Clinical Evaluation of the FIN C2 Lens in Slowing Myopia Progression (The Essilor Study)

Investigators: Yi Pang, OD, PhD, Megan Allen, OD, Alaina Bandstra, OD, Denise Skiadopoulos, OD, Elyse Nylin, Study Coordinator

The purpose of this study is to test the effectiveness of the FIN C2 spectacle lens on myopia progression. In this study, performance of the FIN C2 spectacles will be compared to single vision spectacle lenses. Participants will be evaluated over a 3 year period.

A Multi-Center, Double-Masked, Randomized, Placebo-Controlled, Phase 3 Study of the Safety and Efficacy of Atropine 0.1% and 0.01% Ophthalmic Solutions Administered with a Microdose Dispenser for the Reduction of Pediatric Myopia Progression (The CHAPERONE Study)

Investigators: Yi Pang, OD, PhD, Megan Allen, OD, Alaina Bandstra, OD, Denise Skiadopoulos, OD, Elyse Nylin, Study Coordinator

The purpose of this research study is to test the safety and effectiveness of atropine 0.1% and atropine 0.01% eye solutions. These drugs are being tested to see if they slow the worsening of nearsightedness. Each of the study drugs will be given as a spray mist using a special dispenser. The dispenser is designed to give low-volume doses of the study drug. The amount of study drug misted on the eye with this dispenser is much less than the amount contained in an eyedrop. In this study, performance of the study drugs will be compared to a placebo that has no therapeutic effect. The placebo eye solution will also be given as a spray mist using the specialized dispenser. This study will evaluate participants over a 42-month long period.

A Multicenter, Randomized, Double-Masked, Vehicle-Controlled Study to Assess the Safety and Efficacy of SYD-101 Ophthalmic Solution for the Treatment of Myopia in Children (The STAAR Study)

Investigators: Yi Pang, OD, PhD, Megan Allen, OD, Denise Skiadopoulos, OD, Elyse Nylin, Study Coordinator

The purpose of this study is to determine if the study drug, SYD-101 eye drops, is safe and effective in slowing the worsening of myopia, compared with a control treatment. SYD-101 is a new formulation of an old drug, atropine, in very low doses of 0.01% and 0.03% concentrations. These drugs are being tested to see if they slow the worsening of nearsightedness. In this study, performance of the study drugs will be compared to a placebo that has no therapeutic effect. The placebo eye solution will also be given in drop form. This study will evaluate participants over a 48-month long period.

OCT Imaging

Investigators: Michael Chaglasian, OD, Brittney Brady, OD, Katie Foreman, OD, Danielle Piser, OD, Anne Rozwat, OD, Patricia Salazar, OD, Navi Sanghera, OD

This study investigates patients with retinal fluid from a variety of underlying causes, including but not limited: to Age-related Macular Degeneration, Diabetic Macular Edema, Diabetic Retinopathy, Central Serous Retinopathy, vein and artery occlusions. The goal is to further refine the OCT segmentation algorithms that assist doctors in reviewing the OCT images.

OCT Imaging (2)

Investigators: Michael Chaglasian, OD, Erica Ittner, OD, Heather McLeod. OD

This study investigates healthy subjects across a variety of age groups with OCT structural and angiographic imaging. The data will be used in the development of a Reference Data Base for the device.

Perimetry

Investigators: Michael Chaglasian, OD; Anne Rozwat, OD; Brittney Brady, OD; Ashley Speilburg, OD; Patty Salazar, OD

This study investigates a new device that is utilized for testing the visual field. Healthy subjects will be recruited to perform several tests. Data may be incorporated into a Reference Data Base.

Perimetry (2)

Investigators: Michael Chaglasian, OD, Greta Gregg, OD, Harneet Randhawa, OD, Mallory McLaughlin, OD, Stephanie Koss, OD

This study investigates a new, Head Mounted device that is utilized for testing the visual field. Healthy subjects will be recruited to perform several tests on each eye and also complete traditional (bowl) automated static perimetry. An analysis of the results from each device will be performed.

Electrodiagnostics

Investigators: Michael Chaglasian, OD; Mary Flynn-Roberts, OD

This study evaluates a new model of a contact lens used for retinal electrodiagnostics (ERG). Healthy subjects are being recruited to determine the safety and efficacy of the new device.

Effectiveness of Orthokeratology in Myopia Control

Investigators: Jennifer Harthan OD, Yi Pang OD, Ph.D, Valerie Kattouf

The high prevalence of myopia – especially in Asian countries – is well documented, as are the sight-threatening complications of high or degenerative myopia. Specialty rigid lenses have long been shown to lessen this progression in the pediatric population; orthokeratology (ortho-k) lenses are worn at night and change the corneal topography to correct low to moderate amounts of myopia. Most of the studies on orthokeratology were conducted on Asian children. Our project seeks to investigate the efficacy of ortho-k in slowing axial elongation and myopic progression in African American (AA) children compared to that in other races.

Funded by: Wesley Foundation Scholarship

Reducing Adenoviral Patient Infected Days (RAPID)

Investigators: Mae Gordon (PI), Leonard Haertter, Julie Huecker, Mary Migneco OD, Andy Hartwick OD, Ellen Shorter OD, Izzy Goldberg, Spencer Johnson OD, Tammy Than OD, Tom Freddo OD; ICO: Jennifer Harthan OD (PI), Christina MorettinOD The primary aim of this pilot study is to generate data needed to design a definitive trial to compare the safety and efficacy of standard care with artificial tears vs. Betadine 5% (5% povidone-iodine) for the treatment of pink eye due to adenovirus. There is currently no FDA approved treatment for pink eye, a common and highly contagious eye infection caused by adenovirus. Standard care as recommended by the American Academy of Ophthalmology and American Optometric Association is instillation of artificial tears to relieve symptoms and possibly reduce the virus population. Betadine 5% is a commercially available, broad-spectrum antiseptic ophthalmic solution used for over 50 years to prepare the patient's eye and surrounding area for eye surgery. Because Betadine 5% kills bacteria and viruses, it may be useful in treating adenoviral conjunctivitis. Betadine 5% is inexpensive, safe, widely available, and immune to the development of bacterial/viral resistance. Betadine 5% has the potential to significantly impact the clinical management of "pink eye" worldwide.

Funded by: NIH R-34 RAPID Pilot Study

Scleral Lenses in Current Ophthalmic Practice: an Evaluation (SCOPE)

Investigators: Principal Investigator: Muriel Schornack, OD, Consultant: Joe Barr OD, Co-Investigator for communication: Jennifer Harthan, OD, Co-Investigator for study design: Cherie Nau, OD, Co-Investigator for funding: Amy Nau, OD, Co-Investigator for communication: Ellen Shorter, OD

Our initial project was to conduct a survey of domestic and international eye care providers self-identified as fitting scleral lenses to assess current global scleral lens practice patterns.
The second arm of the study is to execute a multi-center prospective study that will define patient centered outcomes, changes in visual acuity and impact of scleral lens wear on anterior segment structures. Primary purpose or goals: To determine if patients using scleral lenses report improved vision-related quality of life, ocular comfort, and refractive quality of life and to determine visual acuity and ocular surface outcomes for patients wearing scleral lenses.

The SCOPE (Scleral Lenses in Current Ophthalmic Practice: an Evaluation) study group was established in 2014 under the auspices of the American Academy of Optometry Fellows Doing Research Special Interest Group. The group comprises national experts in the clinical fitting of scleral lenses who also have academic research interests. Because scleral lenses have only recently become part of mainstream clinical practice, there are significant gaps in our understanding of practice patterns, fitting philosophies and the biological effects of these devices. The goal of our collaboration is to spearhead clinical research in scleral lenses, and to engage clinicians and basic scientists on a global scale. Included in our mission the dissemination of our findings to clinician, industry and patient stakeholders.

The Executive Committee members are: Jennifer Fogt, Jennifer Harthan, Amy Nau, Cherie B. Nau, Muriel Schornack and Ellen Shorter. We engage with a vetted network of other experienced scleral fitters interested in assisting with clinical and research projects on an ad hoc basis.

The following link shows all presentations published by the SCOPE study group:

https://chicago.medicine.uic.edu/departments/academic-departments/ophthalmology-visual-sciences/make-a-gift/scope/

Neurosensory Abnormalities in SymptomAtic Ocular Surface Patients (NASA)

PI ICO: Jennifer Harthan, OD

Recent evidence suggests that up to 10% of patients with ocular surface symptoms can be characterized as having NCP [8]. The TFOS DEWS II characterization of this diagnosis acknowledges the importance of neurosensory abnormalities in ocular surface disease, but the prevalence of the neuropathic component of dry eye remains unknown. VERSION 2.0: March 4, 2021 Page 7 of 41 Corneal nerves have been shown to respond to topical hyperosmolar saline [12-15], and more recent evidence suggests that 5% hyperosmolar saline causes a larger response in patients with NCP [16]. Assessing the pain levels of patients before and after 5% hyperosmolar saline and topical proparacaine, as described previously, will allow for the identification of the neuropathic component of dry eye and its subtypes. A large, multicenter study will provide prevalence statistics and characterize the demographics for each group.

Randomized Controlled Multicenter Clinical Trial of Multi-Periscopic Prism Glasses for Homonymous Hemianopia

Overall PI: Eli Peli

Relying Site Investigator: Tracy Matchinski

We will conduct a multi-center randomized crossover clinical trial to evaluate the efficacy of Multi-Periscopic Prisms (MPP) compared to conventional Fresnel peripheral prisms (FPP) as a mobility device for patients with HH. MPPs provided 45° (100Δ) of lateral field expansion for patients with HH while FPP provide 33° (57Δ). We will evaluate the ability of the prismatic devices to improve detection of moving hazards on the side of the field loss. We hypothesize that performance will be better with the MPPs than the FPPs as evidenced by higher detection rates in the pedestrian detection and collision judgment task in our virtual reality (VR) walking simulator. In particular, we predict that the MPP will enable detection of pedestrians at much higher bearing angles on the side of the field loss and thereby protect against the higher risk for such collisions.

Funded by: NIH

The Effects of Doxycycline on IOP in Patients with Glaucoma and Ocular Surface Disease

Investigators: Dominick Opitz, OD, Kathryn Hohs, OD

The purpose of this study is to investigate the effect of an oral antibiotic, doxycycline, on intraocular pressure (IOP) in glaucoma patients. Doxycycline has anti-inflammatory properties and is currently used to treat ocular surface disease (OSD), though there is some evidence to suggest it also has an IOP lowering effect. In our study, mild to moderate open angle glaucoma patients being treated with ophthalmic hypotensive medication who have at least one sign/symptom of OSD are started on a low daily dose of doxycycline (50 mg once a day) for

three months. Their eye pressure and signs/symptoms of OSD are evaluated over a six-month period.

Macro- and micro-vascular function and related cognitive effects in response to dietary exchanges in pre-diabetes

Investigators: Stephanie Adams, OD PhD, Darren Koenig, OD, Rebecca Zoltoski PhD, Britt Burton-Freeman PhD, Indika Edirisinghe PhD, Rachael Ellison PhD.

This nutritional study examines the effects of an 8 week high avocado and mango content diet on pre-diabetic subjects including their vascular function and cognitive performance. A diet rich in fruits and vegetables provides antioxidants and has long been associated with potential positive effects in the setting of chronic diseases, such as heart disease and diabetes. Antioxidants protect cells from being damaged by substances that are found in our environment. In collaboration with the Illinois Institute of Technology, ICO investigators are conducting a quantitative examination of micro-vascular retinal health using Optical Coherence Tomography Angiography (OCTA). Retinal micro-vascular abnormalities are detected in subjects with diabetes even in the absence of diabetic retinopathy as determined by dilated eye exam. We hypothesize that the OCTA will detect micro-vascular abnormalities in pre-diabetic subjects compared to control subjects, and that these abnormalities may improve with the intervention diet. The results may support the impact of diet on ocular and brain health even in the pre-diabetic stage.

Funded by: Hass Avocado Board, National Mango Board, Research Resource Committee (ICO)

Inter-examiner repeatability of the neurolens® Measurement Device, Von Graefe, and prism corrected cover test

Investigators: Denise Skiadopoulos, OD, Alaina Bandstra, OD, Valerie Kattouf, OD

The neurolens® Measurement Device is a diagnostic device that measures binocular vision objectively. This study is an evaluation of the consistency of the current generation neurolens® Measurement Device with existing clinical binocular vision measurements.