## EyeDetect Research

The Converus Science Team, led by Dr. John Kircher, has published eight articles or reports about the technology underlying EyeDetect®. All are peer-reviewed. In the research, EyeDetect is referred to as an ocular-motor deception test (ODT).

In the 2016 article from the European Polygraph Journal, the published mean decision accuracy of EyeDetect is 86%. That is comprised of .89 for True Negatives (TN) and .83 for True Positives (TP) and no Inconclusive (INC) results. These data resulted from a compilation of all studies, including the latest, which was a field study.

The "Meta-Analytic Survey of Criterion Accuracy of Validated Polygraph Techniques" (2011) from the American Polygraph Association highlighted data from all validated polygraph techniques. At this time, there is as much peer-reviewed research on EyeDetect as any individual polygraph technique.

The following are the references.

1. Kircher, J. C., and Raskin, D. (2016) Laboratory and Field Research on the Ocular-motor Deception Test. European Polygraph Journal, Volume 10, Number 4 (38). (Note: this article was not peer-reviewed.)

2. Cook, A. E., Hacker, D. J., Webb, A. K., Osher, D., Kristjansson, S., Woltz, D. J., & Kircher, J. C. (2012). Lyin' Eyes: Ocular-motor Measures of Reading Reveal Deception. Journal of Experimental Psychology: Applied, 18(3), 301-313.

3. Patnaik, P., Woltz, D., Hacker, D., Cooke, A., Francke-Ramm, M., Webb, A., and Kircher, J. (2016) Generalizability of an Ocular-Motor Test for Deception to a Mexican Population. International Journal of Applied Psychology 2016, 6(1): 1-9.

4. Hacker, D. J., Kuhlman, B., & Kircher, J. C., Cook, A.E., and Woltz, D.J. (2014). Detecting deception using ocular metrics during reading. In D. C. Raskin, C. R. Honts, & J. C. Kircher (Eds.), Credibility assessment: Scientific research and applications. Elsevier, pp 159-216.

5. Kuhlman, B. B., Webb, A. K., Patnaik, P., Cook, A. E., Woltz, D. J., Hacker, D. J., & Kircher, J. C. (2011, September). Evoked Pupil Responses Habituate During an Oculomotor Test for Deception. Poster presented at the Society for Psychophysiological Research convention, Boston, MA. (abstract)

6. Patnaik, P., Woltz, D.J., Cook, A.E., Webb, A.K., Raskin, D.C., and Kircher, J.C. (2015, March). Ocular-motor Detection of Deception in Laboratory Settings. Meeting of the American Psychology and Law Society, San Diego, CA.

7. Webb, A. K., Hacker, D.J., Osher, D., Cook, A.E., Woltz, D. J., Kristjansson, S. K., and Kircher, J. C., (2009). Eye movements and pupil size reveal deception in computer administered questionnaires. In D. D. Schmorrow, I. V. Estabrooke, & M. Grootjen (Eds.), Foundations of Augmented Cognition. Neuroergonomics and Operational Neuroscience (553-562). Berlin/Heidelberg: Springer-Verlag.

8. Webb, A. K, Honts, C. R., Kircher, J. C., Bernhardt, P.C., and Cook, A. E. (2009). Effectiveness of pupil diameter in a probable-lie comparison question test for deception. Legal and Criminal Psychology, 14(2), 279-292.