



NAEVR
National Alliance For
Eye And Vision Research

Serving as Friends of the National Eye Institute

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Recognizing the *Decade of Vision 2010-2020*

December 12, 2016

President-Elect Donald J. Trump
Presidential Transition Headquarters
1800 F. Street, N.W.
Washington, D.C. 20270-0117

Re: Federal Funding for Vision Research

Dear President-Elect Trump:

During your campaign, your speeches included themes about productivity, independence, and quality of life for all Americans. Vision health is important to all three of these aspects of everyday life. In fact, Americans across all racial and ethnic lines describe losing vision as potentially having the greatest impact—more so than loss of limb, memory, hearing and speech (1). Vision loss is also associated with increased depression and accelerated mortality.

Although the activities of several Department of Health and Human Services (DHHS) agencies affect the nation's vision health—primarily the Center for Disease Control and Prevention (CDC) regarding surveillance and vision loss prevention, the Food and Drug Administration (FDA) regarding approval of ophthalmic diagnostics and therapies, and the Centers for Medicare and Medicaid Services (CMS) regarding coverage and reimbursement policy—this letter addresses federal funding for vision research managed by the National Institutes of Health (NIH) and its National Eye Institute (NEI).

NAEVR, the National Alliance for Eye and Vision Research, is writing this letter regarding the importance of future NEI funding on behalf of its 55 member organizations which reflect professional societies in ophthalmology and optometry, patient and consumer groups, private funding foundations in the vision space, and industry.

The United States leads the world in vision research and in the training of the next generation of vision researchers—all led by the NEI, which is responsible for funding sight-saving and sight-restoring vision research conducted primarily by academic institutions across the nation. NEI faces daunting challenges during this “Decade of Vision 2010-2020” and beyond. The 2014 annual cost for vision disorders in the U.S. was \$145 billion and is projected to grow to \$373 billion by year 2050—or \$717 billion in inflation-adjusted dollars (2). The direct medical costs of vision disorders are the fifth highest—only less than heart disease, cancers, emotional disorders, and pulmonary conditions (3). Adequately funding vision research is vital since:

- NEI's FY2016 operating budget of \$708 million is still less than 0.5 percent of the \$145 billion annual cost of vision disorders. The U.S. spends only \$2.20 per-

person, per-year for vision research, while the cost of treating low vision and blindness is \$6,680 per-person, per-year (3).

- The first wave of the 78 million Baby Boomers—also called the “Silver Tsunami”—started turning age 65 in 2010. Every day since then and until 2018, 10,000 Americans turn age 65 and are at greatest risk for age-related eye disease.
- Vision loss can be a co-morbid condition of chronic diseases, such as diabetes, which is at epidemic levels due to the increased incidence of obesity.
- The African American and Hispanic communities, which increasingly account for a larger share of the population, experience a disproportionately greater risk of eye disease.

Recognizing that, for too long, vision and eye health have not received the attention and investment they warrant with respect to public health, the National Academies of Sciences, Engineering, and Medicine’s (NASEM) Health and Medicine Division (formerly known as the Institute of Medicine, IOM), issued a report in September 2016 entitled *Making Eye Health a Population Health Imperative: Vision for Tomorrow*. Its nine recommendations regarding a national strategy for vision loss prevention include several that make a direct call for government action—especially by the DHHS that would directly engage the NEI:

- A “Call to Action” to motivate nationwide action toward achieving a reduction in the burden of vision impairment across the lifespan of people in the United States.
- A coordinated “Public Awareness Campaign” to promote policies and practices that encourage eye and vision health across the lifespan, reduce vision impairment, and promote health equity.
- Create an “Interagency Workgroup” to develop a common research agenda and coordinated eye and vision health research and demonstration grant programs that target the leading causes, consequences, and unmet needs of vision impairment.

[Other recommendations addressing CDC’s role are included in a November 22 letter to you from NAEVR member organization Prevent Blindness.]

Vision research funded by the NEI is critical to the NASEM report’s goal of transforming vision impairments from common to rare and to eliminating correctable and avoidable vision impairments by year 2030. Without adequate funding, however, the NEI may not be able to fund breakthrough research. One such example is its *Audacious Goal Initiative* of regenerating neurons and neural connections in the eye and visual system, thereby restoring vision and returning individuals to productive, independent, and quality lives. Planned for the next 10-15 years to reach these endpoints, success would transform life for millions of Americans with eye and vision diseases. It would have major implications for medicine of the future with respect to both vision and neurological disorders.

In addition to elucidating the genetic basis of eye disease that informs the development of effective diagnostics and therapies, NEI funding has also resulted in the successful commercialization of products to save sight and restore vision.

One such example is optical coherence tomography (OCT), which is a non-invasive, high-speed, high-resolution imaging technology that displays a three-dimensional, cross-sectional view of the layers of the retina. OCT is used to diagnose and monitor disease progression, as well as to monitor the effect of therapies, for such diseases as age-related macular degeneration (AMD, the leading cause of vision loss) and diabetic eye disease. When used to guide treatment of AMD with anti-vascular endothelial growth factor (anti-VEGF) drug treatments, OCT has saved Medicare over \$11 billion from 2008-2014 by helping patients avoid 15 million unnecessary injections of these drugs into the eye. The OCT market has grown to \$750 million annually, supporting more than 16,000 high-paying jobs, and is now expanding into the diagnosis of such neurological conditions as Alzheimer's disease and Parkinson's disease. (4)

Our nation's investment in vision health is an investment in our overall health. NEI's breakthrough research is a cost-effective investment, since it is leading to treatments and therapies that can ultimately delay, save, and prevent health expenditures—especially those associated with the Medicare and Medicaid programs.

NAEVR appreciates this opportunity to submit these comments, and we look forward to working with your administration to ensure that the U.S. remains the leader in vision research through sustained and predictable funding for the NIH and the NEI. Please contact me if you have any questions or need additional information.

Sincerely,

James F. Jorkasky, Executive Director
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About NAEVR

NAEVR, which serves as the “Friends of the National Eye Institute,” is a 501(c)4 non-profit advocacy coalition comprised of 55 organizations, including professional societies in ophthalmology and optometry, patient and consumer groups, private funding foundations in the vision space, and industry.

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- (1) *JAMA Ophthalmology*, August 4, 2016 (published online), based on the Alliance for Eye and Vision Research (AEVR) survey *The Public's Attitudes about the Health and Economic Impact of Vision Loss and Eye Disease*, September 2014.
 - (2) *The Future of Vision: Forecasting the Prevalence and Costs of Vision Problems*, Prevent Blindness, June 2014.
 - (3) *Cost of Vision Problems: The Economic Burden of Vision Loss and Eye Disorders in the United States*, Prevent Blindness, June 2013.
 - (4) Association for Research in Vision and Ophthalmology (ARVO)