

## Summer 2015 Ohio Connection American Council of the Blind of Ohio

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## Connecting with ACBO Between Ohio Connections By Katie Frederick

A re you aware of the ways to "be in the know about ACBO"? Public relations and information sharing are important to current and prospective members, and it is possible to be informed whether technology is a hindrance or a hobby to you.

The National Federation of the Blind offers a service known as NFB-Newsline; individuals qualify if they have difficulty reading print, similar qualifications to the National Library Service Talking Book Program. After creating an account, there are numerous methods you may use to access NFB-Newsline, such as telephone, email, via the web, an iOS app as well as on adaptive players such as the Victor Reader Stream by Humanware. Many magazines, national and international newspapers and Ohio newspapers are available on NFB-Newsline: there are also informational portals, called channels, individuals may join. I am in the process of updating our ACB Ohio channel. Items that may be accessed include ACBO board of directors quarterly meeting minutes, issues of the Ohio Connection, and chapter meeting minutes from

the Columbus chapter, Greater Cincinnati chapter, Stark County chapter, Friends 'N Focus chapter, and Overcoming Blindness, formerly the Tuscarawas Valley chapter. To access this content via your telephone, dial one of the below local numbers:

> Akron: 330-247-1241 Canton: 330-409-1900 Cincinnati: 513-297-1521 Cleveland:216-453-2090 Columbus: 614-448-1673

outside these access areas: 888-882-1629

The website www.nfbnewslineonline.org allows users to access publications online, manage favorite publications, and set other account preferences; however, if you want to keep things simple, the telephone interface provides many useful features, including the ability to email articles of interest and storing your "phone favorites" list. I hope you will take some time to explore the ACB-Ohio content available on our channel and contact me with your thoughts or if you believe there are items of interest missing.

Social media is another way you can connect with ACBO; you may like us on Facebook by going to <u>www.facebook.com/acbohio</u>. If you are a Twitter user, why not follow @acbohio? (www.twitter.com/acbohio) If hearing the words social media sends shivers up your spine, consider asking to be added to our ACB-Ohio email listserv to keep up to date with state and national ACB information and issues; if you wish to receive email updates, please contact the office.

A final resource I would like to highlight in this column is our website, www.acbohio.org. which, thanks to the dedication of the ACBO technology committee and webmaster, remains an accessible up-to-date source of information. Recently, ACB-Ohio has partnered with AI Squared to add more functionality to our site for those with low vision. SiteCues is a product distributed by AI Squared which allows for webpage content to be magnified and read aloud when activated by the user. We look forward to collaborating with AI Squared and using the SiteCues product to further enhance the accessibility of our website. Have you visited our site recently? If so, I would love to hear what you think about the addition of SiteCues; if it's been a while since

you've paid a visit, browse on over and have a look.

I look forward to connecting with you through our various outreach tools until we next connect through this newsletter.

#### Theresa Carroll Editor

#### Michelle Spillan Assistant Editor

Thanks to the contributors: **Carolyn Burley**, **Mary Castor**, **Katie Frederick**, **Jenna McCartney**, **Vicky Prahin**, **Elizabeth Sammons** and **Linda Wyman**. Send items for the next issue to Theresa Carroll (acbo.newsletter@gmail.com) by August 15.

#### ACBO Community Shares Campaign Codes

State of Ohio 19003 City of Columbus 60240 Franklin County 60240 Ohio State University 60240 Columbus State1061

## Looking Forward: The 2015 Conference & Convention By Vicky Prahin

The 2015 Conference and Convention this year will surprise, educate, and, we hope, delight you with both familiar activities and completely new ones. We have partnered with ACB of Indiana, and they bring expertise and ideas to build on.

The convention activities will take place at the Garfield Suites Hotel in downtown Cincinnati, November 6-8, 2015. This hotel offers suites instead of individual rooms. Each suite includes a living room, dining area, fully equipped kitchen, bath, and either one or two bedrooms. Those on the east side of the building include a balcony.

On Friday afternoon, once you have settled in, you can visit the exhibit hall, beginning at 1:00. As always, we will have a variety of exhibits where you can find information and explore devices and equipment to make life easier or more fun. If you prefer to experience a bit of the city, ride in a horse-drawn carriage; contact Elegant Carriages at 937-903-5156 to find out about pricing and tour information.

We will have sessions Friday afternoon of special interest to rehabilitation counselors, although anyone is welcome to attend. These will focus on resources for braille and marketing strategies for helping to find employment. If you prefer, spend time having your questions about the Unified English Braille Code answered. Have dinner in the hotel restaurant or go to one of the local eateries near the hotel. Greg Daniel will give the keynote speech that evening. Greg gained recognition in the 1970s for being the first blind person to become a member of The OSU marching band. He worked for over 35 years as a computer programmer and software tester at the Ohio Bureau of Employment Services, currently known as the Ohio Department of Job & Family Services, although music has continued to play a major role in his life.

Top off the day with some evening entertainment before going upstairs to rest up for the remaining events of the weekend. On Saturday morning, learn things about the Americans With Disabilities Act that you didn't know and attend the annual membership business meeting. Among other things, learn about possible updates to the constitution and bylaws and vote for whom would like to serve on the board for one or more terms. Following the business meeting, learn about audio description, bioptics, and how to produce digital files.

Kathy Nimmer, selected as Indiana Teacher of the Year in September 2014, will speak at the banquet on Saturday evening. If we are fortunate, she will also give a presentation on Sunday morning. Saturday will end with the annual auction. This year's auction event promises some new and exciting surprises, so come to have fun and take away something special!

On Sunday morning, Lori Woodall will again lead those who wish to join her in a non-denominational worship service. We will recognize deceased members and our veterans after breakfast. Whether you have attended many conventions before or this is your first one, we hope you will find something to bring you to Cincinnati in November.



### The BSVI Waiting List is Over

#### Submitted by Elizabeth L. Sammons, Program Administrator, Opportunities for Ohioans with Disabilities Agency

As of February 2015, Opportunities for Ohioans with Disabilities, including BSVI, is proud to announce that the waiting list for people applying for services has been eliminated. This is a huge accomplishment for our program and a wonderful opportunity for people with disabilities in Ohio.

As a result, BSVI can now provide immediate service for these individuals once they are determined eligible. While blindness per se, does not guarantee eligibility, inherent limitations usually allow for services.

Unfortunately, The American Community Survey shows that only one out of three working age Ohioans with disabilities is employed. We know that there are many more Ohioans with disabilities out there that are still in need of services. So we need your help! If you have a family member, a friend or acquaintance with any disability who desires a job, now is the time to act concerning Opportunities for Ohioans with Disabilities and what we can offer.

If you are interested in applying for services to help you get or keep a job as well, please contact your local BSVI office or call the statewide number to connect to the office you need. We look forward to assisting you! This number is 800-282-4536. The agency website is <u>www.ood.ohio.gov/</u>.

### Fun in the Sun with ACBO! By Jenna McCartney, Recreation Committee Chair

Well, these past few weeks have certainly been warming up! I have actually turned on my air-conditioning, and I only do that when absolutely necessary. Yes, all, summer is here! It is time to get outside and start enjoying it, and ACBO has great opportunities for you!

Now that the snow has gone and we are able to get out more, I have been walking with my guide, Bilko. This past weekend I was riding four wheelers, (and driving with trusted eyeballs not my own, and sadly not Bilko's), and canoeing. Many of our fellow ACBO members have been active as well

During this year's Flying Pig in Cincinnati, many ACBO members took part. Tammy smith participated in her first 5K, and although she wasn't the fastest runner, she may have been the runner with the most heart! Chris Schumacher and Dave Perry walked the Skyline Three way, (a 5K, 10K and half marathon); Mary Ann Donelan walked the half marathon. Mary Beth Donelan, Joyce Asher and several others also were involved.

Now, what is going on for the rest of the summer? If you are looking for something fun to do this summer, consider joining us, August 14<sup>th</sup> through the 16<sup>th,</sup> for the Summer Sports Retreat! Held in the usual location outside of Athens, Ohio, we will have loads of summer activities to participate in. Join us for swimming, boating, tandem biking, and jet skiing. You could also hang out at the bonfire, and there will, as is typical of ACBO retreats, be card games and good food. Blind participants pay \$85 to attend, but sighted guides go for free!

You can either sleep in the trailer available on site, or a tent. Come join us and have a great time! Information about this event is available at <u>www.acbohio.org</u>, email <u>acbo-assist@gmail.com</u>.

Have a great summer and I hope to see you at the summer sports retreat!



## News from Chapters Around the State By Mary Castor & Carolyn Burley

The Appleseed Chapter (Richland County) continues to meet monthly for our Loss of Vision support group and the ACB meeting the first Wednesday of the month at 3:00 at the Waterford Center in Mansfield. Steve Nemeth lead our March meeting during which we generated ideas to plan a trip later this summer. Our April speaker was Paula Williamson, Occupational Therapist of Kingston of Ashland who spoke about tips & strategies to stay safe and independent. Our May speaker was Jeff Hillis, District President of the Lions Club who informed the group about the Lion's Club's vision services and eye research projects at the national and international level. Our group is looking forward to attending the Friends & Family day this July at the Library for the Blind & Physically Disabled in Cleveland. We decided to take a trip to Put-in-Bay in August. There we will enjoy the ferry ride and

take an escorted train trip around the island to enjoy some special attractions.

The Stark County Chapter of ACBO didn't meet in January or February due to bad weather. In March we met but didn't have a speaker. In April our speaker gave a talk on Hospice Care and Palliative Care. Katie Frederick came up and told our group about the activities of ACB on the national level and ACBO. We all thought that she was very informative. The chapter decided to donate \$300.00 to the Philomatheon for the work they do for the blind. We also decided to donate \$500.00 to the Cleveland Sight Center to their summer program at Camp Hybrook. In May we had a table at Senior Day and handed out information about our group and other information related to blindness.

## **Tech Bytes**

The National Council on Disability (NCD), an independent federal agency that advises the President, Congress, and other federal agencies on disability policy, released a comprehensive assessment of surface transportation for people with disabilities titled, "Transportation Update: Where We've Gone and What We've Learned." See the following website for the complete report: <u>http://www.ncd.gov/publications/2015/05042015/</u>



## Meet Our Scholarship Winners By Linda Wyman & Katie Frederick

**Emily Pennington**, winner of the David Newmeyer Scholarship, lives in Cincinnati, where she is a Junior at Xavier University majoring in accounting. Her educational goals include earning an M.B.A. and graduating law school with a concentration in tax law. She expects to use her accounting and legal expertise to assist members of the disability community.

At Xavier, she has maintained a 3.9 grade-point average, has made the Dean's List for the last two years, and is a member of the Delta Sigma Pi honorary fraternity. She is a member of three choirs at Xavier, the Xavier Accounting Society, and the Cincinnati Association for the Blind. She serves as the fund-raising chair of the Ohio Association of Blind Students. In the summer of 2014 she was an intern at the Clovernook Center for the Blind. When she came to the 2014 ACBO Convention to receive her scholarship, she participated in many sessions and social events and she expects to remain active in ACB-Ohio.

**Emily Molchan** received the Max Edelman Scholarship. She is a junior at the University of Dayton. Emily is majoring in foreign language education; she holds a TESL Certificate and a mi-



*Emily Pennington (left), winner of the David Newmeyer Scholarship, and Emily Molchan (right), winner of the Max Edelman Scholarship* 

nor in Russian. While attending the University of Dayton, Emily has traveled to Ecuador to work with students, to New Orleans to help rebuild schools following Hurricane Katrina, and is involved in her local UD community tutoring Hispanic children. Emily shared how important helping students further their education is to her, as well as giving back to her community; she was honored to receive the scholarship and looks forward to helping students improve their education.

# High School Student Develops App for the VI Community

Shalin Shah, a high schooler, designed an iPhone app for people who are blind or visually impaired. Help encourage him by testing his app and give him feedback. On his own initiative, and without teacher input, Shalin, created an app which will:

- •assist a user to take a picture of a page containing text, and it will:
- •tell the user if the focus is correct
- •adjust for brightness
- •adjust for a picture of text on a curve such as a can label
- •take the actual picture when auto settings are acceptable
- •run optical character recognition on the picture
- •read the resulting text using text-tospeech software

Here is the link to the app:

https://itunes.apple.com/us/app/voicetake-picture-have-it/id903772588

The app begins explaining the app and how it works. It then lets the user know if the camera has the picture properly aligned and, if so, announces that it has located all four corners of the text. With voiceover on, the user is told when the picture is taken; when the OCR is processing it; and finally uses a text-to-speech engine to read it to the user. The speed of the reading is adjustable All this is accomplished in a brief time and is done automatically without requiring user input in the process. Because the OCR relies on an online application, the time required is slightly dependent on the quality of the Internet connection. The app is called Voice and is available from the iTunes online store.

Here is the link:

https://itunes.apple.com/us/app/voicetake-picture-have-it/id903772588

Shalin is eager to receive evaluations and any tips for improvements and modifications. His email address is: <u>shalinvs@gmail.com</u>. Please take a moment to review the app, or at the very least send an e-mail to this young man thanking him for his initiative.



#### Netflix Begins Audio Description for the Visually Impaired By Tracy Wright

At Netflix, we work hard to continually improve the experience for our members when viewing movies and shows on our service, including providing accessibility across devices. Now we're expanding our accessibility options by adding audio description on select titles, beginning today with our new critically acclaimed series, Marvel's Daredevil.

Audio description is a narration track that describes what is happening onscreen, including physical actions, facial expressions, costumes, settings and scene changes. Customers can choose audio narration just like choosing the soundtrack in a different language.

In coming weeks, we'll add more titles, including current and previous seasons of the Golden Globe and Emmy awardwinning political thriller House of Cards, Emmy award-winning comedydrama series Orange is the New Black, as well as Tina Fey's Unbreakable Kimmy Schmidt and the epic adventure series Marco Polo.

Netflix is actively committed to increasing the number of audio-visual translations for movies and shows in our English-language catalogues. We are also exploring adding audio description into other languages in the future.

Over time, we expect audio description to be available for major Netflix original series, as well as select other shows and movies. We are working with studios and other content owners to increase the amount of audio description across a range of devices including smart TVs, tablets and smartphones. Stay tuned.

Tracy Wright is the Director of Content Operations at Netflix.

## **Participants Sought for Pedestrian Study**

You are invited to participate in a study that will explore your perspectives as a person with adult-onset visual impairment as it pertains to pedestrian and independent travel.

If you are interested in participating, please contact Kimberly Avila at kavila@masonlive.gmu.edu or by phone at 703-993-5625.

You do not have to be a current or active pedestrian to participate. Participants must have a visual impairment that occurred after age 18. This includes, but is not limited to, persons with macular degeneration, cataracts, glaucoma, diabetic retinopathy, vision impairment from an accident or injury or any other circumstance resulting in visual impairment or blindness.

You will be asked to take part in two separate 30 to 45 minute interviews. Both interviews can be done by phone. Participants will receive a \$10 gift card for being part of this study and will help contribute to research in the field of orientation and mobility and pedestrian safety.



The Ohio Connection is a quarterly publication of the American Council of the Blind of Ohio. Please submit your material in print or through email. The next deadline is August 15, 2015. Please include your name, address, and phone number and send to: Theresa Carroll at acbo.newsletter@gmail.com.

## FCC Updates List of Non broadcast Networks Subject to Video Description

On March 6, 2015, the FCC's Media Bureau took the following actions in an Order and Public Notice:

- (1) Announced that, beginning July 1, 2015, the top five non broadcast networks that will be subject to the FCC's video description requirements are the Disney Channel, History, TBS, TNT, and USA;
- (2) Granted a request by ESPN to be excluded from the list of networks that must provide video description because ESPN does not air of prime time programming that is not live or near-live (recorded less than 24 hours before its first airing) per calendar quarter; and

(3) Reminded broadcast stations affiliated with ABC, CBS, Fox, and NBC that the obligation to provide 50 hours of video description per calendar quarter expands from the top 25 television markets to the top 60 television markets on July 1, 2015.

#### **Background:**

The FCC's rules require multichannel video programming distributor (MVPD)

systems (such as cable and satellite providers) that serve 50,000 or more subscribers to provide 50 hours of video description per calendar quarter (about four hours per week) during prime time or children's programming on each of the top five non-broadcast networks.

The top five non-broadcast networks that have been subject to the video Disney Channel, Nickelodeon, TBS, TNT and USA. The FCC updates the list of top five non-broadcast networks that are subject to the video description requirements since July 1, 2012 are the description requirements every three years to account for changes in ratings. The new list of networks reflects changes in such ratings.

Links to the Order and Public Notice https://apps.fcc.gov/edocs\_public/ attachmatch/DA-15-295A1.doc For further information, contact Maria Mullarkey at (202) 418-2120 or Maria.Mullarkey@fcc.gov

# NIH Launches Research to Gaze Deeply into Your Eyes

The National Eye Institute (NEI) announced the awards as part of its Audacious Goals Initiative. NEI has committed \$3.8 million to the projects in 2015 and up to \$17.9 million over the next five years, pending the availability of funds. NEI is part of the National Institutes of Health.

The NEI Audacious Goals Initiative is a coordinated effort to spur new therapies for blinding diseases. The central audacious goal is to restore vision by regenerating neurons and neural connections in the eye and visual system. Special emphasis is devoted to cells of the retina, including the light-sensitive rod and cone photoreceptors, and the retinal ganglion cells, which connect photoreceptors to the brain via the optic nerve. "These ambitious projects will give us a window into the visual system," said NEI Director Paul A. Sieving, M.D., Ph.D. "Tools developed will enhance the study of functional changes in the retina and optic nerve, in real-time and at the cellular level. and will be indispensable when evaluating new regenerative therapies for eye diseases." Many causes of incurable blindness affect retinal neurons. Among the hundreds of rare inherited disorders that damage the retina are retinitis pigmentosa and Stargardt disease. Common causes include agerelated macular degeneration and glaucoma. "We have entered the research phase of the Audacious Goals Initiative. Projects in this first round of

AGI funding will bridge gaps in current technology, enabling later phases of the initiative," said Dr. Sieving, who is making a detailed announcement of the grants at the 2015 Association for Research in Vision and Ophthalmology (ARVO) annual meeting.

THE FIVE PROJECTS INCLUDE:

#### -- Interferometric Optophysiology of the Human Retina (U01 EY025501) Principal investigator: Austin Roorda, Ph.D., University of California, Berkeley

Dr. Roorda and colleagues are designing a system to map the interaction of cells in the retina. The system will enable scientists to stimulate individual neurons and observe other cells as they become active in response. Mapping these intricate signaling patterns will help explain how the retina processes visual information before it is sent to the brain, and will be an important tool for monitoring function in regenerated cells. The systems will incorporate eye tracking components and adaptive optics, a technology that corrects for distortion imposed by the cornea and lens.

-- Accelerating Vision Restoration with In-vivo Cellular Imaging of Retinal Function (U01 EY025497) Principal investigator: David Williams, Ph.D., University of Rochester Center for Visual Science, New York

Dr. Williams' team is designing an optical system to image responses to light of large numbers of individual cells in the retina. The system uses two main components: a fluorescent marker that can detect cellular calcium fluxes. and twophoton microscopy-which uses infrared light to detect the fluorescent signals without damaging living tissue. The team plans to test their system in collaboration with investigators who are exploring three different



NEI scientist prepares a human eye for research

approaches to vision restoration: preserving photoreceptors with gene therapy, replacing lost photoreceptors using stem cells, and genetically reengineering cells other than photoreceptors to respond to light.

#### -- A Two-photon Ophthalmoscope for Human Retinal Imaging and Functional Testing (U01 EY025451) Principal investigator: Krzysztof Palczewski, Ph.D., Case Western Reserve University, Cleveland

Dr. Palczewski and colleagues are pursuing a tool to visually monitor vitamin A derivatives in the retina. Vitamin A derivatives help power the light-sensitive machinery inside hotoreceptors. Many inherited diseases of the retina involve mutations that affect the retina's ability to utilize or recycle vitamin A. Dr. Palczewski's team will develop a twophoton microscope capable of measuring the metabolism and distribution of vitamin A derivatives within photoreceptors, at baseline in various retinal diseases and in response to potential therapies.

-- Imaging Optic Nerve Function and Pathology (U01 EY025500) Principal investigators: Sheng-Kwei Song, Ph.D., and Yong Wang, Ph.D., Washington University, St. Louis

Drs. Song and Wang are adapting two technologies-diffusion basis spectrum imaging and diffusion functional magnetic resonance imaging-to noninvasively visualize the optic nerve. Although this bundle of fibers originates in the retina, most of the optic nerve resides deep within the brain, out of reach of most devices used to see into the eye. Optic nerve damage, a consequence of glaucoma and other optic neuropathies, is currently irreversible.

This system could be used to monitor how a patient's optic nerve responds to a potential new therapy throughout the

#### (Continued on page 15)

### **Prosthetic Compass Wired Into Brain Substitutes** for Sight **By Ashley Yeager**

SENSE OF DIRECTION Blind rats have learned to successfully navigate complex mazes with the help of a prosthetic compass and microchip wired into their brains. Yuji Ikegayaand Hiroaki Norimoto/University of Tokyo Magazine issue: Vol. 187 No. 9, May 2, 2015

With a compass-microchip prosthetic wired into their brains, blind rats can learn to navigate complex mazes to find food. What's more, they can do it nearly as well as rats that still have their sight, researchers from Japan report April 20 in Current Biology. Success using the prosthetic demonstrates the flexibility of the brain to comprehend a completely new sense, they say. The result may lead to improved therapies for human blindness and to the enhancement of human senses bevond the standard five. "These rats are learning and really learning fast," says neurophysiologist Peter König of Osnabrück University in Germany. He adds that it's pretty cool that the animals can learn to use the signals from the geomagnetic device in a meaningful way. Study coauthor Yuji Ikegaya of the University of Tokyo says the rats may not perceive the meaning of direction as humans do. But, he says, the results do suggest that the animals can develop an internal map from a sense that isn't inherent. In previous studies, scientists manipulated ferrets' senses so they could interpret visual cues with brain

pathways originally wired for sound. Researchers have also developed a brain prosthetic that helps rats detect infrared light, which is usually invisible. In the new study, Ikegaya and Hiroaki Norimoto, also of the University of Tokyo, tested whether their prosthetic brain compass could help blind rats regain their ability to recognize the position of their bodies within mazes. Food was the incentive. To prevent the rats from using their sense of smell to find food, the scientists sprayed the odor of the food pellets all over the walls of the mazes. The scientists then put the rats through 20 trial runs a day in a T-shaped maze. Relying on their vision, normal rats learned where food was hidden and how to consistently get back to it within a week. The normal rats had similar success in a fivearmed maze. Blind rats did not have such success unless they had a prosthetic brain compass. Story continues after the image The prosthetic is made of a digital compass, microchip and tiny electrodes. Ikegaya and Norimoto first implanted the electrodes into the brain region responsible for vision. When the digital compass sensed a blind rat's head pointed north, the microchip transferred data to the right electrode and it pulsed. When the rat's head pointed south, the left electrode pulsed. With the stimulation, the blind rats learned to navigate the maze and find food in roughly the same number

of trials as rats with intact vision. Even after the compass was turned off when the blind rats entered the maze, they could still orient themselves and find the food. Blind rats that had the electrodes implanted in the region of the brain responsible for touch performed equally well. König says the result supports the idea that senses are not innate. The brain learns how to handle the senses, and it can do it with information that is not limited to sight, sound, taste, touch and smell. This adaptability of the brain is how the whole idea of substituting and enhancing the senses got started, König says. He notes that the new prosthetic directly augments the rats' senses, an advance that may offer a better look at how the brain changes at the cellular level when given new sensory information. Ikegaya says the results could be used in an immediate and practical way to advance the development of the canes that blind people use when walking. One idea is to incorporate the compass into the cane. When the person pushes a button on the top of the cane, it could signal the direction of north through vibrations. "This is very simple," Ikegaya says, "but it would greatly help the blind to walk. He notes that scientists might also be able to use the information to give humans super-sensing abilities. "Sensing ultraviolet light may be important for reducing skin cancer," Ikegaya says. "Sensing ultrasonic and radio waves may enable a next-generation form of humanto-human communication.

Citations H. Norimoto and Y. Ikegaya. Visual Cortical Prosthesis with a Geomagnetic Compass Restores Spatial Navigation in Blind Rats . Current Biology . Vol. 25, April 20, 2015

(Contributed by Bill Reif)

#### (NIH Research, continued)

course of treatment and without the need for biopsy.

#### -- Platform Technologies for Microscopic Retinal Imaging: Development and Translation (U01 EY025477) Principal investigators: Alfredo Dubra, Ph.D., and Joseph Carroll, Ph.D., Medical College of Wisconsin, Milwaukee

With collaborators at several research institutions, Drs. Dubra and Carroll will develop a suite of core technologies that will advance and increase the usability of next-generation retinal cameras. The suite will include real-time eye motion stabilization, image resolution doubling, a tunable lens to improve the focusing of all colors of light and highthroughput methods for testing the function of individual cells.

For more information about these projects and the NEI Audacious Goals Initiative, visit

http://www.nei.nih.gov/audacious. NEI leads the federal government's research on the visual system and eye diseases. NEI supports basic and clinical science programs that result in the development of sight-saving treatments.



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FREE MATTER FOR THE BLIND





#### АСВ-Оню Датевоок

#### <u>July 3-11</u>

ACB ANNUAL CONVENTION SHERATON DALLAS HOTEL DALLAS, TX

JULY 24 (AND JULY 25 IF NEEDED) ACBO BOARD MEETING

VIA CONFERENCE CALL

AUGUST 14-16 ACBO SUMMER SPORTS RETREAT

NOVEMBER 6-8 ACBO CONVENTION GARFIELD SUITES HOTEL CINCINNATI, OH

