

CURRICULUM VITAE

January 10, 2017

PERSONAL DATA Kathryn L. Pepple, MD, PhD

Office: University of Washington
Department of Ophthalmology
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Seattle, WA 98104
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Home: 9315 SE 43rd St
Mercer Island, WA 98040
(281) 727-6129

Place of birth: Freehold, NJ
Citizenship: USA

EDUCATION

2008 MD
Baylor College of Medicine, Houston, TX

2006 PhD
Baylor College of Medicine, Houston, TX
Thesis title: Mechanisms of *senseless* expression and genetic modifiers of Senseless function in *Drosophila* eye development. Department of Molecular and Human Genetics Advisor: Graeme Mardon, Ph.D GPA 4.0

1997 BS
University of Oklahoma, Norman, OK
Major in Microbiology, Minor in Chemistry
GPA 3.94 *summa cum laude*

POST GRADUATE TRAINING

2013-2014 Fellowship, Uveitis
University of Washington, Seattle, WA

2012-2013 Fellowship, Medical Retina
Duke University Eye Center, Durham, NC

2009-2012 Residency in Ophthalmology
Duke University Eye Center, Durham, NC

2008-2009 Internship
Transitional Year, The Methodist Hospital, Houston, TX

FACULTY POSITIONS

- | | |
|--------------|--|
| 2015-present | Assistant Professor of Ophthalmology
University of Washington, Seattle, WA |
| 2014-2015 | Acting Assistant Professor of Ophthalmology
University of Washington, Seattle, WA |
| 2013-2014 | Acting Instructor of Ophthalmology
University of Washington, Seattle, WA |

HOSPITAL POSITIONS

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|--------------|--|
| 2013-present | Active Medical Staff
Harborview Medical Center, Seattle, WA |
| 2013-present | Active Medical Staff
University of Washington Medical Center, Seattle, WA |
| 2013-present | Active Medical Staff
VA Puget Sound Healthcare System, Seattle, WA |
| 2013-present | Active Medical Staff
Seattle Children's Hospital, Seattle, WA |

HONORS & AWARDS

- | | |
|---------|---|
| 2014 | Federation of Clinical Immunology Societies Travel Award |
| 2014 | American Uveitis Society Fellow Travel Grant |
| 2013 | Heed Ophthalmic Foundation Fellowship Award |
| 2012 | Edward K. Isbey Jr., M.D. Resident Award for Excellence in
Clinical Care, Ethics, and Research |
| 2011 | Best Poster, North Carolina Society of Eye
Physicians and Surgeons 2011 Annual Meeting |
| 2007 | Milton Finegold Graduate Student Achievement Award |
| 2001 | John J. Trentin Scholarship Award for Academic Excellence |
| 1997 | Graduation with honors <i>summa cum laude</i> ,
University of Oklahoma Phi Beta Kappa Honor
Society, University of Oklahoma |
| 1993-97 | National Merit Scholar and scholarship, University of Oklahoma |

BOARD CERTIFICATION

2013-present American Academy of Ophthalmology

CURRENT LICENSE

Washington expires 1/6/2018

PROFESSIONAL ORGANIZATIONS

2009-present Association for Research in Vision and Ophthalmology (ARVO)
2009-present American Academy of Ophthalmology (AAO)
2013-present Washington Academy of Eye Physicians and Surgeons (WAEPS)
2016- present American Uveitis Society (AUS)
2014- present Federation of Clinical and Immunologic Societies (FOCIS)

TEACHING ACTIVITIES

Uveitis fellowship

2015-present Coordinator monthly “Uveitis Cases” conference
Weekly uveitis journal club curriculum development

Ophthalmology Residency

2014- present Co-coordinator of the UW resident research rotation

Grand Rounds

2016 “Management of Asymptomatic Hollenhorst Plaques” (2/2/16)
2014 “The Ocular immune response: Animal models of uveitis” (Basic Science GR
1/1/16)

National Presentations

2016 American Academy of Ophthalmology Uveitis subspecialty day, Chicago
Panuveitis Section Presentation: “I see spots and I have diarrhea”

American Uveitis Society (AUS) Winter Forum, Park City, UT
“Grading inflammation activity with SD-OCT in an animal model of anterior
uveitis.”
Pepple K, Choi WJ, Wang R, Van Gelder RN

2014 American Uveitis Society (AUS) Winter Forum, Park City, UT
“Cytokine profiles of two rodent models of uveitis.”
Pepple K, Van Gelder RN

2013 American Uveitis Society (AUS) Winter Forum, Park City, UT
“Imaging in Autoimmune Retinopathy.”
Pepple K, Jaffe G, Mruthyunjaya P

Regional Presentations

- 2016 North West Retina Club
“A challenging case of Toxoplasmosis” (11/09)
“A challenging case of Behcet’s panuveitis” (4/27)
- 2015 North West Retina Club
“Combined CRVO with cilioretinal artery occlusion” (11/7)
- 2014 Gained In Translation Conference
“SD-OCT imaging of anterior uveitis in animal models” (Sept. 13)

Local Presentations

- 2017 Department of Rheumatology Grand rounds
“Non-invasive imaging for quantitative evaluation of uveitis disease activity”
- 2016 Introduction to resident research (October 6th)
Resident research project proposal review and critique (October 13th)
- 2015 BSCS lectures on Uveitis (Oct. 15 and 22)
- 2014 Resident Alumni Day presentation (6/8)
University of Washington, Dept. of Ophthalmology

Mentoring

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| 2017 | Jennifer Kane
Erika Brewer | Interlake High school intern
UW Ophthalmology resident |
| 2016 | Jane Wong
Michal Gutowski
Alyssa Buchthal
Erika Brewer
Macklin Nguyen
Laura Hahn
Elizabeth Miller | UW undergraduate research student
UW medical student- research year
Interlake High school internship
UW Ophthalmology resident
UW medical student
UW Ophthalmology post MD research intern
Undergraduate summer Intern |
| 2015 | Jessica Bonner
Dallin Anderson
Nina Cherian
Kathleen Williamson | UW undergraduate research student
UW medical student- research year
Interlake High school internship
UW Ophthalmology resident |
| 2014 | Naomi Odell | UW Ophthalmology resident |

SPECIAL NATIONAL RESPONSIBILTIES:

Lectures:

- 2016-2017 American Uveitis Society
FOCIS Annual Meeting

Co-chair for the member symposium

2016 American Academy of Ophthalmology Chicago, IL
Presenter Uveitis subspecialty day

Editorial Responsibilities

2016- present Peer reviewer, Retina
2016- present Peer reviewer, Experimental and Molecular Pathology
2016-present Peer reviewer, PLOS ONE
2013-present Peer reviewer, Ophthalmology
2013-present Peer reviewer, JAMA Ophthalmology
2013-present Peer reviewer, American Journal of Ophthalmology
2013-present Peer reviewer, Ocular Immunology and Inflammation

SPECIAL LOCAL RESPONSIBILITIES:

2016 Study ophthalmologist for the A-TREAT study (PI Terry Gernsheimer
department of Hematology and Oncology, NCT02578901)
2014 Interim coordinator UW medical student rotation (Aug-Oct)

RESEARCH FUNDING

Current

Funding Source: **NEI KOS 1K08 EY023998**
Project title: The role of the innate and adaptive immune system in a novel model of Uveitis
Dates: 3/1/14-2/28/19
Amount: \$205,000/year. Projected total for 5 years \$1,025,000

Funding Source: **Latham Vision Science Innovation Award**
Project title: Development of clinically relevant, quantifiable metrics of retinal and
choroidal vascular changes in patients with uveitis using Swept Source (SS-
OCTA) and Spectral Domain (SD-OCTA) angiography
Dates: 8/1/15- 7/31/16
Amount: \$12,000 total

Funding Source: **Latham Vision Science Innovation Award**
Project title: Autoantibody formation after ocular trauma
Dates: 8/1/15- 7/31/16
Amount: \$12,400 total

Prior

Funding Source: **Latham Vision Science Innovation Award**
Project title: Development of a novel imaging assay and automated scoring system for use in
animal models of uveitis
Dates: 8/1/14- 7/31/15
Amount: \$21,200 total

Funding Source: **NEI T32 EY07102**

Project title: Graduate student training grant
Dates: 8/2000-12/2006
PI: Graeme Mardon, PhD
Institution: Baylor College of Medicine, Houston TX

ABSTRACT POSTERS

Gutowski M, Wilson L, Van Gelder RN., Pepple KL. A pilot feasibility study for using in vivo bioluminescence imaging for longitudinal monitoring of inflammation in a rodent model of uveitis. Center for Innate Immunity and Inflammation Inagural Conference, Seattle. July, 2016

Wilson L, Choi WJ, Wang RK., Van Gelder RN., Pepple KL. Comparison of Spectral Domain and Swept Source Optical Coherence Tomography in a Rat Model of Anterior Uveitis. ARVO, Seattle. May, 2016

Gutowski M, Wilson L, Van Gelder RN., Pepple KL. A pilot feasibility study for using in vivo bioluminescence imaging for longitudinal monitoring of inflammation in a rodent model of uveitis. ARVO, Seattle. May, 2016

Choi WJ, Pepple KL, Wang RK. Automated detection of inflammatory cells in whole anterior chamber of a uveitis mouse from swept-source optical coherence tomography images. SPIE annual meeting, San Francisco, CA. 2016

Pepple K, Choi WJ, Wang R, Van Gelder RN. Anterior Segment Optical Coherence Tomography in Rodent Models of Uveitis. FOCIS annual meeting, San Diego, CA. 2015.

Pepple K, Van Gelder RN. Anterior segment OCT in a rodent model of uveitis. ARVO ocular immunology conference. Ft. Lauderdale, FL. 2014

Pepple K, Cusick M, Jaffe G, Mruthyunjaya P. Progressive visual field loss conelates with imaging changes on SD-OCT and AF in a patient with Cancer Associated Retinopathy. AAO. (Orlando, FL) 2012

Pepple K, Cusick M, Jaffe G, Mruthyunjaya P. A case series of patients with Autoimmune Retinopathy reveal characteristic changes by Autofluorescence and SD-OCT. North Carolina Society of Eye Physicians and Surgeons (2011)

Pepple K, Cusick M, Jaffe G, Mruthyunjaya P. Imaging characteristics of Autoimmune Retinopathy. ARVO. (Ft. Lauderdale, FL) 2011

Pepple K, Anderson A, Frankfort B, Mardon G. A genetic screen in *Drosophila* for genes interacting with *senseless* during neuronal development identifies the Importin *moleskin*. Gordon Research Conferences: Visual System Development. (II Cioccio, Italy) 2006

Pepple K, Anderson A, Frankfort B, Mardon G. Identification of new genes interacting with *senseless* during *Drosophila* neuronal development 46th Annual Conference (Houston, TX) 2006

Pepple K, Anderson A, Frankfort B, Mardon G. A screen for new genes interacting with *senseless* during *Drosophila* eye development identifies novel complementation groups. Gordon Research Conferences: Visual System Development. (Bristol, RI) 2004

Pepple K, Frankfort B, Mardon G. The role of *senseless* in interommatidial bristle differentiation. 43rd Annual Drosophila Research Conference. (Chicago, IL) 2003

Pepple K, Frankfort B, Mardon G. Genetic screening for modifiers of *senseless* function in the eye. 42nd Annual Drosophila Research Conference. (San Diego, CA) 2002

BIBLIOGRAPHY

In preparation:

1. **Pepple, KL**, Wilson, L. Comparative flow cytometry from the aqueous and vitreous of individual eyes in two experimental uveitis models
2. Kristina Bajema, Kaivon Pakzad-Vaezi, Thomas Hawn, **Kathryn Pepple**. Tuberculous uveitis in a low endemic setting: toward an understanding of disease pathophysiology
3. Kaivon Pakzad-Vaezi, **Kathryn L Pepple**. Tubulointerstitial Nephritis and Uveitis
4. Kaivon Pakzad-Vaezi, **Kathryn L Pepple**, Andrew Bryan. Diagnostic yield and optimization of microbiologic assays for diagnosis of infectious Panuveitis

Submitted:

1. **Kathryn L. Pepple**, Macklin H. Nguyen, Kathleen Williamson, Naomi Odell, Cecilia Lee, Thellea K. Leveque, Russell N. Van Gelder. Response of Uveitic Cystoid Macular Edema to Treatment with Oral Acetazolamide. Submitted to AJO 2/2017

Peer Reviewed Publications:

1. Gutowski MB, Wilson L, Van Gelder RN, **Pepple KL**. In Vivo Bioluminescence Imaging for Longitudinal Monitoring of Inflammation in Animal Models of Uveitis. *Invest Ophthalmol Vis Sci*. 2017 Mar 1;58(3):1521-1528. PubMed [PMID: 28278321](#)
2. Kim AY, Rodger DC, Shahidzadeh A, Chu Z, Koullis N, Burkemper B, Jiang X, **Pepple KL**, Wang RK, Puliafito CA, Rao NA, Kashani AH. Quantifying retinal microvascular changes in uveitis using spectral domain optical coherence tomography angiography (SD-OCTA). *Am J Ophthalmol*. 2016 Sep 1. PMID 27594138
3. **Pepple KL**, Choi WJ, Wilson L, Van Gelder RN, Wang RK. Quantitative assessment of anterior segment inflammation in a rat model of uveitis using spectral domain optical coherence tomography. *Invest Ophthalmol Vis Sci*. 2016 Jul 1;57(8):3567-75. PMID 27388049
4. Bilateral neuroretinitis and anterior uveitis following ipilimumab treatment for metastatic melanoma. Hahn L, **Pepple KL**. *J Ophthalmic Inflamm Infect*. 2016 Dec;6(1):14. PMID:27165193
5. Wide-field optical coherence tomography based microangiography for retinal imaging. Zhang Q, Lee CS, Chao J, Chen CL, Zhang T, Sharma U, Zhang A, Liu J, Rezaei K,

Pepple KL, Munsen R, Kinyoun J, Johnstone M, Van Gelder RN, Wang RK. *Sci Rep*. 2016 Feb 25;6:22017. PMID:26912261

6. **Pepple KL**, Rotkis L, Van Grol J, Wilson L, Sandt A, Lam DL, Carlson E, Van Gelder RN. (2015) Primed Mycobacterial Uveitis (PMU): Histologic and Cytokine Characterization of a Model of Uveitis in Rats. *Invest Ophthalmol Vis Sci*. Dec 1;56(13):8438-48. doi: 10.1167/iovs.15-17523. PubMed PMID: 26747775
7. **Pepple KL**, Rotkis L, Wilson L, Sandt A, Van Gelder RN. (2015) Comparative Proteomic Analysis of Two Uveitis Models in Lewis Rats. *Invest Ophthalmol Vis Sci*. Dec 1;56(13):8449-56. doi: 10.1167/iovs.15-17524. PubMed PMID: 26747776
8. **Pepple KL**, Lam DL, Finn LS, Van Gelder R. (2015) Urinary β 2-Microglobulin Testing in Pediatric Uveitis: A Case Report of a 9-Year-Old Boy with Renal and Ocular Sarcoidosis. *Case Rep Ophthalmol*. Mar 20;6(1):101-5. doi: 10.1159/000381092. eCollection Jan-Apr. PubMed PMID: 25873895
9. Choi WJ, **Pepple KL**, Zhi Z, Wang RK. (2015) Optical coherence tomography based microangiography for quantitative monitoring of structural and vascular changes in a rat model of acute uveitis in vivo: a preliminary study. *J Biomed Opt*. 20(1):016015. doi: 10.1117/1.JBO.20.1.016015. PubMed PMID: 25594627
10. Taravati P, **Pepple K**, Gelder RV. (2015) Paraneoplastic Vitelliform Retinopathy in Metastatic Cutaneous Melanoma: A Case Series. *J Clin Exp Ophthalmol* 6:438. doi: 10.4172/2155-9570.1000438
11. **Pepple KL**, Van Gelder R, Forooghian F. 2014. Caveats about QuantiFERON-TB gold in- tube testing for uveitis. *Am. J. Ophthalmol*. 157(4):752-3.
12. **Pepple KL**, Cusick M, Jaffe GJ, Mruthyunjaya P. SD-OCT and Autofluorescence Characteristics of Autoimmune Retinopathy. 2013. *Br. J. Ophthalmol*. 97(2): 139-44.
13. **Pepple K**, Mruthyunjaya P. Retinal Pigment Epithelial Detachments in Age-related Macular Degeneration: Classification and Therapeutic options. 2011. *Semin. Ophthalmol*. 26(3): 198-208.
14. Anderson AE, Karandikar UC, **Pepple KL**, Chen ZL, Bergmann A, and Mardon G. The enhancer of trithorax and polycomb gene *Caf1/p55* is essential for cell survival and patterning in Drosophila development. 2011. *Development*. 138(10):1957-66.
15. **Pepple KL**, Bhatti MT, Foroozan R. Not Again! 2011. *Surv. Ophthalmology*. 56(1):86-93.
16. Carvounis PE, Kopel AC, Kuhl D, Heffez J, **Pepple K**, Holz ER. 25-Gauge Vitrectomy Using Sulfur Hexafluoride and No Prone Positioning for Repair of Macular Holes. 2008. *Retina*. 28(9): 1188-92.

17. **Pepple KL**, Atkins M, Venkin K, Wellnitz K, Harding M, Frankfort BJ, Mardon G. Two- step selection of a single R8 photoreceptor: a bistable loop between senseless and rough locks in R8 fate. 2008. *Development*. 135(24):4071-9.
18. **Pepple KL**, Anderson AE, Frankfort BJ, Mardon G. A genetic screen in *Drosophila* for genes interacting with senseless during neuronal development identifies the Importin moleskin. 2007. *Genetics*. 175:1-17.
19. Frankfort BJ, **Pepple KL**, Mamlouk M, Rose MF, Mardon G. Senseless is required for pupal retinal development in *Drosophila*. 2004. *Genesis* 38(4):182-194.

Book chapters:

Pepple KL, Mruthyunjaya P. Autoimmune Retinopathy. In: Fundus Autofluorescence (2nd Edition). Lippincott Williams & Wilkins. 2016.

Pepple KL, Van Gelder RN. Sarcoid Uveitis. In: Uveitis: A practical guide for the treatment of ocular inflammation. Springer. 2015.

Kim E, **Pepple K**, Van Gelder RN. Laboratory diagnosis of of ocular infectious disease. In: Tasman W, Jaeger EA: Duane's Ophthalmology (Volume 2). Baltimore: Lippincott, Williams, and Wilkins, 2012.

Pepple KL, Allingham RR. Introduction to basic concepts of glaucoma surgery: In: Kahook M: Essentials of Glaucoma Surgery. Thorofare: Slack, 2012

Published books, videos, software: none

Other publications:

Todorich B, **Pepple K**, Mruthyunjaya P. Treatment of Pigment Epithelial Detachments in Age Related Macular Degeneration. Retinal Physician. November 2012.
