Division Highlights

**Terry L. Schwartz, MD**

Cortical visual impairment (CVI) is the leading cause of bilateral visual impairment in children in United States, and is very common in children with cerebral palsy. Working in collaboration with the department of occupational therapy, the Maxson study’s aim is to compare the efficacy of a novel, in-home telehealth-based intervention approach for children with CVI and their caregivers to standard of care. Additionally, the study will assess the feasibility and acceptability of the in-home telehealth-based intervention approach for children with CVI and their caregivers through the use of interviews and questionnaires. Study visits take place in specialized clinics in Kentucky, rural Ohio and West Virginia.

**Fumika Hamada, PhD**

Dr. Hamada's laboratory studies circadian rhythm of body temperature (body temperature rhythm). Body temperature rhythm is critical for the maintenance of homeostasis functions, such as metabolic energy generation and sleep. Her lab’s progress has been remarkable as their work reveals the hitherto unknown molecular mechanisms underlying body temperature rhythm and has led to the first identification of a molecule that links circadian clock to body temperature rhythm. In the past year, Dr. Hamada has presented her work at Society for Neuroscience 2016, San Diego and UCSD.

**Melissa Rice, OD**

Dr. Melissa Rice, OD, completed two studies on cataract development associated with long-term glucocorticoid therapy in Duchenne muscular dystrophy (DMD) studies. This was a retrospective analysis of DMD patients evaluated in the Comprehensive Neuromuscular Center at Cincinnati Children's between 1/1/2010 and 12/31/2015. Completion of the studies were in collaboration with Drs. Michael Yang, MD; Brenda Wong, MD, MBBS; and Paul Horn, PhD. Dr. Rice presented her smaller cohort at the American Academy of Optometry, and...
the second poster of the entire cohort will be presented by Dr. Wong at the World Muscle Society conference in Saint Malo, France in October.

Dr. Rice is the new medical director of the CLEAR Clinic providing functional vision assessments on children with cortical visual impairment and cerebral palsy. This clinic is in the Aaron W. Perlman Center at Cincinnati Children's.

Michael B. Yang, MD

Dr. Michael Yang, MD, serves as site principal investigator (PI) for the Postnatal Growth and Retinopathy of Prematurity (G-ROP) multicenter study which aims to analyze various risk factors, including postnatal weight gain, for incorporation into a highly accurate risk model that can help predict which premature infants will develop severe ROP, which may allow the elimination of lower risk infants from screening altogether. With Patricia Cobb’s assistance, the enrollment of over 1,500 premature infants from Cincinnati Children's Hospital Medical Center, Good Samaritan Hospital, and the University of Cincinnati Medical Center in the retrospective and prospective portions of the study, makes Cincinnati Children's among the two highest enrolling centers for the study. Published initial result, and secondary analyses are forthcoming, which are likely to impact recommended screening protocols nationwide in the future.

Dr. Yang is also site PI for the Phase 1 Trial of Bevacizumab Treatment for Severe ROP. Published initial results of this study are in JAMA Ophthalmology, and it is this year’s highlighted paper for the Division of Pediatric Ophthalmology.

Division Publications

1. Tang X; Roessingh S; Hayley SE; Chu ML; Tanaka NK; Wolfgang W; Song S; Stanewsky R; Hamada FN. The role of PDF neurons in setting the preferred temperature before dawn in Drosophila. eLife. 2017; 6.


3. Pediatric Eye Disease Investigator Group; Chen AM; Holmes JM; Chandler DL; Patel RA; Gray ME; Erzurum SA; Wallace DK; Kraker RT; Jensen AA. A Randomized Trial Evaluating Short-term Effectiveness of Overminus Lenses in Children 3 to 6 Years of Age with Intermittent Exotropia. Ophthalmology: Journal of The American Academy of Ophthalmology. 2016; 123:2127-2136.


6. Wallace DK; Kraker RT; Freedman SF; Crouch ER; Hutchinson AK; Bhatt AR; Rogers DL; Yang MB; Haider KM; VanderVeen DK. Assessment of Lower Doses of Intravitreous Bevacizumab for Retinopathy of Prematurity A Phase 1 Dosing Study. JAMA Ophthalmology. 2017; 135:654-656.


---

**Grants, Contracts, and Industry Agreements**

**Annual Grant Award Dollars**

<table>
<thead>
<tr>
<th>Investigator</th>
<th>Title</th>
<th>Sponsor</th>
<th>ID</th>
<th>Dates</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eniolami Dosunmu, MD</td>
<td>Save Our Sight Ohio Amblyope Registry</td>
<td>Ohio Department of Health (The Research Inst at Nationwide Hosp)</td>
<td>02530011AR0109</td>
<td>07/01/2008-06/30/2018</td>
<td>$5,000</td>
</tr>
<tr>
<td>Richard Lang, PhD</td>
<td>Regulation of Vascular Development in the Eye by an Opsin 5-dependent Clock</td>
<td>National Institutes of Health</td>
<td>R01 EY027077</td>
<td>09/01/2016-08/31/2021</td>
<td>$494,153</td>
</tr>
<tr>
<td>Richard Lang, PhD</td>
<td>Regulation of Eye Development by an Opsin 5-dopamine Pathway</td>
<td>National Institutes of Health (Emory University)</td>
<td>RO1 EY027711</td>
<td>04/01/2017-03/31/2021</td>
<td>$248,684</td>
</tr>
<tr>
<td>Fumika Namekawa</td>
<td>Molecular and Neural Mechanisms of Temperature Preference Rhythm in Drosophila</td>
<td>National Institutes of Health</td>
<td>R01 GM107582</td>
<td>09/01/2016-08/31/2018</td>
<td>$290,700</td>
</tr>
</tbody>
</table>

**Total Annual Grant Award Dollars** $1,038,537