THE UNIVERSITY of TEXAS
HEALTH SCIENCE CENTER AT HOUSTON
Office of Technology Management

DEVICE FOR ERG (ELECTRO-RETINOGRAM) SPECTRAL PERIMETRY

Market: The National Eye Institute estimates that over 43 million people in the United States will suffer from eye disease by 2020. This substantial increase of the prevalence of eye disease can be attributed to the aging population. Products enabling earlier diagnosis and better treatment options will likely have a strong market presence.

Competitors and Current Problems: A number of methods and devices are known for examining the retina of a human eye. Often these methods and devices involve imaging devices. The above described systems, while useful, do not permit a physician to examine smaller areas within specific retinal locations and to use Maxwellian view optics to stimulate the small areas at high radiance levels in order to obtain large ERG signal amplitudes for analyses. Further, these systems do not permit measurement of spectral sensitivity at different positions on and at different afferent stages of the retina.

The Technology: Dr. Harry Sperling, a faculty member at the University of Texas Health Science Center at Houston, has developed a diagnostic device for eye examination. More specifically, the device can be used to measure the electrical response of the retina to lights of different colors and spatial frequencies at specified and controllable retinal loci with sufficiently small yet intense stimuli to provide a fine grain map of localized changes in function. This will be a useful, general purpose, diagnostic device for early detection and differential diagnosis of various disorders such as retinitis pigmentosa, the cone-rod dystrophies, glaucoma, diabetic retinopathy, retinal detachment and optic atrophy.

NON-CONFIDENTIAL TECHNOLOGY DESCRIPTION

The preceding is intended to be a non-confidential summary of a novel technology created at the University of Texas Health Science center at Houston (UTHSCH), for which the University has obtained patent protection.

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Inventors: Sperling
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License Available: world-wide; non-exclusive or exclusive

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