

NEWS

Macular Degeneration Research



BETTER HEALTH THROUGH RESEARCH

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MDR-Sponsored Researcher to Take Work to Clinical Trial Level

Scientist seeks new therapies for “wet” AMD

A University of Kentucky researcher supported by Macular Degeneration Research is preparing to translate his lab discoveries into clinical trials that may develop vision-saving therapies for people with the most debilitating form of age-related macular degeneration (AMD).

One of the nation’s leading authorities on the disease, Dr. Jayakrishna Ambati has already been hailed for his research on a class of molecules that may inhibit the growth of new blood vessels under the retina—the condition known as “wet” AMD. With the help of grants from Macular Degeneration Research and the Burroughs Wellcome Fund, Dr. Ambati is now working to determine which molecules in the group are most effective in treating the disease. His laboratory studies many aspects of the disease and specializes in translating those findings into clinical trials.

Ambati first rose to prominence in 2003, when he and his colleagues discovered the first animal model of AMD. More recently, Ambati and his brother, Dr. Balamurali Ambati, of the Medical College of Georgia, isolated a protein known as sVEGFR-1, which plays a vitally important role in warding off blood vessel growth in the cornea.

In addition to basic and clinical research, Ambati practices ophthalmology, where he sees first-hand the impact of the disease he is combating in the laboratory. “The number of people in the U.S. with



macular degeneration is greater than that of all types of cancer combined,” he says. Macular degeneration can lead to severe loss of vision, “something that people fear even more than premature death,” says Dr. Ambati.

“My colleagues and I are eager to advance new preventive and therapeutic strategies to hasten the day when ... macular degeneration is no longer inevitable.”

“Wet” macular degeneration accounts for approximately 10 percent of AMD cases but results in 90 percent of the cases of legal blindness. The disease can distort or entirely destroy “straight ahead” vision over a short period of time, sometimes within days.

Over the years, Macular Degeneration Research has awarded a total of \$200,000 to Dr. Ambati’s cutting edge basic science research.

Macular Degeneration Research is a Program of the American Health Assistance Foundation

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President's Corner

Take Charge of Your Vision Health

One of the worst parts of age-related macular degeneration (AMD) is the helplessness it can bring. Faced with the prospect of gradually losing our vision, we may feel there's nothing we can do to stop the disease's progression – especially in light of mounting scientific evidence that links AMD to variations in our genetic code.

And yet these same studies give us real grounds for optimism. According to a groundbreaking study reported in this issue of **Macular Degeneration Research News**, a lifestyle that focuses on avoiding cigarettes, eating a good diet and keeping weight down can significantly reduce your risk of developing AMD.

As Macular Degeneration Research continues to help scientists unlock the mysteries surrounding this terrible disease, one message rings out loud and clear: our behavioral choices really do make a difference, and our best shot at healthy vision is healthy living. It's that simple. It's that important.



Brian K. Regan, Ph.D.
President

Variations in Common Genes Tied to AMD Risk

Smoking and obesity also enhance likelihood of vision loss

Variations in a pair of common genes have been linked to advanced age-related macular degeneration (AMD), according to research recently published in the *Journal of the American Medical Association*. Researchers also found that the risk of progressing to AMD is significantly accelerated by such factors as smoking and obesity.

The study, spearheaded by Johanna Seddon, M.D., Sc.M., of Tufts-New England Medical Center, found that the visual impairment caused by advanced AMD is far likelier to happen to people with variations in the genes CFH and LOC387715. Smoking and a high body mass index further add to the likelihood of disease progression. The presence of all these risk factors can increase the risk of advanced AMD nineteen-fold.

The findings of Dr. Seddon and her colleagues may pave the way, she says, for “targeted screening and closer monitoring” of high-risk individuals. They may also motivate these individuals to adhere to healthy lifestyle habits, including “not smoking, maintaining a normal or lean weight, getting exercise and eating an antioxidant-diet with fruits and vegetables as well as fish.”



Log onto our website at www.ahaf.org then simply click on the Macular Degeneration Research link to learn more about what's new in the world of research, as well as important information about risk factors for macular degeneration.



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 I hope you will consider a charitable gift annuity.

A charitable gift annuity is essentially 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. 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 older individuals. Annuitants receive:

- Guaranteed lifetime income
- Options for annual, semi-annual, quarterly or monthly payments
- Income tax benefits
- High annuity payment rates

For more information on this unique way of giving, contact Gayle Handiboe, Development Manager, Macular Degeneration Research at 1-800-437-2423 or at gandiboe@ahaf.org.

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 **1-800-437-2423** or visit our website at www.ahaf.org.

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Answers to your Questions

Do you have questions about macular degeneration research and science? If so, please send them to us either by mail to 22512 Gateway Center Drive, Clarksburg, Maryland 20871 or e-mail to macfaq@ahaf.org. Macular Degeneration Research will answer some of the most frequently asked questions. Your identity will be kept anonymous. We are not medical doctors, and therefore, cannot make recommendations for treatment. Please consult your physician for personal medical advice.

Readers receive much-needed information about macular degeneration

Q: My father has macular degeneration. Unfortunately, he no longer works and doesn't have any medical insurance. How I can find the best insurance for him?

A: Please contact your local health department to see if they have information about any state or government medical insurance coverage that your father may qualify for. Even if they don't have the exact information you need, they should be able to put you in touch with another agency that can assist you. Please also visit the "Financial Assistance" link in the "Resources" section of our website: <http://www.ahaf.org/macular/resource/marsrc.htm>.

Q: I am 35 years old and have just been diagnosed with wet macular degeneration in one eye. What are my best options for slowing the progression of this disease?

A: There are several treatment options available which are designed to stop or slow the progression of wet macular degeneration, among them laser therapy and eye injections. However, the success of these treatments varies from patient to patient depending on a number of factors, such as the severity of the disease and the existence of other underlying health problems. To determine your best options, you should visit an ophthalmologist with expertise in macular degeneration. He or she will develop a personalized treatment plan for you.

Q: Do people with macular degeneration have variations in their ability to see on a day to day basis?

A: While macular degeneration is usually characterized by a progressive reduction in central vision, many patients report that their ability to see varies from day to day. This variability may depend on a number of factors, including changes in lighting, recent bleeding from leaky blood vessels in the eye and underlying health problems and/or medications that you may be taking.