

CURRICULUM VITAE  
University of Pittsburgh  
School of Medicine

**BIOGRAPHICAL**

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**EDUCATION and TRAINING**

**UNDERGRADUATE:**

1997-2001 University of Rochester, Rochester, NY BA, 2001 Brain & Cognitive Sciences

**GRADUATE:**

2004-2009 University of California, Berkeley, CA PhD, 2009 Vision Science

**POSTGRADUATE:**

2010 University of California, Berkeley, CA Postdoc Levi & Roorda Labs

2010-2012 University of Rochester, Rochester, NY Postdoc David Williams Lab

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**APPOINTMENTS and POSITIONS**

**ACADEMIC:**

2012-2016 University of Rochester, Center for Visual Science  
Advanced Retinal Imaging Alliance Research Associate

2016-present University of Pittsburgh, School of Medicine  
Department of Ophthalmology Assistant Professor

2016-present University of Pittsburgh, Swanson School of Engineering  
Department of Bioengineering Assistant Professor

2017-present McGowan Institute for Regenerative Medicine  
University of Pittsburgh Member Faculty

**NON-ACADEMIC:**

2001-2004 Smith-Kettlewell Eye Research Institute  
San Francisco, CA Research Assistant

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## MEMBERSHIP in PROFESSIONAL and SCIENTIFIC SOCIETIES

<i>Association for Researchers in Vision and Ophthalmology</i>	<b>2004–present</b>
<i>Optical Society of America</i>	<b>2004–present</b>
<i>National Science Foundation Center for Adaptive Optics</i>	<b>2004–2010</b>
<i>University of California Center for Adaptive Optics</i>	<b>2017–present</b>
<i>European Association for Vision and Eye Research</i>	<b>2018–present</b>

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## HONORS

<b>BrightFocus National Glaucoma Research Award</b> <i>BrightFocus Foundation, Clarksburg, MD, Grant Number: G2017082</i>	<b>2017-2019</b>
<b>Ruth L. Kirschstein National Research Service Award (Individual)</b> <i>National Eye Institute (NEI), Grant Number: 1F32EY021669-01A1</i>	<b>2011–2012</b>
<b>Fight for Sight Post-Doctoral Award</b> <i>Fight for Sight, New York, NY, Grant Number: FFS-PD-11-020</i>	<b>2011–2012</b>
<b>Ruth L. Kirschstein National Research Service Award (Institutional)</b> <i>Center for Visual Science Training Grant, National Eye Institute (NEI)</i>	<b>2010–2011</b>
<b>Young Investigator Award</b> <i>Optical Society of America</i>	<b>2008</b>
<b>Outstanding Graduate Student Instructor Award</b> <i>University of California, Berkeley, CA</i>	<b>2007</b>
<b>Kaiser Fellowship</b> <i>Kaiser Fellowship Fund</i>	<b>2006</b>
<b>Ruth L. Kirschstein National Research Service Award (Institutional)</b> <i>UC Berkeley Vision Science Training Grant (NEI)</i>	<b>2004–2006</b>
<b>Xerox Scholarship</b> <i>Xerox Corporation, University of Rochester, Rochester, NY</i>	<b>1997-2001</b>

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## PUBLICATIONS

### Refereed articles

1. Song H, **Rossi EA**, Stone E, Latchney LR, Williams DR, Dubra A, Chung MM. Adaptive optics demonstrates phenotypic diversity in autosomal dominant cone rod dystrophy associated with a single mutation in the GUCA1A gene. *British Journal of Ophthalmology*. 2018 102(1):136-141. doi: 10.1136/bjophthalmol-2017-310498. PMID: 29074494.
2. Williams ZW, **Rossi EA**, DiLoreto DA. In vivo adaptive optics ophthalmoscopy correlated with histopathology in cancer associated retinopathy. *Ophthalmology Retina*. 2018 2(2):143-151, doi: 10.1016/j.oret.2017.06.008.
3. **Rossi EA**, Granger CE, Sharma R, Yang Q, Saito K, Schwarz C, Walters S, Nozato K, Zhang J, Kawakami T, Fischer W, Latchney LR, Hunter JJ, Chung MM, Williams DR. Imaging individual neurons in the retinal ganglion cell layer of the living eye. *Proceedings of the National Academy of Sciences of the United States of America*. 2017 114 (3) 586-591; doi:10.1073/pnas.1613445114. PMID: 28049835.

4. Song H, **Rossi EA**, Latchney L, Bessette A, Stone E, Hunter JJ, Williams DR, Chung M. Cone and rod loss in Stargardt disease revealed by adaptive optics scanning light ophthalmoscopy. *JAMA Ophthalmology*. 2015 Oct;133(10):1198–203. PMID: 26247787.
5. Zhang J, Yang Q, Saito K, Nozato K, Roorda A, Williams DR, **Rossi EA**. An adaptive optics imaging system designed for clinical use. *Biomedical Optics Express*. 2015 Jun 1;6(6):2120. PMID: 26114033.
6. Yang Q, Yin L, Nozato K, Zhang J, Saito K, Merigan WH, Williams DR, **Rossi EA**. Calibration-free sinusoidal rectification and uniform retinal irradiance in scanning light ophthalmoscopy. *Optics Letters*. 2015 Jan 1;40(1):85. PMID: 25531615.
7. Yang Q, Zhang J, Nozato K, Saito K, Williams DR, Roorda A, **Rossi EA**. Closed-loop optical stabilization and digital image registration in adaptive optics scanning light ophthalmoscopy. *Biomedical Optics Express*. 2014 Sep 1;5(9):3174. PMID: 25401030.
8. Masella BD, Williams DR, Fischer WS, **Rossi EA**, Hunter JJ. Long-term reduction in infrared autofluorescence caused by infrared light below the maximum permissible exposure. *Invest Ophthalmology & Visual Science*. 2014 Jun;55(6):3929–38. PMID: 24845640.
9. Rangel-Fonseca P, Gómez-Vieyra A, Malacara-Hernández D, Wilson MC, Williams DR, **Rossi EA**. Automated segmentation of retinal pigment epithelium cells in fluorescence adaptive optics images. *Journal of the Optical Society of America A*. 2013 Nov 21;30(12):2595. PMID: 24323021.
10. **Rossi EA**, Rangel-Fonseca P, Parkins K, Fischer W, Latchney LR, Folwell MA, Williams DR, Dubra A, Chung MM. In vivo imaging of retinal pigment epithelium cells in age related macular degeneration. *Biomedical Optics Express*. 2013 Nov 1;4(11):2527–39. PMID: 24298413.
11. **Rossi EA**, Achtman RL, Guidon A, Williams DR, Roorda A, Bavelier D, Carroll J. Visual Function and Cortical Organization in Carriers of Blue Cone Monochromacy. *PLoS ONE*. 2013 Feb 28;8(2):e57956. PMID: 23469117.
12. **Rossi EA**, Chung M, Dubra A, Hunter JJ, Merigan WH, Williams DR. Imaging retinal mosaics in the living eye. *Eye (Lond)*. 2011 Mar;25(3):301-8. doi: 10.1038/eye.2010.221. PMID: 21390064.
13. **Rossi EA**, Roorda A. Is visual resolution after adaptive optics correction susceptible to perceptual learning? *Journal of Vision*. 2010;10(12):11,1–14. PMID: 21047743.
14. Carroll J, **Rossi EA**, Porter J, Neitz J, Roorda A, Williams DR, Neitz M. Deletion of the X-linked opsin gene array locus control region (LCR) results in disruption of the cone mosaic. *Vision Res*. 2010 Sep 15;50(19):1989–99. PMID: 20638402.
15. **Rossi EA**, Roorda A. The relationship between visual resolution and cone spacing in the human fovea. *Nature Neuroscience*. 2010 Feb;13(2):156–7. PMID: 20023654.
16. **Rossi EA**, Weiser P, Tarrant J, Roorda A. Visual performance in emmetropia and low myopia after correction of high-order aberrations. *Journal of Vision*. 2007;7(8):14,1–14. PMID: 17685821.
17. Miller JM, **Rossi EA**, Wiesmair M, Alexander DE, Gallo O. Stability of gold bead tissue markers. *Journal of Vision*. 2006;6(5):616–24. PMID: 16881792.
18. Miller JM, Demer JL, Poukens V, Pavlovski DS, Nguyen HN, **Rossi EA**. Extraocular connective tissue architecture. *Journal of Vision*. 2003;3(3):240–51. PMID: 12723968.

#### **Reviews, invited published papers, proceedings of conference and symposia, monographs, books, and book chapters**

1. **Rossi EA**, Li KY, Weiser P, Tarrant J, Roorda A. Factors influencing visual resolution in myopia after adaptive optics correction of high order aberrations. *Proceedings of the 13<sup>th</sup> International Myopia Conference, Tübingen, Germany, Optometry and Vision Science*, 88(3), 2011.
2. Putnam NM, Maness HL, **Rossi EA**, Hunter JJ. An inquiry-based vision science activity for graduate students and postdoctoral scientists. In: Hunter L & Metevier AJ (Eds.), *Learning from*

Inquiry in Practice, Astronomical Society of the Pacific Conference Series, Volume 436. San Francisco, CA: ASP. 2010

3. Ammons SM, Severson S, Armstrong JD, Crossfield I, Do T, Fitzgerald M, Harrington D, Hickenbotham A, Hunter J, Johnson J, Johnson L, Li K, Lu J, Maness H, Morzinski K, Norton A, Putnam N, Roorda A, **Rossi EA**, Yelda S. The adaptive optics summer school laboratory activities. In: Hunter L & Metevier AJ (Eds.), Learning from Inquiry in Practice, Astronomical Society of the Pacific Conference Series, Volume 436. San Francisco, CA: ASP. 2010

### Published Abstracts

1. Granger C, Williams DR, **Rossi EA**. Near-infrared autofluorescence imaging reveals the retinal pigment epithelial mosaic in the living human eye. Invest Ophthalmol Vis Sci. 2017; 58,3429.
2. **Rossi EA**, Sharma R, Granger C, Schwarz C, Yang Q, Hunter JJ, Williams DR. Individual inner retinal neurons imaged in the living eye of monkey and human. Invest Ophthalmol Vis Sci. 2016; 57(12).
3. Granger C, Song H, Yang Q, Saito K, Nozato K, Williams DR, Chung MM, **Rossi EA**. Contiguous mapping of retinal pigment epithelium (RPE) cell morphometry across the horizontal meridian of the living human eye. Invest Ophthalmol Vis Sci. 2016; 57(12).
4. **Rossi EA**, Saito K, Granger CE, Nozato K, Yang Q, Kawakami T, Zhang J, Fischer W, Williams DR, Chung MM. Adaptive optics imaging of putative cone inner segments within geographic atrophy lesions. Invest Ophthalmol Vis Sci. 2015 Jun 11;56(7):4931–4931.
5. Nozato K, Yang Q, Saito K, Suzuki K, Zhang J, Latchney LR, Williams DR, **Rossi EA**. Compact adaptive optics scanning light ophthalmoscope (AOSLO) with real-time optical stabilization and digital registration. Invest Ophthalmol Vis Sci. 2015 Jun 11;56(7):5977–5977.
6. Yang Q, Song H, Granger CE, Nozato K, Saito K, Zhang J, Latchney LR, Chung MM, Williams DR, **Rossi EA**. Safe real-time imaging of human retinal pigment epithelial cells in the living eye. Invest Ophthalmol Vis Sci. 2015 Jun 11;56(7):5971–5971.
7. **Rossi EA**, Song H, Latchney L, Folwell MA, Fischer W, Chung MM. Adaptive Optics Imaging of AREDS2 Patients Reveals a Variety of Photoreceptor Layer Morphologies. ARVO Meeting Abstracts. 2014 Apr 30;55(5):5236.
8. Yang Q, Zhang J, Nozato K, Saito K, Suzuki K, Williams DR, **Rossi EA**. Real-time optical stabilization and digital registration for high-resolution retinal imaging. Invest Ophthalmol Vis Sci. 2014 Apr 30;55(13):4815–4815.
9. Zhang J, Saito K, Yang Q, Nozato K, Suzuki K, Hunter JJ, Williams DR, **Rossi EA**. An integrated adaptive optics scanning light ophthalmoscope (AOSLO) and wide-field SLO (WF-SLO) for steerable high resolution retinal imaging. Invest Ophthalmol Vis Sci. 2014 Apr 30;55(13):5017–5017.
10. Saito K, Nozato K, Suzuki K, Roorda A, Dubra A, Song H, Hunter JJ, Williams DR, **Rossi EA**. Rods and cones imaged with a commercial adaptive optics scanning light ophthalmoscope (AOSLO) prototype. Invest Ophthalmol Vis Sci. 2014 Apr 30;55(13):1594–1594.
11. Nozato K, Yang Q, Saito K, Zhang J, Williams DR, **Rossi EA**. Automated correction of sinusoidal distortion and drift in resonant scanning retinal imaging systems. Invest Ophthalmol Vis Sci. 2014 Apr 30;55(13):1599–1599.
12. Hunter JJ, Masella BD, Fischer W, **Rossi EA**, Williams DR. Long-term reduction of infrared autofluorescence caused by infrared light below the maximum permissible exposure. Invest Ophthalmol Vis Sci. 2014 Apr 30;55(13):2172–2172.
13. Rangel-Fonseca P, Gomez-Vieyra A, Malacara-Hernandez D, Wilson M, Williams D, **Rossi EA**. Automated segmentation of retinal pigment epithelium cells in fluorescence adaptive optics images. Journal of Vision. 2013 Dec 27;13(15):P33–P33.

14. **Rossi EA**, Williams D, Dubra A, Latchney L, Folwell M, Fischer W, Song H, Chung M. Individual Retinal Pigment Epithelium Cells can be Imaged In Vivo in Age Related Macular Degeneration. *Invest Ophthalmol Vis Sci.* 2013 Jun 16;54(15):6282–6282.
15. Chung M, Song H, Latchney L, Folwell M, Fischer W, **Rossi EA**. Cellular Features of Retinal Pigment Epithelial Atrophy after Regression of Choroidal Neovascularization. *Invest Ophthalmol Vis Sci.* 2013 Jun 16;54(15):6284–6284.
16. Song H, Pugliese A, **Rossi EA**, Latchney L, Stone E, Dubra A, Hunter J, Chung M. Adaptive Optics Scanning Laser Ophthalmoscopy in Stargardt Disease Reveals Decreased Cone and Rod Densities. *Invest Ophthalmol Vis Sci.* 2013 Jun 16;54(15):1743–1743.
17. **Rossi EA**, Williams DR, Dubra A, Song H, Folwell MA, Latchney LR, Chung MM. Photoreceptor and RPE Disruptions Observed Outside Clinically Visible Geographic Atrophy Lesions in the Living Eye with Fluorescence Adaptive Optics Scanning Laser Ophthalmoscopy (FAOSLO). *Investigative Ophthalmology & Visual Science.* 2012 Mar 26;53(6):E-Abstract 5599.
18. Chung MM, **Rossi EA**, Song H, Dubra A, Gonzalez MO, Stone EM, Riley J, Williams DR. In vivo Adaptive Optics Imaging of the Cone Photoreceptor Mosaic in Autosomal Dominant Cone Rod Dystrophy (AD-CRD) in a Three-generation Family Carrying the I143NT Mutation in the Guanylate Cyclase Activator A1A (GUCA1A) Gene. *Invest Ophthalmol Vis Sci.* 2011 Apr 22;52(14):5002–5002.
19. **Rossi EA**, Achtman RL, Guidon A, Williams DR, Roorda A, Bavelier D, Carroll J. Visual Function and Cortical Organization in Carriers of Blue Cone Monochromacy. *Invest Ophthalmol Vis Sci.* 2010 Apr 17;51(13):6297–6297.
20. Song S, **Rossi EA**, Wickham C, Roorda A, Brillinger DR, Levi DM. Fixational eye movements for normal and strabismic amblyopic observers. *Journal of Vision.* 2010 Aug 6;10(7):456–456.
21. **Rossi EA**, Carroll J, Roorda A. The relationship between the cone photoreceptor mosaic and visual acuity in normal observers and blue cone monochromat carriers. *Journal of Vision.* 2010 Mar 28;8(17):20–20.
22. **Rossi EA**, Grieve K, Roorda A. Visual Acuity and the Photoreceptor Mosaic. *Invest Ophthalmol Vis Sci.* 2007 May 10;48(13):3175–3175.
23. Grieve KF, Tiruveedhula P, **Rossi EA**, Roorda A. Measuring Intrinsic Retinal Signals With the Adaptive Optics Scanning Laser Ophthalmoscope. *Invest Ophthalmol Vis Sci.* 2007 May 10;48(13):1954–1954.
24. **Rossi EA**, Weiser P, Tarrant J, Roorda A. Does correction of higher order aberrations improve visual performance in myopes? *Journal of Vision.* 2010 Mar 28;6(13):63–63.
25. **Rossi EA**, Roorda A. The Limits of High Contrast Photopic Visual Acuity with Adaptive Optics. *Invest Ophthalmol Vis Sci.* 2006 May 1;47(13):5402–5402.
26. Roorda A, **Rossi EA**, Zhang Y, Stevenson SB, Arathorn DW, Vogel CR, Parker A, Yang Q. Applications For Eye–Motion–Corrected Adaptive Optics Scanning Laser Ophthalmoscope Videos. *Invest Ophthalmol Vis Sci.* 2006 May 1;47(13):1808–1808.
27. Miller JM, **Rossi EA**, Konishi S, Abramoff MD. Visualizing Ocular Tissue Movement with Little Gold Beads. *Invest Ophthalmol Vis Sci.* 2003 May 1;44(13):3123–3123.
28. Miller JM, Demer JL, Poukens V, Pavlovski DS, Nguyen HN, **Rossi EA**. Extraocular Tissue Type Architecture. *Invest Ophthalmol Vis Sci.* 2002 Dec 1;43(13):1913–1913.

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## PROFESSIONAL ACTIVITIES

### TEACHING:

**2017-present** *Lecturer*

**University of Pittsburgh School of Medicine, Pittsburgh, PA**  
**Retinal Imaging Conference, Ophthalmology Residency Program**

Contributed lecture on advanced ophthalmoscopy methods including basics of adaptive optics and applications for studying human disease. Students (~18/year) are medical doctors in the department of ophthalmology residency program.

**2016-present** *Lecturer*

**University of Pittsburgh School of Medicine, Pittsburgh, PA**  
**Biology of Vision (INTBP2100)**

Contributed lectures on retinal imaging, topics included basic optics and fundamentals of conventional and advanced ophthalmoscopy methods. Students (~12/year) are graduate students, postdocs and technicians from the department of ophthalmology.

**2012**

*Lecturer*

**Manhattan Eye, Ear & Throat Hospital, New York, NY**  
**Greater New York Ophthalmology Clinical Lecture Series 2012-2013**

Presented a comprehensive (three hour) lecture on the latest advances in retinal imaging and clinical applications of adaptive optics ophthalmoscopy. Students (~30) were medical doctors from the greater NY area ophthalmology residency programs.

**2008**

*Lead Instructor*

**University of California, Santa Cruz, CA**  
**Minority Access to Research Careers, Minority Biomedical Research Support, Initiative for Maximizing Student Diversity & California Louis Stokes Alliance for Minority Participation in Science, Engineering and Mathematics**  
**Summer Research Institute**

Lead Instructor for the Biomedical Engineering Short Course, part of a week-long program of coursework I co-developed that was designed to prepare ~20 undergraduate students from underrepresented minorities in science, technology and mathematics for their summer research projects in the Summer Research Institute.

**2007**

*Lead Instructor*

**National Science Foundation Center for Adaptive Optics**  
**University of California, Santa Cruz, CA**

Lead Instructor for the Mainland Internship Short Course, a week-long program of coursework I co-designed to prepare ~16 undergraduate students for their summer research internships in the Center for Adaptive Optics.

**2007**

*Instructor*

**National Science Foundation Center for Adaptive Optics**  
**University of California, Santa Cruz, CA**

The AO summer school was a week-long program for academics, engineers, and industry professionals that included ~50 students with diverse training and backgrounds. The program was designed to give them an introduction to adaptive

optics and provide them with an overview of the applications of the technology as well as provide hands-on labs in AO.

**2006**

**Co-instructor**

**National Science Foundation Center for Adaptive Optics  
University of California, Santa Cruz, CA**

Co-instructor for the Mainland Internship Short Course, a week-long program of coursework that I co-designed to prepare ~16 undergraduate students for their summer research internships in the Center for Adaptive Optics.

**2005-2006**

**Graduate Student Instructor**

**School of Optometry  
University of California, Berkeley, CA**

Graduate student instructor for: *Binocular Vision and Space Perception (VS219)* taught by Professor Martin S. Banks and *Oculomotor Functions and Neurology (VS217)* taught by Professor Clifton Schor. The students were ~60 first year optometry school students and the teaching consisted of running the laboratory activities for the course, grading homework, labs and exams and holding weekly office hours.

### Students Supervised

Dates	Name	Type	Institution
2013	Piero Rangel-Fonseca	Pre-doctoral	Centro de Investigaciones en Óptica
2014-present	Charlie E. Granger	Pre-doctoral	University of Rochester
2016-present	Kevin F. Keppel	Medical	University of Pittsburgh
2017-present	Asad Durrani	Medical	University of Pittsburgh
2017-present	Bianca Leonard	Undergraduate	University of Pittsburgh
2017-present	Kari Vienola	Post-doctoral	University of Pittsburgh

### RESEARCH:

#### 1. Grants

Grant Number	Grant Title	Role	Years	Source	Amount
G2017082	<i>In vivo imaging of retinal ganglion cells in glaucoma</i>	PI	2017-2019	BrightFocus Foundation	\$150,000
N/A	<i>High-resolution structural phenotyping of intermediate and advanced AMD</i>	Co-I	2017-2019	Edward N. & Della L. Thome Memorial Foundation	\$500,000
N/A	<i>Tracking concussion recovery by monitoring fixational eye motion with tracking scanning laser ophthalmoscopy</i>	PI	2017-2018	C. Light Technologies Inc.	\$16,500

## Grants (cont.)

Grant Number	Grant Title	Role	Years	Source	Amount
1F32EY021669-01A1	Tracking rods, cones and RPE cells in geographic atrophy	PI	2011-2012	National Eye Institute (NIH)	\$48,498
FS-PD-11-020	Tracking disease progression in AMD	PI	2011-2012	Fight for Sight	\$25,000

## 2. Seminars and invited lectureships

1. **Rossi EA** (2018). Imaging Single Cells in the Living Eye from the Retinal Pigment Epithelium to the Ganglion Cell Layer. Conference on Lasers and Electro-Optics (CLEO), Symposium on New Advances in Adaptive Optics Retinal Imaging I (JW3P), San Jose, CA, May 16<sup>th</sup>, 2018.
2. **Rossi EA** (2018). Fluorescence adaptive optics ophthalmoscopy. PARIS Group Seminar Series, Quinze-Vingts National Ophthalmology Hospital, Paris, France, March 22<sup>nd</sup>, 2018.
3. **Rossi EA** (2017). Imaging retinal ganglion cells in the living eye. Louis J. Fox Center for Vision Restoration, *Vision Restoration: Regenerative Medicine In Ophthalmology*, Washington, D.C., July 11<sup>th</sup>, 2017.
4. **Rossi EA** (2017). Imaging individual retinal ganglion cell layer neurons in the living eye. Application of adaptive optics for retinal imaging and visual function testing minisymposium, ARVO Annual Meeting, Baltimore, MD, May 8<sup>th</sup>, 2017.
5. **Rossi EA** (2017). Update on advanced high resolution in vivo methods for studying retinal disease in the living eye: new techniques and new challenges. Quinze-Vingts National Ophthalmology Hospital, Paris, France, February 28<sup>th</sup>, 2017.
6. **Rossi EA** (2016). Advanced adaptive optics methods for studying the retina on a microscopic scale in the living eye. University of Pittsburgh Medical School Department of Ophthalmology Grand Rounds, Pittsburgh, PA, August 26<sup>th</sup>, 2016.
7. **Rossi EA** (2015). Beyond counting cones: advanced adaptive optics imaging methods for studying the retina on a microscopic scale in the living eye. Case Western Reserve University, Cleveland, OH, December 16<sup>th</sup>, 2015.
8. **Rossi EA** (2015). Advanced adaptive optics methods for imaging the retina on a microscopic scale in the living eye. L'Institut de la Vision, Paris, France, September 10<sup>th</sup>, 2015.
9. **Rossi EA** (2015). Studying AMD on a microscopic scale in the living eye. Novartis Institute for Biomedical Research, Cambridge, MA, June 10<sup>th</sup>, 2015.
10. **Rossi EA** (2015). Studying retinal disease on a microscopic scale in the living human eye. *Vision Research Special Seminar Series*, Baylor College of Medicine, Houston, TX, May 22<sup>nd</sup>, 2015.
11. **Rossi EA** (2015). Adaptive optics imaging of retinal disease. *Emory Eye Center Seminar Series*, Emory University, Atlanta, GA, February 20<sup>th</sup>, 2015.
12. **Rossi EA** (2013). High-resolution retinal imaging with adaptive optics: clinical applications and new technologies for the study of visual function. *Information Science and Technology Seminar Series*, Los Alamos National Laboratory, Los Alamos, NM, December 11<sup>th</sup>, 2013.
13. **Rossi EA** (2013). Adaptive optics imaging of retinal disease: focus on AMD. *Ophthalmic Laser Surgical Society Meeting*, New York, NY, May 23<sup>rd</sup>, 2013.
14. **Rossi EA** (2011). The limits of visual resolution. *Schnurmacher Institute for Vision Research Colloquium Series*, State University of New York College of Optometry, New York, NY, March 11<sup>th</sup>, 2011.
15. **Rossi EA**, Li KY, Weiser P, Tarrant J & Roorda A. (2010). Factors influencing visual resolution in myopia after adaptive optics correction of high order aberrations. *13<sup>th</sup> International Myopia*



Conference, Tübingen, Germany, July 29<sup>th</sup>, 2010. Proceedings published in: *Optometry and Vision Science*, 88(3), 2011.

16. Rossi EA (2009). Exploring the limits to vision with AOSLO. *Visual Performance with Adaptive Optics Correction Minisymposium*, ARVO Annual Meeting, Ft. Lauderdale, FL, May 4<sup>th</sup>, 2009.

### 3. Other research related activities

#### Ad-hoc Reviewer for the following Journals:

- *Biomedical Optics Express*
- *Investigative Ophthalmology and Visual Science*
- *Journal of Biomedical Optics*
- *Journal of the Optical Society of America A*
- *Journal of Vision*
- *Ophthalmic & Physiological Optics*
- *Optics Express*
- *Optics Letters*
- *Optometry & Vision Science*
- *PLoS ONE*
- *Scientific Reports*
- *Seminars in Ophthalmology*
- *Translational Vision Science & Technology*
- *Vision*
- *Vision Research*

#### Patents Pending

- Yang Q & Rossi EA. METHOD OF IMAGING MULTIPLE RETINAL STRUCTURES. U.S. Provisional Application No: 62/154,435; filed April 29<sup>th</sup>, 2015.
- Rossi EA. METHOD FOR IMAGING RETINAL STRUCTURES. U.S. Provisional Application No.: 62/143,341; filed April 6<sup>th</sup>, 2015.
- Rossi EA. APPARATUS AND METHOD FOR AUTOMATIC POSITION CONTROL IN AN OPTICAL SYSTEM AND APPLICATIONS. U.S. Provisional Application No.: 61/875,808; filed September 10<sup>th</sup>, 2014.
- Rossi EA & Yang Q. SYSTEM AND METHOD FOR REAL-TIME MONTAGING FROM LIVE MOVING RETINA. U.S. Provisional Application No.: 62/021,510; filed July 9<sup>th</sup>, 2014.

#### Software

- Rossi EA & Hunter JJ. (2013) Rochester Exposure Limit Calculator © 2013, University of Rochester, Rochester, NY. <http://aria.cvs.rochester.edu/software/RELcalculator.html>. Licensed by Canon, Inc. and the National Eye Institute.

**LIST of CURRENT RESEARCH INTERESTS:** Ophthalmic imaging, visual function, optical imaging, adaptive optics, retina, eye movements, spatial vision, image processing, photoreceptors, retinal pigment epithelial cells, retinal ganglion cells, retinal degenerations, retinal dystrophies, age-related macular degeneration, glaucoma

#### SERVICE:

##### 1. University and Medical School.

###### University of Pittsburgh, School of Medicine, Dept. of Ophthalmology

- Joel Smalley Travel Award Selection Committee (2017-present)

**University of Pittsburgh, Swanson School of Engineering**

- Poster Judge, Pitt Bioengineering Day (April 6<sup>th</sup>, 2017)
- Poster Judge & Table Host, Pitt Bioengineering Day (May 9<sup>th</sup>, 2018)

**University of Pittsburgh, McGowan Institute for Regenerative Medicine**

- Poster Judge, McGowan Institute Science Retreat (March 5<sup>th</sup>, 2018)

**University of Rochester, Center for Visual Science**

- Scientific Review Officer for Human Subjects Research (2012-2016)

**University of California, Berkeley**

- Class Representative, Vision Science Graduate Group (2004-2009)
- Student Member, Vision Science Program Admissions Committee (2006)

**2. Community activities.****Attendee**

- Ryan Initiative for Macular Research Conference (2018)

**Member**

- Weigand Fellowship Review Committee, Eye & Ear Foundation of Pittsburgh (2018)

**Co-organizer**

- University of California Center for Adaptive Optics Fall Science Retreat (2017)

**Moderator**

- ARVO Annual Meeting (2015-2017)

**Volunteer Instructor**

- UC Santa Cruz Summer Research Institute (2008)
- National Science Foundation Center for Adaptive Optics (2006-2007)

**Consultant**

- Dimension Technologies Inc., Rochester, NY (2015)