

## NIH Study Shows Avastin and Lucentis Equally Effective in Treating AMD

*Both drugs lead to improved vision*



Researchers halfway through a landmark clinical trial report that Avastin®, a cancer drug often used off-label to treat age-related macular degeneration (AMD), is as effective as the Food and Drug Administration-approved Lucentis®. The report was published in the *New England Journal of Medicine* and funded by the National Eye Institute (NEI), part of the National Institutes of Health.

Wet AMD, where abnormal blood vessels leak blood and fluid, affects 10% of all people who have AMD, yet causes 90% of the legal blindness from the disease. Ophthalmologists began using Avastin to treat it due to its similarity to Lucentis and its availability. Many noted that their patients benefited from it, so its use grew rapidly.

“Over 250,000 patients are treated each year for AMD, and a substantial

number of them receive Avastin. Given the lack of efficacy data regarding Avastin for AMD treatment, the NEI had an obligation to patients and clinicians to conduct this study,” said Paul A. Sieving, M.D., Ph.D., director of the NEI.

Results show that both drugs lead to identical improvements in visual acuity when given monthly. The same is true when they’re given on an as-needed basis. Monthly doses lead to slightly better vision improvements compared to as-needed doses, but because the latter requires four or five fewer injections per year, patients find treatment easier.

Since the study is incomplete, questions still remain. The second year of this trial will provide more information on potential risks for serious side effects.

### IN THIS ISSUE

**NIH Study Shows Avastin and Lucentis Equally Effective in Treating AMD**  
Both drugs lead to improved vision

Page 1

**Chairman’s Corner**  
Reasons for Hope

Page 2

**Bigger Bellies Tied to Higher AMD Risk**

Research suggests threat is greater for men than women

Page 2

**Research Roundup**

Page 3

**AHAF Spotlights Need for AMD Treatment Options at FDA Hearing**

Page 3

**A Retirement Plan that Gives Back**

Charitable gift annuities benefit givers and receivers alike

Page 4

A variety of resources are available for people who suffer from macular degeneration. For a list of agencies that offer counseling, training and other special services, please call Macular Degeneration Research at **800-437-2423** or visit our website at **www.ahaf.org/macular**.

# Chairman's Corner

## Reasons for Hope



In the battle against AMD, I've never been more hopeful than I am right now.

Why? Because the progress we're making in overcoming this sight-stealing disease would have been scarcely imaginable even a few years ago.

In this issue of **Macular Degeneration Research News**, you'll learn how scientists are unlocking the mysteries of this disease, and you'll discover some of the promising treatments being developed – from stem cells that can replace cells lost to AMD to genetically engineered cells that can re-nourish damaged retinas to stop vision loss. You'll also read about the U.S. Food and Drug Administration's recent hearing on a proposed new treatment for wet AMD.

Advances like these offer so much hope to everyone who suffers from AMD or has a loved one whose life has been limited by it. We still have a long way to go in our efforts to prevent, treat and cure this cruel sight-stealer, but with every passing day, we're getting closer. And that's something to be excited about!

Brian K. Regan, Ph.D.

## Bigger Bellies Tied to Higher AMD Risk

*Research suggests threat is greater  
for men than women*

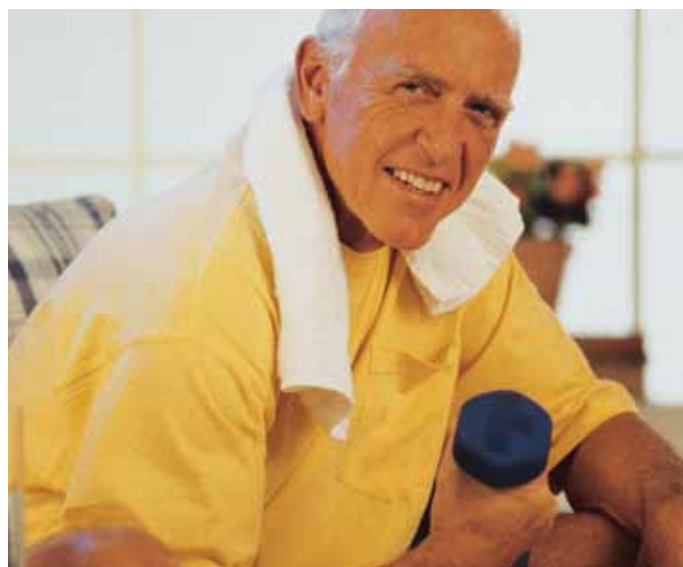
Now there's another reason to stay fit as you age: Keeping trim could help reduce your risk of AMD and vision loss.

Researchers at the Center for Eye Research Australia (CERA) at the University of Melbourne found that men with significant belly fat are more likely to develop AMD than men with slimmer waistlines. The study, published in the *American Journal of Epidemiology*, included over 20,000 people aged 40 to 69.

Abdominal fat releases pro-inflammatory chemicals and estrogen, said CERA Ph.D. student Dr. Madeleine Adams. "This feeds into our hypothesis that AMD is a result of abnormal inflammation." The link between belly fat and AMD was higher for men than women, perhaps because women are normally exposed to higher amounts of estrogen and may be less sensitive to its effects.

Researchers caution that these results may reflect a survivorship bias since obese people often die before they can enroll in studies like this.

*MDR is proud to have supported this study by awarding \$100,000 to Luba Robman, MBBS, Ph.D., who contributed to this research.*



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

# Research Roundup

## *Encapsulated cell therapy stabilizes vision*

A clinical trial offers hope to people suffering from geographic atrophy (GA), a severe form of dry AMD that affects nearly one million Americans.

Researchers delivered high doses of ciliary neurotrophic factor (CNTF) to 27 people using encapsulated cell therapy. The capsule implanted at the back of the eye contained genetically engineered cells to produce CNTF continuously over a 12-month period, re-nourishing the retina and slowing or stopping vision loss.

Over 96 percent of patients who received this treatment retained stable vision, compared to 75 percent of those in the control group who received a sham treatment, according to the study, which appeared in the *Proceedings of National Academy of Sciences*.

“This could open the door to long-term treatment of dry AMD using a simple surgical procedure,” said one of the lead investigators, Kang Zhang, M.D., Ph.D., professor of ophthalmology and human genetics at the University of California, San Diego.

*Macular Degeneration Research has supported Dr. Zhang’s earlier research.*

## *Study explores safety of new stem cell treatment for AMD*

Even though dry AMD affects some 11 million Americans and is the leading cause of legal blindness among people over age 60, there is no treatment for it. But thanks to a current study exploring the safety of a new stem cell treatment, that could soon change.

Advanced Cell Technology, Inc. (ACT), a leader in regenerative medicine, is conducting a multicenter clinical trial to see whether retinal pigment epithelial (RPE) cells derived from stem cells can be safely implanted in the retinas of people with dry AMD to replace those lost to the disease. The gradual breakdown of RPE cells in a person’s macula, and the accompanying loss of photoreceptor cells, is what leads to the loss of central vision and blindness.

“We are very excited about the opportunity to treat patients,” said Robert Lanza, M.D., ACT’s Chief Scientific Officer. “In a rat model of macular degeneration, we have seen a remarkable improvement in visual performance over untreated animals, without any adverse effects.” Researchers ultimately hope to show that this treatment will stop the progression of AMD and perhaps even restore some central vision.

## AHAF Spotlights Need for AMD Treatment Options at FDA Hearing

In June 2011, a U.S. Food and Drug Administration (FDA) Advisory Committee held an open hearing about a proposed product to treat wet AMD, tentatively named EYLEA. Guy S. Eakin, Ph.D., Vice President of Scientific Affairs at the American Health Assistance Foundation (AHAF), attended the hearing to represent the concerns of the 11 million Americans with AMD. Macular Degeneration Research is a program of AHAF.

“Many of our constituents express a need for more than the two most commonly prescribed treatments for wet AMD,” said Dr. Eakin, explaining that even people who carefully follow their treatment regimens may continue to lose their vision. Macular Degeneration Research supports research towards preventions and treatments of AMD. However, those future treatments are too far away to help today’s patients.

“As you consider today’s objectives... I would like to point out that you are being asked for assistance so that millions can regain greater control of their lives again,” concluded Dr. Eakin.

Committee recommendations carry great weight with the FDA. If the Advisory Committee gives the nod, the FDA could approve the product as early as August of this year. For more information, visit [www.ahaf.org/fdahearing](http://www.ahaf.org/fdahearing).

*AHAF has no financial interest in this product and makes no product endorsements.*

## A Retirement Plan that Gives Back



### *Charitable gift annuities benefit givers and receivers alike*

If you want to advance the work of Macular Degeneration 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 Macular Degeneration 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. Often, a married couple will choose an annuity to ensure that both parties enjoy an income that they can rely on for life.

A charitable gift annuity is considered a particularly good investment for people 60 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 \$10,000.*

For more information on this unique way of giving, contact June Marlin Falb, Director of Leadership Gifts, at 1-800-437-2423.

**Thank you for thinking of Macular Degeneration Research!**



Visit our website at [www.ahaf.org/macular](http://www.ahaf.org/macular) to learn more about what's new in the world of research, as well as important information about risk factors for macular degeneration. You can also follow us on Twitter (@macular) or become a fan on Facebook!

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