

Curriculum Vitae

Holly L. Rosenzweig, PhD

PERSONAL INFORMATION:

Academic Address: Oregon Health & Science University
Veterans Affairs Medical Center
Building 103, Lab E-218, Office E-221A
3710 SW US Veterans Hospital Rd.
Portland, OR 97239

Email Address: rosenzwh@ohsu.edu

Phone: (503) 220-8262 extn: 52256

EDUCATION:

B.S., Molecular and Cell Biology, University of Colorado 1998

Ph.D. Immunology, Oregon Health & Science University, Portland OR 2006

Post-doctoral Fellowship, ocular inflammation, Casey Eye Institute,
Oregon Health & Science University, Portland, OR, 2009

PROFESSIONAL EXPERIENCE:

Ph.D. student, Department of Molecular Microbiology & Immunology,
Oregon Health & Science University, Portland, OR 1999 - 2006

Post-doctoral fellow, Casey Eye Institute, Oregon Health & Science
University, Portland, OR 2006 - 2009

Research Assistant Professor, Department of Ophthalmology, Oregon
Health & Science University, Portland, OR 2009 - 2012

Research Microbiologist, VA Medical Center, Portland, OR 2012 - present

Assistant Professor, Department of Molecular Microbiology &
Immunology, Oregon Health Science University, Portland, OR 2012 – present

PROFESSIONAL ACTIVITIES:

Professional Societies:

The American Association of Immunologists

Association for Research in Vision and Ophthalmology

Association of Rheumatology Health Professionals

International Society for Eye Research

Professional Services:

Reviewer for journals— *Annals of Rheumatic Diseases, Molecules, Inflammation Research, Investigative Ophthalmology & Visual Science, Glia, PLOS Pathogens, Molecular Vision, Current Eye Research, Journal of Neuroinflammation, Arthritis Research & Therapy*

Advisory/Reviewer Committees:

MD/PhD program admissions, Oregon Health & Science University, Portland, OR	2011
Institutional Animal Care and Use Committee (IACUC), Oregon Health & Science University, Portland, OR	2012 – 2014
Translational Research Intramural Grant Program, University of Alabama Clinical and Translational Science Center	2013
Internal Advisory Group to Advocacy Pillar, Association for Research in Vision and Ophthalmology	2013 – 2014
Rheumatology Research Foundation--Targeted Research Task Force	2013 – 2015
Institutional Animal Care and Use Committee (IACUC), Portland VA Medical Center, Portland, OR	2014 – 2017

N.I.H. Study Section: N.E.I., Disease and Pathophysiology of the Visual System Study Section 2/6/2013

Industry talks/consulting: Amgen, Elan

Teaching Experience:

Course Instruction:

Instructor, Medical Immunology Course for Rheumatology Fellows, Oregon Health & Science University	2008-2012
Guest lecturer, Biological Basis of Disease Course for Medical students, Oregon Health & Science University	2013
Guest instructor, Advanced Immunology Class-Microbiology & Immunology graduate program, Oregon Health & Science University	2014

Mentorship:

Volunteer Research Mentor, Partnership for Scientific Inquire Program (an outreach class for Portland high school students interested in science/medicine) 2009 - 2012

Undergraduate Research fellowships:

<i>Stephanie Tarlow</i> (University of Oregon), UO-sponsored research fellowship/credit.	2011
<i>Maya Lewinsohn</i> (University of Chicago)-VA Summer Research Fellowship recipient	2013
<i>Riley Hazard</i> (University of Virginia)-VA Summer Research Fellowship recipient	2014
<i>Volunteer summer interns: John Paul Sacadal, Varunikia Bhargava</i>	2012

Medical student research fellowships:

<i>Kellen Galster</i> (Albany Medical College), Fight for Sight Research Award recipient	2009
<i>Travis Behrend</i> (OHSU), OCTRI Award recipient	2010
<i>Alec Amram</i> (OHSU), Fight for Sight Research Award recipient	2011

Post-doctoral trainees:

<i>Jelena M Kezic</i>	2009-2011
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INVITED TALKS:**Invited Conference Speaker/Moderator:**

International Ocular Inflammation Society, Paris, France	2008
Ocular Autoimmunity & Inflammation Conference, Monterey, CA	2008
World Ophthalmology Congress, Berlin, Germany	2010
American College of Rheumatology Symposium, Atlanta, GA	2011
8 th International Symposium on Uveitis, Thessaloniki, Greece	2012
Association for Research in Vision and Ophthalmology, Ocular Immune Responses, Ft. Lauderdale, FL	2012
3 rd International Conference on Clinical & Experimental Ophthalmology, Chicago, IL	2013
Association for Research in Vision and Ophthalmology, Ocular Immune Responses, Seattle, WA	2013
11 th World Congress on Inflammation, International Association of Inflammation, Natal Brazil	2013
“Ocular infection and host defense” symposium, International Society for Eye Research, San Francisco, CA	2014
“Ocular Immunity, Autoimmunity and Inflammation” symposium, Association for Research in Vision and Ophthalmology	2014

Seminars:

Dean McGee Eye Institute, Oklahoma Health Sciences Center	2011
Oregon Health & Science University departmental seminars: Dept. of Molecular Microbiology & Immunology; Dept. Rheumatology, Retina Research Meeting, Casey Eye Institute	2009 - 2013

SPECIAL HONORS AND AWARDS:

Arnold National Scholarship, University of Colorado	1994 - 1998
Oregon Health & Science University, Tartar Research Fellowship	2000
National Institutes of Health, Pre-Doctoral Training Award	2001 - 2006
National Institutes of Health, Individual National Research Service Award	2006 - 2009
Recipient, Young Investigator Award in Ophthalmology	2007
Federation of Clinical Immunology Societies, poster of distinction	2007
Recipient, International Cytokine Society Award	2007
Recipient, Arthritis National Research Foundation Award	2007
Recipient, American Uveitis Society Travel Award, Association for Research in Vision and Ophthalmology	2008
Fellowship, American College of Rheumatology REF New Investigator Award	2009 - 2011
Fellowship, Research to Prevent Blindness Career Development Award	2009 - 2013
The Experimental Uveitis Research Award, European Uveitis Patient Interest Group	2010
Recipient, Kuzell Arthritis National Research Award	2009, 2011
Recipient, BD_Biosciences Immunology Research Award	2013

RESEARCH SUPPORT:

ACTIVE:

Dept. of Veterans Affairs: VA Merit Review (PI: HL Rosenzweig) <i>Interaction of environment and genetics in predisposition to autoimmune arthritis.</i>	03/01/2014-03/30/2018
BD_Biosciences Immunology Research Grant (PI: HL Rosenzweig)	05/01/2013-03/31/2016
NIH-RO1 EY021733 (PI: HL Rosenzweig) <i>Understanding uveitis in a multi-system disease model of spondyloarthropathy</i>	09/30/2011-08/31/2015

COMPLETED:

NIH-RO1 EY019020 (PI: HL Rosenzweig) <i>NOD2 and Uveitis</i>	08/01/2009-07/31/2014
Research to Prevent Blindness Award-New Investigator Award (PI: HL Rosenzweig)	07/01/2009-06/01/2014
American College of Rheumatology New Investigator Award (PI: HL Rosenzweig) <i>Investigation of uveitis in a murine model of ankylosing spondylitis</i>	07/01/2009-06/30-2011

PUBLICATIONS:

1. Murray SE, **Lallman H***, Heard AD, Rittenberg MB, Stenzel-Poore MP. A genetic model of stress displays decreased lymphocytes and impaired antibody responses without altered susceptibility to *S. pneumoniae*. *Journal of Immunology* (2001); 167(2): 691-698. *maiden name--now Rosenzweig
2. Stenzel-Poore MP, Stevens SL, Xiong Z, Lessov NS, Harrington CA, Mori M, Meller R, **Rosenzweig HL**, Tobar E, Shaw TE, Chu X, Simon RP. Effect of ischemic preconditioning on genomic response to cerebral ischaemia: Similarity to neuroprotective strategies in hibernation and hypoxia-tolerant states. *The Lancet* (2003); 362(9389): 1028-1037.
3. **Rosenzweig HL**, Lessov NS, Henshall DC, Minami M, Simon RP, Stenzel-Poore MP. Endotoxin preconditioning prevents the cellular inflammatory response during ischemic neuroprotection in mice. *Stroke* (2004); 35(11): 2576-2581.
4. Murray SE, **Rosenzweig HL**, Johnson M, Huising MO, Sawicki K, Stenzel-Poore MP. Overproduction of corticotropin-releasing hormone blocks germinal center formation: Role of corticosterone and impaired follicular dendritic cell networks. *Journal of Neuroimmunology* (2004); 156(1-2): 31-41.
5. Meller R, Stevens SL, Minami M, Cameron JA, King S, **Rosenzweig HL**, Doyle K, Lessov NS, Simon RP, Stenzel-Poore MP. Neuroprotection by osteopontin in stroke. *Journal of Cerebral Blood Flow and Metabolism* (2005); 25(2): 217-225.
6. **Rosenzweig HL**, Minami M, Lessov NS, Coste SC, Stevens SL, Henshall DC, Meller R, Simon RP, Stenzel-Poore MP. Endotoxin preconditioning protects against the cytotoxic effects of TNFalpha after stroke: a novel role for TNFalpha in LPS-ischemic tolerance. *J Cereb Blood Flow Metab* (2007); 28:1-12.
7. **Rosenzweig HL**, Martin, TM, Jann MM, Planck SR, Davey MP, Kobayashi K, Flavell RA, Rosenbaum JT. NOD2, the gene responsible for familial granulomatous uveitis, in a mouse model of uveitis. *Invest Ophthalmol Vis Sci* (2008); 49(4): 1518-24.
8. **Rosenzweig HL**, Martin TM, Planck SR, Jann MM, Smith JR, Glant TT, van Eden W, Davey MP, Rosenbaum JT. Anterior uveitis accompanies joint disease in a murine model resembling ankylosing spondylitis. *Ophthalmic Res* (2008); 40(3-4): 189-92.
9. Rosenbaum JT, **Rosenzweig HL**, Smith JR, Martin TM, Planck SR. Uveitis secondary to bacterial products. *Ophthalmic Res* (2008); 40(3-4): 165-8.

10. **Rosenzweig HL**, Martin TM, Planck SR, Galster K, Jann MM, Davey MP, Kobayashi K, Flavell RA, Rosenbaum JT. Activation of NOD2 *in vivo* induced IL-1 beta production in the eye via caspase-1 but results in ocular inflammation independently of IL-1 signaling. *J Leukoc Biol* (2008); 84(2): 529-36.
11. **Rosenzweig HL**, Jann MM, Glant TT, Martin TM, Planck SR, van Eden W, van Kooten PJS, Flavell RA, Kobayashi K, Rosenbaum JT, Davey MP. Activation of Nucleotide Oligomerization Domain Two Exacerbates a Murine Model of Proteoglycan-Induced Arthritis. *J Leukoc Biol* (2009); 85(4): 711-18.
12. Farkas B, Boldizsar F, Tarjanyi O, Laszlo A, Lin SM, Hutas G, Trynieszewska B, Mangold A, Nagyria G, **Rosenzweig HL**, Finnegan A, Mikecz K and Glant TT. BALB/c mice genetically susceptible to proteoglycan-induced arthritis and spondylitis show colony-dependent differences in disease penetrance. *Arthritis Res Ther* (2009); 11(1): R21.
13. **Rosenzweig HL**, Galster KT, Planck SR, Rosenbaum JT. NOD1 is expressed in the eye and functionally contributes to IL-1 β dependent ocular inflammation in mice. *Invest Ophthalmol Vis Sci* (2009); 50(4): 1746-53.
14. Dugan JW, Albor A, David L, Fowlkes J, Blackledge MT, Martin TM, Planck SR, **Rosenzweig HL**, Rosenbaum JT, Davey MP. Nucleotide oligomerization domain-2 interacts with 2'-5'-oligoadenylate synthetase type 2 and enhances RNase-L function in THP-1 cells. *Mol Immunol* (2009); 47(2-3): 560-6.
15. **Rosenzweig HL**, Kawagushi T, Martin TM, Planck SR, Davey MP, Rosenbaum JT. Nucleotide Oligomerization Domain-2 (NOD2)-Induced Uveitis is Dependent on IFN γ . *Invest Ophthalmol Vis Sci* (2009); 50(4): 1739-45.
16. **Rosenzweig HL**, Jann MJ, Vance EE, Planck SR, Rosenbaum JT, Davey MP. Nucleotide-binding oligomerization domain 2 and Toll-like receptor 2 function independently in a murine model of arthritis triggered by intraarticular peptidoglycan. *Arthritis & Rheumatism* (2010); 62(4): 1051-9.
17. **Rosenzweig HL**, Clowers JS, Nunez G, Rosenbaum JT, Davey MP. Dectin-1 and NOD2 Mediate Cathepsin Activation in Zymosan-Induced Arthritis in Mice. *Inflammation Research* (2011); 60(7): 705-14.
18. **Rosenzweig HL**, Galster K, Vance EE, Ensign-Lewis J, Nunez G, Davey MP, Rosenbaum JT. NOD2 Deficiency Results in Increased Susceptibility to Peptidoglycan-Induced Uveitis in Mice. *Invest Ophthalmol Vis Sci* (2011); 52(7): 4106-12.
19. Kezic J, Taylor S, Gupta S, Planck SR, **Rosenzweig HL**, Rosenbaum JT. Endotoxin-induced uveitis is primarily dependent on radiation resistant cells and on MyD88 but not TRIF. *J Leukoc Biol* (2011); 90(2): 305-11.
20. Allensworth JJ, Planck SR, Rosenbaum JT, **Rosenzweig HL**. Investigation of the differential potentials of TLR agonists to elicit uveitis in mice. *J Leukoc Biol* (2011); 90(6): 1159-66.
21. Rosenbaum JT, Woods A, Kezic J, Planck SR, **Rosenzweig HL**. Contrasting ocular effects of local versus systemic endotoxin. *Invest Ophthalmol Vis Sci* (2011); 52(9): 6472-7.
22. **Rosenzweig HL**, Planck SR, Rosenbaum JT. NLRs in immune privileged sites. *Current Opinion in Pharmacology* (2011); 11(4): 423-8.

23. Kezic JM, Davey MP, Glant TT, Rosenbaum JT, **Rosenzweig HL**. IFN γ regulates discordant mechanisms of uveitis versus joint and axial disease in a murine model resembling spondyloarthritis. *Arthritis & Rheumatism* (2012); 64(3): 762-71.
24. Willermain F, Rosenbaum JT, Bodaghi B, **Rosenzweig HL**, Childers S, Behrend T, Wildner G, Dick AD. Interplay between innate and adaptive immunity in the development of non infectious uveitis. *Progress in Retinal Eye Research* (2012); 31(2): 182-94.
25. Kezic JM, Glant TT, Rosenbaum JT, **Rosenzweig HL**. Neutralization of IL-17 ameliorates uveitis but damages photoreceptors in a murine model of spondyloarthritis. *Arthritis Res Ther* (2012); 14(1): R18.
26. **Rosenzweig HL**, Woods A, Clowers JS, Planck SR, Rosenbaum JT. The NLRP3 inflammasome is active but not essential in endotoxin-induced uveitis. *Inflammation Research* (2012); 61(3): 225-31.
27. Rosenbaum JT, **Rosenzweig HL**. Blau Syndrome. Edited by Zierhut et al: *Intraocular Inflammation 2012 (in press)*.
28. Planck SR, Woods A, Clowers JS, Nicklin MJ, Rosenbaum JT, **Rosenzweig HL**. The impact of IL-1 signaling on experimental uveitis and arthritis. *Annals of the Rheumatic Diseases* (2012); 71(5): 753-60.
29. Rosenbaum JT, **Rosenzweig HL**. The Eyes have it: Uveitis in patients with spondyloarthritis. *Nature Reviews Rheumatology* (2012); 8(5): 249-50.
30. Clowers JS, Allensworth JJ, Lee EJ, **Rosenzweig HL**. Investigation of the peptidoglycan sensing molecule, PGLYRP-2, in murine inflammatory uveitis. *British Journal of Ophthalmology* (2013); 97(4): 504-10.
31. Lee EJ, Allensworth JJ, Clowers JS, **Rosenzweig HL**. Aberrant IL-1 signaling does not increase susceptibility of mice to NOD2-dependent uveitis. *Clinical and Experimental Ophthalmology* (2014): *in press*.
32. Lee EJ, **Rosenzweig HL**. Molecular signaling and ocular inflammation: An update on the NOD-like receptors. *Clinical Microbiology* (2014); *in press*.
33. Dugan J, Griffiths E, Snow, P, **Rosenzweig HL**, Lee EJ, Brown B, Carr DW, Rose C, Rosenbaum JT, Davey MP. A Blau syndrome-associated Nod2 mutation alters expression of full length NOD2 and limits responses to muramyl dipeptide in knock-in mice. *Journal of Immunology* (2014); *in press*.