

# ***Eyes Only*** *Winter 2009 Newsletter*

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## **A USEFUL DIRECTORY OF LOW-VISION RESOURCES**

**The Visually Impaired Information Center, Inc., headquartered in Livonia MI, publishes a directory of resources aimed at enhancing the lives of the blind and visually impaired. The directory contains nine hundred listings in twenty two categories. These categories include:**

- ...Books, magazines & libraries**
- ...Computer consultants & training**
- ...Computers & electronic equipment**
- ...Cultural & performing arts**
- ...Education & rehabilitation**

- ...Government agencies**
- ...Independent living**
- ...Low vision aids**
- ...Newspaper & radio**
- ...Organizations**
- ...Sighted guide tips**
- ...Transportation**
- ...Travel & tourism**

**To be sure, the listings reflect the organization's Michigan home, but a sampling of categories reveals resources that are national and international in scope.**

**The directory is available in four formats. Each of the formats requires a small donation that can be made to The Visually Impaired Information Center using a**

**self-addressed envelope provided with the directory. The formats and donations are:**

**Large Print, \$5.00  
Computer Disk, \$5.00  
Cassette Tape, \$10.00  
Braille, \$10.00**

**The directory is also available on the internet at [www.vi-info-center.org](http://www.vi-info-center.org) where information is periodically updated.**

**Copies of the directory in its various forms can be obtained by writing to: The Visually Impaired Information Center, P.O. Box 51207, Livonia MI 48151-5207, or calling 734.421.6599.**

<p><b>PIGMENT IS FOCUS OF AMD RESEARCH</b></p>
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**Whether a tiny yellow pigment is the main element standing between many older people and AMD is under study at Augusta's Medical College of Georgia (MCG).**

**Researchers are measuring this macular pigment that sits on the retina at the fovea, the point of highest vision acuity and best color vision, to better understand what a healthy, normal pigment looks like, says Dr. John Nolan, vision scientist and Fulbright postdoctoral fellow in the MCG Department of Ophthalmology.**

**The thinking is that the thinning of this pigment – comprising yellow anti-oxidants that come from food or dietary supplements – opens the door for retinal destruction, the hallmark of AMD.**

**The hope is that measuring this protective pigment will one day be part of routine vision screening and that AMD will lose its distinction as the leading cause of loss of central vision.**

**“This pigment is thought to protect the retina from damage by light and excess oxidation, which over a**

lifetime can accumulate and contribute to the process of AMD," says Dr. Max Snodderly, MCG vision scientist and Dr. Nolan's sponsor. The retina receiving too much high-energy blue light – the same light that gives the sky its color – seems to be a major cause of oxidation and cell death. So you are kind of rusting as you get old, Dr. Snodderly says. A macular pigment that's thin because of genetics or a poor diet or smoking enables such rusting.

Dr. Snodderly's studies of monkeys raised on a synthetic diet lacking components of the pigment – lutein and zeaxanthin – showed they also lacked the pigment until the components were added to the diet. "The retina was able to take it up, even though it had never seen it before," he says of the natural pigments found in dark green leafy vegetables such as spinach, turnips and

collards, as well as colored fruit and egg yolk.

Studies of more than 800 people age 20-60 with good vision have parallel findings: that the protective macular pigment can be increased with dietary change and/or dietary supplements of lutein and zeaxanthin.

His studies, based at the Waterford Institute of Technology in Dr. Nolan's native Ireland, included a subset of 200 people with healthy vision whose parents had AMD. "This group with perfect vision had significantly lower levels of macular pigment than the control group. This reinforces the macular pigment story," says Dr. Nolan.

"It may be that once you pass 60, when AMD typically starts developing, the pigment is depleted for several reasons, prominently including increased oxidative stress

**and poor diet, both associated with an increase in age,” Dr. Nolan says. “We found that smokers have significantly less macular pigment, both because they tend to have a poorer diet and because smoking causes increased oxidative stress.”**

**“It makes biological sense that if you are really deficient in macular pigment you will get AMD,” Dr. Nolan says, citing mounting evidence. And proving it is one of the reasons that brought him to MCG for a year to work with Dr. Snodderly, whose contributions in the field include helping identify components of the pigment and helping invent a way to measure it.**

**Dr. Nolan’s latest study, sponsored by his Fulbright scholarship and Dr. Snodderly’s lab, is looking again at 50 people age 20-60 with no major visual problems to precisely measure macular pigment and surrounding anatomy.**

**Measurements can be taken quickly and painlessly, without even dilating the eyes. Optical coherence tomography (OCT), already used by some eye doctors, provides three-dimensional images and measures of the fovea. The densitometer, which Dr. Snodderly helped develop and which largely remains a research tool, enables measurement of the macular pigment.**

**“The goal is to screen for people who are deficient in this pigment,” says Dr. Nolan. “We know what the average is but what we are trying to find out is what is a critically low level and does it vary among individuals.”**

**He notes the solution may be as simple as an improved diet. Longitudinal studies by the National Eye Institute have shown a 25% reduction in progression to AMD among those who took antioxidants.**

**Participants in Dr. Nolan’s study also are asked**

**questions about diet, smoking and other lifestyle habits. The process takes about one hour.**

## **NEW LIGHT BULBS AND LOW VISION**

**It's no secret that additional light is of great help for people who have vision problems. Without adequate lighting, daily tasks and hobbies can become less enjoyable, even impossible.**

**To combat the effects of low vision, the Lighting Research Center, a university-based center for lighting education and research, recommends increasing light levels by placing fixtures close to one's task area and selecting light bulbs with more lumens or light output.**

**Westinghouse Lighting has developed the chrome-top Eye Saver bulb to direct concentrated light where**

**one needs it most. The bulb, designed in association with NASA, effectively concentrates the maximum amount of light toward reading material, hobbies or crafts. The bulb's lightly frosted finish reduces eye strain by diminishing glare and produces 40% more light than a standard incandescent bulb of equivalent wattage.**

**Unlike some halogen bulbs, the Eye Saver can be used in existing light fixtures. To achieve maximum benefit, the bulb's silver cap must face the ceiling so the lighting fixtures, such as table and floor lamps, must be vertical.**

**Eye Saver bulbs come in two models. The first is a 125 watt version; the other is a 3-way configuration – 50, 125, 175 watts. Each bulb has a life rating of 2000 hours.**

**The price range of the bulbs is \$8.99-\$11.99 per bulb.**

**Because this is a specialty light bulb, it probably is not universally distributed to lighting retailers. To locate a retailer convenient to you that sells Eye Saver bulbs, call toll free 1-800-999-2226.**

**ABLEDATA.COM**

**ABLEDATA is sponsored by the National Institute on Disability and Rehabilitation Research (NIDRR), part of the Office of Special Education & Rehabilitation Services (OSERS) of the U.S. Department of Education. ABLEDATA's most significant resource is the ABLEDATA database of assistive technology, which contains objective information on more than 22,000 assistive products. For each product, a detailed description is provided of the product's functions and features, price information, when available, and contact information for the product's manufacturer and any distributors.**

**One can search all of the information on assistive products, as well as information about the companies that make and sell them, by using the SEARCH function that is available on every page or by browsing the products in the PRODUCTS section of the site.**

**Of particular interest to *Eyes Only* readers, ABLEDATA.com gives information about products that enable low-vision individuals to operate computers hands-free. The computers are operated via voice commands and audio feedback.**

**In addition to information obtained on the internet, one can call ABLEDATA at toll-free 1-800-227-0216. An automated telephone menu will provide general information about ABLEDATA. For more specific information, select "Information Specialist". Your questions will be answered and a free brochure may be requested.**

## **NEW PLANS FOR DISABLED**

**The new Administration in Washington has a comprehensive agenda to empower individuals with disabilities in order to equalize opportunities for all Americans.**

**Two important parts of the plan are the signing and ratification by our country of the UN Convention on the Rights of Persons with Disabilities and the restoration of the Americans with Disabilities Act. The former requires Senate approval; the latter**

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**requires approval by both Houses of Congress.**

**We urge you to contact your Senators and Congressman to let them know that you support these objectives.**

**Increased attention to the problems of many millions of disabled Americans cannot be anything but helpful to those of us with low vision.**

**Should you wish to inform the Administration of your support, you can e-mail them at:**

**[www.whitehouse.gov/  
agenda/disabilities/](http://www.whitehouse.gov/agenda/disabilities/).**

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## **FREE AMD BOOK OFFER**

**The Macula Foundation, Inc. has very generously made available copies of its newly updated soft-cover book, "Age-Related Macular Degeneration".**

**The ninety-one page book is a rich source of information about AMD. Its eleven chapters cover such topics as the anatomy of the eye; the various kinds of AMD; treatments, now in use and in experimental stages; and nutrition and low-vision living. The book is illustrated with excellent photography.**

**"Age-Related Macular Degeneration" is available to you free of charge. However, we are asking that you include a donation with your request. This donation will help to offset the cost of postage and handling.**

**We look forward to hearing from you. You may receive your free copy of this book by contacting us at the address below.**

***Are you a member? If not, join us!***

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