



NAEVR

National Alliance For
Eye And Vision Research

Serving as Friends of the National Eye Institute

5515 Security Lane
Suite 500
Rockville MD 20852
240-221-2905; www.eyeresearch.org

**THE VISION COMMUNITY URGES FY2022
NATIONAL INSTITUTES OF HEALTH FUNDING OF AT LEAST \$46.1 BILLION,
NATIONAL EYE INSTITUTE OF \$900 MILLION**

Fiscal Year (FY) 2022 National Institutes of Health (NIH) Funding:

- The vision community thanks Congress for the \$12.85 billion in NIH funding increases from FY2016-2021 which have helped the agency to regain lost ground after years of effectively flat budgets and to build upon past basic and clinical research discoveries.
- In FY2022, the vision community urges Congress to appropriate at least \$46.1 billion for NIH, a \$3.2 billion or 7.4 percent increase over the FY2021 program level, reflecting biomedical inflation of 2.4 percent plus 5 percent growth. This allows for meaningful growth above inflation in the base budget to support promising science across all Institutes and Centers, as well as to support the next generation of scientists.
- To facilitate this increase, we ask that Congress ensure a funding allocation for the LHHS Appropriations Subcommittee that allows for necessary investment in the NIH.
- We also urge Congress to provide emergency supplemental funding to support COVID-19 related expenses associated with both pandemic- and non-pandemic research—the latter to address the disruption and delays caused by laboratory closures.

FY2022 National Eye Institute (NEI) Funding:

- In FY2022, the vision community urges Congress to appropriate at least \$900 million for NEI, a \$64.3 million or 7.7 percent increase over FY2021, reflecting biomedical inflation and growth. Congress must ensure that the NEI remains the world leader in sight-saving and vision-restoring research and can train the next generation of vision scientists.
- Despite recent increases, NEI's FY2021 enacted funding of \$835.7 million is just 19 percent greater than the pre-sequester FY2012 funding of \$702 million. Averaged over those nine fiscal years, the 2.1 percent annual growth rate is still less than the average annual biomedical inflation rate of 2.7 percent, thereby eroding purchasing power. In fact, NEI's FY2021 purchasing power is less than that in FY2012.
- NEI's FY2021 funding of \$835.7 million is less than 0.5 percent of the \$177 billion annual cost of vision disorders, which is projected to grow to \$717 billion in inflation-adjusted dollars by year 2050—primarily driven by an aging population.
- Vision disorders have the fifth highest direct medical costs—only less than heart disease, cancers, emotional disorders, and pulmonary conditions. The U.S. spends only \$2.53 per-person, per-year for vision research, while the cost of treating low vision and blindness is \$6,680 per-person, per-year.

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 see the back of a patient's eye via a quick, non-invasive and inexpensive exam. This technology supports a private commercial market of \$1 billion per year and more than 16,000 high-paying jobs. A peer-reviewed publication has shown that OCT saved Medicare \$9 billion and patients \$2.2 billion in co-pays by reducing unnecessary injections of 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).