

**Sight Loss Services, Inc.
Cape Cod and Islands
“The CandleLight” Newsletter
March 2017**

**Happy 100th to Edna Dibble, recipient of the
Boston Post Cane in Eastham!**

AREDS 2

**Have a question about which brand of eye
vitamins to take?**

**The Age Related Eye Disease Study 2
sponsored by the National Institutes of
Health, showed that supplementation with
certain micronutrients reduces by 25
percent the progression of dry AMD into the
more advanced stage in which vision loss
occurs. Make sure the brand you buy has
the right amounts for AREDS 2.**

AREDS 2 formula contains:

- lutein 10 mg**
- zeaxanthin 2 mg**
- vitamin C 500 mg**
- vitamin E 400 IU**
- zinc oxide 25 or 80 mg**
- cupric oxide (copper) 2mg**

RP Research

The Foundation Fighting Blindness Clinical Research Institute (FFB-CRI) has announced an investment of up to \$7.5 million to advance a promising, emerging drug treatment for retinitis pigmentosa (RP) into and through a Phase II clinical trial. Known as N-acetylcysteine-amide (NACA), the molecule is designed to slow vision loss by protecting retinal cells from oxidative stress. Oxidative stress is a process that accelerates and exacerbates degeneration in many inherited retinal conditions. In several in vitro and in vivo models, including previous FFB-funded lab studies of rodent models at Johns Hopkins University, NACA slowed retinal degeneration. “Based on the knowledge we’ve gained in lab studies, we are excited about NACA’s potential for saving vision,” said Patricia Zilliox, Ph.D., chief drug development officer at FFB-CRI. “Oxidative stress causes cell degeneration and vision loss in virtually all forms of RP, so we are hopeful that NACA, with its anti-oxidative properties, can benefit most people with RP, regardless of the gene mutation causing their disease.” NACA is derived from N-acetylcysteine (NAC),

a drug approved by the U.S. Food & Drug Administration (FDA) for the treatment of acetaminophen overdose.

<https://www.fightingblindness.ie/newsx/ffb-supporting-clinical-development-of-new-drug-for-many-forms-of-rp/>

Guest Speaker

Kobena Bonney is scheduled to speak at two upcoming support group meetings. Kobena will be coming down from Boston where he works for the Mass Rehab Commission and he will discuss adaptive aids as well as giving information on the Mass Match program. Mass Match supplies various aids and technology to people living with low vision. He is totally blind and an inspirational speaker. If interested in attending either of these meetings please contact Sight Loss Services to secure a seat. (508)394-3904

Tuesday, April 4, 2017 10:00 Harwich

Thursday, May 11, 2017 10:00 Eastham

Zinc chelation: A better way to regenerate the optic nerve?

New research by Larry Benowitz, PhD, and colleagues shows how zinc regulates the survival of retinal ganglion cells, and by binding it (zinc chelation), can help the optic

nerve to regenerate. Their findings, published in *PNAS* (January, 2017), could potentially lead to therapies that help patients with optic nerve injuries due to trauma, glaucoma or other causes, including spinal cord injury.

Zinc release is normally tightly controlled, because high levels are toxic to cells. But within an hour after injury to the optic nerve, the researchers watched zinc spike — surprisingly, not in the damaged Retinal Ganglion Cells themselves but in cells that talk to them, interneurons known as amacrine cells. Two or three days later, the zinc transferred to the Retinal Ganglion Cells — and only then did the cells begin to die.

This time lag offers a potential window for intervention. The researchers observed robust cell survival and axon regeneration even if treatment was delayed for as much as five days.

<http://eye.hms.harvard.edu/news/zinc-chelation-better-way-regenerate-optic-nerve>

<https://vector.childrenshospital.org/2017/01/zinc-chelation-for-optic-nerve-injury/>

Co-robotic cane

Navigating indoors can be especially challenging for people with low vision or blindness. While existing GPS-based assistive devices can guide someone to a general location such as a building, GPS isn't much help in finding specific rooms, said Cang Ye, Ph.D., of the University of Arkansas at Little Rock. Ye has developed a co-robotic cane that provides feedback on a user's surrounding environment. Ye's prototype cane has a computerized 3-D camera to "see" on behalf of the user. It also has a motorized roller tip that can propel the cane toward a desired location, allowing the user to follow the cane's direction. Along the way, the user can speak into a microphone and a speech recognition system interprets verbal commands and guides the user via a wireless earpiece.

<https://nei.nih.gov/news/briefs/five-innovations-harness-new-technologies-people-visual-impairment-blindness>

Did You Know?

Women's Eye Health.org was formed in response to the troubling reality that two-thirds of the world's population of blind and visually impaired persons are women.

<http://schepens.harvard.edu/women-s-eye-health-org/public-outreach/women-s-eye-health-org.html>