

Department of Pediatric
Ophthalmology and Strabismus
Research Update
April 1st, 2021

1. PEDIG – Amblyopia Treatment Study 22
 - Obj: Examining simultaneous vs. sequential spectacle correction and patching for the treatment of amblyopia in children aged 3-13
 - PI: Kammi Gunton
 - 6 subjects enrolled
2. Gender Differences in Strabismus Surgery
 - Obj: Survey of AAPOS members to determine if gender or degree of strabismus plays a role in management
 - PI: Kammi Gunton
 - 74 responses received
 - Awaiting data analysis from Dr. Zhang
3. Gender Differences in Perception of Strabismus
 - Obj: Survey of general public to characterize the role gender, type, and severity play in perception of strabismus
 - PI: Kammi Gunton
 - To be started by new research fellow, Tobin Thuma
4. COVID-19 Impact on Community Vision Screening
 - Obj: Phone survey to determine the impact of COVID-19 on community vision screening initiatives
 - PI: Kammi Gunton
 - In progress by MPH student, Jacqui Hamati
5. Intermittent Exotropia: PEDIG vs Newcastle System
 - Obj: Determine the current usage and clinical utility of each tool
 - PI: Kammi Gunton
 - To be started by new research fellow Tobin Thuma
6. Practice Patterns of Pediatric Ophthalmologists during the COVID-19 Pandemic
 - Obj: Characterize practice patterns during the pandemic with a specific focus on PPE usage
 - PI: Kammi Gunton / Leonard Nelson
 - 128 responses received
7. Sensory Function in Autism Spectrum Disorders
 - Obj: Collaboration with Jefferson Occupational Therapy to develop a sensory-adapted clinic designed specifically for children with Autism
 - PI: Jade Minor
 - Completed two clinics (one Spanish-speaking)
8. Epigenetic Control of Posterior Capsular Opacification
 - Obj: Collect capsules from cataract surgeries and identify epigenetic regulations that affect posterior capsule opacification
 - PI: Jade Minor
 - 33 samples provided
9. Examining the Association of Prostaglandin Analogs with Uveitis in Pediatric Patients with Glaucoma
 - Obj: Retrospective review to evaluate whether or not prostaglandin analogs induce new or recurrent uveitis in children
 - PI: Jade Minor
 - 97 patients included in analysis
 - Accepted to present at AAPOS 2021
10. Sensitivity and specificity of convergence insufficiency tests
 - Obj: Establish a standardized diagnosis criterion for convergence insufficiency
 - PI: Judith Lavrich
 - 100 subjects enrolled
11. Incidence of Pediatric Chalazia During the COVID-19 Pandemic
 - Obj: Determine if there has been an increase in visits due to chalazion during the pandemic
 - PI: Maureen Lloyd
 - IRB application under review
12. Transcorneal Electric Stimulation for the Treatment of Amblyopia
 - Obj: Prospective, randomized trial with placebo control to test the efficacy of TES as a treatment for amblyopia
 - PI: Leonard Nelson
 - Nick Bello is working with Dr. Zhang to prepare for data analysis