

## CURRICULUM VITAE

The Johns Hopkins University School of Medicine



**Ingrid E. Zimmer-Galler, M.D.**

April 1, 2019

### DEMOGRAPHIC AND PERSONAL INFORMATION

#### Current Appointments

2007 – present Associate Professor, Wilmer Eye Institute, Johns Hopkins University  
1999 – present Chief, Frederick Satellite, Wilmer Eye Institute  
2016 – present Executive Clinical Director, Office of Telemedicine, Johns Hopkins Medicine

#### Personal Data

Carnegie 240, Office of Telemedicine, 600 N Wolfe Street, Baltimore, MD 21287  
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#### Education and Training

1983-1985 B.S., Chemistry, Johns Hopkins University, Baltimore  
1985-1989 M.D., Tulane University School of Medicine, New Orleans  
Alpha Omega Alpha  
1989-1990 Internship, Internal Medicine, Mayo Clinic Graduate School of Medicine, Rochester  
1990-1993 Residency, Ophthalmology, Mayo Clinic Graduate School of Medicine, Rochester  
1994-1996 Fellowship, Medical and Surgical Retina, Wilmer Eye Institute, Johns Hopkins University School of Medicine, Baltimore

#### Professional Experience

1993-1994 Instructor and Consultant, Ophthalmology, Mayo Clinic Graduate School of Medicine, Rochester  
1996-1998 Instructor, Ophthalmology, Wilmer Eye Institute, Johns Hopkins University School of Medicine, Baltimore  
1998-2007 Assistant Professor, Ophthalmology, Wilmer Eye Institute, Johns Hopkins University School of Medicine, Baltimore  
2007 – Associate Professor, Wilmer Eye Institute, Johns Hopkins University

### PUBLICATIONS

#### Original Research [OR]

1. **Zimmer-Galler IE**, Robertson DM. Long term observation of retinal lesions in tuberous sclerosis. American Journal of Ophthalmology. 1995;119:318-324.
2. **Zimmer-Galler IE**, Santos A, Haller JA, Campochiaro PA. Management of endophthalmitis in a silicone oil-filled eye. Retina. 1997;17:507-509.
3. **Zimmer-Galler IE**, A telemedicine approach to diabetic retinopathy screening in the primary care setting. Telehealth Practice Report. 2002;7:4-9.

4. Polito A, Shah SM, Haller JA, **Zimmer-Galler IE**, Zeimer R, Campochiaro PA, Vitale S. Comparison between retinal thickness analyzer and optical coherence tomography for assessment of foveal thickness in eyes with macular disease. *American Journal of Ophthalmology*. 2002;134:240-251.
5. Schiffman RM, Jacobsen G, Nussbaum JJ, Desai UR, Carey JD, Glasser D, **Zimmer-Galler IE**, Zeimer R, Goldberg MF. Comparison of a digital retinal imaging system and seven-field stereo color fundus photography to detect diabetic retinopathy in the primary care environment. *Ophthalmic Surgery, Lasers, and Imaging*. 2005;36:46-56.
6. **Zimmer-Galler IE**, Zeimer R. Feasibility of screening for high-risk age-related macular degeneration with an Internet-based automated fundus camera. *Ophthalmic Surgery, Lasers, and Imaging*. 2005;36:228-236.
7. **Zimmer-Galler IE**, Zeimer R. Results of implementation of the DigiScope for diabetic retinopathy assessment in the primary care environment. *Telemedicine Journal and e-Health*. 2006;12(2):89-98.
8. Ngyuen QD, Tatlipinar S, Haller JA, Quinlan E, Sung J, **Zimmer-Galler I**, Do DV, Campochiaro PA. Vascular endothelial growth factor is a critical stimulus for diabetic macular edema. *American Journal of Ophthalmology*. 2006;142(6):961-9.
9. Shah SM, Tatlipinar S, Quinlan E, Sung JU, Tabandeh H, Nguyen QD, Fahmy AS, **Zimmer-Galler I**, Symons RC, Cedarbaum JM, Campochiaro PA. Dynamic and quantitative analysis of choroidal neovascularization by fluorescein angiography. *Investigative Ophthalmology & Visual Science*. 2006;47(12):5460-8.
10. Do DV, Nguyen QD, Shah SM, Handa JT, Campochiaro PA, **Zimmer-Galler I**, Sung JU, Haller JA. The impact of optical coherence tomography on surgical decision making in epiretinal membrane and vitreomacular traction. *Trans Am Ophthalmol Soc*. 2006 Dec;104:161-166.
11. Do DV, Cho M, Ngyuen QD, Shah SM, Handa JT, Campochiaro PA, **Zimmer-Galler IE**, Sung JU, Haller JA. Impact of optical coherence tomography on surgical decision making for epiretinal membranes and vitreomacular traction. *Retina*. 2007 Jun;27(5):552-6.
12. Nguyen QD, Shah SM, Hafiz G, Do DV, Haller JA, Pili R, **Zimmer-Galler IE**, Janjua K, Symons RC, Campochiaro PA. Intravenous bevacizumab causes regression of choroidal neovascularization secondary to diseases other than age-related macular degeneration. *American Journal of Ophthalmology*. 2008 Feb;145(2):257-266.
13. Campochiaro PA, Hafiz G, Shah SM, Nguyen QD, Ying H, Do DV, Quinlan E, **Zimmer-Galler IE**, Haller JA, Solomon SD, Sung JU, Hadi Y, Janjua KA, Jawed N, Choy DF, Arron JR. Ranibizumab for macular edema due to retinal vein occlusions: implication of VEGF as a critical stimulator. *Molecular Therapeutics*. 2008 Apr;16(4):791-9.
14. Kashani AH, **Zimmer-Galler IE**, Shah SM, Haller JA, Do DV, Elliott D. Retinal thickness analysis by race, gender, and age using Stratus OCT. *American Journal of Ophthalmology*. 2010 Mar;149(3):496-502.
15. Moscaritolo M, Jampel H, **Zimmer-Galler IE**, Knezevich F, Zeimer R. A computer algorithm to quantitatively assess the quality of optic disc images. *Ophthalmic Surgery, Lasers and Imaging*. 2010 Mar-Apr;41(2):279-84.

16. Utine CA, Gehlbach PL, **Zimmer-Galler I**, Akpek EK. Permanent keratoprosthesis combined with pars plana vitrectomy and silicone oil injection for visual rehabilitation of chronic hypotony and corneal opacity. *Cornea*. 2010 Dec;29(12):1401-5.
17. Campochiaro PA, Hafiz G, Channa R, Shah SM, Nguyen QD, Ying H, Do DV, **Zimmer-Galler I**, Solomon SD, Sung JU, Syed B. Antagonism of vascular endothelial growth factor for macular edema caused by retinal vein occlusions: two-year outcomes. *Ophthalmology*. 2010 Dec;117(12):2387-2394.e1-5.
18. Davis RM, Hitch AD, Salaam MM, Herman WH, **Zimmer-Galler IE**, Mayer-Davis EJ. TeleHealth improves diabetes self-management in an underserved community: diabetes TeleCare. *Diabetes Care*. 2010 Aug;33(8):1712-7.
19. Moscaritolo M, Knezevich FP 3rd, **Zimmer-Galler I**, Jampel H, Zeimer R. A machine vision method for automated alignment of fundus imaging systems. *Ophthalmic Surgery, Lasers and Imaging*. 2010 Nov-Dec;41(6):607-13.
20. Yohannan J, Channa R, Dibernardo CW, **Zimmer-Galler IE**, Ibrahim M, Sepah YJ, Bittencourt M, Do DV, Nguyen QD. Sclerochoroidal calcifications imaged using enhanced depth imaging optical coherence tomography. *Ocular Immunology and Inflammation*. 2012 Jun;20(3):190-2.
21. Sophie R, Hafiz G, Scott AW, **Zimmer-Galler I**, Nguyen QD, Ying H, Do DV, Solomon S, Sodhi A, Gehlbach P, Duh E, Baranano B, Campochiaro PA. Long-Term Outcomes in Ranibizumab-Treated Patients with Retinal Vein Occlusion: The Role of Progression of Retinal Nonperfusion. *American Journal of Ophthalmology*. 2013 Oct;156(4):693-705.
22. Byrne MM, Parker DF, Tannenbaum SL, Ocasio MA, Lam BL, **Zimmer-Galler I**, Lee DJ. Cost of a community-based diabetic retinopathy screening program. *Diabetes Care*. 2014 Nov;37(11):e236-7.
23. **Zimmer-Galler IE**, Kimura AE, Gupta S. Diabetic retinopathy screening and the use of telemedicine. *Current Opinions in Ophthalmology*. 2015;26:167-72.
24. Campochiaro PA, Hafiz G, Mir TA, Scott AW, Sophie R, Shah SM, Ying HS, Lu L, Chen C, Campbell JP, Kherani S, **Zimmer-Galler I**, Wenick A, Han I, Paulus Y, Sodhi A, Wang G, Qian J. Pro-permeability factors after dexamethasone implant in retinal vein occlusion: The Ozurdex for Retinal Vein Occlusion (ORVO) Study. *American Journal of Ophthalmology*. 2015;Apr 20. pii: S0002-9394(15)00228-7.
25. Campochiaro PA, Hafiz G, Mir TA, Scott AW, Solomon S, **Zimmer-Galler I**, Sodhi A, Duh E, Ying H, Wenick A, Shah SM, Do DV, Nguyen QD, Kherani S, Sophie R. Scatter photocoagulation does not reduce macular edema or treatment burden in patients with retinal vein occlusion: The RELATE trial. *Ophthalmology*. 2015; May 9;S0161-6420(15)00329-2.
26. Mir TA, Kherani S, Hafiz G, Scott AW, **Zimmer-Galler I**, Wenick AS, Solomon S, Han I, Poon D, He L, Shah SM, Brady CJ, Meyerle C, Sodhi A, Linz MO, Sophie R, Campochiaro PA. Changes in retinal nonperfusion associated with suppression of vascular endothelial growth factor in retinal vein occlusion. *Ophthalmology*. 2016 Mar;123(3):625-634.
27. Campochiaro PA, Hafiz G, Mir TA, Scott AW, **Zimmer-Galler I**, Shah SM, Wenick AS, Brady CJ, Han I, He L, Channa R, Poon D, Meyerle C, Aronow MB, Sodhi A, Handa JT, Kherani S, Han Y, Sophie R, Wang G, Qian J. Pro-permeability Factors in Diabetic Macular Edema; the Diabetic Macular Edema Treated With Ozurdex Trial. *Am J Ophthalmol*. 2016 Aug;168:13-23.

28. **Zimmer-Galler IE.** Telemedicine for retinopathy of prematurity: An evolving paradigm. *JAMA Ophthalmol.* 2016 Nov 1;134(11):1270-1271.
29. Campochiaro PA, Han YS, Mir TA, Kherani S, Hafiz G, Krispel C, Liu TYA, Wang J, Scott AW, **Zimmer-Galler I.** Increased frequency of topical steroids provides benefit in patients with recalcitrant postsurgical macular edema. *Am J Ophthalmol.* 2017 Jun;178:163-175.
30. Kherani S, Scott AW, Wenick AS, **Zimmer-Galler I**, Brady CJ, Sodhi A, Meyerle C, Solomon SD, Shaukat R, Channa R, Adeyemo O, Handa JT, Wang J, Campochiaro PA. Shortest distance from fovea to subfoveal hemorrhage border is important in patients with neovascular age-related macular degeneration. *Am J Ophthalmol.* 2018 May;189:86-95.
31. Iftikhar M, Mir T, Hafiz G, **Zimmer-Galler I**, Scott A, Solomon S, Sodhi A, Wenick S, Meyerle C, Jiramongkolchai K, Liu A, Arevalo JF, Singh M, Kherani S, Handa JT, Campochiaro PA. Loss of peak vision in retinal vein occlusion patients treated for macular edema. *Am J Ophthalmol.* 2019 April: In press.

#### Original research as part of study group

1. Campochiaro PA, C99-PKC412-003 Study Group. Reduction of diabetic macular edema by oral administration of the kinase inhibitor PKC412. *Investigative Ophthalmology and Visual Science.* 2004;45:922-931.
2. Bressler NM, Hawkins BS, Bressler SB, Miskala PH, Marsh MJ, Submacular Surgery Trials Research Group. Clinical trial performance of community- vs university-based practices in the submacular surgery trials (SST): SST report no. 2. *Archives of Ophthalmology.* 2004;122:857-863.
3. Dong LM, Childs AL, Mangione CM, Bass EB, Bressler NM, Hawkins BS, Marsh MJ, Miskala P, Jaffee HA, McCaffrey LA, Submacular Surgery Trials Research Group. Health- and vision-related quality of life among patients with choroidal neovascularization secondary to age-related macular degeneration at enrollment in randomized trials of submacular surgery: SST report no. 4. *American Journal of Ophthalmology.* 2004;138:91-108.
4. Hawkins BS, Bressler NM, Miskala PH, Bressler SB, Holekamp NM, Marsh MJ, Redford M, Schwartz SD, Sternberg P Jr, Thomas MA, Wilson DJ, Submacular Surgery Trials Research Group. Surgery for subfoveal choroidal neovascularization in age-related macular degeneration: ophthalmic findings: SST report no. 11. *Ophthalmology.* 2004;111:1967-1980.
5. Miskala PH, Bass EB, Bressler NM, Childs AL, Hawkins BS, Mangione CM, Marsh MJ, Submacular Surgery Trials Research Group. Surgery for subfoveal choroidal neovascularization in age-related macular degeneration: quality-of-life findings: SST report no. 12. *Ophthalmology.* 2004;111:1981-1992.
6. Bressler NM, Bressler SB, Childs AL, Haller JA, Hawkins BS, Lewis H, MacCumber MW, Marsh MJ, Redford M, Sternberg P Jr, Thomas MA, Williams GA, Submacular Surgery Trials Research Group. Surgery for hemorrhagic lesions of age-related macular degeneration: ophthalmic findings: SST report no. 13. *Ophthalmology.* 2004;111:1993-2006.
7. Childs AL, Bressler NM, Bass EB, Hawkins BS, Mangione CM, Marsh MJ, Miskala PH, Submacular Surgery Trials Research Group. Surgery for hemorrhagic choroidal neovascular lesions of age-related macular degeneration: quality-of-life findings: SST report no. 14. *Ophthalmology.* 2004;111:2007-2014.

8. Kupperman BD, Thomas EL, de Smet MD, Grillone LR for the Vitrase for Vitreous Hemorrhage Study Groups: Pooled efficacy results from two multinational randomized controlled clinical trials of a single intravitreal injection of highly purified ovine hyaluronidase (Vitrace) for the management of vitreous hemorrhage. *American Journal of Ophthalmology*. 2005;140(4):573-584.
9. Kupperman BD, Thomas EL, de Smet MD, Grillone LR for the Vitrase for Vitreous Hemorrhage Study Groups: Safety results of two phase III trials of an intravitreal injection of highly purified ovine hyaluronidase (Vitrace) for the management of vitreous hemorrhage. *American Journal of Ophthalmology*. 2005;140(4):585-97.
10. Browning DJ, Glassman AR, Aiello LP, Bressler NM, Bressler SB, Danis RP, Davis MD, Ferris FL, Huang SS, Kaiser PK, Kollman C, Sadda S, Scott IU, Qin H, Diabetic Retinopathy Clinical Research Network. Optical coherence tomography measurements and analysis methods in optical coherence tomography studies of diabetic macular edema. *Ophthalmology*. 2008 Aug;115(8):1366-71.
11. Scott IU, Oden NL, VanVeldhuisen PC, Ip MS, Blodi BA, Antoszyk AN; SCORE Study Investigator Group. SCORE Study Report 7: incidence of intravitreal silicone oil droplets associated with staked-on vs luer cone syringe design. *American Journal of Ophthalmology*. 2009 Nov;148(5):725-732.e7.
12. Nguyen QD, Shah SM, Heier JS, Do DV, Lim J, Boyer D, Abraham P, Campochiaro PA; READ-2 Study Group. Primary End Point (Six Months) Results of the Ranibizumab for Edema of the macula in diabetes (READ-2) study. *Ophthalmology*. 2009 Nov;116(11):2175-81.e1.
13. Scott IU, Ip MS, VanVeldhuisen PC, Oden NL, Blodi BA, Fisher M, Chan CK, Gonzalez VH, Singerman LJ, Tolentino M, SCORE Study Research Group. A randomized trial comparing the efficacy and safety of intravitreal triamcinolone with standard care to treat vision loss associated with macular edema secondary to branch retinal vein occlusion: the Standard Care vs. Corticosteroid for Retinal Vein Occlusion (SCORE) study report 6. *Archives of Ophthalmology*. 2009 Sep;127(9):1115-28.
14. Ip MS, Scott IU, VanVeldhuisen PC, Oden NL, Blodi BA, Fisher M, Singerman LJ, Tolentino M, Chan CK, Gonzalez VH, SCORE Study Research Group. A randomized trial comparing the efficacy and safety of intravitreal triamcinolone with observation to treat vision loss associated with macular edema secondary to central retinal vein occlusion: the Standard Care vs Corticosteroid for Retinal Vein Occlusion (SCORE) study report 5. *Archives of Ophthalmology*. 2009 Sep;127(9):1101-14.
15. Campochiaro PA, Hafiz G, Shah SM, Bloom S, Brown DM, Busquets M, Ciulla T, Feiner L, Sabates N, Billman K, Kapik B, Green K, Kane F; Famous Study Group. Sustained ocular delivery of fluocinolone acetonide by an intravitreal insert. *Ophthalmology*. 2010 Jul;117(7):1393-9.e3.
16. Haller JA, Bandello F, Belfort R Jr, Blumenkranz MS, Gillies M, Heier J, Loewenstein A, Yoon YH, Jacques ML, Jiao J, Li XY, Whitcup SM; OZURDEX GENEVA Study Group. Randomized, sham-controlled trial of dexamethasone intravitreal implant in patients with macular edema due to retinal vein occlusion. *Ophthalmology*. 2010 Jun;117(6):1134-1146.e3.
17. Haller JA, Bandello F, Belfort R Jr, Blumenkranz MS, Gillies M, Heier J, Loewenstein A, Yoon YH, Jiao J, Li XY, Whitcup SM; Ozurdex GENEVA Study Group, Li J. Dexamethasone intravitreal implant in patients with macular edema related to branch or central retinal vein occlusion twelve-month study results. *Ophthalmology*. 2011 Dec;118(12):2453-60.
18. Channa R, Sophie R, Khwaja AA, Do DV, Hafiz G, Nguyen QD, Campochiaro PA, READ-2 Study Group. Factors affecting visual outcomes in patients with diabetic macular edema treated with ranibizumab. *Eye*. 2013 Nov;22:245.

19. Do DV, Nguyen QD, Khwaja AA, Channa R, Sepah YJ, Sophie R, Hafiz G, Campochiaro PA; READ-2 Study Group. Ranibizumab for edema of the macula in diabetes study: 3-year outcomes and the need for prolonged frequent treatment. *JAMA Ophthalmology*. 2013 Feb;131(2):139-45.
20. Boyer DS, Yoon YH, Belfort R Jr, Bandello F, Maturi RK, Augustin AJ, Li XY, Cui H, Hashad Y, Whitcup SM; Ozurdex MEAD Study Group. Three-year, randomized, sham-controlled trial of dexamethasone intravitreal implant in patients with diabetic macular edema. *Ophthalmology*. 2014 Oct;121(10):1904-14.
21. Aref AA, Scott IU, Oden NL, Ip MS, Blodi BA, VanVeldhuisen PC; SCORE Study Investigator Group. *JAMA Ophthalmology*. 2015 Sep;133(9):1022-9.
22. Aref AA, Scott IU, Oden NL, Ip MS, Blodi BA, VanVeldhuisen PC; SCORE Study Investigator Group. Incidence, Risk Factors, and Timing of Elevated Intraocular Pressure After Intravitreal Triamcinolone Acetonide Injection for Macular Edema Secondary to Retinal Vein Occlusion: SCORE Study Report 15.

#### Review Articles [RA]

1. Haik BG, **Zimmer-Galler IE**, Smith ME. Ultrasound in the evaluation of leukocoria. *Journal of Diagnostic Medical Sonography*. 1989;5:115-125.
2. **Zimmer-Galler IE**, Bartley GB. Orbital emphysema: Case reports and review of the literature. *Mayo Clinic Proceedings*. 1994;69:115-121.
3. **Zimmer-Galler IE**, Bressler NM, Bressler SB. Treatment of choroidal neovascularization: Updated information from recent Macular Photocoagulation Study Group reports. *International Ophthalmology Clinics*. 1996;35:37-57.
4. **Zimmer-Galler IE**, Zeimer R. Telemedicine in diabetic retinopathy screening. *International Ophthalmology Clinics*. 2009 Spring;49(2):75-86.

#### Case Reports [CR]

1. **Zimmer-Galler IE**, Lie JT. Choroidal infiltrates as the presenting manifestation of lymphoma in rheumatoid arthritis after treatment with low dose methotrexate. *Mayo Clinic Proceedings*. 1994;69:258-261.
2. **Zimmer-Galler IE**, Pach JM. Capnocytophaga canimorsus endophthalmitis. *Retina*. 1996;16:163-164.
3. Ng G, **Zimmer-Galler IE**, Green R. Endogenous *Nocardia asteroides* endophthalmitis. *Archives of Ophthalmology*. 2002;120:210-213.
4. Patel SJ, Petrarca R, Shah SM, **Zimmer-Galler IE**, Janjua KA, Do DV, Nguyen QD. Atypical Bartonella hensalae chorioretinitis in an immunocompromised patient. *Ocular Immunology and Inflammation* 2008 Jan-Feb;16(1):45-9.

#### Guidelines/Protocols, Consensus Statement, Expert Opinion, Consortium Articles [GL]

1. Cavallerano J, Lawrence MG, \***Zimmer-Galler I**, Bauman W, Bursell S, Gardner WK, Horton M, Hildebrand L, Federman J, Carnahan L, Kuzmak P, Peters JM, Darkins A, Ahmed J, Aiello LM, Aiello

LP, Buck G, Cheng YL, Cunningham D, Goodall E, Hope N, Huang E, Hubbard L, Janczewski M, Lewis JW, Matsuzaki H, McVeigh FL, Motzno J, Parker-Taillon D, Read R, Soliz P, Szirth B, Vigersky RA, Ward T, American Telemedicine Association, Ocular Telehealth Special Interest Group, National Institute of Standards and Technology Working Group. Telehealth practice recommendations for diabetic retinopathy. *Telemedicine Journal and e-Health*. 2004;10:469-482, \*joint authorship, [SI/QI].

2. Li HK, Horton M, Bursell SE, Cavallerano J, \***Zimmer-Galler I**, Tennant M, Abramoff M, Chaum E, Debuc DC, Leonard-Martin T, Winchester M; American Telemedicine Association Diabetic Retinopathy Telehealth Practice Recommendations Working Group, Lawrence MG, Bauman W, Gardner WK, Hildebrand L, Federman J. *Telemedicine Journal and E-Health*. 2011 Dec;17(10):814-37, \*joint authorship, [SI/QI].
3. **Zimmer-Galler IE**, Kimura AE, Gupta S. Diabetic retinopathy screening and the use of telemedicine. *Current Opinion Ophthalmology*. 2015;26:167-72.

#### Book Chapters, Monographs [BC]

1. **Zimmer-Galler IE**, Schachat AP. Non-Hodgkin's lymphoma. *Atlas of the Eye in Systemic Disease*. Gold DH, Weingeist TA (editors). Lippincott-Williams & Wilkins. 2000 Chapter 71:281-290.
2. **Zimmer-Galler IE**. Teleophthalmology Assessment of Diabetic Retinopathy. *Teleophthalmology*. Yogesana K, Kumar S, Goldschmidt L, Cuadros J (editors). Springer. 2006 Chapter 11:79-85.
3. **Zimmer-Galler IE**. Diabetic Retinopathy Assessment in the Primary Care Environment: Lessons Learned From 100,000 Patient Encounters. *Digital Teleretinal Screening*. Yogesana K, Goldschmidt L, Cuadros J (editors). Springer. 2012 Chapter 11:117-126.
4. Zang AY, Yoon CY, **Zimmer-Galler IE**. Teleophthalmology: New technologies for screening eye exams. *Rheuban KS, Krupinski EA (editors)*. McGraw-Hill Education. 2017 Chapter 7:75-88.

#### Media Releases or Interviews [MR]

1. Baltimore Sun Interview, Telemedicine is becoming more widespread, October 31, 2016: <http://www.baltimoresun.com/health/blog/bs-hs-telemedicine-20161031-story.html>
2. Associated Press, Skyping the doctor? More older patients are embracing telemedicine, May 31, 2018: <http://www.baltimoresun.com/health/ct-biz-telemedicine-older-patients-20180531-story.html>
3. National Public Radio, WBUR, On Point, Interview by Robert Siegel on telemedicine, June 6, 2018

## FUNDING

### EXTRAMURAL Funding

#### Previous

- |                   |   |
|-------------------|---|
| 08/01/05–05/31/09 | An Internet based imaging system for practical diabetic retinopathy screening<br>R01 EY017053-01<br>NIH/NEI<br>Total Direct Cost: \$750,000<br>PI, 30% effort |
| 09/30/09-09/29/11 | Innovative systems and educational tools to advance an established diabetic retinopathy assessment program<br>SBIR R43EY020028-01                             |

NIH/NEI  
Total Direct Cost: \$322,040  
PI, 10% effort

08/05 – 09/07 Phase III Safety and Efficacy Study of Vitrase (Ovine Hyaluronidase) for Ophthalmic  
Intravitreal Injection for Clearance of Severe Vitreous Hemorrhage  
Bausch and Lomb  
Wilmer PI, 5% effort

03/07/05-02/28/13 Dexamethasone-Steroid Implant (Posurdex) for Macular Edema in Retinal Vein  
Occlusions  
Allergan  
Wilmer PI, 2% effort

10/01/05-02/28/13 Dexamethasone-Steroid Implant (Posurdex) for Diabetic Macular Edema  
Allergan  
Wilmer PI, 2% effort

### Current

03/15/17-03/14/20 Enabling Technology for Safe Robot-assisted Surgical Micromanipulation  
R01 EB023943-01  
NIH  
Total Direct Cost \$652,500  
Co-investigator, 4.2% effort

### **INTRAMURAL FUNDING** (*Show as current, pending, previous under each subcategory and follow format above.*)

#### Research Intramural Funding

##### Previous

2001 Screening for Age-Related Macular Degeneration with the DigiScope  
Wilmer Eye Institute Intramural Grant  
Total cost: \$20,000  
PI

2011-2013 Grading of diabetic retinopathy and macular degeneration severities using a new  
fundus camera  
Quantum Catch LLC  
Co-Investigator, 5% effort (PI D Friedman)

#### Clinical Intramural Funding

##### Previous

2000-2013 Wilmer-EyeTel Reading Center for telemedicine\_diabetic retinopathy assessment  
EyeTel Imaging, Inc.  
Medical Director of reading center

#### System Innovation or Quality Improvement Intramural Funding

##### Current

2016-present System Innovation or Quality Improvement Intramural Funding  
See activities under Office of Telemedicine

### **CLINICAL ACTIVITIES**

#### Clinical Focus



I maintain a busy clinical practice covering the full spectrum of medical and surgical retinal diseases such as retinal detachment, diabetic retinopathy, vascular occlusion, age-related macular degeneration, macular hole, epiretinal membrane and retinopathy of prematurity. As Chief of the Frederick Wilmer Satellite since opening in 1999, I serve patients in western and central Maryland, southern Pennsylvania, northern Virginia and West Virginia. My clinical activities support the Johns Hopkins tripartite mission by teaching ophthalmology residents and vitreoretinal fellows, enrolling patients in clinical research trials and bringing the latest medical, surgical, and research advances to benefit my patients.

### Certification

#### Medical, other state/government licensure

Exp 09/31/19 Maryland Medical License D45891  
Exp 05/31/20 DEA Registration BZ2403640  
Exp 08/31/20 Maryland Controlled Substance M42648

#### Boards, other specialty certification

11/94 American Board of Ophthalmology  
01/01/05 American Board of Ophthalmology Recertification  
01/01/15 American Board of Ophthalmology Recertification

#### Clinical (Service) Responsibilities

2000 - 2016 Medical and surgical treatment of vitreoretinal diseases, Time commitment 80%  
(75% Frederick Satellite and 5% East Baltimore)  
2016 – present Medical and surgical treatment of vitreoretinal diseases, Time commitment 50%  
(Office of Telemedicine 50% - see below)  
2000 – present Chief, Wilmer Frederick Satellite  
2000 – present Retinopathy of prematurity screening at Frederick Memorial Hospital NICU  
2000 – 2018 General ophthalmology on-call on rotational basis for Frederick Memorial Hospital ED

#### Clinical Productivity

Approximately 4,000 patient visits annually  
Approximately 1,500 procedures (intravitreal injections, laser procedures) performed annually  
Approximately 100 surgical procedures performed annually  
Approximately 100 retinopathy of prematurity examinations performed annually at Frederick Memorial Hospital

#### Clinical Draw from outside local/regional area (*reflecting national/international reputation*)

Approximately 10% national and international patients, including commercial and general aviation pilots from across the US with retinal diseases and other ocular problems seeking expertise in FAA medical certification.

#### Clinical Program Building / Leadership

2000 – present Chief, Wilmer Frederick Satellite, responsible for building the clinical practice, volume and local reputation since opening of the satellite, referrals from central and western Maryland as well as northern Virginia, West Virginia and Pennsylvania. 75% clinical/administrative effort

#### Clinical Demonstration Activities to external audience, on or off campus

See CME activities

#### Development of nationally/internationally recognized clinical standard of care (*may not be published in peer-reviewed journals*):

Development of clinical guidelines for telemedicine diabetic retinopathy screening (listed under System Innovation and Quality Improvement).

## **EDUCATIONAL ACTIVITIES** *(in chronological order, earliest first by start date under each subcategory)*

### **Educational Focus**

My educational activities have focused on the training of vitreoretinal fellows in the clinic and operating room. Fellows have also benefitted from exposure to a community-based clinic at the Frederick satellite. I am a frequent lecturer in annual continuing medical education events and have been senior instructor of numerous tele-ophthalmology courses at nationally and internationally. As telemedicine instruction is incorporated into the medical school, business school and school of public health curriculum at Johns Hopkins, I contribute by leading classroom sessions on telehealth. I also instruct Federal Aviation Administration Medical Examiners on ophthalmology in aviation and medical certification for flying.

### **Teaching**

#### **Classroom instruction – JHMI Regional**

- 1999 – 2016 Wilmer Eye Institute Resident Lecture Series: 1 – 2 lectures given annually, Wilmer Eye Institute, Johns Hopkins School of Medicine  
Retinal Emergencies; Posterior Vitreous Detachments and Peripheral Retinal Tears;  
Telemedicine and Tele-Ophthalmology; Screening for Retinal Disease with Telemedicine
- 2011 Genes to Society Medical Student Lecture, Johns Hopkins School of Medicine  
Macular Degeneration and Case Conference
- 2015 Instructor, Wilmer Eye Institute Annual Ophthalmic Technician Course:  
Intravitreal Injections
- 4/12/2017 Instructor, Johns Hopkins School of Medicine medical student lecture: Introduction to Telemedicine
- 4/2/2018 Instructor, Johns Hopkins School of Medicine medical student lecture: Introduction to Telemedicine
- 5/18/2018 Instructor, Johns Hopkins Wilmer Eye Institute Annual Nursing Conference: Telemedicine and Tele-ophthalmology
- 11/28/2018 Instructor, Johns Hopkins Clinical Informatics Course, LiveTalk: Telemedicine
- 4/3/2019 Instructor, Johns Hopkins School of Medicine medical student lecture and telemedicine demonstration

#### **Classroom instruction - National**

- 2000 – present Instructor, Federal Aviation Administration Aviation Medical Examiner Seminars: 1-2 lectures given annually in Virginia, Washington, DC, Oklahoma City  
Ophthalmology in Aviation  
Ophthalmology Examination for FAA Medical Certification

#### **Classroom instruction – National/International**

- 2007 – 2009 Instructor, Course title: The impact of information technology on ophthalmology practice, American Academy of Ophthalmology Annual Meeting
- 2009-2010 Instructor, Course title: An approach to selecting and implementing electronic medical records in your practice, American Academy of Ophthalmology Annual Meeting,
- 2010 Senior Instructor, Course title: Telemedicine diabetic retinopathy assessment, American Academy of Ophthalmology Annual Meeting
- 2012 Senior Instructor, Course title: Telehealth practice recommendations for diabetic retinopathy, American Academy of Ophthalmology Annual Meeting
- 2013 Senior Instructor, Course title: Clinical, technical and business insights and strategies for successful tele-ophthalmology programs, American Academy of Ophthalmology Annual Meeting
- 2013 Senior Instructor, Course title: Telehealth methods for diabetic retinopathy and glaucoma, Association for Research and Vision in Ophthalmology Annual Meeting

- 2014 Senior Instructor, Course title: Quality assurance guidelines for telemedicine diabetic retinopathy assessment, American Telemedicine Association Annual Meeting
- 2014 Senior Instructor, Course title: Practical considerations for telemedicine diabetic retinopathy screening, American Academy of Ophthalmology Annual Meeting
- 2014 Senior Instructor, Course title: Telehealth methods for eye disease, Association for Research and Vision in Ophthalmology Annual Meeting
- 2015 Senior Instructor, Course title: Methods for improving efficiency and outcomes in ocular telehealth programs for diabetic retinopathy, American Academy of Ophthalmology Annual Meeting
- 04/01/15 Instructor, Course title: Ocular telehealth programs for diabetic retinopathy in the Asia-Pacific: Current condition and future directions, Asia-Pacific Academy of Ophthalmology, Guangzhou, China
- 05/01/16 Senior Instructor, Course title: The role of quality assurance in improving outcomes for ocular telemedicine programs for diabetic retinopathy, Association for Research and Vision in Ophthalmology Annual Meeting

#### Clinical instruction

- 2000 – present Supervise and teach medical students and ophthalmology residents in clinic and operating room, Wilmer Eye Institute, Johns Hopkins School of Medicine
- 2000 – present Supervise and train vitreoretinal fellows in medical and surgical diagnosis and management of vitreoretinal disease, including weekly Retina Division Teaching Conference, Wilmer Eye Institute, Johns Hopkins School of Medicine

#### CME instruction – JHMI/Regional

- 1999 Telemedicine applications to retinal practice, Current Concepts in Ophthalmology, Johns Hopkins, Baltimore
- 6/2/00 Potential Role of Telemedicine in Managing AMD, Age-Related Macular Degeneration: Update 2000, Faculty and Session Moderator, Johns Hopkins, Baltimore
- 6/3/00 Postoperative Complications of Macular Translocation and their Management, Age-Related Macular Degeneration: Update 2000, Faculty and Session Moderator, Johns Hopkins, Baltimore
- 12/2000 Vision requirements and regulations in aviation, Current Concepts in Ophthalmology, Johns Hopkins, Baltimore
- 6/1/01 Imaging and AMD, Age-Related Macular Degeneration: Update 2001, Johns Hopkins, Baltimore
- 10/12/01 Diabetic Retinopathy Screening Made Simple, What's New in Diabetic Retinopathy and Venous Occlusive Disease, Johns Hopkins, Baltimore
- 12/2001 New imaging modalities in the management of macular degeneration, Current Concepts in Ophthalmology, Johns Hopkins, Baltimore
- 5/31/02 Imaging and Screening for Non-Neovascular AMD, Age-Related Macular Degeneration in 2002: From Prevention to Treatment, Johns Hopkins, Baltimore
- 11/1/02 Pharmacotherapy for Vitreous Hemorrhage: Vitrase, What's New in Diabetic Retinopathy and Venous Occlusive Disease, Johns Hopkins, Baltimore
- 12/2002 The digital office: Digital imaging in 2002, Current Concepts in Ophthalmology, Johns Hopkins, Baltimore
- 5/3/03 Remote Imaging – Is There a Role in Management of AMD?, Age-Related Macular Degeneration in 2003: From Prevention to Treatment, Johns Hopkins, Baltimore
- 10/31/03 Surgical Options for Diabetic Macular Edema, What's New in Diabetic Retinopathy and Venous Occlusive Disease, Johns Hopkins, Baltimore
- 6/4/04 Remote Imaging Devices, Faculty and Session Moderator, Age-Related Macular Degeneration in 2004: From Prevention to Treatment and Bench to Bedside, Johns Hopkins, Baltimore
- 11/12/04 Surgical Options for Diabetic Macular Edema, What's New in Diabetic Retinopathy and Venous Occlusive Disease, Johns Hopkins, Baltimore

- 12/2004 Telehealth practice recommendations for diabetic retinopathy screening, Current Concepts in Ophthalmology, Johns Hopkins, Baltimore
- 10/5/05 Telemedicine and diabetic retinopathy; Case presentations, What's New in Diabetic Retinopathy and Venous Occlusive Disease, Johns Hopkins, Baltimore
- 10/28/05 Telemedicine and diabetic retinopathy screening, Current Concepts in Ophthalmology, Johns Hopkins, Baltimore
- 2005 Macular degeneration assessment with telemedicine, Age-Related Macular Degeneration 2005 Update, Faculty, Johns Hopkins, Baltimore
- 11/3/06 Diabetic retinopathy assessment with telemedicine, What's New in Diabetic Retinopathy and Venous Occlusive Disease, Johns Hopkins, Baltimore
- 2/4/06 Implementation of a diabetic retinopathy assessment program in the primary care environment: Lessons learned from imaging 25,000 patients, Wilmer Research Meeting, Johns Hopkins, Baltimore
- 11/2007 Telemedicine and diabetic retinopathy, What's New in Diabetic Retinopathy and Venous Occlusive Disease, Johns Hopkins, Baltimore
- 2007 Age-Related Macular Degeneration 2007 Update, Johns Hopkins, Baltimore
- 12/6/08 Panretinal photocoagulation – New information on a time-honored approach, What's New in Diabetic Retinopathy and Venous Occlusive Disease, Johns Hopkins, Baltimore
- 5/17/08 How do we monitor patients for the intermediate or advanced stages of AMD, Age-Related Macular Degeneration 2008 Update, Johns Hopkins, Baltimore
- 6/13/09 Monitoring patients for the intermediate and advanced stages of AMD, Age-Related Macular Degeneration 2009 Update, Johns Hopkins, Baltimore
- 7/2011 Current treatment of proliferative diabetic retinopathy, New Horizons in Retina, Grand Tetons
- 2011 Impact of intravitreal corticosteroids or anti-VEGF drugs on worsening or improvement of diabetic retinopathy, What's New in Diabetic Retinopathy and Venous Occlusive Disease 2011, Johns Hopkins, Baltimore
- 2012 Five Common Questions Regarding Dietary Supplements and AMD, Age-Related Macular Degeneration in 2012: The Paradigm Continues to Evolve, Johns Hopkins, Baltimore
- 2012 Impact of Intravitreal Corticosteroids or Anti-VEGF Agents on Progression/Regression of Diabetic Retinopathy, What's New in Diabetic Retinopathy and Venous Occlusive Disease 2012, Johns Hopkins, Baltimore
- 11/2014 Managing Retinal Vein Occlusions: Case Presentations, What's New in Diabetic Retinopathy and Venous Occlusive Disease 2014, Johns Hopkins, Baltimore
- 10/30/15 Managing Retinal Vein Occlusions: Case Presentations, What's New in Diabetic Retinopathy and Venous Occlusive Disease 2015, Johns Hopkins, Baltimore
- 11/4/16 Managing Retinal Vein Occlusions: Case Presentations, What's New in Diabetic Retinopathy and Venous Occlusive Disease 2016, Johns Hopkins, Baltimore
- 10/27/17 Managing Retinal Vein Occlusions: Case Presentations, What's New in Diabetic Retinopathy and Venous Occlusive Disease 2017, Johns Hopkins, Baltimore
- 11/2018 Managing Retinal Vein Occlusions: Case Presentations, What's New in Diabetic Retinopathy and Venous Occlusive Disease 2018, Johns Hopkins, Baltimore
- 12/2018 Current Concepts: Telemedicine and Tele-Ophthalmology at Johns Hopkins, Johns Hopkins, Baltimore

#### [CME instruction - National](#)

- 1/2013 What is the role of Ocriplasmin in vitreoretinal interface abnormalities?, Macula 2013, Johns Hopkins, Baltimore
- 11/11/17 Telemedicine and Diabetic Retinopathy: More than just screening, American Academy of Ophthalmology Annual Meeting

#### [Workshops /seminars](#)

JHMI/Regional

11/14/16 Baltimore City Medical Society, Telehealth Seminar, Invited Speaker, Intermediate Level, Baltimore, MD

#### National

10/23/17 Federal Drug Administration Ophthalmic Digital Health Day, Invited Speaker, Advanced Level, Gaithersburg, MD

01/19/18 American Academy of Ophthalmology, Ophthalmic Advocacy Leadership Group, Invited Speaker, Telemedicine Task Force, Bethesda, MD

#### International

11/29/17 Johns Hopkins International Partner's Forum, Invited Speaker, Advanced Level, Baltimore, MD

01/15/17 Johns Hopkins Aramco Healthcare, Partners in Excellence, Telemedicine Consulting, Advanced Level, Dammam, Saudi Arabia

2018-2020 Johns Hopkins Aramco Healthcare

**Mentoring** *(Please list only mentees who have received substantive and sustained mentoring in clinical, research, and/or educational activities.)*

#### Pre-doctoral Advisees /Mentees

Summer 2000 Christine Kim, Stanford University, research presentation at American Telemedicine Association Annual Meeting

Summer 2016 Christine Yoon, Duke University, Teleophthalmology book chapter

#### Post-doctoral Advisees /Mentees

##### Vitreoretinal Surgical Fellows

2004-2005 Wen-Hsiang Lee, MD, presently Assistant Professor, Bascom Palmer Eye Institute, University of Miami

2005-2007 Sayjal Patel, MD, presently Assistant Professor, Naval Medical Center, San Diego

2007-2009 Shawn Wilker, MD, Clinical Retina Fellow, Wilmer Eye Institute, 2007-2009, presently private practice, Florida

2008-2010 Bryan Propes, MD, presently Assistant Professor and Retina Chief, Naval Medical Center, San Diego

2008-2010 Akrit Sodhi, MD, PhD, presently Assistant Professor Wilmer Eye Institute

2009-2011 Muge Kesen, MD, presently Assistant Professor, University of West Virginia

2009-2011 Ala Moshiri, MD, PhD, presently Assistant Professor, University of California Davis

2010-2012 Adam Wenick, MD, PhD, presently Assistant Professor, Wilmer Eye Institute

2010-2012 Alex Leder, MD, presently private practice, Maryland

2011-2013 Khoi Ha, MD, presently private practice, South Carolina

2011-2013 Claudia Krispel, MD, presently private practice, Nevada

2012-2013 Sumayya Ahmad, MD, presently cornea fellow, Bascom Palmer Eye Institute, University of Miami, Telemedicine in the Real World – Diabetic Retinopathy Screening without the Ophthalmologist Present, Wilmer Intramural Research Grant

2012-2014 Connie Chen, MD, presently Assistant Professor, University of Washington

2012-2014 Mahmood Shah, MD, presently Assistant Professor, Wilmer Eye Institute

2013-2015 Ian Ha, MD, presently Assistant Chief of Service, Wilmer Eye Institute

2013-2015 Yannis Paulus, MD, presently Assistant Professor, Kellogg Eye Institute, University of Michigan

2017 Raghavendra Makam, MD, presently cardiac surgery fellow, Johns Hopkins University

2018 Fasika Woreta, MD, presently assistant professor, Wilmer Eye Institute

2019 Julia Sein, MD, presently Vitreoretinal fellow, Wilmer Eye Institute

#### Thesis committees

12/14

S. Kumar, MD, Impact of diabetic retinopathy on cardiac outcome after coronary artery bypass surgery in India, Examiner

## **RESEARCH ACTIVITIES** *(in chronological order, earliest first by start date under each subcategory)*

### **Research Focus**

My research has focused on telemedicine as applied to ophthalmology with an interest in diabetic retinopathy assessment by remote retinal imaging to address vision loss due to poor compliance with recommendations for annual screening. This early work led to involvement with the American Telemedicine Association (ATA). I was chair of the Ocular Telehealth Special Interest Group for six years. This culminated with serving on the ATA Board of Directors for four years. Recently, my research focus evolved to include telemedicine for all medical specialties and more recently the role of artificial intelligence in disease identification and robotics in vitreoretinal surgery.

See below for Office of Telemedicine.

### **Research Program Building / Leadership**

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

### **System Innovation Focus**

Telemedicine and Tele-ophthalmology

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

1. Wilmer-EyeTel Reading Center
  - 2000-2014 Early validation studies on telemedicine diabetic retinopathy surveillance laid the groundwork for the application and successful award of an R01 NIH/NEI grant on telemedicine diabetic retinopathy screening.
  - Established the Wilmer-EyeTel Reading Center
    - Medical Director
    - Joint venture between Johns Hopkins and EyeTel Imaging, Inc.
    - Resulted in one of the first large-scale telemedicine diabetic retinopathy screening programs in the US to improve the poor nationwide compliance rates with recommendations for annual eye examinations for all patients with diabetes
    - Developed training and certification protocols, established quality control measures, provided oversight of image gradings and led studies to assess outcomes
    - Over 175,000 patient encounters in more than 15 states throughout the US and several countries
    - Significantly improved diabetic retinopathy screening rates
2. Appointed as the first Executive Clinical Director of the new Office of Telemedicine for Johns Hopkins Medicine September 1, 2016.
  - Purposed with the strategic deployment, support and coordination of the delivery of clinical services by telecommunications technology initially within the Hopkins healthcare enterprise and ultimately to national and international external markets.
  - As the clinical leader and strategic advisor for all Johns Hopkins Medicine telemedicine efforts, I oversee the implementation of telemedicine services, assist in coordinating clinical activities, evaluate and advise on research studying clinical efficiency and outcomes, participate with government affairs in policy development, work with legal and compliance as well as payor groups to ensure a coordinated approach to telemedicine across Johns Hopkins Medicine including all 6 Johns Hopkins hospitals and all Johns Hopkins outpatient facilities.
  - As of 01/2019, there are 44 active telemedicine programs in 31 Johns Hopkins medicine disciplines and 17,000 successful telemedicine encounters have been completed.



- Collaborate with Johns Hopkins Aramco Hospital in Saudi Arabia to establish a telemedicine program for JHAH (go-live and first patient occurred on 04/09/19).

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

See programs above which are both within and outside of JHMI.

#### System Innovation and Quality Improvement Program Building/Leadership:

1999-2001	International Consortium of Ocular Telehealth
2008	Vice Chair of American Telemedicine Association Ocular Telehealth Special Interest Group
2009-2012	Chair of American Telemedicine Association Ocular Telehealth Special Interest Group
2011-2015	American Telemedicine Association Board of Directors
2015-present	American Academy of Ophthalmology Telemedicine Work Group
2016-present	Elected to American Telemedicine Association College of Fellows
2016-present	Executive Clinical Director, Office of Telemedicine, Johns Hopkins Medicine (see Systems Innovation and Quality Improvement Efforts Within JHMI above)

### **ORGANIZATIONAL ACTIVITIES** *(in chronological order, earliest first by start date under each subcategory)*

#### Institutional Administrative Appointments

1999-present	Medical Director, Wilmer Frederick Satellite
2001-2003	Wilmer Imaging Committee
2004-present	Wilmer Eye Institute Finance Committee
2005-present	Wilmer Eye Institute Long Range Planning Committee
2009	Digital Wilmer Committee
2010-present	Wilmer Associate Professor Promotions Committee
2012-2015	Physician Advisory Group for Wilmer Eye Institute Call Center
2012-2013	Retina Representative Epic/Kaleidoscope Project Committee
2016-present	Executive Clinical Director, Office of Telemedicine, Johns Hopkins Medicine

#### Editorial Activities

#### Journal peer review activities

1996-present	Ophthalmology
1998-1999	Mayo Clinic Proceedings
2009	Journal of Telemedicine and Telecare
2010-present	Investigative Ophthalmology and Visual Science
2011-present	Telemedicine Journal and e-health
1994-present	Archives of Ophthalmology/JAMA Ophthalmology
1999-2005	Retina
2000-2002	Aviation and Space Medicine

#### Advisory Committees, Review Groups/Study Sections

1999	Limited Macular Translocation Pilot Study Data and Safety Monitoring Committee
2002-2004	Federal Aviation Administration Vision Advisory Panel
2005-2010	EyeTel Imaging, Inc. Medical Scientific Advisory Panel
2013	University of North Carolina Center for Diabetes Translation Research to Reduce Health Disparities (NIDDF P30) Review Group
2014-2017	Prevent Blindness Scientific Committee

#### Professional Societies

1989-2006	American Medical Association
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- 1990-present American Academy of Ophthalmology, Fellow  
Committee on Medical Information Technology (2004-2011)  
Telemedicine Workgroup (2015 – present)
- 1997-2006 Aerospace Medical Association
- 1997-present Civil Aviation Medical Association  
Board of Trustees (1998-2013)  
Vice President for Education (1999-2001)  
Vice President for Long Range Planning (2002-2012)
- 1999-2000 Maryland Eye Physicians and Surgeons
- 1999-present Association for Research in Vision and Ophthalmology
- 1999-present Vitreous Society/American Society of Retina Specialists  
Retina Image Bank, Senior Editor (2012)
- 1999-present American Telemedicine Association  
Institutional Executive Council  
Ocular Telehealth Special Interest Group  
Board of Directors
- 2010-present Retina Society

#### Session Chair –National/International

- 10/25/04 Retina/Vitreous Free Paper Session, American Academy of Ophthalmology Annual Meeting
- 04/10 Retina Poster Session, Association for Research in Vision and Ophthalmology Annual Meeting
- 07/09/11 Tele-Mentoring and Education in Ophthalmology, Pan-American Congress of Ophthalmology, Buenos Aires
- 10/11 Retina Poster Session, American Academy of Ophthalmology Annual Meeting
- 02/12 New Technology and Alternative Medicine Session, World Ophthalmology Congress, Abu Dhabi
- 05/13 Retina Poster Session, Association for Research in Vision and Ophthalmology Annual Meeting
- 05/15 Telemedicine Poster Session, Association for Research in Vision and Ophthalmology Annual Meeting
- 05/16 Telemedicine Free Papers, Association for Research in Vision and Ophthalmology Annual Meeting

#### Consultantships

- 2005-present Federal Aviation Administration Ophthalmology Consultant

#### **RECOGNITION** *(in chronological order, earliest first by start date under each subcategory)*

#### Awards, Honors

- 2006 American Society of Retina Specialists Honor Award
- 2008 American Academy of Ophthalmology Achievement Award
- 2009 Asia Association for Research in Vision and Ophthalmology Best Scientific Paper Award
- 2014 American Society of Retina Specialists Senior Honor Award
- 2016 Elected to American Telemedicine Association College of Fellows

#### Invited Talks – JHMI/Regional

- 2012 Montefiore Medical Center/Albert Einstein College of Medicine Visiting Professor, Practice recommendations for telemedicine diabetic retinopathy assessment
- 2016 Baltimore City Medical Society and MedChi (Maryland State Medical Society), Telemedicine – The future is now, Academic Center and Hospital Initiatives Oct 1, 2016



1/31/19 Health IT Day, Invited Speaker, Intermediate Level, Telemedicine Use Cases for Underserved Populations in Maryland, Annapolis, MD

#### Invited Talks – National

- 2001 American Academy of Ophthalmology Retina Subspecialty Day, A telemedicine approach to screening for diabetic retinopathy
- 2013 American Academy of Ophthalmology Technology Pavillion, Telemedicine in Ophthalmology

#### Invited Talks – International

- 2009 David Lowy Invited Lectureship, Aviation Medicine New South Wales Annual Conference, Canberra, Australia
- 07/11 29<sup>th</sup> Pan American Congress of Ophthalmology, ICTs and Clinical Applications in Ophthalmology, Buenos Aires, Argentina
- 01/12 Telemedicon 12, Coimbatore, India
- 05/13 Tele-ophthalmology, Argentinean Meeting of Ophthalmology, Buenos Aires, Argentina
- 01/14 DRCR Study Results, Diabetic Retinopathy Symposium, Madurai, India
- 03/17 Telemedicine and Emergency Eye Care, Royal Australian and New Zealand College of Ophthalmology, Melbourne, Australia (3/26/17)
- 01/18 Proliferative Diabetic Retinopathy and OCT Angiography, Diabetic Retinopathy Symposium, Madurai, India (01/19/2018)
- 03/19 Introduction to Telemedicine, Johns Hopkins Aramco Healthcare, Dammam, Saudi Arabia

### **OTHER PROFESSIONAL ACCOMPLISHMENTS** (*Optional*)

#### Posters

#### Selected Oral/Podium Presentations [abstracts that were both presented orally and published]

- 2000 **Zimmer-Galler IE**, Holland D. Human factors issues in refractive surgery for aviators. *Aviation, Space, and Environmental Medicine* 2000;71:S
- 2001 **Zimmer-Galler IE**, Vitale S, Zeimer R. Detection of diabetic retinopathy with an automated fundus camera: comparison with standard 7-field photography, *Vitreous Society*
- 2001 **Zimmer-Galler IE**, Vitale S, Zhou S, Meeder T, Braman J, Quinn K, Zeimer R. Measuring visual acuity in telemedicine: An essential aspect of screening for eye disease. *Telemedicine Journal and e-Health* 2001;7:122 (Abstract 6.1)
- 2002 **Zimmer-Galler IE**, Vitale S, Quinn K, Meeder T, Zeimer R. First year experience using the DigiScope for diabetic retinopathy screening. *Telemedicine Journal and e-Health* 2002;8:194 (Abstract 7.2)
- 2002 **Zimmer-Galler IE**, Vitale S, Quinlan E, Pieramici D, Campochiaro PA, Zeimer R. Telemedicine screening for high-risk features of age-related macular degeneration using the DigiScope. *Vitreous Society*
- 2003 **Zimmer-Galler IE**. *Aviation Medicine in the Army Expeditionary Forces. Aviation, Space, and Environmental Medicine* 2003;74:474
- 2004 **Zimmer-Galler IE**, Zeimer R. Early experience using the DigiScope for diabetic retinopathy screening. *Telemedicine Journal and e-Health* 2004;10:S-61.
- 2004 **Zimmer-Galler IE**. History of color vision standards in aviation. *Aviation, Space, and Environmental Medicine* 2004;75:S
- 2004 **Zimmer-Galler IE**, Goldberg MF, Zeimer R. Implementation of the DigiScope to screen for diabetic retinopathy in the primary care physician's office. *International Society for Imaging in the Eye*

- 2004 **Zimmer-Galler IE**, Zeimer R. The DigiScope as an imaging tool to screen for age-related macular degeneration in the primary care environment. International Society for Imaging in the Eye
- 2005 **Zimmer-Galler IE**. A Crash Course: Medical emergencies in retina practices. American Society of Retina Specialists Abstract
- 2005 **Zimmer-Galler IE**, Zeimer R. Evaluation of a reading center for diabetic retinopathy detection. Telemedicine Journal and e-Health 2005;11:266
- 2006 **Zimmer-Galler IE**. Implementation of a Diabetic Retinopathy Assessment Program in the Primary Care Environment: Lessons Learned from Imaging 32,000 Patients. Telemedicine Journal and e-Health 2006 e-Abstract
- 2007 **Zimmer-Galler IE**, Casparis HB, Do DV, Haller JA, Scott IU, Nguyen QD, DiBernardo C. High-resolution Ultrasonography Examination of Patients Who Have Undergone Multiple Intravitreal Injections. American Society of Retina Specialists
- 2008 **Zimmer-Galler IE**. Impact of the DigiScope on Diabetic Retinopathy Assessment Rates in the Primary Care Setting. World Ophthalmology Congress, Hong Kong, China
- 2009 **Zimmer-Galler IE**, Zeimer R. Implementation of a Diabetic Retinopathy Assessment System in the Primary Care Environment: Lessons Learned from 67,256 Patient Encounters. Asia-ARVO, Hyderabad, India *Best Scientific Paper Award*
- 2009 **Zimmer-Galler IE**, Jampel H, Zeimer R. Detection of Optic Nerve Findings Suspicious for Glaucoma in Patients Undergoing Telemedicine Assessment for Diabetic Retinopathy. Telemedicine Journal and e-Health 2009 e-Abstract
- 2012 **Zimmer-Galler IE**. Integration of a Telemedicine Diabetic Retinopathy Assessment System with a Global Electronic Personal Health Record, World Ophthalmology Congress, Abu Dhabi
- 2012 **Zimmer-Galler IE**. The Historical Role of Ophthalmology in Aviation Medicine in World War I, World Ophthalmology Congress, Abu Dhabi
- 2012 **Zimmer-Galler IE**, Haller J, Hark L, Owsley C, Friedman D. A Novel Collaborative Multi-Center Telemedicine Diabetic Retinopathy Assessment Program, American Society of Retina Specialists
- 2012 **Zimmer-Galler IE**. Role of Telemedicine in Reducing the Risk of Vision Loss in Patients with Diabetic Retinopathy: Lessons Learned from 120,000 Patient Encounters, Asia Pacific Academy of Ophthalmology Annual Meeting, Busan, Korea
- 2014 **Zimmer-Galler IE**, Peters G. Improving Access to Diabetes Eye Care and Reducing the Risk of Vision Loss from Diabetic Retinopathy, World Ophthalmology Congress, Tokyo, Japan
- 2015 **Zimmer-Galler, IE**, Chu Y, Brady C, Gehlbach P. Non-diabetic ocular abnormalities detected by telemedicine diabetic retinopathy assessment technology in safety-net medical clinics, Retina Society, Paris, France