New Software for Improving the Analysis of OCT Images

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PINE BROOK, N.J., Dec. 20, 2010 /PRNewswire/ -- Diopsys, Inc. today announced the development of software that uses existing Spectral Domain Optical Coherence Tomography (SD-OCT) images to assist ophthalmologists and optometrists in diagnosing retinal and optic nerve disease such as glaucoma.

SD-OCT is an imaging technique used to provide ophthalmologists and optometrists thickness measurements of the Retinal Nerve Fiber Layer (RNFL) which can help them diagnose diseases like glaucoma. However, this thickness can be unduly influenced by retinal vessels and other factors within the RNFL.

The new software (Diopsys® CORDA™) works by analyzing the internal structure of the RNFL through discrimination of its different components. As a result, ophthalmologists and optometrists get a more accurate reading of the RNFL health from their OCT images, and can more precisely diagnose and track diseases. This software will also help detect vision disorders earlier so that patients can begin treatment sooner.

According to literature, current thickness algorithms in OCT technology may overestimate sectors with focal defects in the RNFL causing this layer to look more substantial. Using the new software, ophthalmologists and optometrists will be able to hone in on just the structure that is damaged by glaucoma. "The Diopsys® CORDA™ software was developed not only for diagnosing glaucoma and its progression, but also for the evaluation of other ophthalmic conditions like ischemic and inflammatory optic neuropathies," says Alberto Gonzalez Garcia, M.D., neuro-ophthalmologist and Research Director at Diopsys, Inc.

Because Diopsys® CORDA™ works with all existing SD-OCT images including those from Carl Zeiss, Meditec, Heidelberg Engineering, Optovue and Topcon devices, the accuracy and clinical value of these OCT machines are improved without having to purchase new hardware.

About Diopsys</
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