



**NATIONAL ALLIANCE FOR EYE AND VISION RESEARCH (NAEVR)
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[About NAEVR and List of Members on Last Page]**

**NAEVR WRITTEN TESTIMONY IN SUPPORT OF INCREASED
FUNDING FOR THE NATIONAL INSTITUTES OF HEALTH (NIH)
AND THE NATIONAL EYE INSTITUTE (NEI)**

**LABOR, HEALTH AND HUMAN SERVICES, EDUCATION AND RELATED
AGENCIES SUBCOMMITTEE OF THE U.S. HOUSE OF REPRESENTATIVES
COMMITTEE ON APPROPRIATIONS**

March 15, 2007

EXECUTIVE SUMMARY

NAEVR requests Fiscal Year (FY) 2008 NIH funding at \$31 billion, or a 6.7 percent increase over FY2007, to balance the biomedical inflation rate of 3.7 percent and to maintain the momentum of discovery. Although NAEVR commends the leadership's actions in the 110th Congress to increase FY2007 NIH funding by \$620 million, this was just an initial step in restoring the NIH's purchasing power, which has declined by more than 13 percent since FY2005. That power would be eroded even further under the President's proposed FY2008 budget. NAEVR commends NIH Director Dr. Zerhouni who has articulately described his agenda to foster collaborative, cost-effective research and to transform the healthcare research and delivery paradigm into one that is predictive, preemptive, preventive, and personalized. NIH is the world's premier institution and must be adequately funded so that its research can reduce healthcare costs, increase productivity, improve quality of life, and ensure our nation's global competitiveness.

NAEVR requests that Congress make vision health a top priority by funding the NEI at \$711 million in FY2008, or a 6.7 percent increase over FY2007. This level is necessary to fully advance the breakthroughs resulting from NEI's basic and clinical research that are resulting in treatments and therapies to prevent eye disease and restore vision. Vision impairment/eye disease is a major public health problem that is growing and which disproportionately affects the aging and minority populations, costing the United States \$68 billion annually in direct and societal costs, let alone reduced independence and quality of life. Adequately funding the NEI is a cost-effective investment in our nation's health, as it can delay, save, and prevent expenditures, especially to the Medicare and Medicaid programs.

FUNDING THE NEI AT \$711 MILLION IN FY2008 ENABLES IT TO LEAD TRANS-INSTITUTE VISION RESEARCH THAT MEETS NIH'S GOAL OF PREEMPTIVE, PREDICTIVE, PREVENTIVE, AND PERSONALIZED HEALTHCARE

Funding NEI at \$711 million in FY2008 represents the eye and vision research community's judgment as that necessary to fully advance breakthroughs resulting from NEI's basic and clinical research that are resulting in treatments and therapies to prevent eye disease and restore vision.

NEI research responds to the NIH's overall major health challenges, as set forth by Dr. Zerhouni: an aging population; health disparities; the shift from acute to chronic diseases; and the co-morbid conditions associated with chronic diseases (e.g., diabetic retinopathy as a result of the epidemic of diabetes). In describing the predictive, preemptive, preventive, and personalized approach to healthcare research, Dr. Zerhouni has frequently cited NEI-funded research as tangible examples of the value of our nation's past and future investment in the NIH. These include:

- Dr. Zerhouni has cited as a breakthrough the collaborative Human Genome Project/NEI-funded discovery of gene variants strongly associated with an individual's risk of developing age-related macular degeneration (AMD), the leading cause of blindness (affecting more than 10 million Americans) which increasingly robs seniors of their independence and quality of life. These variants, which are responsible for about 60 percent of the cases of AMD, are associated with the body's inflammatory response and may relate to other inflammation-associated diseases, such as Alzheimer's and Parkinson's disease. As NEI Director Dr. Paul Sieving has stated, "One of the important stories during the next decade will be how Alzheimer's disease and macular degeneration fit together."
- Dr. Zerhouni has cited the NEI-funded Age-Related Eye Disease Study (AREDS) as a cost-effective preventive measure. In 2006, NEI began the second phase of the AREDS study, which will follow up on initial study findings that high levels of dietary zinc and antioxidant vitamins (Vitamins C, E and beta-carotene) are effective in reducing vision loss in people at high risk for developing advanced AMD—by a magnitude of 25 percent.
- NEI has funded research, along with the National Cancer Institute (NCI) and the National Heart, Lung, and Blood Institute (NHLBI), into factors that promote new blood vessel growth (such as Vascular Endothelial Growth Factor, or VEGF). This has resulted in anti-VEGF factors that have been translated into the first generation of ophthalmic drugs approved by the Food and Drug Administration (FDA) to inhibit abnormal blood vessel growth in "wet" AMD, thereby stabilizing vision loss. Current research is focused on using treatments singly and in combination to improve vision or prevent further vision loss due to AMD. As part of its Diabetic Retinopathy Clinical Research Network, NEI is also evaluating these drugs for treatment of macular edema associated with diabetic retinopathy.

Although these breakthroughs came directly from the past doubling of the NIH budget, their long-term potential to preempt, predict, prevent, and treat disease relies on adequately funding NEI's follow-up research. Unless its funding is increased, the NEI's ability to capitalize on the findings cited above will be seriously jeopardized, resulting in "missed opportunities" that could include:

- Following up on the AMD gene discovery by developing diagnostics for early detection and promising therapies, as well as to further study the impact of the body's inflammatory response on other degenerative eye diseases.
- Fully investigating the impact of additional, cost-effective dietary supplements in the AREDS study, singly and in combination, to determine if they can demonstrate enhanced protective effects against progression to advanced AMD.
- Following up with further clinical trials on patients with the “wet” form of AMD, as well as patients with diabetic retinopathy, using the new anti-angiogenic ophthalmic drugs singly and in combination to halt disease progression and potentially restore vision.

In addition, NEI research into other significant eye disease programs, such as glaucoma and cataract, will be threatened, along with quality of life research programs into low vision and chronic dry eye. This comes at a time when the US Census and NEI-funded epidemiological research (also threatened without adequate funding) both cite significant demographic trends that will increase the public health problem of vision impairment and eye disease.

VISION IMPAIRMENT/EYE DISEASE IS A MAJOR PUBLIC HEALTH PROBLEM THAT IS INCREASING HEALTHCARE COSTS, REDUCING PRODUCTIVITY, AND DIMINISHING QUALITY OF LIFE

The 2000 US Census reported that more than 119 million people in the United States were age 40 or older, which is the population most at risk for an age-related eye disease. The NEI estimates that, currently, more than 38 million Americans age 40 and older experience blindness, low vision or an age-related eye disease such as AMD, glaucoma, diabetic retinopathy, or cataracts. This is expected to grow to more than 50 million Americans by year 2020. The economic and societal impact of eye disease is increasing not only due to the aging population, but to its disproportionate incidence in minority populations and as a co-morbid condition of other chronic disease, such as diabetes.

Although the NEI estimates that the current annual cost of vision impairment and eye disease to the US is \$68 billion, this number does not fully quantify the impact of direct healthcare costs, lost productivity, reduced independence, diminished quality of life, increased depression, and accelerated mortality. The continuum of vision loss presents a major public health problem and financial challenge to both the public and private sectors.

In public opinion polls over the past 40 years, Americans have consistently identified fear of vision loss as second only to fear of cancer. As a result, federal funding for the NEI is a vital investment in the health, and vision health, of our nation, especially our seniors, as the treatments and therapies emerging from research can preserve and restore vision. Adequately funding the NEI can delay, save, and prevent expenditures, especially those associated with the Medicare and Medicaid programs, and is, therefore, a cost-effective investment.

NAEVR urges FY2008 NIH and NEI funding at \$31 billion and \$711 million, respectively.

ABOUT NAEVR

Founded in 1997, NAEVR is a non-profit advocacy organization comprised of a coalition of 55 professional, consumer, and industry organizations (see list below) involved in eye and vision research. NAEVR's goal is to achieve the best vision for all Americans through advocacy and public education about the value and cost-effectiveness of eye and vision research sponsored by the NIH, NEI, and other federal research entities.

Advanced Medical Optics	Lighthouse International
Alcon Laboratories, Inc.	Lions Clubs Intl. Foundation
Allergan, Inc.	Macular Degeneration Partnership
AMD Alliance International	Natl. Vision Rehabilitation Assoc.
American Academy of Ophthalmology	Novartis
American Academy of Optometry	Ocular Microbiology and
American Association for Pediatric Ophthalmology and Strabismus	Immunology Group
American Assoc. of Ophthalmic Pathologists	Pfizer Inc
American Diabetes Association	Prevent Blindness America
American Glaucoma Society	Prevention of Blindness Society of Metropolitan Washington
American Ophthalmological Society	Research to Prevent Blindness
American Optometric Association	Santen, Inc.
American Society of Cataract and Refractive Surgery	Second Sight
American Society of Retina Specialists	Sjogren's Syndrome Foundation
American Uveitis Society	Tear Film and Ocular Surface Society
Association for Research in Vision and Ophthalmology	The Cornea Society
Association of Schools and Colleges of Optometry	The Glaucoma Foundation
Association of University Professors of Ophthalmology	The Macula Society
Association of Vision Science Librarians	The Retina Society
Bausch & Lomb	Vision Council of America
Blinded Veterans Association	Vision Share, The Consortium of Eye Banks
Discovery Eye Foundation	Vistakon, Johnson & Johnson
Eli Lilly & Company	Vision Care, Inc.
Eye Bank Association of America	Women in Ophthalmology
EyeSight Foundation of Alabama	Women's Eye Health Task Force
Fight for Sight	
Foundation Fighting Blindness	
Genentech, Inc.	
Glaucoma Research Foundation	
Inspire Pharmaceuticals, Inc.	
ISTA Pharmaceuticals, Inc.	
Juvenile Diabetes Research Foundation Intl.	