Eyes Only *Autumn 2008 Newsletter*

Bernard Landou, *Editor-in-Chief*
Eleanor Taub, *Managing Editor*
Ken Tierney, *Research Director*
Dede Silverston, *Librarian*

= =

OUR BIG THREE OH!

2008 is the 30th anniversary year of the Association for Macular Diseases, Inc.

Back in 1978, a group of seven men and women, all with macular problems, met in Garden City on New York's Long Island to discuss their common vision difficulties. They organized a not-for-profit corporation to promote education and research in the then scarcely explored field.

From that handful of individuals, we have grown to a membership of 10,000. To call a membership meeting these days we would have to book a small Madison Square Garden.

Today we act as a support group that reaches beyond the boundaries of the United States for individuals and their families trying to cope with the restrictions and life-style changes brought about by macular disease.

Through this newsletter, whose readership now is approximately at the 20,000 level, we counsel macular patients about day-to-day living with low vision, issue updates on medical activity and advances in macular-related research as they occur, and keep our readers advised on developments of low-vision aids.

Our headquarters are located in New York City at the Manhattan Eye, Ear & Throat Hospital, where we moved in 1983. The workspace was

donated by the Macular Foundation, Inc., headed by Dr. Lawrence A. Yannuzzi, and supported by the generosity of the LuEsther T. Mertz Retinal Research Center.

But by far the most important difference between our then and now is the truly exciting worldwide explosion of interest and research into macular disease treatment. Researchers and scientists are exploring various roads, e.g., drugs, radiation, and stem cells, to find the route to relief.

DRY AMD GENETIC LINK FOUND

A University of Kentucky ophthalmologist, along with teams of scientists, has discovered a genetic mutation that offers protection against the dry form of age-related macular degeneration (AMD).

The study, published recently in *The New Englnd Journal of Medicine*, identifies the mutation of a normal immune-system receptor called toll-like receptor3 (TLR3). The normal form of the gene is linked to dry AMD. Some eight million Americans have the disease.

In the interest of clarity, let us focus in on the words "normal" and "mutation". In everyday-speak, normal has a positive connotation, e.g., "She has no fever. Her temperature is normal." In every-day speak, mutation has a negative one, conjuring up supermarket tabloid pictures of two-headed goats.

In the case of TLR3, the normal form of the gene can be the cause of a potentially serious problem, while a mutation of the normal gene can be a potential solution to that problem.

"The discovery of the gene associated with dry AMD opens the door to developing treatments," said Kentucky's Dr. Jayakrishma Ambati, a retinal surgeon-scientist at the school's Department of Ophthalmology and Visual Sciences, and the leader of this collaborative study.

He worked along with Dr. Kang Zhang, a retinal specialist and human

genetics pioneer at the University of California San Diego, and Nicholas Katsanis, a molecular geneticist at the Johns Hopkins School of Medicine.

Dr. Ambati's lab first discovered a relationship between a dysfunctional TLR3 mutation and decreased ocular cell toxicity in a study published in *Nature* earlier this year.

The current study reports that TLR3 activation leads to death of specific cells in the retina, and that people with the normal TLR3 gene are two to five times more likely to develop dry AMD than those who carry an inactive TLR3 gene mutation.

Dr. Ambati's group plans to start clinical trials next year in patients at risk for dry AMD using new TLR3 inhibitors developed in his lab. He says, "We finally have a potential therapy for preventing vision loss from dry AMD. I am very excited by this discovery."

The study was made possible by grants from the National Institutes of Health's National Eye Institute and a large number of corporate and private foundations.

A VERY SPECIAL WEBSITE

NIHSeniorHealth.gov is a website you should know about and get to use. It is a source of a wealth of professional and timeless information that is important for you.

The website makes age-related health information – of course including AMD – easily accessible for family members and friends seeking reliable and easily understandable health facts.

The site was developed by the National Institute on Aging (NIA) and the National Library of Medicine (NLM), both part of the National Institutes of Health (NIH).

NIHSeniorHealth.gov features authoritative and up-to-date health information from NIH institutes and centers.

In addition, the American Geriatrics Society provides expert and independent

review of some of the material on the site.

Each health topic includes general background information, open-captioned videos, quizzes, and frequently asked questions. New topics are added to the site on a regular basis.

The design of the website grew out of the Aging Institute's research on the types of cognitive changes that are a part of the normal aging process.

Change in memory, text comprehension, information processing speed, and vision can interfere with seniors' use of computers. Research indicates older adults can effectively use computers if the information is provided in a senior-friendly manner. NIH extensively tested the site with adults aged 60 to 88 to ensure that it was easy to use, to see, and to understand.

The website's senior-friendly features include large print, short easy to read information segments, and navigation. A "talking" function reads the text aloud, and special buttons to enlarge the text or turn on high contrast make the text more readable.

Visit NIHSeniorHealth.gov. and click on:

BONES AND JOINTS
CANCER
DISEASES AND CONDITIONS
HEALTHY AGING
HEART & LUNGS
MEMORY & MENTAL HEALTH
TREATMENTS & THERAPIES
VISION & HEARING
ALL TOPICS A – Z

The website is a valuable resource.

OMEGA-3 FATTY ACID UPDATE

A year ago, we ran a piece on the potential benefits of including omega-3 fatty acids in one's diet to lower risks of age-related macular degeneration (AMD). A recent article in *Science Daily* reported on a mega-analysis of nine different studies previously published on the subject.

The analysis was done by scientists at the University of

Melbourne in Australia. They reviewed the studies, which involved almost 90,000 participants, including more than 3,000 individuals with AMD.

When results from all nine studies were combined, a high dietary intake of omega-3 fatty acids was associated with a 38% reduction of late (more advanced) AMD, while eating fish twice a week was associated with a reduced risk of early and late AMD.

However, the authors of the analysis note that the accumulated evidence from these few clinical trials is insufficient to support regular consumption of high omega-3 foods for AMD prevention.

While we await more clinical evidence regarding omega-3 and its effect on AMD, we suggest that you make sure that you include the proper amount of this valuable nutrient in your diet.

According to a recent publication released by the Tufts School of Medicine – Public Health and Family Medicine, omega-3 fatty acids may be important in preventing many health problems, including heart disease, rheumatoid arthritis, and cancer.

They also play a role in improving mood and sharpening memory, helping to cope with two aging process problem areas.

Cold-water fish, a very good source of protein, tops the list of foods rich in the kind of omega-3 fatty acid that has been shown to be the most effective in reducing cardio-vascular disease risk. The current recommendation is to have 7-11 grams of omega-3 each week.

As indicated in the preceding paragraph, omega-3 fatty acids may vary in form from food to food, although all of the omega-3s are good for you. That will explain the seeming anomaly you will discover in the list of foods and their omega-3 content at the close of this article.

Four ounces of fresh/frozen cooked salmon contains 1.7

grams of omega-3; only one ounce of walnuts contains 2.6. The difference, basically, is that the walnut's omega-3 is more difficult for the body to digest.

Nonetheless, it is a common and enjoyable food, and its increased use will help supplement the more digestible omega-3s in other foods.

Aside from sweet treats, walnuts contribute new levels of taste and texture to greens and vegetable salads; to mayonnaise-based salads – tuna, salmon, chicken, shrimp, and potato; to side dishes like whole cranberry sauce and stuffing; and to entrees such as frittatas and meat loaf.

Here is a list of foods, amounts, and content of omega-3 fatty acids in grams.

FISH
Salmon, cold water, fresh and frozen, cooked: 4 oz., 1.7g
Sardines, canned in oil, drained: 4 oz., 1.8g
Tuna, canned in water, drained: 4 oz., 0.3g
Tuna, canned in oil, drained: 4 oz., 0.2g
Cod, fresh and frozen, cooked: 4 oz., 0.6g
Mackerel, canned, drained: 4 oz., 2.2g
Swordfish, fresh and frozen, cooked: 4 oz., 1.7g
Crab, soft shell, cooked: 4 oz., 0.6g
Lobster, cooked: 4oz., 0.1g
Bluefish, fresh and frozen, cooked: 4 oz., 1.7g
Scallops, Maine, fresh and frozen, cooked: 4 oz., 0.5g

NUTS AND SEEDS
Almonds, dry roasted: 1 oz., 0g
Walnuts: 1 oz., 2.6g
Flax seeds: 1 oz., 1.8g
Pecans, dry roasted: 1 oz, 0.3g
Pistachios, roasted: 1 oz, 0.1g
Poppy seeds: 1 oz., 0.1g
Sesame seeds: 1 oz., 0.1g

GRAINS AND BEANS
Soybeans, dried, cooked: 1/2 cup, 0.5g

Tofu, regular: 4 oz., 0.3g

GREENS
Spinach, fresh, cooked: 1/2 cup, 0.1g
Green leaf lettuce, fresh, raw: 1 cup, 0.1g

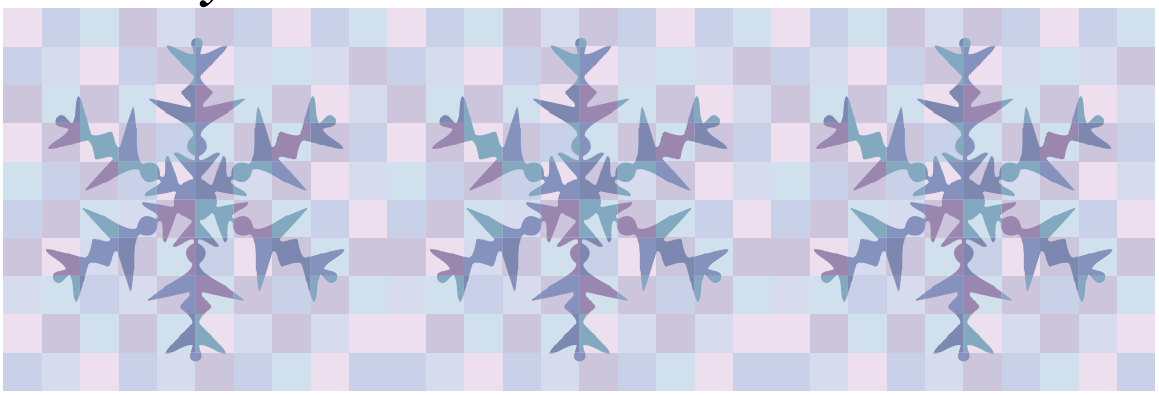
Red leaf lettuce, fresh, raw:
1 cup, Trace
Boston or Bibb lettuce, fresh, raw: 1 cup, Trace
Chard, cooked:
1/2 cup, 0g
Turnip greens, cooked:
1/2 cup, Trace
Dandelion greens, cooked:
1/2 cup, 0.1g
Kale, cooked: 1/2 cup, 0.1g
Collard greens, cooked:
1/2 cup, 0.1g

Are you a member? If not, join us!

ASSOCIATION FOR MACULAR DISEASES
210 East 64th Street
(Manhattan Eye, Ear & Throat Hospital)
New York NY 10065
212.605.3719

* *

We wish you a



Joyous Holiday Season

* *