# 17th Annual Symposium
## Visual Sciences Research Center

### Schedule

**Friday, June 12, 2015**

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<tr>
<th>Time</th>
<th>Event</th>
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<td>8:00</td>
<td>Continental Breakfast, Poster Setup</td>
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| 8:30  | **Douglas Rhee, M.D.**  
Professor and Chairman, Ophthalmology & Visual Sciences  
Opening Remarks |
| 8:45  | **Tatini Rakshit, Ph.D.**  
Postdoctoral Scholar, Ophthalmology  
Paul Park, Ph.D. Lab  
*Reduced Rhodopsin Expression Alters Rod Outer Segment Disc Membrane Structure: An Age Dependent Study* |
| 9:45  | **Philip Kiser, Ph.D.**  
Instructor, Pharmacology  
Krzysztof Palczewski, Ph.D. Lab  
*Catalytic mechanism of a retinoid isomerase essential for vertebrate vision* |
| 10:00 | **Lindsay Perusek**  
Research Assistant, Ophthalmology  
Akiko Maeda, M.D., Ph.D. Lab  
*Implications for autophagy in retinal pigmented epithelium cell health* |
| 10:15 | **Joseph Lin**  
Undergraduate Student, Case Western Reserve University  
Irina Pikuleva, Ph.D. Lab  
*Local biosynthesis is the principal pathway of cholesterol input in mouse retina* |
10:45  **Sean Ryan, Ph.D.**  
Research Health Scientist  
Timothy Kern, Ph.D. Lab  
Louis Stokes Cleveland VA Medical Center  
*Control of diabetes-induced retinal inflammation using cellular immune therapy*

11:00  Break

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**Glaucoma and Epidemiology – Moderator: Carol Toris, Ph.D.**

11:15  **Sruthi Sampathkumar, M.D.**  
Research Associate, Ophthalmology  
Carol Toris, Ph.D. Lab  
*Effects of SPARC (secreted protein, acidic, cysteine rich) on age-related changes in aqueous humor dynamics*

11:30  **Kurt Scavelli**  
Medical Student, Case Western Reserve University  
Douglas Rhee, M.D. Lab  
*Understanding the role of SPARC in the regulation of the extracellular matrix of the trabecular meshwork*

11:45  **Jessica Cooke Bailey, Ph.D.**  
Postdoctoral Fellow, Epidemiology & Biostatistics  
Jonathan Haines, Ph.D., Lab  
*Novel Genetic Loci Identified in Meta-Analysis of Glaucoma Genome-Wide Imputed Dataset*

12:00  **Nicole Restrepo, Ph.D.**  
Research Assistant, Epidemiology & Biostatistics  
Dana Crawford, Ph.D., Lab  
*Genetic risk factors for primary open-angle glaucoma in African Americans from a biorepository linked to de-identified electronic medical records*

12:15  **Douglas Rhee, M.D.**  
*Announcement of University Hospitals Eye Institute Innovation Day Award Recipients*

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**12:30 – 2:00**  **Lunch & Poster Session**

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**Introduction: Patricia Taylor, Ph.D.**

2:00  **Keynote Speaker**  
**Jerry Niederkorn, Ph.D.**  
George A. and Nancy P. Shutt Professor of Medical Science  
Royal C. Miller Chair in Age-Related Macular Degeneration  
University of Texas Southwestern Medical Center  
*The eye sees eye to eye with the immune system: How neuropeptides influence immune privilege and corneal graft survival*
Visual Sciences Training Program - Moderator: John Mieyal, Ph.D.

3:00  **Jeffrey Tomalka, Ph.D.**
Postdoctoral Fellow  
Parameswaran Ramakrishnan, Ph.D. Lab  
Co-Mentor, Timothy Kern, Ph.D.  
*Hyperglycemia-induced O-GlcNAcylation of NF-κB promotes autoimmune T cell function and retinal endothelial cell activation in autoimmune diabetes*

3:15  **Philip Ropeclewski**
Graduate Student  
Yoshikazu Imanishi, Ph.D. Lab  
*Disrupted membrane dynamics in a Xenopus laevis model of retinitis pigmentosa*

3:30  **Jeremy Whitson**
Graduate Student  
Vincent Monnier, Ph.D. Lab  
*Investigating Glutathione Uptake by the Mammalian Lens*

3:45  **Heather Clark**
Graduate Student  
Eric Pearlman, Ph.D. Lab  
Co-Mentor, Arne Rietsch, Ph.D.  
*Neutrophil calprotectin limits Aspergillus fumigatus hyphal growth and corneal infection*

4:00  **Grzegorz Palczewski**
Graduate Student  
Johannes Von Lintig, Ph.D. Lab  
*Macular Pigments and BCO2, A Carotenoid Cleaving Enzyme*

4:15  **Chairut Vareechon**
Graduate Student  
Eric Pearlman, Ph.D. Lab  
*The role of Pseudomonas aeruginosa Type III secretion in inhibiting reactive oxygen species production by neutrophils*

4:30  **Announcement of Poster Winner**

**Douglas Rhee, M.D.**
*Closing Remarks*

4:30  **Poster Session & Reception**
Saturday June 13, 2015

7:30  Continental Breakfast

7:55  Jonathan Lass, M.D.
Opening Remarks

Retina Session - Moderator: Baseer Ahmad, M.D.

8:00  Mahmoud El-Yassir, M.D.
Resident PGY 3, Ophthalmology & Visual Sciences
Paula Grigorian, M.D., Coauthor
_Central Retinal Vein Occlusion and Central Retinal Artery Occlusion following Complicated Childbirth_

8:12  Daniel Lee, M.D.
Resident PGY 3, Ophthalmology & Visual Sciences
Baseer Ahmad, M.D., Coauthor
_Intraocular Gases and High-Altitude Travel: A Review_

8:24  Baseer Ahmad, M.D.
Assistant Professor, Ophthalmology & Visual Sciences
_DRCR Network Update_

8:36  Louis Hirsch M.D.
Resident PGY 3, Ophthalmology & Visual Sciences
H. Nazari, Ph.D., P.G. Sreekumar, Ph.D., R. Kannan, Ph.D., L. Dustin, Ph.D., D. Zhu, Ph.D., E. Barron, David Hinton, M.D., Ph.D., Coauthors
_TGF-β2 secretion from RPE decreases with polarization and becomes apically oriented_

8:48  Keynote Speaker
Eric Pierce, M.D., Ph.D.
Solman and Libe Friedman Associate Professor, Ophthalmology
Harvard Medical School
Massachusetts Eye and Ear Infirmary
_Genetics of Inherited Retinal Degenerations_

Anterior Segment and Oculoplastics Session - Moderator: Pankaj Gupta, M.D.

9:21  Julieta Zutel Ryder, M.D.
Resident PGY 4, Ophthalmology & Visual Sciences
Faruk Orge, M.D., Coauthor
_Surgical outcomes of Ptose Up frontalis suspension sling for congenital ptosis_
9:33  **Amy Zhang, M.D.**  
Assistant Professor, Ophthalmology & Visual Sciences  
*Effect of trabectome on aqueous humor dynamics*

9:45  **William Potthoff, M.D.**  
Resident PGY 4, Ophthalmology & Visual Sciences  
*The Baylor Nomogram and Barrett Toric Calculator: Recent Experience with the Latest in Toric IOL Calculations*

9:57  Break

10:12  **Rui Zhang M.D.**  
Resident PGY 3, Ophthalmology & Visual Sciences  
Yan Sun, M.D., Eric Pearlman Ph.D., Suber Huang M.D., M.B.A., Coauthors  
*Bacterial induced corneal inflammation is inhibited by Mesenchymal Stem Cells*

10:24  **Keynote Speaker**  
**Jerry Niederkorn, Ph.D.**  
George A. and Nancy P. Shutt Professor of Medical Science  
Royal C. Miller Chair in Age-Related Macular Degeneration  
University of Texas Southwestern Medical Center  
*Immunology of corneal allografts: Insights from animal models*

10:57  **Natalie Cheung, M.D.**  
Resident PGY 4, Ophthalmology & Visual Sciences  
Pankaj Gupta M.D., M.S., Gregory Grossman Ph.D., Coauthors  
*Case report of Descemet membrane endothelial keratoplasty (DMEK) graft rejection from S stamping*

11:09  **Christopher Donovan**  
Medical Student, Case Western Reserve University School of Medicine 2016  
Beth Ann Benetz M.A., Harry Menegay, Ph.D., Chris Stoeger M.B.A., Jonathan Lass M.D., Coauthors  
*Comparison of corneal endothelial image analysis by two image analysis methods on pre and post-stripping of donor endothelium for Descemet Membrane Endothelial Keratoplasty*

11:21  **Amanda Tang, M.D.**  
Resident PGY 3, Ophthalmology & Visual Sciences  
Xiaoyong Fu, Ph.D., Rony Sayegh, M.D., Coauthors  
*Keratoprosthesis decentration results in degradation in image quality*

11:33  **Musa Abdelaziz, M.D.**  
Resident PGY 3, Ophthalmology & Visual Sciences  
Claes Dohlman, M.D., Ph.D., Rony Sayegh, M.D., Coauthors  
*Glare Reduction Strategies for Keratoprosthesis*

11:45  **Douglas Rhee, M.D.**  
*Closing Remarks*