

REPORT

Better Health Through Research

Fall 2009



Your Contributions at Work

National Glaucoma Research grants are making a difference on every front

Whether they are discovering new drugs or unraveling scientific mysteries, the researchers supported by National Glaucoma Research are significantly advancing our understanding of glaucoma and developing the next generation of treatments.

With the help of NGR support, for instance, Dr. Xuri Li of the National Eye Institute was able to show that a molecule called VEGF-B protects both retinal and brain neurons from cell death. Dr. Li and her team are now exploring the molecule's use as a treatment for vision loss.

Dr. Carla Siegfried of Washington University has analyzed the distribution of natural oxidants and antioxidants in the glaucomatous eye. Dr. Hayian Gong has shown how intraocular pressure collapses tubes and herniates tissue, creating blockages in the eye's pressure outlets that, if left untreated, may be difficult to repair.

Even as these scientists build on their groundbreaking work, National Glaucoma Research is channeling funds toward the next generation of promising scientists.

At the University of Montreal, Adriana DiPolo and her team of scientists are investigating the

clinical potential of galantamine, a drug often used for Alzheimer's disease. Dr. David Calkins' work at Vanderbilt University may lead to identification of new drugs to protect optic nerve fibers' pressure induced damage. And at the University of Washington, Dr. Paul Kaufman is determining whether a form of vitamin D, produced naturally in the human body, can lower intraocular pressure.

"These scientists received their funding based on a highly competitive and rigorous review of their science," says Brian Regan Ph.D., president of National Glaucoma Research. "Because of the high potential each grant holds for making an impact on glaucoma, we are a proud sponsor of their work, and we hope our donors share that pride."

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SEE YOUR DOCTOR IMMEDIATELY IF...

- You suffer from recurring blurry vision.
- You believe your peripheral (side) vision is decreasing.
- You see rainbow-hued halos around lights at night.
- You get pain around your eyes after watching tv or leaving a dark theatre.



Questions and Answers About Glaucoma

Q. When I wake up in the morning, I see black spots the size of dinner plates. When I move my eyes, the spots also move. I am having treatments for glaucoma and my eye pressure is now in a normal range. What is causing the black spots?

A. The black spots sound most characteristic of vitreous floaters. These floaters can be a result of vitreous gel breakdown, a process that occurs with aging. Vitreous gel is the clear jelly-like substance that fills the eye from the lens to the back of the eye. Floaters also can be a sign of a retinal tear or ocular inflammation. If you have new floaters and recent eye surgery, you should have a dilated retinal examination to rule out any disease.

Q. I am 60 years of age and have open-angle glaucoma with some loss of sight to my left eye. I have been a regular golfer for about 10 years, but have found that over the last few years the standard of my play has declined. Could that be caused by the glaucoma?

A. Loss of peripheral vision and central visual acuity, as well as decreased contrast sensitivity, definitely affects depth perception and balance. People with glaucoma experience everything from a higher incidence of falls to a decline in athletic performance. Your eye care provider should be able to pinpoint any eye pathology that might be causing you difficulty and may be able to recommend solutions.

Q. Do some eye drops for glaucoma have longer pressure-lowering effects than others?

A. Yes. Differences in individual chemical properties dictate how frequently an eye drop needs to be administered for optimal effect, whether it is once a day or more frequently. Eye drops may also have different "wash-out" times once they're discontinued, and it may take a few days to a few weeks to clear them out of your system entirely.

Q. My brother has a white ring around the irises of his eyes. What is this? He claims that it is cholesterol.

A. The white ring may be arcus cornealis or arcus senilis, a white ring on the cornea. Arcus cornealis is caused by lipid or fat deposits, but it is not necessarily related to high cholesterol levels. In fact, most people with high cholesterol don't develop it. In most individuals that do develop it, it is completely harmless and does not require any treatment. However, if it is present in younger adults, it may be related to extremely high cholesterol and triglyceride levels that are passed down genetically through families. If your brother is concerned about this ring or his cholesterol levels, he should have an evaluation by an eye care specialist or his primary care doctor.

Learn more online at
www.ahaf.org

Simply click on the National Glaucoma Research link to learn more about what's new in the world of research, as well as important information about risk factors for glaucoma.



National Glaucoma Research is a program of the American Health Assistance Foundation, a charitable organization that complies with the 20 rigorous BBB Wise Giving Alliance Standards.

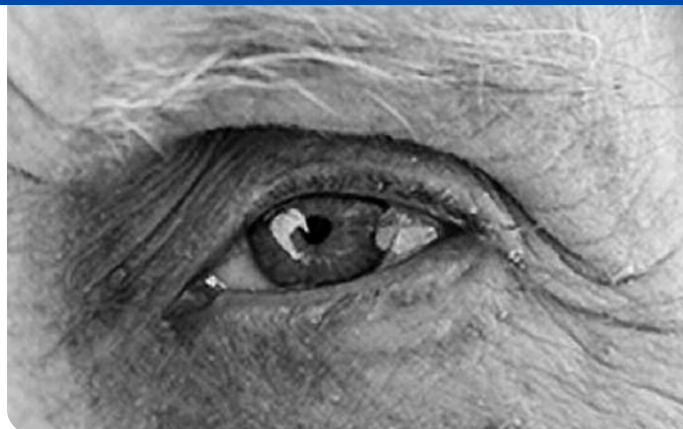
bbb.org/charity

New Contact Lens Can Dispense Drug Directly into Eye

Prototype device could improve flow of medicine to people with glaucoma

Researchers with Boston's Children's Hospital have developed a special contact lens that can deliver a gradual, steady and adjustable stream of medication to the eye, reports *Investigative Ophthalmology and Visual Science*.

The new technology seeks to solve one of the key problems associated with eye drops: the blinking and tearing that can leave as little as 1 to 7 percent of the dosage for the eye to absorb. The prototype lens, by contrast, was able to dispense a constant flow of antibiotic



for 30 days in amounts strong enough to kill pathogens.

Researchers are now testing the lenses in animals and hope to begin testing on human subjects as soon as possible.

President's Corner

Just the facts

Sometimes, the best medicine is information.

That's why, in addition to sponsoring cutting-edge scientific research, National Glaucoma Research places a special emphasis on getting the word out—giving people the knowledge they need to make wise decisions about their health.

If you have any questions about glaucoma, I encourage you to visit our website at www.ahaf.org/glaucoma. You'll find a wealth of facts about how to treat and live with this condition, as well as news updates and resource links – plus a generous sampling of questions from people just like you. Feel free to add your own question to the mix, and we will do our best to answer it.

Of course, only a physician can properly diagnose or treat glaucoma. But when it comes to staying abreast of the latest developments in the field, you can count on National Glaucoma Research.

Brian K. Regan, Ph.D.

A Retirement Plan that Gives Back

Charitable gift annuities benefit givers and receivers alike

If you want to advance the work of National Glaucoma Research and ensure a steady stream of income for yourself or others, then consider a charitable gift annuity.

A charitable gift annuity is a contract under which you transfer cash or other assets, such as stocks or bonds, to National Glaucoma Research. In exchange, you receive a fixed sum of money, paid out over a lifetime period.

An annuity can be made for a single party or for two parties – for example, a husband and wife, an aunt and a niece, or a father and a daughter. Many times, a married couple will choose an annuity to ensure that both parties enjoy an income for life.

A charitable gift annuity is considered a particularly good investment for people 55 years of age or older. Annuitants receive:

- **Guaranteed lifetime income;**
- **The option of receiving payments annually, semi-annually, quarterly or monthly;**
- **Income tax benefits; and**
- **Competitive annuity payment rates**

The minimum amount to establish a gift annuity is \$5,000.

For more information on this unique way of giving, contact Gayle Handiboe of National Glaucoma Research at 1-800-437-2423.

Thank you for thinking of
NATIONAL GLAUCOMA RESEARCH!



Reminder!

The Pension Act of 2006 will expire on December 31, 2009. This means that, beginning next year, IRA owners who are 70½ or older will no longer be able to make tax-free charitable gifts of up to \$100,000 per year from their IRAs. Please keep that in mind as you make your end-of-the-year charitable donations.

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