



Media Release: 5th October 2020

Objective Acuity commences clinical study in Texas for its vision screening test in children

Objective Acuity ("OAL") has commenced a clinical study for its vision screening test for young children at The Retina Foundation of the Southwest in Dallas, Texas with Dr. Eileen Birch.

The study will compare the accuracy of identifying vision problems with OAL's vision screening test to existing tests and a full paediatric eye exam in 200 young children.

Prof. Ben Thompson, Objective Acuity CSO commented: "Current objective vision screening tests only assess the physical parameters of the eye, but we need to understand how the brain processes the information from the eye. The difference with Objective Acuity's Test is that we can objectively measure how well a child is seeing."

Traditional, chart-based visual acuity vision screening tests require a subjective response from children to letters or pictures. It can be difficult to achieve an accurate vision assessment in children aged under six if they cannot fully understand the test.

OAL's patented vision screening test uses software that runs on an iPad Pro. The OAL software displays proprietary moving patterns (the "drifting stimulus") on the screen which cause optokinetic nystagmus (OKN), an involuntary reflex movement of the eye. This eye movement is captured through the iPad Pro camera and interpreted by OAL's proprietary algorithms and software to return a pass/fail result for a child's vision screening test in real-time.

The size of the elements in the drifting stimulus meet American Association of Paediatric Ophthalmology & Strabismus (AAPOS) guidelines for visual acuity screening for preschool children.

By using this objective measurement, OAL aims to confidently and accurately assess children for vision problems, significantly reducing the false positive and false negative results that are associated with current testing methods that rely on a child's response.

Adam Podmore, Objective Acuity CEO said: "It is critical to identify vision problems as early as possible, when they are most responsive to treatment. Left untreated, they can lead to lifelong visual impairment, harm the development of hand-eye coordination, restrict academic achievement, affect self-perception, and reduce eye-related quality of life.

"We are very pleased to begin this clinical study at The Retina Foundation for the Southwest. The study will allow us to demonstrate the accuracy of Objective Acuity's vision test compared with existing tests, and a successful study will ultimately lead to better and earlier detection of vision problems in young children."



About Objective Acuity (“OAL”)

OAL is a spin-out from The University of Auckland from over five years of research and is on track to significantly reduce the number of children with undetected vision problems. The aim of OAL’s quick, non-invasive vision screening test is to objectively and accurately identify vision problems in children under six years old. Ultimately, OAL’s goal is to be the gold standard in vision screening, while increasing access for young children to these tests.

OAL's patented test involves a "drifting stimulus" displayed on an iPad Pro. The child’s eyes are covered one eye at a time while the child looks at the screen. The iPad Pro camera measures the movement of each eye, and OAL’s proprietary algorithms use the data from the camera to detect optokinetic nystagmus (OKN) – an involuntary sawtooth motion of the eye that typically occurs as a reflex response to the visual stimuli. The test is 100% objective and the system simply indicates the presence or absence of an OKN response. Intuitively, the presence of OKN indicates that the child can see the drifting stimulus, while the absence of OKN indicates the opposite. OAL has conducted several studies correlating the size of the drifting stimulus with gold standard visual acuity read-outs by eye professionals in the clinic.

About the Retina Foundation of the Southwest

Established in 1975, the Retina Foundation is a world-renowned independent vision research institute with the unwavering mission to prevent vision loss and restore sight through innovative research and treatment. The Retina Foundation develops potential treatments for children and adults with various eye conditions through laboratory science and clinical trials. Our three core research areas are pediatric eye conditions, inherited eye diseases, and age-related macular degeneration. Each year, the Retina Foundation sees more than 2,300 infants, children and adults, referred by their eye care provider, completely free of charge for specialized vision evaluations, genetic testing and counseling, and participation in clinical trials.

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