

Maria Anneke Woodward, M.D. M.Sc.
Associate Professor of Ophthalmology and Visual Sciences)
Service Chief and Fellowship Director, Cornea, External Disease, and Refractive Surgery Service)
Strategic Director, Kellogg Eye Center for eHealth)
University of Michigan)
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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
Masters of Science in Health and Healthcare Research
University of Michigan, Rackham Graduate School
Ann Arbor, Michigan

CERTIFICATION AND LICENSURE

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

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
- 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)
2013-Present Faculty Associate, Institute for Healthcare Policy and Innovation
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

RESEARCH INTERESTS:

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

CURRENT GRANTS:

Quantifying Microbial Keratitis to Predict Outcomes (Just In Time request received by NIH)
National Institutes of Health
Woodward, Maria A, PI
03/2020-02/2024. \$2,011,284

University of Michigan Assessment of Native American Michiganders' Eyecare Needs (ANAMEN)
SEVA Foundation
PI Newman-Casey PA, PI Woodward MA, Co-I Hirth, Richard, PI
01/2020-12/2020. \$124,961

Sustainable Community Clinic Telemedicine-Based Glaucoma Screening
Center for Disease Control
Co-I with Effort (Principal Investigator: Newman-Casey, PA)
09/2019-09/2024. \$699,952

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 \$2,000,000

Acute Eye Infections Managed in Primary Care Settings: Identifying At-Risk Patients and Clinical Risk Factors
Blue Cross Blue Shield Foundation of Michigan- 19-PAF03168
Woodward, Maria A, PI
07/2019-05/2020. \$70,000

U10: Zoster Eye Disease Study
National Eye Institute
Co-I (Principal Investigator: Elisabeth Cohen) (Dr. Woodward recruit's patient's with corneal infections at University of Michigan)

07/2016-06/2021. \$106,685

Quantifying Microbial Keratitis

MICHR Pilot Grant Program. Promoting Progress in Statistics Award (ProPS)

Woodward, Maria A, PI

01/2020-12/2020 \$15,000

PRIOR GRANTS:

Computerized Measurement Tools for Corneal Ulcers

Alliance for Vision Research

Woodward, Maria A, PI

07/2018-06/2019. \$4,000

Telemedicine and Refractive Error

Warby Parker

Woodward, Maria A, PI

02/2018-12/2018. \$16,089

Development of Clinical Tools for Telemedicine in Ophthalmology

Alliance for Vision Research

Woodward, Maria A, PI

05/2016-05/2017. \$5,000

Re-Design of Diabetic Retinopathy Patient Materials

Intelligent Retinal Imaging Systems

Woodward, Maria A, PI

05/2016-12/2016. \$4,515

Smartphone-Based Retinal Imaging for Screening of Eye Disease U-M Michigan

Translational Research and Commercialization of Life Sciences Program

Woodward Maria A., Co-PI

01/2016-01/2018. \$132,847

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. \$2,000,000

3D Plenoptic Imaging in Medical Diagnostics MCubed

Woodward Maria A., co-PI.

01/2015-01/2017. \$60,000

MI Sight Portable Eye Camera Fostering Innovation Grant

Woodward, Maria A, PI

01/2014-01/2015. \$5,050

K23 EY023596-05: Telemedicine For Anterior Eye Diseases

National Institutes of Health

Woodward, Maria A, PI

09/2013-02/2019. \$1,184,058

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. \$25,000

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. \$25,000

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
Maria A. Woodward, PI
01/2011-01/2012

Corneal Donor Tissue Processing Techniques
Anthony P. Adams Scholar Grant
Maria A. Woodward, PI
01/2011-01/2012

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 Crosslinking 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
2017-18 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
2019-20 Health Policy Leadership Development Fellowship recipient, Cornea Society

MEMBERSHIPS IN PROFESSIONAL SOCIETIES:

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

2006-present American 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

PEER-REVIEW JOURNAL SERVICES:

Editorial Board:

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

Reviewer:

2009 to present Clinical Ophthalmology
2009 to present Eye
2009 to present Journal of Cataract and Refractive Surgery
2009 to present Journal of Refractive Surgery
2010 to present Cornea
2011 to present JAMA Ophthalmology (formerly Archives of Ophthalmology)
2012 to present Ophthalmology
2013 to present Journal of the American Medical Association
2014 to present PLOS ONE
2016 to present Translational Vision Science & Technology
2016 to present American Journal of Ophthalmology
2017 to present British Journal of Ophthalmology
2017 to present Survey of Ophthalmology

COMMITTEE, ORGANIZATIONAL, AND VOLUNTEER SERVICE:

Departmental

2009-10 Education Committee, Emory University, Dept of Ophthalmology;
2007-08 – chief resident representative
2009-10 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 - Co-director, clinical programs & telemedicine
2016-2017 Faculty Strategic Planning Committee, Dept of Ophthalmology
2016-2017 Cornea Clinical Faculty Selection Committee, Dept of Ophthalmology
2018-2019 Cornea Research Faculty Selection Committee, Dept of Ophthalmology, co-chair
2017-2019 Imaging Faculty Selection Committee, Dept of Ophthalmology

2020- Fellowship director, Cornea, External Disease, Refractive Surgery, Dept of Ophthalmology.

Institutional

08/2014-05/2015 Care @ Home - Disruptive Innovation Program Task Force
01/2014-present Global REACH, faculty associate
01/2015-present Academy of Medical Educators - Educational Excellence and Scholarship
01/2016-present Institute for Healthcare Policy and Innovation, faculty associate
01/2016-present Michigan Center for Diabetes Translational Research, faculty member
03/2016-06/2019) Institute for Healthcare Policy and Innovation, Early Career Faculty Advisory Council
2018 Institute for Healthcare Policy and Innovation, Early Career Development Workshop, co-lead

National

05/2011-present Eye Bank Association of America, Career Development Committee
06/2012-present Eye Bank Association of America, Research Committee
2014-2016: Vice-Chair; 2016-2018: Chair; 2018-2020
10/2012-10/2016 American Academy of Ophthalmology (AAO), Clinical Education Committee
01/2014-present Eversight Eye Banks, Medical Director of Michigan Eye Bank
03/2014-present Eversight Eye Banks, Research Committee
02/2015-01/2017 American Academy of Ophthalmology, EyeWiki Editorial Board
06/2015-present American Academy of Ophthalmology, Telemedicine Task Force
10/2016-present Eye Bank Association of America, medical advisory board Ad Hoc Antifungal Supplementation RFP Selection Subcommittee
01/2017-present American Academy of Ophthalmology, EyeWiki Lead Editor, Cornea
10/6/2017 NIH Special Emphasis Panel for National Cancer Institute, member
1/19/2018-present Ophthalmic Advocacy Leadership Group, Cornea Society representative
10/1/2017-present American Academy of Ophthalmology, Research, Regulatory & External Scientific Relations Committee
04/2017-04/2019 Association for Research in Vision and Ophthalmology, Women in Eye in Vision Research, participant and drop-in mentor
5/1/2019-12/31/2020 American Academy of Ophthalmology, IRIS database Research Committee
1/1/2020-present Cornea Society, board member
1/1/2021-12/31/2021 American Academy of Ophthalmology, Council Leadership, Subspecialty/Specialized Section, Section Nominating Committee
07/2020 Troutman Prize Selection Committee, Cornea Society/Cornea Journal
01/01/2020-present American Academy of Ophthalmology, IRIS Registry Analytics Committee
8/2020-8/2024 Dermatologic and Ophthalmic Drugs Advisory Committee
6/2021 American Academy of Ophthalmology Council Leadership, Subspecialty/Specialized Section, Section Nominating Committee

Volunteer Services

03/2017-present) Impact 100 Oakland County, member

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, Biouesse 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, Biouesse 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; 129:1609-1609.
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; 91:51919.
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. 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(4): 5226/2374-6890/2/4/00131.
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; 37:651-6.
33. Todorich B, Thanos A, **Woodward MA**, Wolfe JD. Sutureless intrascleral fixation of secondary intraocular lens using 27-gauge vitrectomy system. *Ophthalmic Surg Lasers Imaging Retina*. 2016; 47:376-379.
34. 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; 23:205-12.
35. Wolle MA, Randleman JB, **Woodward MA**. Complications of refractive surgery: ectasia after refractive surgery. *Int Ophthalmol Clin*. 2016; 56:127-139.
36. **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; 23:365-70.
37. **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.
38. 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. *Clinics in Surgery*. 2016; 1:1236.
39. Todorich B, Thanos A, Yonekawa Y, Mane G, Hasbrook M, Thomas BJ, **Woodward MA**, Williams GA, Capone A, 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 N, 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 N, 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;135:225-31.
42. Parikh P, Valikodath N, Estopinal CB, Shtein RM, Sugar A, Niziol LM, **Woodward MA**. Precision of epithelial defect measurements. *Cornea*. 2017; 36:419-24.
43. Stagg B, Shah M, Talwar N, Padovani-Claudio, **Woodward MA**, Stein JD. Factors affecting visits to the emergency department for urgent and non-urgent ocular conditions. *Ophthalmol*. 2017; 124:720-9.

44. Jeganathan VS, Robin AL, **Woodward MA**. Refractive error in underserved adults: causes and potential solutions. *Curr Opin Ophthalmol*. 2017; 28:299-304.
45. Valikodath N, Fausett BV, Oren GA, Whitney K, **Woodward MA**, Mian SI. Impact of a dedicated research rotation during ophthalmology residency. *J Grad Med Educ*. 2017; 9:e1-e6.
46. Stem M, Todorich B, **Woodward MA**, Hsu J, Wolfe JD. Scleral-fixated intraocular lenses: Past and present. *J Vitreo-Ret Disease*. 2017; 1:144-52.
47. Davila J, Sengupta S, Niziol LM, Sindal M, Besirli C, Upadhyaya S, **Woodward MA**, Venkatesh R, Robin A, Grubbs J, Newman-Casey PA. Predictors of photographic quality with a handheld non-mydratric fundus camera. *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; 1:169-74.
49. **Woodward MA**, Musch DC, Hood CT, Greene JB, Niziol LM, Jeganathan VS, Lee PP. Tele-ophthalmic approach for detection of corneal diseases: accuracy and reliability. *Cornea*. 2017; 36:1159-65.
50. Wolle MA, DeMill DL, Johnson L, Lentz SI, **Woodward MA**, Mian SM. 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, VS Jeganathan, Demirci H, Sick V. Human iris three-dimensional imaging at micron resolution by a micro-plenoptic camera. *Biomedical Optics Express*. 2017; 8:4514-22.
52. 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-mydratric and standard fundus cameras and clinical exam. *Eye (Lond)*. 2018; 32: 375-383.
53. Newman-Casey PA,* **Woodward MA**,* Niziol LM, Lee PP, De Lott LB. Brand medications & Medicare Part D: How eye care providers' prescribing patterns influence costs. *Ophthalmol*. 2018; 125:332-339.
54. **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.
55. 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 mydratric fundus camera compared to portable non-mydratric camera. *Am J Ophthalmol*. 2017; 182: 99-106.
56. **Woodward MA**, Jeganathan VS, Guo W, Cederna J, Newman-Casey PA. Barriers to attending eye appointments within a vulnerable population. *J Ophthalmic Vis Res*. 2017; 12: 449-450.

57. Bursztyn LL, **Woodward MA**, Cornblath WT, Grabe HM, Trobe JD, Niziol LM, De Lott LB. Accuracy and reliability of a handheld, nonmydriatic fundus camera for the remote detection of optic disc edema. *Telemed J E Health*. 2018; 24: 344-50.
58. Vijayakumar N, Parikh P, Mian SI, Tennant B, Grossman GH, Albrecht B, Niziol LM, **Woodward MA**. Donor cornea tissue in cases of drowning or water submersion: Eye banks practice patterns and tissue outcomes. *Cell Tissue Bank*. 2018; 19: 1-8.
59. 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 intrascleral fixation of secondary intraocular lenses in human eyes. *Retina*. 2017; 138: S31-40.
60. Patel TP, Prajna NV, Farsiu S, Valikodath NG, Niziol LM, Dudeja L, Kim KH, **Woodward MA**. Novel image-based analysis for reduction of clinician-dependent variability in measurement of corneal ulcer size. *Cornea* 2018; 37: 331-339.
61. Wang S, Hamid M, Musch DC, **Woodward MA**. Utilization of ophthalmic consultation for emergency care at a university hospital. *JAMA Ophthalmol*. 2018; 136: 428-31.
62. Stagg BC, Choi H, **Woodward MA**, Ehrlich JR. Association of social support network size with receipt of cataract surgery in older adults. *JAMA Ophthalmol*. 2018; 136: 423-7.
63. Otte B, **Woodward MA**, Ehrlich JR, Stagg BC. Self-reported eyeglass use by US Medicare beneficiaries aged 65 years and older. *JAMA Ophthalmol*. 2018; 136: 1047-50.
64. Stem MS, Wa CA, Todorich B, **Woodward MA**, Walsh MK, Wolfe JD. 27-Gauge sutureless intrascleral fixation of intraocular lenses with haptic flanging: Short-term clinical outcomes and a disinsertion force study. *Retina*. 2019; 39(11): 2149-54.
65. Kim TN, Myers F, Reber C, Loury PJ, Loumou P, Webster D, Echanique C, Li P, Davila J, Maamari RN, Switz NA, Keenan J, **Woodward MA**, Paulus YM, Margolis T, Fletcher DA. A smartphone-based tool for rapid, portable, and automated wide-field retinal imaging. *Trans Vision Sci Tech*. 2018;7:21.
66. Jeganathan VSE, Niziol LM, Hansen S, Apostolou H, Valikodath N, **Woodward MA**. Accuracy of a Smartphone-Based Autorefractor Compared to Criterion-standard Refraction. *Optom Vis Sci*. 2018; 95: 1135-41.
67. Stem MS, Rao P, Lee IJ, **Woodward MA**, Faia LJ, Wolfe JD, Capone A, Covert D, Dass AB, Drenser KA, Garretson BA, Hassan TS, Margherio A, Oh KT, Raephaelian PV, Randhawa S, Sneed S, Trese MT, Yedavally S, Williams GA, Ruby AJ. Predictors of Endophthalmitis after Intravitreal Injection: A Multivariable Analysis Based on Injection Protocol and Povidone Iodine Strength. *Ophthalmol Retina*. 2019; 3(1): 3-7.
68. Stein JD, Rahman M, Andrews C, Ehrlich JR, Kamat S, Shah M, Boese EA, **Woodward MA**, Cowall J, Trager EH, Narayanaswamy P, Hanauer DA. Evaluation of an Algorithm for Identifying Ocular Conditions in Electronic Health Record Data. *JAMA Ophthalmol*. 2019; 137: 491-7.
69. Ballouz D, Maganti N, Tuohy M, Errickson J, **Woodward MA**. Medication burden for patients with bacterial keratitis. *Cornea*. 2019; 38: 933-7

70. **Woodward MA**, Prasov L, Newman-Casey PA. Nature versus Nurture: The Debate Surrounding the Pathogenesis of Myopia. Invited Commentary. *JAMA Ophthalmol.* 2019; 137: 894-895.
71. Ashfaq HA, Lester CA, Ballouz D, Errickson J, **Woodward MA**. Medication Accuracy in Electronic Health Records for Microbial Keratitis. *JAMA Ophthalmol.* 2019; 137: 929-931.
72. Kim E, Ruby A, Ung C, Kim I, Wang J, Young L, Hassan T, Weiner A, Vavvas D, Huang N, Capone A, Faia K, Elliott D, Dahrouj M, Mukai S, Garretson B, Williams G, Drenser K, Kim L, Wu D, Lee I, Roh M, **Woodward MA**, Stem M, Comander J, Wolfe J, Yonekawa Y. Characterization of Epiretinal Proliferation in Full-Thickness Macular Holes and Effects on Surgical Outcomes. *Ophthalmol Retina.* 2019; 3: 694-702.
73. 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 Utilization among U.S. Adults Age 50-80. *JAMA Ophthalmol.* 2019; 137: 1061-1066.
74. Maganti N, Tan H, Niziol LM, Amin S, Hou A, Singh K, Ballouz D, **Woodward MA**. Natural language processing to quantify Microbial Keratitis Measurements. *Ophthalmol.* 2019; 126: 1722-1724.
75. **Woodward MA**, Zhang Y, Tannen B, Behunin N, Niziol LM, Waljee J. Association of limiting opioid prescriptions and use of opioids after corneal surgery. *JAMA Ophthalmol.* 2019; 138: 76-80.
76. Kriegel MF, Huang J, Ashfaq HA, Niziol LM, Preethi M, Tan H, Tuohy MM, Patel TP, Prajna V, **Woodward MA**. Algorithm Variability in Quantification of Epithelial Defect Size in Microbial Keratitis Images. *Cornea.* 2020 Jan 23.
77. Loo J, Kriegel MF, Tuohy MM, Kim KH, Prajna V, **Woodward MA**, Farsiu S. Open-source automatic segmentation of ocular structures and biomarkers of microbial keratitis on slit-lamp photography images using deep learning. *IEEE Journal of Biomedical and Health Informatics.* 2020 [epub ahead of print]
78. Tuohy MM, Niziol LM, Mian S, Ballouz D, Bosch D, **Woodward MA**. Patient Reported Outcomes in Microbial Keratitis. *Cornea* 2020 June 1. [epub ahead of print].
79. Ling JJ, Mian SI, Stein JD, Rahman M, Poliskey J, **Woodward MA**. Impact of scleral contact lens use on rate of corneal transplant for keratoconus. *Cornea* 2020 [epub ahead of print].
80. Kriegel MF, Loo J, Farsiu S, Prajna V, Tuohy M, Kim KH, Valicevic AN, Niziol LM, Tan H, Ashfaq HA, Ballouz D, **Woodward MA**. Measurement reliability for anterior segment and keratitis morphology. *Cornea* 2020 [epub ahead of print].
81. Ashfaq H, Maganti N, Ballouz D, Feng Y, **Woodward MA**. Procedures, visits, and procedure costs in the management of microbial keratitis. *Cornea.* 2020 [Epub ahead of print]
82. **Woodward MA** and Waljee J. Decisions Ahead of Time: The Power of Guidelines to Change Opioid Prescribing in Today's World. *Ophthalmology.* 2020; 127: 1460-1461.
83. Almazroa AA, **Woodward MA**, Newman-Casey PA, Shah MM, Elam AR, Kamat SS, Karvonen-Gutierrez CA, **Wood SD**, Kumar N, **Moroi SE**. The appropriateness of digital diabetic

retinopathy screening images for a computer-aided glaucoma screening system. *Clin Ophthalmol.* 2020;14:3881-3890.)

84. 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.* 2020 [Epub ahead of print]
85. Qin Y, Yu Y, Fu J, Xie X, Wang T, **Woodward MA**, Paulus Y, Yang X, Wang X. Photo-mediated ultrasound therapy for the treatment of corneal neovascularization in rabbit eyes. *Translational Vision Science & Technology.* 2020 [Epub ahead of print]
86. Nakul S, Shekhawat NS, Niziol LM, Sharma SS, Joseph S, Robin AL, Gillespie BW, Musch DC, Woodward MA* Venkatesh R. The Utility of Routine Fundus Photography Screening for Posterior Segment Disease: A Stepped-wedge, Cluster-randomized Trial in South India. *Ophthalmol.* 2020 [in press] *corresponding author
87. Killeen OJ,* Cho J,* Newman-Casey PA, Kana L, **Woodward MA**. Barriers and Facilitators to Obtaining Eyeglasses Vulnerable Patients in a Michigan Free Clinic. *Optom Vis Sci* 2020 [in press].
88. 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.* 2020 [Epub ahead of print].

Book Chapters

1.) **Woodward MA**, Randleman JB. Corneal ectasia: management. In: Krachmer JH, Mannis MJ, Holland EJ, eds. *Cornea*, 3rd 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*, 2nd Edition. Thorofare, NJ: Slack Inc; 2009. p. 21-4.
3.) Randleman JB, **Woodward MA**. Evaluation and diagnosis of postoperative corneal ectasia. In: Randleman JB, Hafezi F. *Collagen Cross-linking*. 2013; 31-8
4.) **Woodward MA**, Mian S, Sugar A. Corneal degenerations. In: Yanoff M, Duker J. *Ophthalmology*, 4th Edition, Chapter 4.22. 2014; 269-73
5.) **Woodward MA**. Acknowledgment for editorial work. In: Randleman JB. *Refractive Surgery: An interactive case-based series*. 2014
6.) **Woodward MA**. Behavioral and neurologic disorders. In: American Academy of Ophthalmology. *Basic and Clinical Science Course series: Update on General Medicine*. Chapter 11. 2014.
7. ! **Woodward MA**. Medical emergencies. In: American Academy of Ophthalmology. *Basic and Clinical Science Course series: Update on General Medicine*. Chapter 15. 2014.
8.) **Woodward MA**, Demill D. Current procedure. In: Randleman JB, Hafezi F. *Collagen Cross-linking*. 2015.

9.) **Woodward MA**, Mian S, Sugar A. Corneal degenerations. In: Yanoff M, Duker J. *Ophthalmology*, 5th Edition, Chapter 4.22. 2019.
10. **Woodward MA**, Vijayakumar N. Eye Banking. *Principles and Practice of Ophthalmology*. 2017.

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*. August 12, 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.

Extramural Invited Presentations:

1.) Managing unwelcome outcomes in refractive and presbyopic patients. Cleveland Clinic. Cleveland, OH. 2008.
2.) Understanding and managing unwelcome outcomes. Wayne State University. Detroit, MI. 2010.
3.) Understanding and managing unwelcome outcomes. University of Michigan. Ann Arbor, MI. 2010.
4.) Multifocal intraocular lenses. Kellogg Eye Center Annual Postgraduate Spring Conference. University of Michigan. Ann Arbor, MI. 2011
5.) Update on corneal diseases. Michigan Society of Eye Physicians and Surgeons Annual Conference. Mackinaw Island, MI. 2011.
6.) Management of Salzmann's nodular degeneration. Cornea Subspecialty Day. American Society of Cataract and Refractive Surgery. San Francisco, CA. 2013.
7.) Cornea surgery begins at the eye bank. World Cornea Congress. San Diego, CA. 2015.
8.) Update on United States eye banking research. Aravind Eye Hospitals. Madurai, India. 2016
9.) 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.

10. Writing stronger research grant proposals & scientific abstracts. Eye Bank Association of America. Webinar. 2016.
11. Keratoconus and systemic diseases. Cornea Connect. Aravind Eye Hospitals. Madurai, India, September 2017
12. Eye banking in the United States. Cornea Connect. Aravind Eye Hospitals. Madurai, India, September 2017
13. A challenging case. Cornea Connect. Aravind Eye Hospitals. Madurai, India, September 2017
14. eHealth and anterior segment diseases. Colleen Conway Grace MD Memorial lectureship. University of Maryland. Baltimore, MD. October 3, 2017.
15. Anterior segment trauma. University of Maryland. Baltimore, MD. October 3, 2017.
16. Mentorship. University of Maryland. Baltimore, MD. October 3, 2017.
17. Panelist, Ophthalmic Digital Health Workshop, Food and Drug Administration, Gaithersburg, MD. October 23, 2017.
18. Telemedicine and Patient Focused Digital Applications. American Academy of Ophthalmology, Mid-Year Forum. April 28, 2017.
19. Seeing the human eye in four dimensions: pistons, portabellas, and patients. MCubed symposium. Ann Arbor, MI. November 1, 2017.
20. Assessing Quality of Corneal Tissue: Current Evidence and Old Misconceptions. Eye Bank Association of America, annual meeting. Philadelphia, PA. June 9, 2018.
21. Factors to Consider: Evaluating Safety & Effectiveness of Ophthalmic Digital Healthcare. American Academy of Ophthalmology, Fall Council Meeting. Chicago, IL. October 28 2018.
22. Acanthamoeba Keratitis: Are you kidding? Double or Triple Them Up! Cornea360. Phoenix, AZ. April 5, 2019
23. Artificial Intelligence and Telemedicine in Ophthalmology. Women in Ophthalmology annual meeting. Coeur D'alene, Idaho. August 25, 2019.
24. Growing Your Career in Research. Expert Panel Session. Women in Ophthalmology annual meeting. Coeur D'alene, Idaho. August 25, 2019
25. Safety and Effectiveness of Ophthalmic Telemedicine. New England Ophthalmological Society annual meeting. Boston, MA. September 6, 2019.
26. Telemedicine and the Anterior Segment. New England Ophthalmological Society annual meeting. Boston, MA. September 6, 2019.
27. Improving Telemedicine Implementation. New England Ophthalmological Society annual meeting. Boston, MA. September 6, 2019.

28. Managing Post-LASIK and Other Ectasias. American Academy of Ophthalmology Annual Meeting. Cornea Subspecialty Day. San Francisco, CA. October 12, 2019.
29. 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
30. Telemedicine During CoVID. Michigan Society of Eye Physicians and Surgeons webinar. Ann Arbor, MI. April 29, 2020
31. Perspectives on Tele-Ophthalmology during the COVID-19 pandemic. Michigan Society of Eye Physicians and Surgeons Annual Meeting. Virtual. August 7, 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**, Neff 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. 2011.
7.) Shtein RM, **Woodward MA**, Mian SM, Moroi S. Anterior segment imaging. American Academy of Ophthalmology. 2011, 2012, 2013, 2014, 2015, 2016, 2017.
8.) **Woodward MA**, Jeng B, Neff 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, Drenser K, Capone A, Lee PP, **Woodward MA**. Ophthalmic telemedicine. American Academy of Ophthalmology. 2015, 2016.

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. 11th 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, Orbscan II, and Pentacam for pre-operative refractive surgery screening. Association for Research in Vision and Ophthalmology. Ft. Lauderdale, FL. 2010.
23. **Woodward MA**, Mian S, Clark D, Shtein R. Visual acuity and lamellar thickness in descemet's 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. 83rd 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**, Elner 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 S, 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 R, 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 SM. Outcomes of eye-bank prepared descemet membrane endothelial keratoplasty tissue. American Academy of Ophthalmology. PO 0325 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. 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 SM, **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-mydriatic 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 SM, Stein J. 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. 87rd 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. 2016.
57. Valikodath N, Niziol L, 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 L, Shrestha S, Pitha IF, Ramulu PY, Robin AL, **Woodward MA,** Newman-Casey PA. Portable non-mydratic 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 L, 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 SM. 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. 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.
67. 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.

68. 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.
69. 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.
70. **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.
71. 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.
72. Valikodath N, Prajna NV, Dudeja L, **Woodward MA**. Variability in corneal ulcer measurements. Association for Research in Vision and Ophthalmology. Baltimore, MD. 2017.
73. 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.
74. 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.
75. 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.
76. Wa CA, Todorich B, **Woodward MA**, Walsh MK, Wolfe JD. 27-Gauge Sutureless Intracocular Fixation of Intraocular Lenses with Haptic Flanging: Clinical Outcomes and a Disinsertion Force Study. American Society of Retinal Specialists, 2018 Annual Meeting.
77. 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.
78. Patel T., **Woodward MA**. Semi-automated detection of corneal ulcer lesions. World Association of Eye Hospitals annual meeting. Ann Arbor, MI. 2018.
79. 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.
80. 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

81. Ling J, **Woodward MA**, Stein JD, Poliskey JA, Orlov SL, Michelson SJ, Manno EK, Rahman M, Titus M, Mian S. Impact of scleral contact lens use on risk of requiring corneal transplantation for keratoconus. Podium presentation at the 2019 EBAA Annual Meeting. Scottsdale, AZ. June 2019.
82. 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.
83. Kriegel M, Loo J, Prajna V, Farsiou S, Tuohy M, Gompa P, Niziol L, **Woodward MA**. Reliability of physicians' measurements when manually annotating images of microbial keratitis, ARVO Annual Meeting, Vancouver, Canada, 2019.
84. Killeen OJ, Cho J, Kana L, Newman-Casey PA, **Woodward MA**. Uncorrected Refractive Error and Barriers to Eyeglass Uptake in Southeastern Michigan. ASCRS Annual Meeting; Boston, MA, 2020.
85. **Dunbar G**, Valicevic AN, Mejjome TE, Titus M, Stein JD. **Woodward MA**. Vision-Related Quality of Life Among Corneal Transplant Recipients.” Eye Bank Association of America Scientific Symposium. 2020.

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. 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. 2012.
9.) Balakrishnan S, **Woodward MA**. Demographics and ocular characteristics of patients undergoing screening for refractive surgery. Kellogg Eye Center Research Day. 2012.
10. Saponara F, Shtein RM, **Woodward MA**. Tissue characteristics and adverse event reporting after corneal transplantation. Kellogg Eye Center Research Day. 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. 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. 2013.
13. Peeler C, Mian SM, **Woodward MA**. Anterior segment imaging for telemedicine in rural Nepal. Kellogg Eye Center Research Day. 2013.
14. Raoof D, Mian SI, **Woodward MA**, Shtein RM. Comparison of resource consumption in penetrating versus endothelial keratoplasty. Kellogg Eye Center Research Day. 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. 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. 2013.
17. Manry M, **Woodward MA**. Digital after-hours patient care. Kellogg Eye Center Research Day. 2014
18. 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.
19. Orlov S, Hamid M, **Woodward MA**. Representation Bias in Ophthalmology Clinical Trials. Undergraduate Research Opportunity Program annual session. 2018
* Best poster of session
20. 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. 2018
21. 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*
22. 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.*
23. **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.
24. 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.)

25. Preethi M, **Woodward MA**, Prajna NV: Slit lamp photography of corneal ulcers to predict healing trajectories, All India Ophthalmological Society, Indore, 2019.
26. 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.
27. Hamid M, Orlov S, 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.
28. Ling J, **Woodward MA**, Stein JD, Poliskey JA, Orlov SL, Michelson SJ, Manno EK, Rahman M, Titus M, Mian S: Impact of scleral contact lens use on risk of requiring corneal transplantation for keratoconus, Eye Bank Association of America Annual Meeting, Scottsdale, AZ, Eye Bank Association of America Annual Meeting, 2019.
29. 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
30. **Woodward MA**, Wu R. Telemedicine During CoVID. Faculty and Trainee Webinar. April 23, 2020.