



NAEVR

National Alliance For
Eye And Vision Research

Serving as Friends of the National Eye Institute

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**WRITTEN TESTIMONY IN SUPPORT OF INCREASED FISCAL YEAR (FY) 2012
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 12, 2011**

EXECUTIVE SUMMARY

NAEVR requests Fiscal Year (FY) 2012 NIH funding at \$35 billion, which reflects a \$3 billion increase over President Obama's proposed funding level of \$32 billion. Funding at \$35 billion, which reflects NIH net funding levels in both FY2009 and FY2010, ensures it can maintain the number of multi-year investigator-initiated research grants, the cornerstone of our nation's biomedical research enterprise. The vision community commends Congress for \$10.4 billion in NIH funding in the American Recovery and Reinvestment Act (ARRA), as well as FY2009 and FY2010 funding increases that enabled NIH to keep pace with biomedical inflation after six previous years of flat funding that resulted in a 14 percent loss of purchasing power. FY2012 NIH funding at \$35 billion enables it to meet the expanded capacity for research— as demonstrated by the significant number of high-quality grant applications submitted in response to ARRA opportunities—and to adequately address unmet need, especially for programs of special promise that could reap substantial downstream benefits, as identified by NIH Director Francis Collins, M.D., Ph.D. in his top five priorities. As President Obama has stated repeatedly, most recently during the 2011 State of the Union Address, biomedical research has the potential to reduce healthcare costs, increase productivity, and ensure the global competitiveness of the United States.

NAEVR requests that Congress increase NEI funding above the 1.8 percent proposed by the President—even if it does not fund NIH at \$35 billion—since the proposed increase does not match biomedical inflation.

In 2009, Congress spoke volumes in passing S. Res 209 and H. Res. 366, which designated 2010-2020 as *The Decade of Vision*, in which the majority of 78 million Baby Boomers will turn 65 years of age and face greatest risk of aging eye disease. This is not the time for a less-than-inflationary increase that nets a loss in the NEI's purchasing power, which eroded by 18 percent in the FY2003-FY2008 timeframe. NEI-funded research is resulting in treatments and therapies that save vision and restore sight, which can reduce healthcare costs, maintain productivity, ensure independence, and enhance quality of life.

THE BIPARTISAN NIH SUPPORT DISPLAYED AT THE SUBCOMMITTEE'S MARCH 30 HEARING WITH SECRETARY SEBELIUS DEMONSTRATES THE VALUE OF INCREASED AND TIMELY APPROPRIATIONS

NAEVR was pleased to hear the level of bipartisan support expressed for NIH at the March 30 Senate LHHS Appropriations Subcommittee hearings with Department of Health and Human Services (DHHS) Secretary Kathleen Sebelius and was especially impressed by two sets of comments:

- Senate Ranking Member Richard Shelby (R-AL) cautioned against across-the-board cuts and urged Congress to sustain programs that are effective—where he cited NIH as “one of the most results-driven aspects of our entire federal budget.” He added that “research conducted at NIH reduces disabilities, prolongs life, and is an essential component to the health of all Americans. NIH programs consistently meet their performance and outcomes measures, as well as achieve their overall mission.” These comments are stated so well that NAEVR will not expand upon them, other than to cite vision examples in the next sections.
- Senator Barbara Mikulski (D-MD) noted that a government shutdown, NIH cuts, or delayed appropriations, individually or in combination, will have far-reaching consequences, especially for academic Institutions across the country which receive funding.

To demonstrate that point, in late January 2011, NAEVR hosted 11 domestic and six international members of the Association for Research in Vision and Ophthalmology (ARVO) in Capitol Hill visits. They educated staff that a cutback to the FY2008 level would reduce NEI funding by \$30-plus million and reduce the number of grants by 43—any one of which could hold the key to saving or restoring vision. The advocates also described the impact of delayed appropriations, in terms of continuity of research and retention of trained staff. If a department does not have bridge or philanthropic funding to retain staff while awaiting full funding of awards, it will need to let staff go, and that usually means a highly-trained person is lost to another area of research or an institution in another state, or even another country.

FY2012 NIH FUNDING AT \$35 BILLION ENABLES THE NEI TO BUILD UPON THE IMPRESSIVE RECORD OF BASIC AND CLINICAL/TRANSLATIONAL RESEARCH THAT MEETS NIH'S TOP FIVE PRIORITIES AND WAS FUNDED THROUGH FY2009/2010 ARRA AND INCREASED “REGULAR” APPROPRIATIONS

NEI's research addresses the preemption, prediction, and prevention of eye disease through basic, translational, epidemiological, and comparative effectiveness research which also address the top five NIH priorities, as identified by Dr. Collins: genomics, translational research; comparative effectiveness; global health, and empowering the biomedical enterprise.

With respect to translational research, in June 2010, NEI hosted a *Translational Research and Vision* conference as the last of a series of NIH-campus based educational events recognizing its 40th anniversary (previous events addressed genetics/genomics, optical imaging, stem cell therapies, and the latest glaucoma research). In keynote comments, Dr. Collins recognized NEI as a leader in translational research. He specifically cited NEI's leadership in ocular genetics, noting that NEI has worked collaboratively with other NIH Institutes, especially the National Human Genome Research Institute (NHGRI) to elucidate the basis of eye disease and to develop treatments. As NEI Director Paul Sieving, M.D., Ph.D. has stated, one-quarter of all genes identified to date are associated with eye disease/visual impairment.

Dr. Collins also lauded the NEI's use of Genome-Wide Association Studies (GWAS) to determine the increased risk of developing age-related macular degeneration (AMD) from gene variants in the Complement Factor H (CFH) immune pathway, noting that "this was the first demonstration that GWAS is a useful tool to make the connection between gene variants and disease conditions." He added that, "Twenty years ago we could do little to prevent or treat AMD. Today, because of new treatments and procedures based on NIH/NEI research, 1.3 million Americans at risk for severe vision loss from AMD over the next five years can receive potentially sight-saving therapies."

With increased "regular" FY2009/2010 appropriations and ARRA funding, NEI has been able to build upon past research in two important areas:

Genetic Basis of AMD: In 2010, NEI initiated the International AMD Genetics Consortium, reflecting researchers on five continents who will be sharing and analyzing GWAS results to further elucidate the genetic basis of AMD. This may lead to new diagnostics and treatments for this leading blinding eye disease, growing in incidence with the aging of the population and with potential significant costs to the Medicare program.

Treatment of Diabetic Macular Edema: In May 2010, the NEI's Diabetic Retinopathy Clinical Research (DRCR) Network—a multi-center network dedicated to facilitating clinical research into diabetic retinopathy, diabetic macular edema, and associated conditions—reported results of a comparative effectiveness trial. The study confirmed that laser treatment for diabetic macular edema, when combined with injections of the Food and Drug Administration (FDA)-approved anti-angiogenic drug Lucentis, is more effective than laser treatment alone, the latter of which has been the standard of care for the past 25 years. With NIH's recent announcement of a new strategic plan to combat diabetes, led by the National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK), this research is more important than ever within the larger context of NIH priorities. The current DRCR Network is a successor to several previous networks, all of which involved NEI-NIDDK collaboration. NEI's emphasis on diabetic retinopathy reflects the fact that it is the leading cause of vision loss in the working-age population and occurs with disproportionately greater incidence in the Hispanic population.

IF CONGRESS DOES NOT INCREASE FY2012 NIH FUNDING ABOVE THE PRESIDENT'S REQUEST, IT IS EVEN MORE VITAL TO IMPROVE UPON THE PROPOSED 1.8 PERCENT INCREASE FOR NEI

The NIH budget proposed by the Administration and finalized by Congress during the second year of the Congressionally-designated *Decade of Vision* should not contain a less-than-inflationary increase for the NEI due to the enormous challenges it faces in terms of the aging population, the disproportionate incidence of eye disease in fast-growing minority populations, and the visual impact of chronic disease (e.g., diabetes). If Congress is unable to fund NIH at \$35 billion in FY2012 (NEI level of \$794.5 million) and adopts the President's proposal, the 1.8 percent increase in funding must be increased to at least an inflationary level of 2.4 percent to prevent any further erosion in NEI's purchasing power. NEI funding is an especially vital investment in the overall health, as well as the vision health, of our nation. It can ultimately delay, save, and prevent health expenditures, especially those associated with the Medicare and Medicaid programs, and is, therefore, a cost-effective investment.

VISION LOSS IS A MAJOR PUBLIC HEALTH PROBLEM: INCREASING HEALTHCARE COSTS, REDUCING PRODUCTIVITY, DIMINISHING LIFE QUALITY

The NEI estimates that 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 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 indirect healthcare costs, lost productivity, reduced independence, diminished quality of life, increased depression, and accelerated mortality. NEI's FY2010 baseline funding of \$707 million reflects just a little more than one percent of this annual costs of eye disease. The continuum of vision loss presents a major public health problem, as well as a significant financial challenge to the public and private sectors.

NAEVR URGES CONGRESS TO FUND THE NIH AT \$35 BILLION IN FY2012 WHICH WILL ENSURE THE MOMENTUM OF BREAKTHROUGH NEI-FUNDED VISION RESEARCH AND THE RETENTION OF TRAINED PERSONNEL

ABOUT NAEVR

The National Alliance for Eye and Vision Research (NAEVR) is a 501(c)4 non-profit advocacy coalition comprised of 55 professional (ophthalmology and optometry), patient and consumer, and industry organizations involved in eye and vision research. Visit NAEVR's Web site at www.eyerresearch.org.