



**NATIONAL ALLIANCE FOR EYE AND VISION RESEARCH (NAEVR)
12300 Twinbrook Parkway, Suite 250, Rockville, Maryland 20852**

**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. SENATE
COMMITTEE ON APPROPRIATIONS**

**May 19, 2006
192 DIRKSEN SENATE OFFICE BUILDING**

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EXECUTIVE SUMMARY

NAEVR requests Fiscal Year (FY) 2007 NIH Funding at \$29.8 billion, or a 5 percent increase over FY2006, to balance the biomedical inflation rate of 3.8 percent and to maintain the momentum of discovery. Without this increase, FY2007 will be the fourth year in which the NIH would not keep pace with inflation. NAEVR commends Dr. Zerhouni for fostering collaborative, cost-effective research and for transforming the approach to healthcare research and delivery so that it is more predictive, preemptive and personalized. NIH is recognized as the world's premier research institution, and it must be adequately funded so that its research can continue to 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 FY2007, or a 6 percent increase over FY2006. 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 and eye disease is a major public health problem that is growing and which disproportionately affects the aging and minority populations. The annual economic and societal cost of vision impairment and eye disease of \$68 billion in the United States is significant and growing. 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.

NAEVR REQUESTS A FISCAL YEAR 2007 NIH FUNDING INCREASE OF 5 PERCENT, FOR A TOTAL OF \$29.8 BILLION, TO BALANCE INFLATION AND MAINTAIN THE MOMENTUM OF DISCOVERY FUELED BY THE PAST INVESTMENT IN NIH

NAEVR joins the community of support for medical research in requesting that the NIH is funded at \$29.8 billion in Fiscal Year (FY) 2007, or a 5 percent increase (\$1.4 billion) over the FY2006 level, rather than remain flat-funded, as proposed in the President's FY2007 budget.

This increased funding level is the minimum necessary to balance the growth of the Biomedical Research and Development Price Index (BRDPI), pegged at 3.8 percent for FY2007, and to maintain the momentum of discovery that has accelerated through past investment in the NIH, specifically the bipartisan-supported doubling of the NIH budget from FY1998-2003. Since the FY2007 NIH funding level in the President's budget represents the fourth year in which the NIH would not keep pace with inflation (in fact, FY2006 was the first time in thirty years that the NIH budget had been cut), the tremendous gains realized from the past investment in the NIH will be seriously jeopardized, resulting in "missed opportunities." The NIH, which is recognized as the world's premier research institution, has made significant contributions that have served to reduce healthcare costs, increase productivity, improve quality of life and ensure global competitiveness.

NAEVR commends NIH Director Dr. Elias Zerhouni, who has led NIH research into more accurate diagnosis of disease; more comprehensive, cost-effective prevention strategies; and more targeted, effective treatment options, accelerating the transformation of acute and chronic diseases into manageable diseases. Through the *NIH Roadmap for Medical Research* and formation of the NIH Office of Program Analysis and Strategic Initiatives (OPASI), Dr. Zerhouni has eliminated roadblocks that prevent collaborative research, resulting in cost-effective use of NIH-directed dollars. And in defining a new paradigm for the 21st century, Dr. Zerhouni is working closely with other healthcare leaders to transform the approach to healthcare research and delivery so that it is more predictive, preemptive and personalized. As NAEVR emphasizes in the remainder of these comments, the National Eye Institute (NEI) is leading with tangible examples in that regard with respect to our nation's commitment to eye and vision research.

NAEVR requests that Congress approve an FY2007 NIH budget of \$29.8 billion as NIH research:

- Provides the basis for medical advances that hold the key to lowering healthcare costs;
- Discovers new ways to prevent, treat and cure disease, leading to longer and more productive lives; and
- Fuels innovation that generates local economic growth as well as preserves our nation's role as a world leader in the biomedical industries.

NAEVR REQUESTS A FISCAL YEAR 2007 NEI FUNDING INCREASE OF 6 PERCENT, FOR A TOTAL OF \$711 MILLION, TO PREVENT "MISSED OPPORTUNITIES" IN RESEARCH TO SAVE AND RESTORE VISION

NAEVR requests that Congress fund the NEI at \$711 million in FY2007, or a 6 percent increase over FY2006, as opposed to the 0.8 percent cut to the NEI budget proposed in the President's budget. This level represents the eye and vision research community's judgment as that 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.

NAEVR requests that Congress make NEI a top priority and fund it with an FY2007 increase greater than that for NIH overall, as our nation faces an annual \$68 billion cost for the major public health problem of vision impairment and eye disease, which is growing due to the aging of the population, its disproportionate incidence in fast-growing minority populations and as a co-morbid condition of other chronic diseases, such as diabetes.

In describing the predictive, preemptive and personalized approach to healthcare research, Dr. Zerhouni has frequently cited NEI-sponsored research as tangible examples of the value of our nation's past and future investment in the NIH. These include:

- Dr. Zerhouni has heralded as a breakthrough the NEI-funded discovery of a gene strongly associated with a person's risk of developing age-related macular degeneration (AMD), the leading cause of blindness which increasingly robs seniors of their independence and quality of life. Variants of the Complement Factor H gene are likely responsible for about 50% of the cases of AMD. The gene is associated with the body's inflammatory response, and variants of the gene may be involved in 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 heralded the NEI-sponsored Age-Related Eye Disease Study (AREDS) as a cost-effective preventive measure. The AREDS study demonstrated 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 of developing advanced AMD. The NEI currently plans additional clinical trials on other nutritional supplements.
- 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. And, as part of its Diabetic Retinopathy Clinical Research Network, NEI is evaluating these drugs for treatment of macular edema associated with diabetic retinopathy.

Despite the "breakthrough" status of research emerging from the NEI, the President's FY2007 budget proposal to cut NEI funding by \$5.3 million will have a significant impact, especially on a smaller institute such as the NEI. Unless its funding is increased, the NEI's ability to follow up on the breakthrough findings cited above will be seriously jeopardized, resulting in "missed opportunities" that 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.
- Following up on the initial AREDS study with additional dietary supplements, singly and in combination, to determine if they can demonstrate or enhance their 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 generation of anti-angiogenic ophthalmic drugs singly and in combination to halt disease progression/improve vision.

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, chronic dry eye and safe senior driving. This comes at a time when the US Census and NEI-funded epidemiological research both cite significant demographic trends that will increase the public health problem of vision impairment and eye disease.

Most importantly, the proposed cuts to NEI funding will have a significant and detrimental effect on the vision research community. Not only do we risk losing established investigators to other areas of research that are adequately funded, we may also fail to attract young investigators to the field to keep the research pipeline strong. NAEVR is especially concerned about the impact on clinician scientists who have been so instrumental in the translation of NEI's basic research into clinical applications that directly benefit patients.

VISION IMPAIRMENT/EYE DISEASE IS A MAJOR PUBLIC HEALTH PROBLEM DISPROPORTIONATELY AFFECTING AGING AND MINORITY POPULATIONS

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 diseases.

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.

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	Immunology Group
Ophthalmology and Strabismus	(OSI) Eyetech, Inc.
American Assoc. of Ophthalmic Pathologists	Pfizer Inc
American Diabetes Association	Prevent Blindness America
American Glaucoma Society	Prevention of Blindness Society
American Ophthalmological Society	of Metropolitan Washington
American Optometric Association	PXE International
American Society of Cataract and	Research to Prevent Blindness
Refractive Surgery	Santen, Inc.
American Society of Retina Specialists	Second Sight
American Uveitis Society	Sjogren's Syndrome Foundation
Association for Research in Vision	Tear Film and Ocular Surface
and Ophthalmology	Society
Association of Schools and Colleges of Optometry	The Cornea Society
Association of University Professors	The Glaucoma Foundation
of Ophthalmology	The Macula Society
Bausch & Lomb	The Retina Society
Discovery Eye Foundation	Vision Share, The Consortium
Eli Lilly & Company	of Eye Banks
Eye Bank Association of America	Vistakon, Johnson & Johnson
EyeSight Foundation of Alabama	Vision Care, Inc.
Fight for Sight	Women in Ophthalmology
Foundation Fighting Blindness	Women's Eye Health Task Force
Genentech, Inc.	
GenVec, Inc.	
Glaucoma Research Foundation	
Inspire Pharmaceuticals, Inc.	
ISTA Pharmaceuticals, Inc.	
Juvenile Diabetes Research Foundation Intl.	