## 18th Annual Symposium
Visual Sciences Research Center

### Schedule

**Friday, June 17, 2016**

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>8:00</td>
<td>Continental Breakfast, Poster Setup</td>
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</table>
| 8:30  | **Irina Pikuleva, Ph.D.**  
Carl F. Asseff Professor and Vice Chair for Research, Ophthalmology & Visual Sciences  
Director, Visual Sciences Research Center  
Case Western Reserve University  
Opening Remarks                  |
| 8:45  | **Jonathan Lass, M.D.**  
Charles I Thomas Professor, Ophthalmology & Visual Sciences  
Case Western Reserve University  
Introduction            |
|       | Keynote Speaker  
**Stephen Pflugfelder, M.D.**  
Professor and James and Margaret Elkins Chair, Ophthalmology  
Baylor College of Medicine  
*Immunomodulatory properties of conjunctival goblet cells*  |
| 9:45  | **Robert Igo, Ph.D.**  
Assistant Professor, Epidemiology and Biostatistics  
Sudha Iyengar Lab  
*Genome wide association analysis identifies novel genetic loci for Fuchs corneal endothelial dystrophy*  |
| 10:00 | **Carol Toris, Ph.D.**  
Professor, Ophthalmology & Visual Sciences  
**Padmanabhan Pattabiraman, Ph.D.**  
Research Scientist, Ophthalmology & Visual Sciences  
*Pubertal changes in aqueous humor dynamics and proteomics in rabbits*  |
| 10:15 | **Zongbo Wei, Ph.D.**  
Postdoctoral Scholar, Pathology  
Xingjun Fan Lab  
*Decreased levels of reduced glutathione in the lens and lens epithelial cells promote epithelial-mesenchymal transition (EMT)*  |
| 10:30 | Break                                                                                   |
**Visual Sciences Training Program - Moderator: John Mieyal, Ph.D.**

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<thead>
<tr>
<th>Time</th>
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<th>Topic</th>
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<tbody>
<tr>
<td>10:45</td>
<td>Jeremy Whitson</td>
<td>Graduate Student</td>
<td>Characterization of the mouse lens glutathione-responsive transcriptome</td>
</tr>
<tr>
<td>11:00</td>
<td>Mary Kelly</td>
<td>Graduate Student</td>
<td>Transport of vitamin A across blood-tissue barriers is facilitated by STRA6</td>
</tr>
<tr>
<td>11:15</td>
<td>Philip Ropelewski</td>
<td>Graduate Student</td>
<td>Disrupted membrane protein homeostasis in a Xenopus laevis model of retinitis pigmentosa caused by Q344ter mutation of rhodopsin</td>
</tr>
<tr>
<td>11:30</td>
<td>Avery Sears</td>
<td>Graduate Student</td>
<td>Structural analysis of native interphotoreceptor retinoid binding protein isolated from the interphotoreceptor matrix of bovine retinas</td>
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**11:45 – 1:15  Lunch & Poster Session**

**Retina and Related Diseases - Moderator: Akiko Maeda, M.D., Ph.D.**

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<tr>
<td>1:15</td>
<td>Akiko Maeda, M.D., Ph.D.</td>
<td>Assistant Professor, Ophthalmology &amp; Visual Sciences</td>
<td>Case Western Reserve University Introduction</td>
</tr>
<tr>
<td></td>
<td>Keynote Speaker</td>
<td>have to do with retinal diseases</td>
<td></td>
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<tr>
<td></td>
<td>Marco Zarbin, M.D., Ph.D.</td>
<td>Alfonse Cinotti, M.D. Professor and Chair, Ophthalmology &amp; Visual Sciences</td>
<td>Rutgers-New Jersey Medical School Cell base therapy for degenerative retinal disease</td>
</tr>
<tr>
<td>2:15</td>
<td>Subhadip Senapati, Ph.D.</td>
<td>Postdoctoral Scholar, Ophthalmology &amp; Visual Sciences</td>
<td>Paul Park Lab Effect of dietary DHA modulation on rhodopsin content and packing in mice disc membranes</td>
</tr>
<tr>
<td>2:30</td>
<td>Thomas Sundermeier, Ph.D.</td>
<td>Research Associate, Pharmacology</td>
<td>Krzysztof Palczewski Lab Dissecting the miRNA-regulated gene networks governing the survival and function of photoreceptors and the RPE</td>
</tr>
</tbody>
</table>
2:45  **Tanu Parmar, Ph.D.**  
Postdoctoral Scholar, Ophthalmology & Visual Sciences  
Akiko Maeda Lab  
*Acute stress responses are early molecular events of retinal degeneration in Abca4−/−Rdh8−/− mice after light exposure*

3:00  Break

3:15  **Douglas Rhee, M.D.**  
Professor and Chairman, Ophthalmology & Visual Sciences  
*The role of SPARC in glaucoma pathophysiology*

3:30  **Carlos Subauste, M.D.**  
Associate Professor, Infectious Disease  
*TCD40 in retinal Müller cells induces P2X7-dependent cytokine expression in macrophages/microglia in diabetic mice and development of early experimental diabetic retinopathy*

3:45  **Deoye Tonade**  
Graduate Student  
Timothy Kern Lab  
*Photoreceptor cells produce inflammatory mediators that contribute to endothelial cell death in diabetes*

4:00  **Sarah Lindstrom**  
Research Technician  
Patricia Taylor Lab  
*The role of IL-17 in diabetic retinopathy*

4:15  **Beata Jastrzebska, Ph.D.**  
Instructor, Pharmacology  
*Dimerization of human visual cone opsins and its potential role in spectral tuning*

4:30  **Tung Dao, M.S.**  
Research Assistant  
Irina Pikuleva Lab  
*Investigating the retinal significance of apolipoprotein D and apolipoprotein E in the retina*

4:45  Announcement of Poster Winner

4:45  **Douglas Rhee, M.D.**  
Professor and Chairman, Ophthalmology & Visual Sciences  
Case Western Reserve University  
Closing Remarks

5:00  **Reception**  Wolstein Research Building Lobby
**Saturday June 18, 2016**

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<td>7:30</td>
<td>Continental Breakfast</td>
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| 7:55  | **Rony Sayegh, M.D.**  
Assistant Professor, Ophthalmology & Visual Sciences  
Opening Remarks                                           |
| 8:00  | **Rony Sayegh, M.D.**  
Assistant Professor, Ophthalmology & Visual Sciences  
Introduction                                                                             |
|       | **Keynote Speaker**  
Marco Zarbin, M.D., Ph.D.  
Alfonse Cinotti, M.D. Professor and Chair, Ophthalmology & Visual Sciences  
Rutgers-New Jersey Medical School  
*Challenges in applying the results of clinical trials to clinical practice* |
| 8:45  | **Daniel Y. Lee, M.D.**  
Resident PGY 4, Ophthalmology & Visual Sciences  
Pankaj Gupta, M.D., Rony Sayegh, M.D., Baseer Ahmad, M.D., Coauthors  
*Retinal complications after refractive surgery* |
| 8:57  | **Mahmoud El-Yassir, M.D.**  
Resident PGY 4, Ophthalmology & Visual Sciences  
*The relationship of prior anti-VEGF injections, and the increased intraoperative risks of posterior capsule rupture, retained lens fragment, and other post-op complications* |
| 9:09  | **Mahdi Rostamizadeh, M.D.**  
Resident PGY 3, Ophthalmology & Visual Sciences  
David Miller, M.D., Coauthor  
*Incidences of endophthalmitis in various anti-VEGF treatments* |
| 9:21  | **Musa Abdelaziz, M.D.**  
Resident PGY 3, Ophthalmology & Visual Sciences  
David Miller, M.D., Coauthor  
*Long-term outcomes of branch retinal vein occlusion treated with intravitreal anti-VEGF therapy* |
| 9:33  | **Rui Zhang M.D.**  
Resident PGY 4, Ophthalmology & Visual Sciences  
Faruk Orge, M.D., Coauthor  
*Recurrence of neovascularization status post intravitreal bevacizumab in a patient with retinopathy of prematurity* |
| 9:45  | Break                                                               |
Cornea Session - Moderator: Pankaj Gupta, M.D.

10:00  Keynote Speaker
Stephen Pflugfelder, M.D.
Professor and James and Margaret Elkins Chair, Ophthalmology
Baylor College of Medicine
Advances in diagnosis and therapy of tear dysfunction

10:45  Rony Sayegh, M.D.
Assistant Professor, Ophthalmology & Visual Sciences
Jonathan Miller, M.D. Jennifer Sweet, M.D., Salim Hayek, M.D., Coauthors
Electrical stimulation of the trigeminal ganglion and intrathecal drug delivery systems to manage corneal neuropathic pain

10:57  Amir Moarefi, M.D.
Resident PGY 3, Ophthalmology & Visual Sciences
Rony Sayegh, M.D., Coauthor
Characterization of forward scatter from the optical stem of the Boston keratoprosthesis

11:09  Christina Kytasty
Resident PGY 3, Ophthalmology & Visual Sciences
Rony Sayegh, M.D., Pankaj Gupta, M.D., Coauthors
Descemet’s membrane endothelial keratoplasty in eyes with toxic anterior segment syndrome after cataract surgery

11:21  A.J. Patel, M.D.
Resident PGY 3, Ophthalmology & Visual Sciences
Majid Moarefi, M.D., Coauthor
Effect of ocular surface lubrication on keratometry values and IOL selection

11:33  Richard Helms
Medical Student, Case Western Reserve University School of Medicine 2017
Faruk Orge, M.D., Coauthor
Reconstruction of 3D models from 2D ultrasound images

11:45  Break
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<tr>
<td>12:00</td>
<td><strong>Louis Hirsch, M.D.</strong></td>
<td>Resident PGY 4, Ophthalmology &amp; Visual Sciences</td>
<td>Refractive outcomes in combined phaco-trabectome surgery</td>
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<td>12:12</td>
<td><strong>Michael Smit, D.O.</strong></td>
<td>Resident PGY 3, Ophthalmology &amp; Visual Sciences</td>
<td>Does learning curve for IStent placement affect outcomes?</td>
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<tr>
<td>12:24</td>
<td><strong>Emily Ahadizadeh, M.D.</strong></td>
<td>Resident PGY 3, Ophthalmology &amp; Visual Sciences</td>
<td>Suppression of integrin-linked kinase in human trabecular meshwork alters SPARC’s effect on extracellular matrix and intraocular pressure</td>
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<tr>
<td>12:36</td>
<td><strong>Douglas Rhee, M.D.</strong></td>
<td>Professor and Chairman, Ophthalmology &amp; Visual Sciences</td>
<td>Closing Remarks</td>
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