keratitis from the electronic health record. American Society of Cataract and Refractive Surgery annual meeting. Boston, MA. May 2019
82. Ling J, **Woodward MA**, Stein JD, Poliskey JA, Orlov SL, Michelson SJ, Manno EK, Rahman M, Titus M, Mian SI. Impact of scleral contact lens use on risk of requiring corneal transplantation for keratoconus. Podium presentation at the 2019 Eye Bank Association of America Annual Meeting. Scottsdale, AZ. June 2019.
83. Ehrlich JR, Ndukwe T, Solway E, **Woodward MA**, Singer DC, Newman-Casey PA, Kirch M, De Lott L, Kullgren JT, Stagg BC, Musch DC, Malani PN. Self-Reported Eye Care Use among U.S. Adults Aged 50 to 80 Years. National Medication Association. Honolulu, HI. July 2019.
84. Kriegel M, Loo J, Prajna V, Farsiu S, Tuohy M, Gompa P, Niziol LM, **Woodward MA**. Reliability of physicians' measurements when manually annotating images of microbial keratitis, Association for Research in Vision and Ophthalmology Annual Meeting, Vancouver, Canada, 2019.
85. Hamid M, Orlov SL, DeLott L, Ling J, **Woodward MA**: Reporting and enrollment of women and racial minorities in ophthalmic clinical trials, Association for Research in Vision and Ophthalmology Annual Meeting, Vancouver, Canada, 2019.
86. Zhang Y, Behunin N, Niziol L, Tannen B, **Woodward MA**: Opioid Prescribing and Use after Corneal Surgeries, Association for Research in Vision and Ophthalmology Annual Meeting, Vancouver, Canada, 2019.
87. Farsiu S, Loo J, Kriegel M, Tuohy M, Prajna V, **Woodward MA**. Deep learning-based automatic segmentation of stromal infiltrates and associated biomarkers on slit lamp images of microbial keratitis. Association for Research in Vision and Ophthalmology Annual Meeting, Vancouver, Canada, 2019.
88. Yu Y, Xie X, Qin Y, Xia X, **Woodward MA**, Yang X, Wang X, Paulus Y: Removal of suture-induced corneal neovascularization in rabbits using concurrently applied nanosecond laser pulses and ultrasound, Association for Research in Vision and Ophthalmology Annual Meeting, Vancouver, Canada, 2019.
89. **Woodward MA**, Ballouz D, Errickson J, Maganti N, Tuohy M: Medication burden for patients with bacterial keratitis, Association for Research in Vision and Ophthalmology Annual Meeting, Vancouver, Canada, 2019.
90. Preethi M, **Woodward MA**, Prajna NV: Slit lamp photography of corneal ulcers to predict healing trajectories, All India Ophthalmological Society, Indore, 2019.

91. Killeen OJ, Cho J, Kana L, Newman-Casey PA, **Woodward MA**. Uncorrected Refractive Error and Barriers to Eyeglass Uptake in Southeastern Michigan. American Society of Cataract and Refractive Surgery Annual Meeting; Boston, MA, 2020.
92. Dunbar G, Valicevic AN, Meijome TE, Titus M, Stein JD, **Woodward MA**. Vision-Related Quality of Life Among Corneal Transplant Recipients.” Eye Bank Association of America Scientific Symposium. 2020.
93. Ballouz D, Hughes K, Hirth R, Errickson J, Newman-Casey PA, **Woodward MA**. Assessing North American Native Eye Health and Care Needs. Association for Research in Vision and Ophthalmology Annual Meeting (virtual). May 2021.
94. Meijome R, Wozniak R, Azzouz L, Niziol LM, Kriegel M, **Woodward MA**. Evaluation of *in vivo* murine modeling of *Staphylococcus aureus* bacterial keratitis. Association for Research in Vision and Ophthalmology Annual Meeting (virtual). May 2021
95. Ballouz D, Cho J, **Woodward MA**, Musch DC, Elam AR, Zhang J, Moroi SE, Newman-Casey PA. A Community Engaged Research Approach to Implementing a Telemedicine-Based Glaucoma Screening Program in Populations at High Risk of Glaucoma. American Glaucoma Society annual meeting (virtual). 2021
96. SalazarVega D, Niziol LM, **Woodward MA**, Elam AR, Musch DC, Johnson L, Kershaw M, Zhang J, Winter S, Newman-Casey PA. The Michigan Screening and Intervention for Glaucoma and Eye Health through Telemedicine Program (MI-SIGHT): Initial Cohort Characteristics. ARVO Annual Meeting (virtual). May 2021
97. Ballouz D, Hughes K, Hirth R, Errickson J, Newman-Casey PA, **Woodward MA**. Assessing North American Native Eye Health and Care Needs. Poster presentation at The Association for Research in Vision and Ophthalmology Annual Meeting (virtual). May 2021.
98. Sidhom D, Ugoh P, Andrews C, DeLott L, **Woodward MA**, Lee PP, Newman-Casey PA, Elam A. Disparities in Eye Care Utilization During the COVID-19 Pandemic. Poster presentation at The Association for Research in Vision and Ophthalmology Annual Meeting (virtual). May 2021
99. Hicks P, Elam A, **Woodward MA**, Newman-Casey PA, Asare A, Akrobetu D, Gupta D, Stagg, B. Perceptions of respect from the physician by patients with blinding eye disease perspectives in the United States. American Public Health Association Annual Meeting (virtual). October 2021.
100. Kang L, Lu MC, Niziol LM, Thibodeau A, Francis T, Pawar M, **Woodward MA**: Microbial keratitis isolates at a Midwestern tertiary eye care center, Association for Research in Vision and Ophthalmology (ARVO) Annual Meeting, Denver, CO. May 2022.
101. Hicks PM, Newman-Casey PA, Niziol N, Lu M, Kang L, Stagg BC, Jakpor O, Elam AR, and **Woodward, MA**. The Association between Redlining, Visual Impairment and Blindness. The Association for Research in Vision and Ophthalmology, Denver, CO. May 2022.
102. Flaharty K, Lu M, Niziol LM, Aliancy J, Hicks P, Cho J, **Woodward MA**, Elam AR, Zhang J, Johnson L, Kershaw M, Much DC, Bicket A, John D, Newman-Casey PA: Association Between Neighborhood Deprivation and Clinic Appointment Attendance in a Free Glaucoma Screening Program, Association for Research and Vision in Ophthalmology, Denver, CO, 2022

103. Lu MC, **Woodward MA**, Niziol LM, Ballouz D, Kang L, Thibodeau A, Singh K: Prediction of Visual Acuity in Patients with Microbial Keratitis, Association for Research in Vision and Ophthalmology (ARVO) Annual Meeting, Denver, CO. May 2022
104. Hicks PM, Newman-Casey PA, Niziol LM, Lu M, Armstrong ML, Kang L, Elam AR, Killeen O, Stagg BC, Jakpor O, **Woodward MA**. The impact of redlining on cost of glasses and contact lenses. American Public Health Association annual meeting. Boston, MA. 2022.
105. Ballouz D, Venkatesh P, Niziol LM, Mian SI, Nallasamy N, Hood C, Shtein RM, Tannen B, Verkade A, Sugar A, Soong HK, Selvaraj S, Prabhleen K, Enright J, Thibodeau A, **Woodward MA**. Symptom Severity and Association with Visual Acuity at Microbial Keratitis Presentation. Association for Research in Vision and Ophthalmology. New Orleans, LA. 2023.
106. Hicks PM, **Woodward MA**, Lu MC, Niziol LM, Darnley-Fisch D, Heisler M, Resnicow K, Musch DC, Mitchell J, Imami NR, and Newman-Casey PA. Neighborhood-Level Social Risk Factors Associated with Presenting Glaucoma Severity at a Tertiary Eye Care Center. Association for Research in Vision and Ophthalmology. New Orleans, LA. 2023.
107. Miller KD, Toiv A, Deng C, Lu MC, Niziol LM, Hart JN, Sherman E, Mian S, Lephart PR, Sugar A, Kang L, **Woodward MA**. The Effect of ESwabs on Laboratory Test Utilization and Positivity Rates in Microbial Keratitis Patients. Association for Research in Vision and Ophthalmology. New Orleans, LA. 2023.
108. Hart JN, Lu MC, Tracey B, Miller KD, Lephart PR, Mian S, **Woodward MA**. A comparison of culture results in contact lens related microbial keratitis. Association for Research in Vision and Ophthalmology. New Orleans, LA. 2023.
109. Johnson-Griggs M, Hicks PM, Lu MC, Sherman E, Niziol LM, Elam AR, **Woodward MA**, Bicket A, Wood S, John D, Johnson L, Kershaw M, Zhang J, Musch D, Newman-Casey PA. The Relationship between Unstable Housing, Food Insecurity and Vision Status in the Michigan Screening and Intervention for Glaucoma and Eye Health through Telemedicine (MI-SIGHT) Program. Association for Research in Vision and Ophthalmology. New Orleans, LA. 2023.

#### *University Presentations*

1. Clinical applications of confocal microscopy. Emory Cornea Conference. Atlanta, GA. 2006.
2. Patient dissatisfaction with multifocal intraocular lenses. Cornea Grand Rounds. Atlanta, GA. 2007.
3. Evaluation of Orbscan II indices for refractive surgery screening. Emory Ophthalmology Department Senior Thesis Presentation. Atlanta, GA. 2008.
4. Infections after refractive surgery. Emory Cornea Conference. Atlanta, GA. November 2008.
5. Cataract surgery after radial keratotomy. Emory Cornea Conference. Atlanta, GA. 2009.
6. New frontiers in corneal evaluation. Emory Research Day. Atlanta, GA. 2009.

7. Raoof-Daneshvar D, Shtein RM, Terry MA, **Woodward MA**. Correlation of Descemet stripping automated endothelial keratoplasty (DSAEK) postoperative graft thickness with visual acuity over time. Kellogg Eye Center Research Day. Ann Arbor, 2012.
8. Bullard ML, **Woodward MA**, Shtein RM. Descemet's stripping automated endothelial keratoplasty (DSAEK) dislocation rates and preoperative donor tissue characteristics. Kellogg Eye Center Research Day. Ann Arbor, 2012.
9. Balakrishnan S, **Woodward MA**. Demographics and ocular characteristics of patients undergoing screening for refractive surgery. Kellogg Eye Center Research Day. Ann Arbor, 2012.
10. Saponara F, Shtein RM, **Woodward MA**. Tissue characteristics and adverse event reporting after corneal transplantation. Kellogg Eye Center Research Day. Ann Arbor, 2012.
11. Reddy V, Melo R, **Woodward MA**, Shtein RM. Microbiology of donor corneas and post-keratoplasty endophthalmitis: 14-year review at Kellogg. Kellogg Eye Center Research Day. Ann Arbor, 2012.
12. Bullard M, Musch D, Blachley T, **Woodward MA**. The use of Toric intraocular lenses in cataract surgery training. Kellogg Eye Center Research Day. Ann Arbor, 2013.
13. Peeler C, Mian SI, **Woodward MA**. Anterior segment imaging for telemedicine in rural Nepal. Kellogg Eye Center Research Day. Ann Arbor, 2013.
14. Raoof-Daneshvar D, Mian SI, **Woodward MA**, Shtein RM. Comparison of resource consumption in penetrating versus endothelial keratoplasty. Kellogg Eye Center Research Day. Ann Arbor, 2013.
15. Ple-Plakon PA, **Woodward MA**, He Y, Musch D, Blachley T, Tennant B, Mian SI. Surgeon characteristics associated with adverse events in corneal transplantation. Kellogg Eye Center Research Day. Ann Arbor, 2013.
16. Fausett BV, **Woodward MA**, Stein J. Are patients with keratoconus at an increased risk of systemic medical illness. Kellogg Eye Center Research Day. Ann Arbor, 2013.
17. Manry M, **Woodward MA**. Digital after-hours patient care. Kellogg Eye Center Research Day. Ann Arbor, 2014
18. Peeler CE, Dhakhwa K, Mian SI, Blachley T, Patel S, Musch DC, Woodward MA: Telemedicine for Corneal Disease in Rural Nepal, *INVESTIGATIVE OPHTHALMOLOGY & VISUAL SCIENCE*.55, (13)2014
19. Valikodath N, Wang S, Leveque T, Lee PP, **Woodward MA**. Attitudes toward telemedicine in ophthalmology. Michigan Institute for Clinical and Health Research. Clinical and Translational Research Mentoring Forum. 2015.
20. Jeganathan VS, **Woodward MA**, Stagg BC, Talwar N, Stein JD: Large Geographic Variation in Rates of Visits to the Emergency Department for Ocular Problems Among 306 US Communities, *INVESTIGATIVE OPHTHALMOLOGY & VISUAL SCIENCE*.58, (8)2017

21. Orlov SL, Hamid M, **Woodward MA**. Representation Bias in Ophthalmology Clinical Trials. Undergraduate Research Opportunity Program annual session. 2018  
\* Best poster of session
22. Kana L, Newman-Casey PA, **Woodward MA**. Reasons for Suboptimal Visual Acuity in Vulnerable Adults: A Mixed Methods Study to Design Eyeglasses Programs. Kellogg Eye Center Research Day. Ann Arbor, 2018
23. Maganti N, Tan H, Niziol LM, Amin S, Hou A, Singh K, Ballouz D, **Woodward MA**. Accuracy of Natural Language Processing to Extract Quantitative Data for Microbial Keratitis from the Electronic Health Record. Kellogg Research Day, Kellogg Eye Center, University of Michigan. June 2019. *Best Clinical Research poster*
24. Hou A, Maganti N, Tan H, Niziol LM, Amin S, Singh K, Ballouz D, **Woodward MA**. Natural Language Processing to Quantify Microbial Keratitis Measurements” Podium presentation at Updates in Ophthalmology, Henry Ford Hospital, Detroit. June 2019. *David Barsky Research Competition Finalist.*
25. **Woodward MA**, Ballouz D, Errickson J, Maganti N, Tuohy M: Medication burden for patients with bacterial keratitis, *INVESTIGATIVE OPHTHALMOLOGY & VISUAL SCIENCE*.60, (9)2019
26. **Woodward MA**, Wu R. Telemedicine During COVID. Faculty and Trainee Webinar. April 23, 2020.
27. **Woodward MA**, Newman-Casey PA, Chang T: Barriers to Wearing Eyeglasses Among US Youth, *INVESTIGATIVE OPHTHALMOLOGY & VISUAL SCIENCE*.63, (7)2022
28. **Woodward MA**, Newman-Casey PA, Chang T, Wang G, Killeen O: US Youth Perceptions of Eyeglasses and Contact Lenses, *INVESTIGATIVE OPHTHALMOLOGY & VISUAL SCIENCE*.63, (7)2022
29. Kim L, Claus A, Mubeen A, Cho J, Raven S, **Woodward MA**, Newman-Casey PA, Chang T, Wang G, Killeen O: US Youth Opinions on Purchasing Eyeglasses Online, *INVESTIGATIVE OPHTHALMOLOGY & VISUAL SCIENCE*.63, (7)2022
30. Claus A, Mubeen A, Kim L, Cho J, Raven S, Wang G, **Woodward MA**, Newman-Casey PA, Chang T, Killeen O: US Youth Perceptions of the Importance of Vision, *INVESTIGATIVE OPHTHALMOLOGY & VISUAL SCIENCE*.63, (7)2022