



NAEVR

National Alliance For
Eye And Vision Research

Serving as Friends of the National Eye Institute

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NAEVR Releases ***Silver Book: Vision Loss®*** at Congressional Briefing Highlighting the Impact of Age-Related Eye Diseases

On September 25, the National Alliance for Eye and Vision Research (NAEVR), in partnership with the Alliance for Aging Research, hosted a Congressional briefing to release a new volume of *The Silver Book®: Chronic Disease and Medical Innovation in an Aging Nation* dedicated to age-related eye disease. Entitled *The Silver Book®: Vision Loss*, it presents the latest data on the significant health and economic burden of age-related eye diseases and demonstrates the potential for innovative treatments emerging from research. It is available on-line at www.silverbook.org/visionloss.

The release of *The Silver Book®: Vision Loss* coincided with Worldwide Age-Related Macular Degeneration (AMD) Awareness Week 2007. Each year, an estimated 200,000 Americans develop AMD, the leading cause of vision loss in which abnormal blood vessels or protein deposits cause progressive damage to the macula, the central part of the retina responsible for providing sharp central vision.

Moderators for the briefing were Daniel

Dr. Michael Gorin

Dr. Gorin discussed how genetics research, especially NIH's Human Genome Project, has dramatically improved understanding of the genetic basis of AMD and other vision disorders, and how additional research can help with remaining challenges. Gorin discussed several advances in AMD that resulted from innovative research, including the use of anti-VEGF (Vegetative Endothelial Growth Factor) compounds to halt abnormal blood vessel growth in the retina. As Gorin noted, anti-VEGF

Perry, Executive Director of the Alliance for Aging Research, and James Jorkasky, NAEVR Executive Director. Featured speakers were Michael Gorin, M.D., Ph.D. (Jules Stein Eye Institute, University of California Los Angeles), David Rein, Ph.D, M.P.A. (Research Triangle Institute [RTI] International), and Hyman Shapiro, J.D., an attorney and AMD patient. The briefing was co-sponsored by the Congressional Vision Caucus, Prevent Blindness America, and AMD Alliance International.

Perry conveyed the impact that the baby boom generation will have on the prevalence of age-related diseases and the economy. It is "exactly three years, three months, and five days until...the day the first wave of the 78 million post-war Baby Boomers celebrate their 65th birthday," he said. He added that, each day for 18 years afterwards, about 10,000 Americans will turn 65, leading to a huge impact on the Medicare budget as additional funds are needed to treat age-related diseases, including those in the eye.

According to NAEVR's Jorkasky, the data

for treating AMD was a direct outcome of earlier NIH-funded research by Harvard's Dr. Judah Folkman into angiogenesis—the proliferation of new blood vessels—in cancer tumors. The first generation of Food and Drug Administration (FDA)-approved anti-VEGF ophthalmic drugs are turning out to be so effective that they are even reversing vision loss in some patients. Gorin also described new, non-invasive, high-resolution imaging devices that provide eye care professionals and

in *The Silver Book®: Vision Loss* support the importance of research conducted by the National Eye Institute (NEI) within the National Institutes of Health (NIH) for the estimated 38 million Americans over age 40 experiencing blindness or an age-related eye disease, such as AMD, glaucoma, diabetic retinopathy, and cataract. This number is expected to grow to more than 50 million Americans by year 2020.

The release of *The Silver Book®: Vision Loss* coincided with Worldwide Age-Related Macular Degeneration (AMD) Awareness Week 2007.



Left to right: Alliance for Aging Research's Dan Perry, research speaker Dr. Michael Gorin, and NAEVR's James Jorkasky

researchers with extraordinary images of the retina for making accurate diagnoses of diseases and for tracking the effectiveness of treatments.



Dr. David Rein

Dr. Rein, a public health research economist and leader in quantifying costs associated with age-related eye diseases, described how the \$51.4 billion spent annually in the U.S. on vision disorders in Americans age 40 and older exceeds the amount spent on several other common diseases such as stroke, breast cancer, and HIV. The NEI, which estimates the annual total cost burden for vision impairment and eye disease at \$68 billion, also estimates that by 2020 the number of cases of age-related eye diseases will increase by 47 percent for cataracts and by 76 percent for diabetic retinopathy.

“It is often depression rather than the vision loss that establishes a patient’s level of function,” said Gorin.

Hyman Shapiro

In 1988 at the age of 61, Mr. Shapiro was diagnosed with AMD. He described what it is like to live with the disease and the consequences of older treatments that likely saved him from total blindness yet left his vision compromised. Despite having only limited vision in one eye, Shapiro continues to be an active member in his suburban DC community where he was recently invited to serve on the Montgomery County (Maryland) Board of Property Review. He represents the growing number of people over 65 who are working and actively contributing to their communities despite physical limitations.

Mr. Shapiro is enrolled in the Age-Related Eye Disease Study (AREDS), an NEI-funded study that demonstrated that high levels of dietary anti-oxidants and

Rein stated that, although federally-funded research programs—including those at NEI, the Department of Veterans Affairs (VA), and the Centers for Disease Control and Prevention (CDC)—have resulted in technological advances that increase patient welfare, these technologies are also associated with substantial costs that must be weighed with the concomitant benefit derived, the value of which could be equal, if not more significant. Additional research is needed to demonstrate which interventions provide the greatest impact per health care dollar spent.

zinc can reduce the risk of progression to advanced AMD by a factor of 25 percent. He is hopeful that the dietary supplements, coupled with anti-VEGF ophthalmic drug treatment, can maintain his remaining vision.

Although Mr. Shapiro has trouble performing simple tasks like reading a price tag or putting toothpaste on the toothbrush, he says he “concentrates on what I can do, not on what I cannot do.” He believes that the same attitudes among policymakers and scientists that led to curing certain cancers, conquering polio, and managing AIDS will lead to saving and restoring vision and maintaining the quality of life in aging Americans.

Mr. Shapiro is one of the lucky ones who



Dr. David Rein addresses Congressional staff



Left to right: Joanne Olson (Association for Research in Vision and Ophthalmology) and patient advocate Hyman Shapiro

has remained positive and productive despite AMD. Dr. Gorin pointed out that over 30 percent of people with AMD suffer from clinical depression. “It is often the depression rather than the vision loss that establishes a patient’s level of function,” said Gorin.

About NAEVR

The National Alliance for Eye and Vision Research (NAEVR) is a non-profit advocacy coalition comprised of 55 professional, consumer, and industry organizations involved in eye and vision research. NAEVR’s goal is to achieve the best vision for all Americans through

advocacy and public education for eye and vision research sponsored by the National Institutes of Health (NIH), the National Eye Institute (NEI), and other federal research entities. Visit NAEVR’s Web site at www.eyeresearch.org

