

National Alliance for Eye and Vision Research (NAEVR)

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**NAEVR Testimony in Support of National Institutes of Health (NIH)
and National Eye Institute (NEI) FY2006 Funding
Before the House Labor, Health and Human Services, and Education
Appropriations Subcommittee**

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Presented by:

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**NAEVR Testimony by Stephen J. Ryan, M.D., in Support of NIH/NEI Funding
April 21, 2005, House LHHS Appropriations Subcommittee**

Thank you, Chairman Regula and Members of the Subcommittee for allowing me to speak with you. I am Dr. Stephen Ryan and I am here today in my role as president of the Board of the National Alliance for Eye and Vision Research. NAEVR is a coalition of 50 member organizations that represents the entire community of support for eye and vision research, including: eye care professionals, such as the ophthalmologists, optometrists and others serving on the front lines in ensuring our nation's vision health; companies that produce innovative treatments, both drugs and devices; and, most importantly, national groups that represent patients who have experienced the loss of independence and diminished quality of life from vision loss and blindness.

I have been privileged to appear before this Subcommittee in the past to support adequate funding for the National Institutes of Health (NIH) as a whole, and for eye and vision research conducted by the National Eye Institute (NEI) in particular. As a practicing ophthalmologist and NEI-funded investigator, I deeply appreciate the strong past bipartisan support for medical research by you, your Subcommittee and the Congress through its farsighted approach in doubling the NIH budget. Your leadership has had a profound, positive impact on the pace of discovery, and has served to improve the quality of lives of millions of Americans while reducing healthcare costs. However, NAEVR is concerned that these gains may be eroded at the level of funding proposed in the President's FY2006 budget.

We recognize that Congress faces tremendous challenges at home and abroad. We join the broad community supporting medical research in requesting FY2006 NIH funding at \$30 billion, or a 6 percent increase over FY2005, to maintain the momentum of discovery. NAEVR commends NIH Director Dr. Zerhouni for his leadership in establishing priorities and eliminating roadblocks through collaborative research which results in the cost-effective use of NIH-directed dollars. However, Dr. Zerhouni and his dedicated Institutes and Center Directors can only do so much, particularly with the biomedical inflation rate of 3.5 percent. If the administration's numbers prevail, then FY2006 will be the third year in which the NIH will not have kept pace with inflation, and gains from past investment at the NIH will be jeopardized.

NAEVR requests that Congress make this nation's vision health a top priority among many priorities by funding the NEI at \$711 million in FY2006, or a 6 percent increase over FY2005, which our community has determined as that necessary to advance the breakthroughs from NEI's basic and clinical research that result in treatments to prevent eye disease and restore vision. NAEVR commends NEI Director Dr. Paul Sieving for his remarkable leadership in directing the national vision research effort, including Intramural and Extramural research to address our greatest vision health challenges.

Vision impairment and eye disease is a major public health problem that is growing rapidly due to the aging of our population and minority populations that are disproportionately affected by eye disease, such as the growing incidence of diabetic retinopathy with the epidemic of diabetes. Age-related eye diseases account for more than 35 million Americans age 40 and older affected by age-related macular

degeneration or AMD, glaucoma, diabetic retinopathy and cataracts. This number is projected to increase to about 50 million by year 2020.

AMD is the leading cause of blindness in older Americans, robbing them of their central vision which takes away their ability to read or drive and has an enormous impact on the independence and quality of life. The long investment in basic science by the NEI and NIH has paid off in the development of blockers of the vascular endothelial growth factor (VEGF). New drugs have proven efficacious in stabilizing vision in thousands of Americans affected by abnormal blood vessels in AMD, and additional therapies are now in clinical trials. Also, just last month, NEI reported on the identification of the gene predisposing to macular degeneration. This gene relates to Complement Factor H, which may influence macrophages and the inflammatory response. This opens up many promising avenues for research and treatment. Again, it is the NEI funding basic research in genetics and inflammation research that will lead to new drugs that can be developed by industry to help our patients and prevent blindness.

Another dramatic NEI success story relates to diabetic retinopathy, which is the leading cause of blindness in the industrialized world in people from the ages of 24 to 60 and affects 4.1 million Americans over the age of 40. NEI-sponsored clinical trials demonstrated the efficacy of the laser and the efficacy of vitrectomy, then a revolutionary new type of surgery. We can now prevent over 90% of blindness from diabetes, if the results of these NEI trials are fully applied, which are estimated to save the government up to \$1.6 billion per year in cost of blindness and impairment.

A third area to mention briefly is that of retinal degenerative diseases such as retinitis pigmentosa, or RP. The NEI, in combination with lay organizations such as Foundation Fighting Blindness (FFB) and industry, have developed partnerships to focus on translating basic eye research to patients with inherited blinding diseases. This translational vision research fits very well with what Dr. Zerhouni has prioritized for NIH-wide efforts in the *Roadmap*. The goal of NEI's partnership with these organizations is to translate five separate basic science findings into clinical trials in the next five years. For example, the gene therapy demonstrated to be effective in Lancelot, the dog, will now be translated to humans with Leber congenital amaurosis, a severe form of RP, in a clinical trial led by NEI-funded researchers at Penn and Florida. Additionally, Mark Humayun and his colleagues at Doheny, USC, and Caltech have developed a retinal prosthesis and implanted the first six patients with RP.

With the annual economic and societal cost of vision impairment and eye disease conservatively estimated at \$68 billion and growing, we cannot afford to not invest in our nation's vision health. Adequately funding eye and vision research at the NEI can delay, save, and prevent expenditures in the public sector, particularly Medicare and Medicaid, as well as in the private sector.

To paraphrase Mary Lasker and her advocacy for NIH over the years, NAEVR recognizes that the amount it proposes to fund vision research is a lot of money. However, for the alternative, try blindness—a much more expensive burden for the American public. Vision research is indeed cost effective, and the NEI and NIH are most responsible stewards for the public investment in research.

Mr. Chairman and Subcommittee members, thank you for this opportunity to speak and present NAEVR's request for an FY2006 budget increase of 6 percent for both the NIH and NEI over that of FY2005.