AEVR Educates Capitol Hill on Visual Imaging Technologies Changing the Diagnosis and Treatment of Blinding Eye Disease

At an April 17 AEVR Congressional Briefing entitled Vision for the Future: Eye Imaging to Save and Restore Sight, Dr. Stephen Ryan described how optical coherence tomography (OCT) is changing the way vision disorders are diagnosed and treated. The latest OCT technology, which reveals the retina three-dimensionally and in color through sophisticated computer software, can be used to identify early changes in potentially blinding diseases and to subsequently monitor the effectiveness of treatments emerging from research.

“This new OCT technology will transform and improve the way we diagnose AMD, diabetic retinopathy, and glaucoma. The major asset is that it creates a quantitative measurement of retinal changes which, when coupled with a functional measurement of vision, can maximize the use of evidence-based medicine in eye care.”

Since retinal changes often precede improvements or losses in vision detected functionally by the eye chart, he emphasized that treatments for individual patients can begin earlier, before permanent retinal damage sets in. He added that the quantitative basis of OCT will impact clinical trials of new treatments, since this research will require fewer patients, take less time, and be far less costly. “This OCT technology facilitates in eye care the goal described by NIH Director Dr. Elias Zerhouni for research and clinical practice in the 21st century—that which is predictive, preemptive/preventive, personalized, and participatory.”

Dr. Ryan stated that it is hard to overemphasize the value of this new technology.

“As of June 2006 and for the first time in history, we have an FDA-approved ophthalmic drug that improves vision in people with AMD. OCT can track changes that will help us make the best diagnoses for our patients and tell us when to initiate or follow-up with injections of the drug,” said Dr. Ryan, who predicted that the same will apply to glaucoma and diabetic retinopathy within the next five years. “The level of federal investment in medical research to deal with the growing and costly public health problem of eye disease and vision impairment will play a large part in determining the progress in implementing treatments for blinding eye diseases.”

Dr. Ryan Challenges Vision Community to Quantify the Value of Vision Research

In April 18 keynote comments at a symposium sponsored by Prevent Blindness America to release its study entitled The Economic Impact of Vision Problems: The Toll of Major Adult Eye Disorders, Visual Impairment, and Blindness on the U.S. Economy, Dr. Ryan challenged the vision community to build upon the study to develop cost-effectiveness data on the value of federally funded vision research conducted by the NEI, Centers for Disease Control and Prevention (CDC), and other government agencies. ARVO is taking the lead by sponsoring a mid-September initial meeting on the methodology involved in such a study, in which NAEVR will participate.

Symposium speaker Paul Lee, M.D. (Duke University) is joined by ARVO Executive Director Joanne Angle and American Academy of Ophthalmology Executive Vice President H. Dunbar Hoskins, Jr., M.D.