



**NAEVR**

National Alliance For  
Eye And Vision Research

*Serving as Friends of the National Eye Institute*

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## **NAEVR URGES CONGRESS FOR A \$2 BILLION NIH INCREASE IN EACH FY2017 AND FY2018 TO MAINTAIN SUSTAINED AND PREDICTABLE FUNDING**

### **FY2017 National Institutes of Health (NIH) and National Eye Institute (NEI) Funding:**

- The vision community urges Congress to support the \$2 billion NIH funding increase to \$34.1 billion, as proposed by the Senate Appropriations Committee. This increase to the NIH base—in addition to supplemental funding for specific projects in the *21<sup>st</sup> Century Cures Act*—reflects real growth above biomedical inflation.
- A \$2 billion FY2017 NIH increase results in NEI funding of \$741 million, or a \$33 million increase over FY2016, to fund research to save sight and restore vision.
- In FY2016, Congress restored NEI's operating budget to \$708 million—slightly above its FY2012 funding level after a \$36 million sequester cut in FY2013. After four fiscal years, NEI's budget has begun to grow minimally (0.8 percent) while its purchasing power has continued to decline due to inflation—a 25 percent loss since FY2003.
- NEI's \$708 million operating budget is less than 0.5 percent of the \$145 billion annual cost of vision disorders, which is projected to grow to \$717 billion in inflation-adjusted dollars by year 2050, driven by an aging population and disproportionate incidence of glaucoma and diabetic eye disease in the Hispanic and African American populations.

### **FY2018 NIH/NEI Funding:**

- The vision community urges at least a \$2 billion NIH increase in FY2018—in addition to *Cures* funding—to ensure sustained and predictable increases to NIH's base funding. This enables NIH to build upon past basic and clinical research that has accelerated the development of life-changing cures, train the next generation of scientists, drive the nation's economy by creating jobs and economic growth, and maintain U.S. leadership in global innovation.
- We request FY2018 NEI funding at \$800 million to continue to restore our nation's commitment to vision research.
- Vision disorders have the fifth highest direct medical costs—only less than heart disease, cancers, emotional disorders, and pulmonary conditions. The U.S. is spending only \$2.30 per-person, per-year for vision research, while the cost of treating low vision and blindness is \$6,680 per-person, per-year.
- The U.S. is the world leader in vision research. Without adequate funding, the NEI may not be able to pursue its primary “audacious goal” of regenerating neurons and neural connections in the eye and visual system, thereby restoring vision and returning individuals to productive, independent, and quality lives.

## **NEI FUNDING HAS RESULTED IN THE SUCCESSFUL COMMERCIALIZATION OF PRODUCTS TO SAVE SIGHT AND RESTORE VISION**

NEI funding of investigator-initiated research grants and Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) grants has resulted in several commercialized products:

### **Optical Coherence Tomography (OCT)**

OCT is an imaging technology that allows eye care providers to view the back of the eye without dilation, making visits faster and easier for patients. It facilitates quicker, more accurate diagnoses than previous techniques. This technology supports a private commercial market of more than \$1 billion per year, more than 16,000 high-paying jobs, and has saved Medicare more than \$11 billion by reducing unnecessary injections of prescription drug therapies.

### **Drug Therapies for AMD and Diabetic Eye Disease**

Development of the first generation of Food and Drug Administration (FDA)-approved anti-angiogenic ophthalmic drugs to inhibit abnormal blood vessel growth in “wet” AMD, stabilizing vision loss and, in some cases, improving lost vision. These drugs are currently being fast-tracked for approval by FDA for diabetic eye disease, including Diabetic Retinopathy and Diabetic Edema.

### **Over-the-Counter Nutritional Supplement to Reduce AMD Progression**

NEI’s *Age-Related Eye Disease Study (AREDS)* showed that a formulation containing vitamins C and E, beta-carotene, and minerals zinc and copper, reduced progression to advanced-stage AMD. New data from a follow-up study, *AREDS2*, suggest that replacing beta-carotene with lutein and zeaxanthin may produce a safer, more effective formulation.

### **Pressure-reducing Glaucoma Drugs**

NEI-funded research has resulted in drug therapies that reduce intraocular pressure, a significant risk factor in the development of glaucoma—the second leading cause of vision loss in the U.S.

### **Sutureless Amniotic Membrane Graft**

The graft is essentially a “biological bandage” that sits on the surface of the eye—the cornea—reducing scarring, prevention of blood vessel formation, and promoting healing, while reducing pain.

### **Robotic Device to Facilitate Corneal Transplantation**

The developer is using this device to transplant an artificial cornea, which is currently under FDA regulatory review, and which may obviate the need for donor corneal tissue.

### **Visual Aide Services Using Camera-Enabled Mobile Phones**

This Smartphone application enables users to identify everyday objects, such as packaged goods, compact discs, and money, with text-reader capabilities using Optical Character Recognition (OCR).

### **Virtual Phaco Trainer for Cataract Surgery**

This simulator enables ophthalmology residents to practice the difficult steps of standard cataract surgery without risk to patients.

### **Field Expansion Prism Glasses for Hemianopia**

High power prisms incorporated into prescription eyeglasses increase the visual field by creating artificial peripheral vision in these patients who experience loss of peripheral vision on the same side of both eyes, a common side effect of stroke or Traumatic Brain Injury (TBI).