



# →Envision

## CONFERENCE

A multi-disciplinary low vision rehabilitation & research conference

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Sept. 5-6, 2008

Westin Riverwalk Hotel • San Antonio, Texas



# Welcome to **Envision 08**

A message from Linda K. Merrill

Welcome to the Envision Conference, a multi-disciplinary low vision rehabilitation & research conference.

In the next few days, you'll get an up-close view of what "multi-disciplinary" really means. You'll learn from and rub elbows with a wide range of experts working in low vision, blindness and vision science. Your colleagues here include ophthalmologists, optometrists, nurses, teachers of the visually impaired, occupational therapists, research scientists, and many other certified professionals. Our attendees have told us that this is the most exciting aspect of their experience.

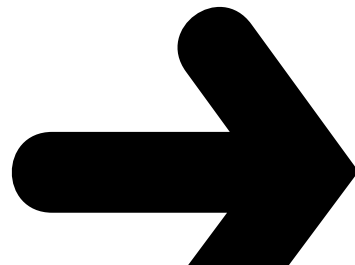
We're proud to feature luminaries like low vision pioneer Dr. Alfred Rosenbloom as our clinical keynote speaker. When Dr. Rosenbloom began practicing at the Chicago Lighthouse 52 years ago, the low vision field was in its infancy. Through his leadership, teaching and service, Dr. Rosenbloom has helped define the field. Dr. Robert Massof, our research keynote speaker, has been a leader in outcomes research on low vision rehabilitation. And James Smith, our inspirational keynote, has blazed his own trail through life. His presentation is sure to touch you.

In between, sessions you'll want to spend time in the Exhibit Hall, enjoy the Friday evening reception, and network with your colleagues.

After hours, you'll find an abundance of restaurants, activities and history just a few steps outside of the Westin. The Alamo is just down the street. You may want to visit the bar in the Menger Hotel, where Teddy Roosevelt recruited his Rough Riders. Or visit El Mercado at 514 W. Commerce, an authentic Mexican marketplace. Just a few miles further away, the possibilities multiply. You can see Shamu at Sea World, take a drive through the Texas Hill Country, float down the Guadalupe River, or go two-stepping in Luckenbach.

If there's anything about your conference experience that can be improved, please let us know. Envision employees will be wearing host ribbons. We welcome your feedback and ideas for future conferences.

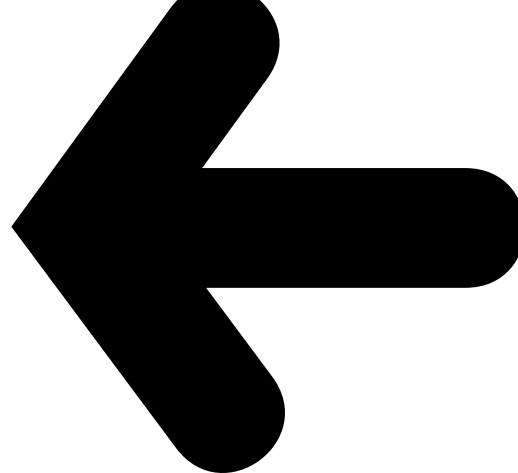
Have a great conference!







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## Your Hosts

### Envision Staff

Linda K. Merrill	<i>CEO</i>
Michael J. Stephens	<i>President, Envision Industries</i>
Kent Wilson	<i>CFO</i>
James Nolan, PhD	<i>Director of Research</i>
Steve Stambaugh	<i>Vice President, Vision Rehabilitation</i>
Michael Epp	<i>Director of Outreach &amp; Continuing Education</i>
David Kamerer, PhD	<i>Director of Communications</i>
David Austin	<i>Public Relations Manager</i>
Kelsey Rawson	<i>Development and Communications Coordinator</i>

## Conference Staff

Shaune Wilson	<i>Event Manager</i>
Jeff Wilson	<i>Technical Manager</i>
Shawna Lampkin	<i>Registration Manager</i>
Tammie Harvey	<i>Exhibit Manager</i>

*Special thanks to Dr. George Timberlake of the University of Kansas, Dept. of Ophthalmology for serving as research program co-chair.*



# Schedule Overview



## Wednesday, September 3

5:00 - 7:00 p.m.

Registration Desk Open  
Navarro Foyer

## Thursday, September 4

7:00 a.m. - 6:00 p.m.

Registration Desk Open  
Navarro Foyer

9:00 a.m. - 4:00 p.m.

Workshops  
See Schedule-at-a-Glance

## Friday, September 5

7:00 - 8:00 a.m.

Complimentary Continental Breakfast  
Navarro Foyer

7:00 a.m. - 6:00 p.m.

Registration Desk Open  
Navarro Foyer

8:00 - 9:00 a.m.

Opening Plenary Session  
Navarro A

9:15 - 10:15 a.m.

Sessions  
See Schedule-at-a-Glance

10:15 - 10:45 a.m.

Coffee Break  
Navarro Prefunction

11:00 a.m. - 12:00 p.m.

Keynote Address  
Navarro A

12:00 - 1:00 p.m.

Lunch on Your Own

1:00 - 3:00 p.m.

Sessions  
See Schedule-at-a-Glance

3:00 - 7:30 p.m.

Posters on Display  
Navarro

3:00 - 7:30 p.m.

Exhibits Open  
Navarro

3:00 - 4:00 p.m.

Coffee Break  
Navarro

4:00 - 6:00 p.m.

Sessions  
See Schedule-at-a-Glance

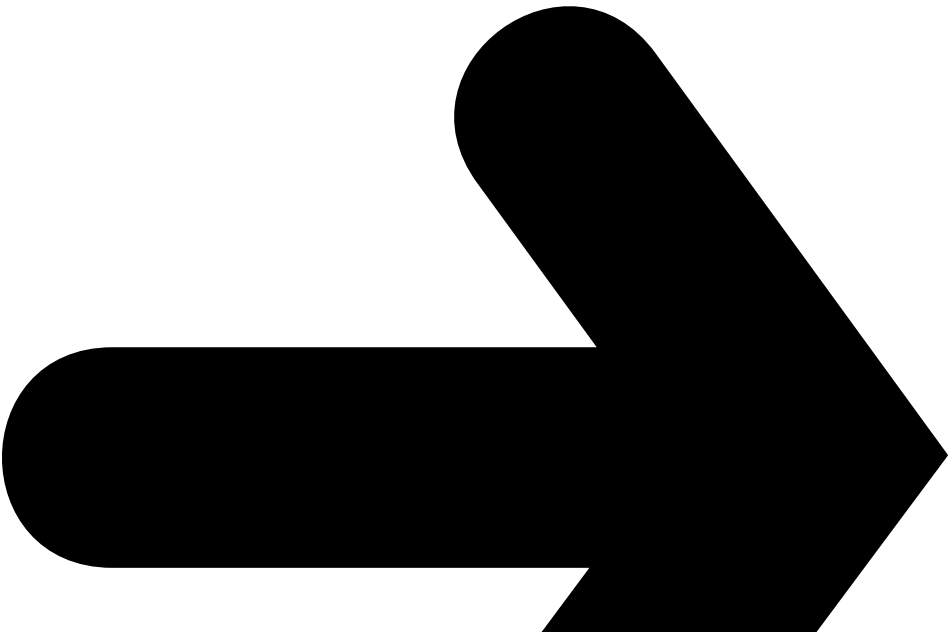
6:00 - 7:30 p.m.

Reception  
Navarro



Saturday, September 6

7:00 - 8:00 a.m.	Continental Breakfast Navarro
7:00 a.m. - 1:30 p.m.	Posters on Display Navarro
7:00 a.m. - 6:00 p.m.	Registration Desk Open Navarro Foyer
7:00 a.m. - 1:30 p.m.	Exhibits Open Navarro
8:00 - 10:15 a.m.	Sessions See Schedule-at-a-Glance
10:15 - 11:00 a.m.	Coffee Break Navarro
11:00 a.m. - 12:00 p.m.	Keynote Address Hidalgo
12:00 - 1:30 p.m.	Buffet Lunch Navarro
1:30 - 3:30 p.m.	Sessions See Schedule-at-a-Glance
3:30 - 4:00 p.m.	Coffee Break Navarro Foyer
4:00 - 6:00 p.m.	Sessions See Schedule-at-a-Glance



Thursday, September 4			
8:00 a.m.	Registration Open, 7:00 a.m. - 6:00 p.m., Navarro Foyer		
	Encino	Sabino	
9:00 a.m.	W1: Managing Geriatric Low Vision Patients: Myths, Misconceptions, and Low Vision Rehabilitation for Success	W2: Magnification, Lighting & Sun Filters: “Boot Camp” Basics for Low Vision Professionals	
10:00 a.m.			
11:00 a.m.			
12:00 p.m.	Lunch on your own		
1:00 p.m.	W5: Neuro-Optometric Rehabilitation: A Closer Look	W6: Evaluation and Management of the Pediatric Patient with Vision Impairment	
4:00 p.m.			
Friday, September 5			
7:00 a.m.	Continental Breakfast, 7:00 - 8:00 a.m., Navarro Foyer		
	Registration Open, 7:00 a.m. - 6:00 p.m., Navarro Foyer		
8:00 a.m.	Opening Plenary Session, Navarro A The Creativity of Stress with Visual Impairments, James Smith		
	Encino	Sabino	Camino Real
9:00 a.m.			
9:15 a.m.	S1: Overview of Vision Rehabilitation Treatment Modalities	S2: Visual-Vestibular Integration Dysfunction	S3: Fall Prevention through a Collaborative, Multi-disciplinary Approach
10:15 a.m.	Coffee Break, Navarro Foyer, 10:15 - 10:45 a.m.		
11:00 a.m.	Keynote Address, Navarro A Low Vision Rehabilitation: Historical Perspective - New Challenges Alfred A. Rosenbloom, OD, FAAO		
12:00 p.m.	Lunch on your own		
1:00 p.m.	S5: Maximizing and Managing Vision: The 12 Visual Problems of Low Vision Patients	S6: Opening the Black Box: Neuroplasticity and Oculomotor Learning in Saccadic and Vergence Eye Movements	S7: Increasing the Effectiveness of Low Vision OT: Using “Fun and Games”
3:00 p.m.	Poster Session, 3:00 - 7:30 p.m., Navarro		
	Exhibits Open, 3:00 - 7:30 p.m., Navarro		
	Coffee Break, Navarro, 3:00 - 4:00 p.m.		



## Thursday, September 4

Registration Open, 7:00 a.m. - 6:00 p.m., Navarro Foyer		8:00 a.m.
Camino Real	Madero	
W3: Understanding Vision Loss Caused by Neurological Injuries	W4: Addressing the Psycho-social Impact of Vision Loss	9:00 a.m.
		10:00 a.m.
		11:00 a.m.
Lunch on your own		12:00 p.m.
W7: Our First View: Seeing and Treating the Emotional Components of Low Vision	W8: Custom and Pre-Made Optical Low Vision Device Workshop	1:00 p.m.
		4:00 p.m.

## Friday, September 5

Continental Breakfast, 7:00 - 8:00 a.m., Navarro Foyer			7:00 a.m.
Registration Open, 7:00 a.m. - 6:00 p.m., Navarro Foyer			
Opening Plenary Session, Navarro A <i>The Creativity of Stress with Visual Impairments</i> , James Smith			8:00 a.m.
Madero	Villa	Carranza	
	RS1: <i>Randomized Controlled Trials in Low Vision Rehabilitation</i> , 9:00 - 11:00 a.m. (Moderator: Robert Massof, PhD)	RS2: <i>Research Topics 1</i> , 9:00 - 10:30 a.m. (Moderator: J. Vernon Odom, PhD)	9:00 a.m.
S4: <i>Charles Bonnet Visual Hallucinations</i>			9:15 a.m.
Coffee Break, Navarro Foyer, 10:15 - 10:45 a.m.			10:15 a.m.
Keynote Address, Navarro A <i>Low Vision Rehabilitation: Historical Perspective - New Challenges</i> Alfred A. Rosenbloom, OD, FAAO			11:00 a.m.
Lunch on your own			12:00 p.m.
S8: <i>Orientation &amp; Mobility for Young Children with Visual Impairments: Developing Motor Skills</i>		RS3: <i>Research Topics 2</i> , 1:00 - 2:30 p.m. (Moderator: George Timberlake, PhD)	1:00 p.m.
Poster Session, 3:00 - 7:30 p.m., Navarro			3:00 p.m.
Exhibits Open, 3:00 - 7:30 p.m., Navarro			
Coffee Break, Navarro, 3:00 - 4:00 p.m.			

<b>4:00 p.m.</b>	<b>S10:</b> <i>Evaluation and Management of Children with Visual Impairments</i>	<b>S11:</b> <i>Innovative Approaches in Low Vision</i>	<b>S12:</b> <i>Starting an OT Low Vision Program: New Challenges, Fresh Ideas</i>
<b>5:00 p.m.</b>	<b>S14:</b> <i>Evaluating Fitness to Drive</i>		
<b>6:00 p.m.</b>	Reception, Navarro, 6:00 - 7:30 p.m.		

## Saturday, September 6

7:00 a.m.	Continental Breakfast, 7:00 - 8:00 a.m., Navarro Foyer		
	Registration Open, 7:00 a.m. - 6:00 p.m., Navarro Foyer		
	Exhibits Open, 7:00 a.m. - 1:30 p.m., Navarro		
	Poster Session, 7:00 a.m. - 1:30 p.m., Navarro		
	Encino	Sabino	Camino Real
8:00 a.m.	S16: Pediatric Low Vision Rehabilitation	S17: The Diabetic Patient Dilemma: Poor Patient Education and Referral for Vision Rehabilitation	S18: Hope, Help and Independence for People with Vision Loss
9:15 a.m.	S20: Creating a Low Vision Task Force: Pooling Resources to Better Serve the Community	S21: Contact Lenses as an Adjunct of Vision Rehabilitation	S22: You Can Teach an Old Dog New Tricks - Successful Visual Rehabilitation for the Older Adult Learner
10:15 a.m.	Coffee Break, 10:15 - 11:00 a.m., Navarro Foyer		
11:00 a.m.	Keynote Address, Robert W. Massof, PhD, Hidalgo		
12:00 p.m.	Buffet Lunch, Navarro		
1:30 p.m.	S24: Bioptic Driving Fitting and Training: The Keys to Success	S25: Nervous about Neuro-Visual Rehabilitation? - Planning and Providing Intervention for Visual Field Loss	S26: Intervention for the Patient with Diabetes who is Visually Impaired
2:30 p.m.	S28: Is the Optic Disc Cupping or Sinking in Glaucoma?	S29: Accessibility and IBM	
3:30 p.m.	Coffee Break		
4:00 p.m.	S31: Driving and the Hemianopsia Patient	S32: Using the Clinical Triad of Acuity/Contrast Sensitivity/Central Visual Field to Plan Rehabilitation Interventions for Patients with Macular Disease	S33: Developing Low Vision OT Programs in a Rural Setting: 4 Models to Consider in an Environment with Limited Resources

<b>S13:</b> <i>Preparing Students with Spectacle-Mounted Telescopes for Participation in Driver's Education: The Role of the Orientation and Mobility Specialist</i>	<b>RS4:</b> <i>Driving with Impaired Vision, 4:00 - 5:45 p.m. (Moderator: Eli Peli, OD, Msc)</i>		<b>4:00 p.m.</b>
<b>S15:</b> <i>Orientation and Mobility for Adults with Visual Impairment</i>			<b>5:00 p.m.</b>
Reception, Navarro, 6:00 - 7:30 p.m.			<b>6:00 p.m.</b>
<b>Saturday, September 6</b>			
Continental Breakfast, 7:00 - 8:00 a.m., Navarro Foyer			<b>7:00 a.m.</b>
Registration Open, 7:00 a.m. – 6:00 p.m., Navarro Foyer			
Exhibits Open, 7:00 a.m. - 1:30 p.m., Navarro			
Poster Session, 7:00 a.m. - 1:30 p.m., Navarro			
<b>Madero</b>	<b>Villa</b>	<b>Carranza</b>	
<b>S19:</b> <i>Computer-Based Technology for the Low Vision Patient</i>			<b>8:00 a.m.</b>
<b>S23:</b> <i>Social Competence - A Necessity for Job Placement!</i>	<b>RS5:</b> <i>Eccentric Viewing Training, 9:00 - 11:00 a.m., (Moderator: Don Fletcher, MD)</i>	<b>RS6:</b> <i>Research Topics 3, 9:00 - 10:30 a.m., (Moderator: Marilyn Schneck, PhD)</i>	<b>9:15 a.m.</b>
Coffee Break			<b>10:15 a.m.</b>
Keynote Address, Robert W. Massof, PhD, Hidalgo			<b>11:00 a.m.</b>
Buffet Lunch, Navarro			<b>12:00 p.m.</b>
<b>S27:</b> <i>Cortical Visual Impairment: What is it, and how do we adapt?</i>	<b>RS7:</b> <i>Implanted Devices to Preserve or Restore Vision, 1:30 - 3:30 p.m., (Moderator: Matt McMahon, PhD)</i>	<b>RS8:</b> <i>Overcoming the Barriers to Treating Vision Impairment: The Team, Outcomes and Funding</i>	<b>1:30 p.m.</b>
Coffee Break			<b>3:30 p.m.</b>
<b>S34:</b> <i>Video and Adaptive Technology for the Low Vision Patient</i>	<b>RS9:</b> <i>Vision Rehabilitation in the 21st Century, 4:00 - 6:00 p.m., (Moderator: Ron Schuchard, PhD)</i>		<b>4:00 p.m.</b>

# Special Events

## Opening Plenary Session

Friday, September 5, 8:00 - 9:00 a.m.,  
Navarro A

### James R. Smith, President of Smith Speaks

James Smith is an inspirational speaker, an educator and an advocate for people living with disabilities. In this presentation he'll blend inspiration and humor with a discussion of the state of low vision rehabilitation and the challenges that people who live with low vision face, including stress, diet, misdiagnosis of eye diseases and the importance of education. Come see why one client says "James' speaking skills are second to none."

## Reception

Friday, September 5, 6:00 - 7:30 p.m.,  
Navarro

Please join us for a fun way to unwind at the end of the first day of the Envision Conference. It's a great chance to network with colleagues and speakers, make new friends and talk shop. We'll provide complimentary drinks and hors d'oeuvres to get the party started. Join your friends here before heading out to experience the magic of San Antonio and the Riverwalk in the evening.



# Keynote Speakers



## **Alfred A. Rosenbloom, OD, FFAO**

Dr. Rosenbloom is chair emeritus of the Chicago Lighthouse's Low Vision Clinic. A diplomate in low vision of the American Academy of Optometry, Dr. Rosenbloom was

director of the Chicago Lighthouses Low Vision Clinic from its founding in 1956 to 2000. Today, he continues to see patients. Dr. Rosenbloom is also an adjunct professor, Department of Ophthalmology and Visual Sciences at the University of Illinois Medical Center and a member of the medical staff, Department of Ophthalmology Rush North Shore Medical Center. Dr. Rosenbloom was recently honored with the Lifetime Service Award from the Illinois College of Optometry (ICO) where he served as past dean and president. He also received the VOSH/International Humanitarian Award (Volunteer Optometric Services to Humanity/International) for providing services to thousands of patients internationally and for training doctors in the U.S. and overseas.

### **Dr. Rosenbloom will also present:**

**W1:** *Managing Geriatric Low Vision Patients: Myths, Misconceptions, and Low Vision Rehabilitation for Success*

Thursday, September 4: 9:00 a.m. - 12:00 p.m.



## **Robert W. Massof, PhD**

Dr. Massof is founder and Director of the Lions Vision Research and Rehabilitation Center, a division of the Johns Hopkins Wilmer Eye Institute. He also serves as Professor of

Ophthalmology and Professor of Neuroscience at the Johns Hopkins University School of Medicine, and has joint appointments in Computer Science at the Johns Hopkins University Whiting School of Engineering and at the Johns Hopkins University Applied Physics Laboratory. He received his Ph.D. in Physiological Optics from Indiana University in 1975. Dr. Massof's research interests include clinical and basic vision psychophysics, physiological optics, sensory engineering and psychometrics. He has authored more than 160 published scientific papers and book chapters, edited a book on low vision policy and service delivery issues, and holds five patents and three software copyrights on instruments that he developed.

### **Dr. Massof will also present:**

**RS8:** *Overcoming the Barriers to Treating Vision Impairment: The Team, Outcomes and Funding*

Saturday, September 6: 1:30 - 3:30 p.m.





# Workshops



## Thursday, September 4

### **W1: *Managing Geriatric Low Vision Patients: Myths, Misconceptions and Low Vision Rehabilitation for Success***

**Alfred A. Rosenbloom, OD, FAAO**  
**Gregory L. Goodrich, PhD**

**9:00 a.m. - 12:00 p.m., Encino**

In this intensive aging and vision loss workshop, participants will understand the causes of both age-related memory impairment and brain injury, including an integrated model for vision loss and brain injury rehabilitation; understanding the nature and causes of dual (vision and auditory) sensory loss including rehabilitation intervention; and improving the lifestyles of older adults through an understanding of psycho-social issues and activities of daily living. Key issues addressed include: an introduction to aging, brain injury and cognitive loss; dual sensory loss; aging and health; diseases; injuries; psycho-social issues; ageism and professionals; lifestyle and aging; and the older driver, driving and driving alternatives.

**Instruction Level:** Intermediate

#### **Objectives:**

1. Understanding the causes of both age-related memory impairment and brain injury, including an integrated model for vision and brain injury rehabilitation.
2. Understanding the nature and causes of dual (vision and auditory) sensory loss including rehabilitation interventions.

3. Improving the lifestyle of older adults through an understanding of psycho-social issues and activities of daily living.

**CEUs:** ACCME: 3, ACVREP: 3, ANCC: 3, AOTA: 3, COPE: 3, CRCC: 3



### **SPEAKING THIS YEAR**

**Charles Schwartz,**

MS, is also presenting **S7:**

*Increasing the Effectiveness of Low Vision OT: Using "Fun and Games"*  
from 1-3 p.m. Friday in Camino Real.

### **W2: *Magnification, Lighting & Sun Filters: "Boot Camp" Basics for Low Vision Professionals***

**Charles Schwartz, MS**

Learn about the types of optical devices available for low vision patients, and how they can be incorporated into a low vision rehabilitation program. From a task-centric view, we'll review which optical devices are best suited for specific functional tasks. The use of supplemental lighting to improve the efficacy of optical devices will be discussed, and a review of sun filters dispensed based on low vision diagnosis will be covered as well.

**9:00 a.m. - 12:00 p.m., Sabino**

**Instruction Level:** Introductory

**Objectives:**

1. Understand basic concepts of optics, including lens types, measurement of magnification, field of view, focal distance and working length.
2. Achieve a grounded understanding of optical devices available to help low vision persons independently achieve their activities of daily living (ADL).
3. Broaden participants' understanding of the importance of lighting and shaded filters.

**CEUs:** ACCME: 3, ACVREP: 3, ANCC: 3, AOTA: 3, CRCC: 3

### **W3: *Understanding Vision Loss Caused by Neurological Injuries***

**Tonya Mennem, OTR**  
**Kia Eldred, OD**

**9:00 a.m. - 12:00 p.m., Camino Real**

This presentation will address the continuum of care focusing on OD and OT assessment and intervention in order to promote successful reintegration into the community. Case discussions will demonstrate OD and OT collaboration and management of binocular vision disorders, visual field defects and visual neglect following neurological injuries.

**Instruction Level:** Introductory

**Objectives:**

1. To recognize common causes of vision loss following neurological injuries.
2. To identify evaluation methods used to assess vision loss following neurological injuries.
3. To differentiate among intervention strategies applied following neurological injuries.

**CEUs:** ACVREP: 3, AOTA: 3, CRCC: 3

### **W4: *Addressing the Psychosocial Impact of Vision Loss***

**Diane B. Whitaker, OD**

**9:00 a.m. - 12:00 p.m., Madero**

Historically, the psychosocial impact of vision loss has been overlooked or ignored by the eye care community, even though it has a tremendous impact

on an individual's functional performance. Recent studies have shown that vision rehabilitation may improve functional ability, and therefore lessen the frustration, anxiety, and sense of loss associated with visual impairment. However, identifying and addressing the underlying psychological issues related to loss are critical to ensure an optimal vision rehabilitation outcome.

**Instruction Level:** Intermediate

**Objectives:**

1. Be able to differentiate between grief, complicated grief, and depression.
2. Be able to identify individuals at greatest risk for depression.
3. Be able to recommend the appropriate therapy or intervention for the psychosocial issues that arise from vision loss.

**CEUs:** ACVREP: 3 AOTA: 3, COPE: 3, CRCC: 3



#### **SPEAKING THIS YEAR**

**Janet Berthiaume,**

OTR, is also presenting **S3: *Fall Prevention Through a Collaborative Multi-Disciplinary Approach*** from 9:15 - 10:15 a.m. Friday in Camino Real.

### **W5: *Neuro-optometric Rehabilitation: A Closer Look***

**Vincent R. Vicci Jr., OD**

**Janet Berthiaume, OTR, CDRS, FNORA**

**1:00 - 4:00 p.m., Encino**

The rehabilitation professional should not only be able to identify deficits of the sensory input processes of vision but should also be acutely aware of the importance of visual input to the voluntary and involuntary motor systems of the body. He/she should understand the effect upon such mechanisms by traumatic brain injury, cerebral vascular accident and neurological dysfunction and, subsequently: a) perform baseline tests to determine



gross visual function. b) be able to assess the effect of visual loss upon motor function. c) be able to refer for visual consultation when indicated. Purpose 2: To further the understanding of those disorders of the visual mechanism which occur in the traumatically brain injured patient and discuss some of the current treatment options that are available.

**Instruction Level:** Intermediate

**Objectives:**

1. Perform baseline tests to determine gross visual function.
2. Be able to assess the effect of visual loss upon motor function.
3. Be able to refer for visual consultation when indicated.

**CEUs:** ACCME: 3, ACVREP: 3, ANCC: 3, AOTA: 3, COPE: 3, CRCC: 3

**W6: *Evaluation and Management of the Pediatric Patient with Vision Impairment***

**Dawn DeCarlo, OD**

**1:00 - 4:00 p.m., Sabino**

This interactive course will present evaluation and management strategies for the child with visual impairment. The literature about reading with pediatric vision impairment will be reviewed. Concepts learned will be reinforced through extensive case studies.

**Instruction Level:** Intermediate

**Objectives:**

1. Understand how the visual capabilities of children with vision impairments are measured.
2. Understand the types of low vision devices likely to be beneficial for kids with vision impairment.
3. Understand how the team works together to best meet the needs of the child.

**CEUs:** ACCME: 3, ACVREP: 3, ANCC: 3, AOTA: 3, COPE: 3, CRCC: 3

**W7: *Our First View: Seeing and Treating the Emotional Components of Low Vision***

**Linda Goodwin, OTR/L, GC-C**

**1:00 - 4:00 p.m., Camino Real**

This program will address the impact low vision has on the individual's emotional state. Statistical prevalence of depression will be examined. Information will be provided on depression screening tools and intervention techniques. Role delineation and using low vision multi-disciplinary approach will be discussed. Case studies will be utilized.

**Instruction Level:** Intermediate

**Objectives:**

1. Identify aspects of emotional impact of low vision on the individual.
2. Demonstrate knowledge of screening tools used for depression.
3. Be aware of role delineation and utilization of referral sources.

**CEUs:** ACVREP: 3, AOTA: 3, CRCC: 3



**SPEAKING THIS YEAR**

**Lynne Noon,**

OD, is also presenting **S12:**

***Starting an OT Low Vision Program: New Challenges, Fresh Ideas*** from 4-6 p.m. Friday in Camino Real.

**W8: *Custom and Pre-Made Optical Low Vision Device Workshop***

**Lynne Noon, OD**

**1:00 - 4:00 p.m., Madero**

This workshop introduces custom and pre-made optical devices that are appropriate for field expansion and for distance, intermediate and near tasks. The advantages and disadvantages of each will be discussed. The attendee will learn the basics of fitting custom low vision aids. There will be hands-on experience with all devices.

**Instruction Level:** Introductory

## Objectives:

1. Understand the custom and pre-made optical devices that are appropriate for field expansion or for distance, intermediate and near tasks.
2. Be able to identify the advantages and disadvantages of the various types of optical low vision products.
3. Learn the basics of fitting custom low vision aids.

**CEUs:** ACVREP: 3, AOTA: 3, COPE: 3, CRCC: 3

# Sessions

Research sessions are listed with RS session numbers. Research session abstracts are provided on page 35.

## Friday, September 5

### **RS1: Randomized Controlled Trials in Low Vision Rehabilitation**

**Moderator: Robert Massof, PhD - Wilmer Eye Institute, Johns Hopkins University School of Medicine - Baltimore, MD**

**9:00 - 11:00 a.m., Villa**

9:00 *Randomized Controlled Trials on Preventing Depression in Low Vision* - Robin Casten, PhD: Jefferson Medical College, Dept. of Psychiatry and Human Behavior - Philadelphia, PA  
9:20 *VA Low Vision Intervention Trial (LOVIT): One Year Follow-Up* - Joan Stelmack, OD, MPH: Hines VA Blind Rehabilitation Center - Hines IL  
9:40 *The Clinical Low Vision Research Network (CLOVRNET)* - Judith Goldstein, OD: Wilmer Eye Institute, Johns Hopkins University School of Medicine - Baltimore, MD  
10:00 *Outcome Measures for Collaborative Low Vision Rehabilitation Studies* - Robert W. Massof, PhD: Wilmer Eye Institute, Johns Hopkins University School of Medicine - Baltimore, MD



### **RS2: Research Topics 1**

**Moderator: J. Vernon Odom, PhD - Professor of Ophthalmology and Physiology, West Virginia University Eye Institute, Morgantown, WV**

**9:00 - 10:30 a.m., Carranza**

9:00 *Audio Description: An Aid to Literacy* - Joel Snyder, MA: Professional Audio Describer  
9:20 *Enhancing Visual Function with Specialized Lighting* - Robin Mumford, BSc, FPRI: Executive Director, Mumford Institute  
9:40 *Do Visually Impaired and Blind Pedestrians Make More Incorrect Street Crossing Decisions Compared to Normally Sighted Pedestrians?* - Shirin Hassan, PhD: Low Vision and Mobility, BAppSc (Optom) Foreign Trained Optometrist  
10:00 *Audio Description: The Visual Made Verbal* - Joel Snyder, MA: Professional Audio Describer

### **S1: Overview of Vision Rehabilitation Treatment Modalities**

**Mark Wilkinson, OD**

**9:15 - 10:15 a.m., Encino**

This course provides an overview of vision rehabilitation (VR), the only non-surgical treatment currently available for people with vision loss. This course discusses the common causes of vision loss and their effect on visual functioning. The advantages and disadvantages of the various treatment modalities available will be reviewed.

**Instruction Level:** Introductory

**Objectives:**





1. Define and understand what low vision is.
2. Recognize the causes of low vision.
3. Understand why visually impaired individuals can benefit from low vision rehabilitation.

**CEUs:** ACCME: 1, ACVREP: 1, ANCC: 1, AOTA: 1, COPE: 1, CRCC: 1

## **S2: *Visual-Vestibular Integration Dysfunction***

**Vincent Vicci, OD**

**9:15 - 10:15 a.m., Sabino**

There are numerous treatises that discuss the anatomy, physiology and treatment of the separate visual, vestibular and sensory motor systems. However, until just recently, few were able to discuss the functional integration and relationships that exist between these three systems. This program is designed to give the participant an introduction into the recognition and treatment of visual-vestibular integrative disorders from the perspective of the vision care specialist.

**Instruction Level:** Intermediate

### **Objectives:**

1. Be able to define Vestibular Dysfunction and its incidence.
2. Be able to define the Visual system dysfunction associated with vestibular disorders.
3. List several treatment modalities options.

**CEUs:** ACCME: 1, ACVREP: 1, ANCC: 1, AOTA: 1, COPE: 1, CRCC: 1

## **S3: *Fall Prevention through a Collaborative Multi-Disciplinary Approach***

**Janet Berthiaume, OT**

**9:15 - 10:15 a.m., Camino Real**

Many factors contribute to falls at any age. Environmental modifications coupled with vision rehabilitation techniques, embracing a multi-disciplinary approach, are among the interventions discussed to increase patient safety and reduce the risk of falls. Together, rehabilitation professional

collaboration can improve patient outcomes.

**Instruction Level:** Intermediate

### **Objectives:**

1. Recognize the multi-disciplinary members of Fall Prevention team.
2. Demonstrate assessments for nursing, optometry and occupational therapy for identifying fall risks.
3. Identification and treatment interventions to help prevent/reduce fall risk.

**CEUs:** ACVREP: 1, AOTA: 1, CRCC: 1

## **S4: *Charles Bonnet Visual Hallucinations***

**Mary Lou Jackson, MD of Ophthalmology**

**9:15 - 10:15 a.m., Madero**


More than one third of patients who attend vision rehabilitation clinics experience recurrent visual hallucinations. This session will review what we know and what we do not know about this interesting symptom, when hallucinations are not Charles Bonnet Syndrome, and hallucinations which occur in other geriatric disease settings.

**Instruction Level:** Introductory

### **Objectives:**

1. Identify patients who are experiencing Charles Bonnet Hallucinations.
2. Identify patients who are experiencing hallucinations due to other disease processes.
3. Appreciating the relationship between Charles Bonnet Hallucinations and contrast sensitivity.

**CEUs:** ACVREP: 1, AOTA: 1, COPE: 1, CRCC: 1

	<p><b>SPEAKING THIS YEAR</b></p> <p><b>Laura Windsor,</b></p> <p>OD, is also presenting <b>S24: <i>Biopic Driving Fitting and Training: The Keys to Success</i></b> from 1:30 - 2:30 p.m. Saturday in Encino.</p>
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### **S5: *Maximizing and Managing Vision: The 12 Visual Problems of Low Vision Patients***

**Laura Windsor, OD**

**1:00 - 3:00 p.m., Encino**

This course will detail the 12 most common vision problems associated with vision loss from various diseases including macular degeneration, diabetic retinopathy, retinitis pigmentosa, glaucoma, and other congenital ocular diseases. This multimedia course will include video animations of these common problems and their affect on vision and the person's daily living. An introduction to low vision devices and aids will also be addressed to help improve functioning in activities of daily living.

**Instruction Level:** Introductory

**Objectives:**

1. Understand the unique visual problems associated with vision loss and how they affect a person's vision.
2. Gain insight on how the different ocular conditions may have different visual issues and how they affect one's functioning.
3. Understand and treat these 12 visual problems through therapy and the application of low vision devices.

**CEUs:** ACCME: 2, ACVREP: 2, ANCC: 2, AOTA: 2, COPE: 2, CRCC: 2

### **S6: *Opening the Black Box: Neuroplasticity and Oculomotor Learning in Saccadic and Vergence Eye Movements***

**Tara Alvarez, PhD of Biomedical Engineering**

**1:00 - 3:00 p.m., Sabino**

This course presents a high-level overview of the biophysics of how functional MRI (fMRI)/neural imaging experiments operate, how to design an experiment, and the impact fMRI can have on the understanding of neuroplasticity within the oculomotor systems.

**Instruction Level:** Introductory

**Objectives:**

1. Understand high-level on functional MRI biophysics.
2. Understand oculomotor learning in saccades and vergence.
3. Understand neuroplasticity of convergence insufficiency.

**CEUs:** ACCME: 2, ACVREP: 2, ANCC: 2, AOTA: 2, COPE: 2, CRCC: 2

### **S7: *Increasing the Effectiveness of Low Vision OT: Using "Fun and Games"***

**Charles Schwartz, MS**

**1:00 - 3:00 p.m., Camino Real**

A new learning approach was created to introduce the wide array of options available to those living independently with low vision. Using a "board-game" approach, serious information and research are shared, including accepted strategies, techniques, and "best practices" used to encourage independent living. The program includes statistics on low vision, service delivery approaches, and introduces an innovative format for sharing publicly-available information. Participants have been empowered by these sessions, and this approach will help to improve Low Vision Occupational Therapy outcomes, by enhancing patient education.

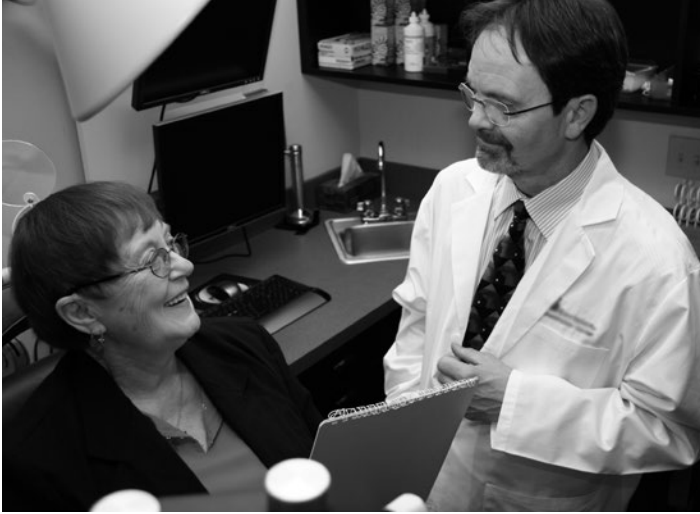
**Instruction Level:** Intermediate

**Objectives:**

1. Articulate major categories required for mastery of independent living.
2. Be able to share key learnings across these categories.
3. Understand the applications of supporting aids and devices.

**CEUs:** ACVREP: 2, AOTA: 2, CRCC: 2





**S8: Orientation & Mobility for Young Children with Visual Impairments: Developing Motor Skills**

**Rona Pogrud, PhD of Special Education, Visual Impairment**

**1:00 - 3:00 p.m., Madero**

This presentation will provide an overview of what is included in orientation and mobility (O&M) for young children with visual impairments and an explanation of its importance for overall development. There will be a focus on motor development for the young child and how visual impairment impacts these motor skills.

**Instruction Level:** Intermediate

**Objectives:**

1. Identify the definitions and goals of orientation and mobility for young children with visual impairments.
2. Explain the importance of early movement experiences on later mobility skills for children who are visually impaired.
3. Explain the impact of visual impairment on motor development.

**CEUs:** ACVREP: 2, AOTA: 2, CRCC: 2

**RS3: Research Topics 2**

**Moderator: George Timberlake, PhD - Dept. of Ophthalmology, University of Kansas Medical Center**

**1:00 - 2:30 p.m., Carranza**

1:00 *Pilot Data Collection Project to Evaluate the Effectiveness of Visual Rehabilitation Services - Judith Goldstein, OD*

1:20 *Psychosocial Impact of Long Term Optical Device Use - Cynthia Bachofer, TVI, LVT*

1:40 *Long Term Use of Optical Devices - Cynthia Bachofer, TVI, LVT*

2:00 *Telescope Use: Factors of Frustration, Factors of Success - Cynthia Bachofer, TVI, LVT*

**S10: Evaluation and Management of Children with Visual Impairments**

**Mark Wilkinson, OD**

**4:00 - 5:00 p.m., Encino**

This presentation provides a comprehensive review of vision rehabilitation management of children with visual impairments. As part of the vision rehabilitation team, the vision rehabilitation clinician assists the educational team with the development of the student's Individual Educational Plan and assists with the choosing of the appropriate learning medium.

**Instruction Level:** Intermediate

**Objectives:**

1. Understand the unique characteristics and needs of this population.
2. Be familiar with the clinical evaluation of the child with a visual impairment.
3. Be familiar with the roles of the multi-disciplinary team that works with children with visual impairments.

**CEUs:** ACCME: 1, ACVREP: 1, ANCC: 1, AOTA: 1, COPE: 1, CRCC: 1

**S11: Innovative Approaches in Low Vision****Richard Windsor, OD****4:00 - 6:00 p.m., Sabino**

This fast-paced course in low vision rehabilitation looks at a variety of complex low vision problems and presents new ideas, tools and clinical approaches developed by the nationally award winning staff of Low Vision Centers of Indiana. Subjects will range from macular degeneration to brain injury to achromatopsia to intractable diplopia. The course will also present practical approaches and clinical tools to aid visually impaired drivers from the early AMD driver to the visual field loss patient. Approaches in prescribing visual field expanders and simple training methods will be discussed. Interwoven throughout the clinical presentation will be a variety of practice tools and pearls to better manage the care of low vision patients, to better educate patients and family through multimedia and to reduce errors in prescribing.

**Instruction Level:** Advanced**Objectives:**

1. Provide a challenging broader view of low vision rehabilitation from the classical low vision with retinal disease to the neurologically impaired patient.
2. Present new methods and tools to treat many of the challenging visual problems associated with stroke, TBI and pituitary tumor.
3. Present new approaches to complex driving problems including drivers with visual field loss, AMD patients, achromatopsia and brain injury/hemianopsia.

**CEUs:** ACCME: 2, ACVREP: 2, ANCC: 2, AOTA: 2, COPE: 2, CRCC: 2

**SPEAKING THIS YEAR**

**Rhonda Landry,**  
OT, is also presenting **S26:**  
*Intervention for the Patient with*  
*Diabetes who is Visually Impaired*  
from 1:30 - 3:30 p.m. Saturday in  
Camino Real.

**S12: Starting an OT Low Vision Program: New Challenges, Fresh Ideas**

**Janet Menke, OT**  
**JoAnne Wright, CLVT, OT, PhD of**  
**Occupational Science**  
**Rhonda Landry, OT**  
**Monica Perlmutter, OT**  
**Lynne Noon, OD**

**4:00 - 6:00 p.m., Camino Real**

Low vision rehabilitation is a growing need with the aging population. But how do you start a low vision program? Last year a program was presented with great results. New arenas for providing this service are opening. The participants will meet in small groups after lectures to discuss, collaborate and problem solve the challenges they have identified in their own areas. Special guest: Lynne P. Noon, OD, FAAO, Diplomate in Low Vision Rehabilitation.

**Instruction Level:** Advanced**Objectives:**

1. Formulate a basic blueprint to start a program in low vision while sharing ideas and networking with other OTs in a learning through discussion format.
2. Understand the many steps and processes (i.e. marketing, time, legal, financial) needed to start a successful practice.
3. Verbalize how to access the wide variety of resources available to assist with your venture.

**CEUs:** ACVREP: 2, AOTA: 2, CRCC: 2

**S13: Preparing Students with Spectacle-Mounted Telescopes for Participation in Driver's Education: The Role of the Orientation & Mobility Specialist**

**Julie Unatin, TVI, O&M**  
**4:00 - 5:00 p.m., Madero**

This presentation will outline what skills are necessary for a student to have with a telescope PRIOR to participation in a driving program. Orientation and Mobility Specialists have knowledge



and expertise that the average driving instructor or adaptive driving instructor does not have. It is evident, through the work that we do with our students in and around the community, that we have an opportunity to give the student with a spectacle mounted telescope precise training with their system in preparation for them to participate in driver's education. Specific training techniques with the telescope will be discussed and an outline of the role of the Orientation and Mobility Specialist, Rehabilitation teacher, Occupational Therapist or other team member will be discussed.

**Instruction Level:** Introductory

**Objectives:**

1. Have an understanding of skills necessary with the telescope prior to driver's education.
2. Have an awareness of role of the Orientation & Mobility specialist as it relates to preparing a student to participate in driver's education experience.
3. Have a copy of sample forms to assess student with telescopes before they begin driver's education program.

**CEUs:** ACVREP: 1, AOTA: 1, CRCC: 1

**RS4: *Driving with Impaired Vision***

**Moderator:** Eli Peli, OD - Schepens Eye Research Institute, Dept. of Ophthalmology, Harvard Medical School, Boston, MA

**4:00 - 5:45 p.m., Villa**

4:00 *Clinical and Technical Considerations in Prescribing Biotopic Telescopes for Driving* - Henry Greene

4:20 *Current Perspectives on Biotopic Driving: A Review of State Licensure Regulations* - James Nolan, PhD: Envision and the University of Kansas Dept. of Ophthalmology

4:40 *Demonstration Project Introducing Biotopic Driving in the Netherlands* - Aart C. Kooijman: University of Groningen - Groningen, The Netherlands, Royal Visio, National Foundation for the Visually Impaired and Blind - Huizen, The Netherlands; Bart J.M. Melis-Dankers: University

of Groningen - Groningen, The Netherlands, Royal Visio, National Foundation for the Visually Impaired and Blind - Huizen, The Netherlands; Wiebo H. Brouwer: University of Groningen - Groningen, The Netherlands; Jaap M.D. Witvliet: Royal Visio, National Foundation for the Visually Impaired and Blind - Huizen, The Netherlands; Ruud A. Bredewoud: Netherlands Bureau of Driving Skills Certificates - Rijswijk, The Netherlands

5:00 *Driving with Hemianopia: Simulator and On-Road Studies*: Alex Bowers

5:20 *Sources of Secondary Task Interference with Driving: Executive Processes or Verbal and Visio-spatial Rehearsal Processes?* - Nichole Morris, Cooper Phillips, Kathleen Thibault, Alex Chaparro

**S14: *Evaluating Fitness to Drive***

**Diane Whitaker, OD**

**5:00 - 6:00 p.m., Encino**

Evaluating fitness to drive is multifaceted. Several factors affect driving performance, but especially loss of vision. This course will present the most current information on driving with vision loss based on real or simulated driving performance, as well as by reported driving histories. Information provided should enable the provider to identify those at greatest risk for a motor vehicle crash and to advise those at risk about any modifications that should be made in their driving patterns and techniques. Proper documentation and reporting will be emphasized. A team approach to driving rehabilitation will be presented. Finally, a few cases will be presented for discussion.

**Instruction Level:** Advanced

**Objectives:**

1. Identify the factors that impact driving performance.
2. Be able to identify a person at risk for a MVA.
3. Make the appropriate referrals for driving evaluations to local DMV, OT and/or certified driving instructors.

**CEUs:** ACCME: 1, ACVREP: 1, ANCC: 1, AOTA: 1, COPE: 1, CRCC: 1





### **S15: *Orientation and Mobility for Adults with Visual Impairment***

**Nora Griffin- Shirley, PhD of Human Resource Development**

**5:00 - 6:00 p.m., Madero**

This presentation will address the impact health problems have on the travel ability of adults with visual impairments, viable service delivery options, effective teaching strategies, factors to account for when designing and implementing orientation and mobility programs and future trends and issues in the provision of orientation and mobility services.

**Instruction Level:** Intermediate

#### **Objectives:**

1. Identify how blindness and other health problems impact travel ability of adults with visual impairments and viable service delivery options.
2. Describe the characteristics of adult learners and effective teaching strategies to use when teaching orientation and mobility skills to adults with visual impairments, factors to account for when designing and implementing orientation and mobility programs.
3. Recognize future trends and issues in the provision of orientation and mobility services to adults with visual impairments.

**CEUs:** ACVREP: 1, AOTA: 1, CRCC: 1

## **Saturday, September 6**

### **S16: *Pediatric Low Vision Rehabilitation***

**Deena Sandall, OD**

**8:00 - 9:00 a.m., Encino**

Treating children with vision impairments or special needs can sometimes be intimidating. This lecture will give the participants greater ease in interacting with visually impaired or special needs children.

**Instruction Level:** Introductory

#### **Objectives:**

1. Learn about the most common pediatric ocular pathologies.
2. Identify the treatments and/or devices that work well for kids with vision impairments.
3. Feel more comfortable and confident working with low vision kids.

**CEUs:** ACCME: 1, ACVREP: 1, ANCC: 1, AOTA: 1, COPE: 1, CRCC: 1

### **S17: *The Diabetic Patient Dilemma: Poor Patient Education and Referral for Vision Rehabilitation***

**William Park, OD, FFAO**

**8:00 - 9:00 a.m., Sabino**

Diabetic retinopathy is one of the leading causes of blindness in the United States. This is further complicated by other co-morbidities which impact overall health. Early detection of diabetic retinopathy is essential in preventing and managing the disease. Even if retinopathy doesn't progress into full blindness, mild visual impairments can significantly reduce one's functional status.

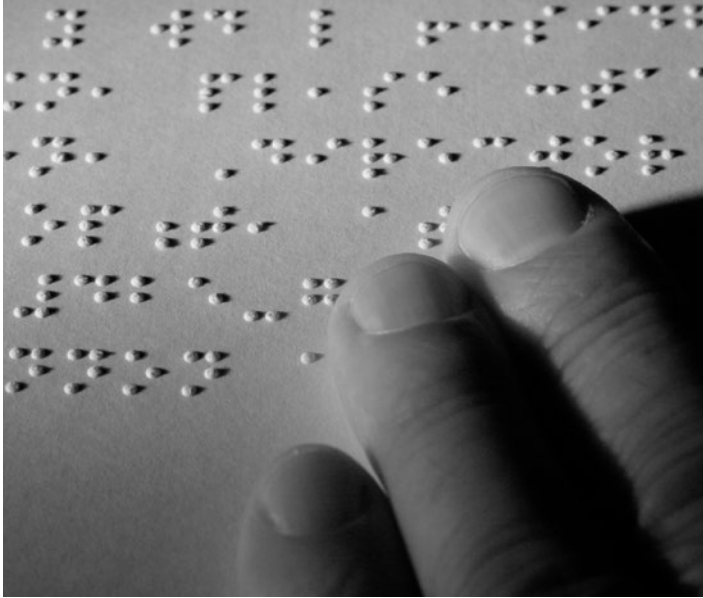
**Instruction Level:** Advanced

#### **Objectives:**

1. Cite that the diabetic epidemic emerged in the 20th Century and remains unrestrained into the 21st Century.
2. Recognize that diabetes has already taken on extraordinary implications on the U.S. population through its acute, chronic and







visual complications, along with disability and premature death.

3. Identify that diabetic patients are frequently referred for low vision rehabilitation long after visual disability has already adversely affected their ADLs.

**CEUs:** ACCME: 1, ACVREP: 1, ANCC: 1, AOTA: 1, COPE: 1, CRCC: 1

### **S18:** *Hope, Help and Independence for People with Vision Loss*

**Bonnie Truax**

**8:00 - 9:00 a.m., Camino Real**

The presenter will describe her journey from a sighted person to one who is legally blind and how she overcame obstacles to found an award-winning organization serving the needs of more than 2,000 visually impaired and blind individuals.

**Instruction Level:** Intermediate

#### **Objectives:**

1. Understand the difficult transition from having sight to being legally blind.
2. Realize the critical role of vision care professionals during this journey.
3. Foster programs to provide hope, help, and independence for others.

**CEUs:** ACVREP: 1, AOTA: 1, CRCC: 1

### **S19:** *Computer-Based Technology for the Low Vision Patient*

**Michael Fischer, OD**

**8:00 - 9:00 a.m., Madero**

This presentation will review the most recent solutions for low vision patients using computer technology. A multimedia presentation is utilized to better demonstrate computer accessibility options including screen magnification, synthetic speech, input options and internet browsing.

**Instruction Level:** Advanced

#### **Objectives:**

1. Describe the development of computer accessibility options for the low vision patient.
2. Describe how computer software can assist patients with low vision to access information in various ways.
3. Describe how the patient's level of visual function is considered when recommending computer accessibility options.

**CEUs:** ACVREP: 1, AOTA: 1, COPE: 1, CRCC: 1

### **RS5:** *Eccentric Viewing Training*

**Moderator: Don Fletcher, MD - Smith-Kettlewell Eye Research Institute, Frank Stein and Paul S. May Center for Low Vision Rehabilitation, California Pacific Medical Center, San Francisco**

**9:00 - 11:00 a.m., Villa**

9:00 *Eccentric Viewing Training - An Overview*  
- Donald C. Fletcher, MD: Smith Kettlewell Eye Research Institute and CPMC Dept. of Ophthalmology

9:15 *Eccentric Viewing Training or PRL Training: Is there a Difference?* - Ronald A. Schuchard, PhD: Atlanta VA Rehabilitation R&D CoE, Emory University School of Medicine

9:30 *Benefits of OT Training in Low Vision Patients* - Kim Schoessow, OT

9:45 *Central Field Evaluation without a Scanning Laser Ophthalmoscope* - Ron Cole, MD

10:00 *Eccentric Viewing Training: A Structured*

*Approach - Chistine Kent, PTR/L; Marilee Walker, OTR/L*

*10:15 Ring Scotomas: How Do You Find Them and What Do You Do About Them - Mary Lou Jackson, MD: Massachusetts Eye and Ear Infirmary*

*10:30 An Occupational Therapy Approach to Eccentric Training - Michelle Bianchi, OTR/L: National Retina Institute - Baltimore, MD*

### **RS6: Research Topics 3**

**Moderator: Marilyn Schneck, PhD - Smith-Kettlewell Eye Research Institute**

**9:00 - 10:30 a.m., Carranza**

*9:00 Assessment of Functional Vision - August Colenbrander, MD Ophthalmology, Vision Rehabilitation*

*9:20 How Engagement in Occupation Affects Older Women's Adaptation to Low Vision - Theresa Smith, LVT, OT, PhD (Occupational Therapy)*

*9:40 Combat Deployment Injury and Vision Loss and Dysfunction: Learning from Current Conflicts - Gregory Goodrich, PhD (Experimental Psychology)*

*10:00 Usher Syndrome in Educational Settings: Indigenous Identification Strategies Developed in India - G. Victoria Naomi, TVI, PhD (Special Education - Research on Low Vision Reading)*

### **S20: Creating a Low Vision Task Force: Pooling Resources to Better Serve the Community**

**Sandra Fox, OD**

**Melva Perez Andrews, CLVT, OT**

**9:15 - 10:15 a.m., Encino**

Low vision rehabilitation professionals will learn how to develop a task force in their community. Members of the San Antonio Low Vision Coalition will share their experiences and discuss the Healthy Vision 2010 Community Award projects that enabled them to work together to foster community awareness concerning low vision.

**Instruction Level:** Introductory

#### **Objectives:**

1. Recognize the value of creating a working

network of low vision rehabilitation professionals in your community.

2. Know how to encourage membership in the task force and foster relationships with other disciplines.

3. Develop community projects to increase awareness about low vision in the community.

**CEUs:** ACCME: 1, ACVREP: 1, ANCC: 1, AOTA: 1, COPE: 1, CRCC: 1

### **S21: Contact Lenses as an Adjunct of Vision Rehabilitation**

**William Park, OD, FAAO**

**9:15 - 10:15 a.m., Sabino**

Contact lenses are often ignored as a component of providing low vision rehabilitation for the visually impaired. This course emphasizes contact lenses should be the first choice for best corrected visual acuity for patients with high refractive error and/or nystagmus, aniridia, albinism, cone dystrophies and ocular trauma. Age should not be a factor in inclusion or exclusion for fitting a pediatric patient.

**Instruction Level:** Intermediate

#### **Objectives:**

1. To recognize when contact lenses are paramount in consideration for obtaining best corrected visual acuity due to ocular disease and differentiate how contact lenses contribute to enhanced visual function and quality of life.
2. Cite practice management for pediatric patients and that age of fitting doesn't matter in realization of success.
3. Differentiate the impact of fitting children at a early age as part of the Youth Low Vision Program (Michigan) and the Children's Vision Rehabilitation Program (CVRP-WV) and the outcomes short and long term (21 years of successful wear).

**CEUs:** ACCME: 1, ACVREP: 1, ANCC: 1, AOTA: 1, COPE: 1, CRCC: 1

### **S22: You Can Teach an Old Dog New Tricks - Successful Visual Rehabilitation for the**



**Older Adult Learner****Colleen O'Donnell, CLVT, OT****9:15 - 10:15 a.m., Camino Real**

New research on the aging brain is providing us with valuable information to assist the older adult in learning visual rehabilitation. An understanding of normal and abnormal changes in the aging brain, physical conditions that impact learning and techniques to motivate older clients will enhance your program.

**Instruction Level:** Introductory**Objectives:**

1. Understand new research about neuroplasticity and the aging brain.
2. Understand memory changes and the difference between normal and abnormal aging brain function.
3. Be able to describe strategies to enhance learning for the older adult's visual rehabilitation program.

**CEUs:** ACVREP: 1, AOTA: 1, CRCC: 1**S23: Social Competence - A Necessity for Job Placement!****Elke Wagner****9:15 - 10:15 a.m., Madero**

This presentation will describe a curriculum that focuses on successful strategies to acquire or expend social competence in adolescents at a vocational school for the visually impaired and blind with the emphasis on commercial education in Germany. It will also provide the opportunity to incorporate the shown principles into one's own curriculum.

**Instruction Level:** Intermediate**Objectives:**

1. Understand the importance of social competence in career education for people who are visually impaired or blind.
2. Understand the effectiveness of certain curriculum elements for teaching social

competence for job placement.

3. Understand the application of some new competencies to an existing curriculum for job placement.

**CEUs:** ACVREP: 1, AOTA: 1, CRCC: 1**S24: Bioptic Driving Fitting and Training: The Keys to Success****Laura Windsor, OD****1:30 - 2:30 p.m., Encino**

This course reviews common systems used for bioptic driving and how training the patient to use the system is crucial. Bioptic driving increases the doctor's liability risk and having the proper training is needed to help lessen the risk and properly ensure the driver understands the use of the bioptic system. This course will discuss a step by step approach to train bioptic drivers in the office and also with activities at their home to advance their use of their system before being released from your care or to behind-the-wheel training.

**Instruction Level:** Intermediate**Objectives:**

1. Review the most common bioptic systems and how they are used in driving.
2. Understand the liability risk one assumes with prescribing bioptic driving and how a structured training plan can lessen your patient's risk of accident.
3. Learn new approaches and clinical pearls in developing a bioptic training program for your patients involving both in-office training and at-home training for the patient.

**CEUs:** ACCME: 1, ACVREP: 1, ANCC: 1, AOTA: 1, COPE: 1, CRCC: 1**SPEAKING THIS YEAR****Colleen O'Donnell,**

CLVT, OT, is also presenting

**S22: You Can Teach an Old Dog New Tricks - Successful Visual Rehabilitation for the older adult learner** from 9:15 - 10:15 a.m. Saturday in Camino Real.

**S25: *Nervous about Neuro-Visual Rehabilitation? Planning and Providing Intervention for Visual Field Loss***

**Colleen O'Donnell, CLVT, OT**

**1:30 - 2:30 p.m., Sabino**

Clients with vision loss resulting from brain injury often have complicated field patterns. It is necessary to plan and provide intervention about adapting visual search incrementally. Types of successful strategies, how to grade treatment and how to integrate new techniques into daily activities will be demonstrated.

**Instruction Level:** Intermediate

**Objectives:**

1. Identify effective search strategies to compensate for visual field loss following a brain injury.
2. Explain how to provide incremental opportunities for success in learning new strategies.
3. Identify ways to integrate newly learned search strategies into daily living.

**CEUs:** ACCME: 1, ACVREP: 1, AOTA: 1, CRCC: 1

**S26: *Intervention for the Patient with Diabetes who is Visually Impaired***

**Rhonda Landry, OT**

**1:30 - 3:30 p.m., Camino Real**

This class will describe effective treatment strategies for disease management with focus on low vision principles, including the use of devices and compensatory techniques for medication management, nutritional compliance, preserving skin integrity and exercise protocols. A list of resources will also be provided for facilitation of self-management skills.

**Instruction Level:** Introductory

**Objectives:**

1. Describe treatment protocols for Type I and Type 2 diabetes.
2. Describe low vision intervention strategies for

- facilitating self management of disease process.
3. List diabetic and low vision resources to facilitate self-management of disease process.

**CEUs:** ACVREP: 1, AOTA: 2, CRCC: 1

**S27: *Cortical Visual Impairment: What is it, and how do we adapt?***

**Sherry Holder, TVI, O&M, CLVT**

**Renée Miller, TVI, O&M, CLVT**

**1:30 - 3:30 p.m., Madero**

Cortical visual impairment is the leading cause of visual impairment in the Western World, surpassing retinopathy of prematurity by 20%. This presentation covers definition, causes and characteristics. Presenters will cover classroom adaptations and modifications for both the child with and without other disabilities.

**Instruction Level:** Introductory

**Objectives:**

1. Have a working knowledge of what CVI is.
2. Be able to determine the need for further evaluation of the student.
3. Be able to adapt or modify some materials and/or classroom.

**CEUs:** ACVREP: 2, AOTA: 2, CRCC: 2





## **RS7: *Implanted Devices to Preserve or Restore Vision***

**Moderator: Matt McMahon, PhD** - Second Sight Medical Products, Inc.

**1:30 - 3:30 p.m., Villa**

1:30 *Retinal and Higher Visual Prosthetics: A Status Update* - Gislin Dagnelie, PhD: Johns Hopkins University School of Medicine

1:50 *Notes from the Front Lines: The Importance of the Relationship with the Implant User in Retinal Prosthesis Research* - Eugene Filley, PhD: Retina Foundation of the Southwest

2:10 *Application of Encapsulated Cell Technology for Ophthalmic Diseases* - Konrad Kauper, PhD: Neurotech USA

2:30 *Results from the ASR Retinal Prosthetic Study for Vision Loss from Retinitis Pigmentosa* - Ron Schuchard, PhD: ASR Device Study Group, Atlanta VA Rehabilitation R&D Center of Excellence, Emory University

2:50 *The Second Sight Retinal Prosthesis for the Treatment of Blindness from Photoreceptor Degeneration* - Matthew J. McMahon, PhD: Second Sight Medical Products, Inc.

## **RS8: *Overcoming the Barrier to Treating Vision Impairment: The Team, Outcomes and Funding***

**Lori Grover, OD**

**Joan Stelmack, OD**

**Robert Massof, PhD of Physiological Optics**



**1:30 - 3:30 p.m., Carranza**

The barriers to treating vision impairment impact professionals choosing to provide vision rehabilitation services. Critical factors including the rehabilitation team approach, incorporating evidence-based care, using patient outcomes, and understanding funding mechanisms are discussed. A panel of experts from respective fields reviews strategies for overcoming obstacles that impact vision rehabilitation care.

**Instruction Level:** Intermediate

### **Objectives:**

1. Recognize the barriers to providing vision rehabilitation services.
2. Understand the rehabilitation team model, employing evidence-based care, use of outcomes in meeting objectives, and funding mechanisms for services.
3. Identify strategies for overcoming obstacles to successful provision of vision rehabilitation care.

**CEUs:** ACVREP: 2, AOTA: 2, COPE: 2, CRCC: 2

## **S28: *Is the Optic Disc Cupping or Sinking in Glaucoma?***

**Syed Hasnain, MD General Ophthalmology**

**2:30 - 3:30 p.m., Encino**

The optic disc in glaucoma may not be cupping (the concentric enlargement of the original cup of the optic disc), a term which was given a hundred and fifty years ago. This concept may have misled us in the pursuit of the pathogenesis of glaucoma. This presentation will discuss how the optic disc may be sinking in its entirety instead of cupping.

**Instruction Level:** Intermediate

### **Objectives:**

1. Understand the history of the term “cupping” in glaucoma.
2. Understand the difference between “cupping” and “sinking”.
3. Understand the possible change in glaucoma diagnosis.



**CEUs:** ACCME: 1, ACVREP: 1, ANCC: 1, AOTA: 1, COPE: 1, CRCC: 1

### **S29: Accessibility and IBM**

**Lynne Brown**

**2:30 - 3:30 p.m., Sabino**

This presentation will present how IBM, the world's largest computer company, is working to progress the topic and adoption of IT accessibility within both the private and public sector. IBM views accessibility as access to information technology regardless of age or ability. IBM hired its first employee with a disability in 1914 and continues with a progressive and innovative program to address the needs of people with disabilities (including blind and low vision) for both IBM's employees, clients and their customers. Lynne Brown of IBM Research's Human Ability and Accessibility Center will share some powerful insight and challenging environments which IBM innovates.

**Instruction Level:** Introductory

#### **Objectives:**

1. Understand IBM's commitment to accessibility.
2. Exposure to information technology (IT) accessibility standards
3. IBM's work with corporations to incorporate accessibility

**CEUs:** ACVREP: 1, AOTA: 1, CRCC: 1

### **S31: Driving and the Hemianopsia Patient**

**Richard Windsor, OD**

**4:00 - 5:00 p.m., Encino**

When homonymous hemianopsia develops after stroke, tumor and/or traumatic brain injury, most patients cannot return to drive. However, many can and the key is to develop the right assessment tools to determine the potential to return and then rehabilitate those patients through therapy, visual field awareness systems, car modification and extensive behind-the-wheel training. This course will present practical clinical approaches to evaluate and rehabilitate homonymous hemianopsia patients

to return to drive and help the low vision specialist recognize who should not return to drive.

**Instruction Level:** Intermediate

#### **Objectives:**

1. Present the assessment tools and approaches to evaluating the homonymous hemianopsia patient.
2. Review procedures to determine potential for driving rehabilitation in patients with a homonymous hemianopsia.
3. Develop an understanding of the treatment approaches to rehabilitate the homonymous hemianopsia driver including therapy, low vision systems, automobile modifications and behind-the-wheel training.

**CEUs:** ACCME: 1, ACVREP: 1, ANCC: 1, AOTA: 1, COPE: 1, CRCC: 1

### **S32: Using the Clinical Triad of Acuity/Contrast Sensitivity/Central Visual Field to Plan Rehabilitation Interventions for Patients with Macular Disease**

**Mary Lou Jackson, MD of Ophthalmology**

**4:00 - 5:00 p.m., Sabino**

In this presentation the clinical triad of acuity, contrast sensitivity and central field will be used to demonstrate how each contributes to planning vision rehabilitation interventions. Clinical cases will be presented to outline how the comprehensive vision rehabilitation plan addresses reading rehabilitation, activities of daily living, safety, participation and well-being.

**Instruction Level:** Intermediate

#### **Objectives:**

1. Understand the limitations of using only visual acuity to assess patients' vision function.
2. Understand the importance of contrast sensitivity in understanding the patient's clinical situation and planning rehabilitation.
3. Understand the importance of scotoma location, size and depth in understanding the patient's clinical situation and planning rehabilitation.



**CEUs:** ACCME: 1, ACVREP: 1, ANCC: 1, AOTA: 1, COPE: 1, CRCC: 1

### **S33: *Developing Low Vision OT Programs in a Rural Setting: 4 Models to Consider in an Environment with Limited Resources***

**Sherry MacKinnon, LVT, OT**

**4:00 - 5:00 p.m., Camino Real**

This presentation describes 4 different models for starting Low Vision OT programs in a rural environment where resources are limited and access to ODs/MDs who specialize in low vision is a challenge. These models represent actual programs with which the presenter has had experience developing in the state of Maine.

**Instruction Level:** Introductory

#### **Objectives:**

1. Identify 4 models for setting up a low vision OT program/practice in an environment with limited resources, and the associated challenges and opportunities for each model.
2. Understand the steps and processes involved in program development for each model; identify resources available to assist in program development.
3. Understand the importance of professional collaboration with other disciplines and providers when setting up a new program.

**CEUs:** ACVREP: 1, AOTA: 1, CRCC: 1

### **S34: *Video and Adaptive Technology for the Low Vision Patient***

**Michael Fischer, OD**

**4:00 - 5:00 p.m., Madero**

This presentation will review current and future solutions for low vision patients using video and other adaptive technology devices, as well as considerations for prescribing. A multimedia presentation is utilized to better demonstrate the latest developments in closed circuit televisions, portable devices, talking books and other technologies.

**Instruction Level:** Advanced

#### **Objectives:**

1. Describe the development of video and adaptive devices for the low vision patient.
2. Describe how video magnification can assist patients with low vision and how display systems can enhance reading ability.
3. Describe how different aspects of visual function are considered when prescribing video magnification.

**CEUs:** ACVREP: 1, AOTA: 1, COPE: 1, CRCC: 1

### **RS9: *Vision Rehabilitation in the 21st Century***

**Moderator: Ron Schuchard, PhD - ASR Device Study Group Atlanta VA Rehabilitation R&D Center of Excellence, Emory University**

**4:00 - 6:00 p.m., Villa**

4:00 *Through a Glass Darkly: A Glimpse at Emerging Technologies in Low Vision* - J. Vernon Odom, PhD

4:20 *When Will We Be There? Participation and Community Integration Issues for School-based Services* - Jessica Lampert, OTR, CLVT, COMS: Dallas Independent School District Occupational Therapy Services

4:40 *Medical and Rehabilitation Therapies are Improving Vision: Will Vision Rehabilitation Services Respond?* - Ronald Schuchard, PhD: Director - Atlanta VA Rehabilitation R&D CoE, Associate Professor of Neurology - Emory University School of Medicine

5:00 *Barriers to Low Vision Services: Rebuilding Evidence-Based Vision Rehabilitation* - Olga Overbury, PhD

5:20 *What's the Employment Prognosis for People with Vision Challenges?* - Karen Wolfe, PhD: American Foundation for the Blind



# Poster Sessions

Vision Research is presented at Envision 08 in two formats: talks and posters. Posters are on display in the exhibit hall and available for viewing during exhibit hours. Authors will present their posters at the times shown below.

Day	Exhibit Hours	Authors Present
Friday	3:00 - 7:30 p.m.	3:00 - 4:00 p.m.
Saturday	7:00 a.m. - 1:30 p.m.	1:00 - 1:30 p.m.

Research talks are listed in the Sessions section and are marked with RS session numbers.

## **P1: Central Field and PRL Characteristics in Low Vision Patients - A 10 Year Comparison**

**Donald Fletcher, MD:** *Smith Kettlewell Eye Research Institute, Frank Stein and Paul S. May Center for Low Vision Rehabilitation, California Pacific Medical Center, San Francisco*

### **Abstract:**

**Purpose:** To compare Scanning Laser Ophthalmoscope (SLO) central field and PRL characteristics in current low vision patients to a study reported in 1997.

**Methods:** 501 eyes of 273 recent patients referred for low vision rehabilitation had visual acuity (ETDRS), macular perimetry for dense scotomas (SLO) and PRL characteristic (SLO) testing performed in their initial evaluation. The size of scotomas, PRL position relative to scotomas, and relative to the fovea were noted. A scotoma within 2.5 degrees of the PRL or fovea to either superior, right, left or inferior margins was considered a

bordering scotoma. This constituted a repeat study of 1336 eyes of 825 patients reported in Ophthalmology 1997 to which comparisons are made.

**Results:** Demographic and diagnostic characteristics were similar, with median ages close to 80 and more than two thirds having maculopathies in both studies. 34% (1997) and 30% (2007) of patients had < 20/400 visual acuity. 91% (1997) and 88% (2007) of patients had dense scotomas in the central 20 degrees. 69% (1997) and 66% (2007) had dense scotomas larger than 5 degrees diameter. PRLs/Foveas with dense scotoma borders: None - 11% (1997) and 18% (2007); One Border - 41% (1997) and 37% (2007); Two Borders - 19% (1997) and 22% (2007); Three Borders - 9% (1997) and 8% (2007); Four Borders/Ring Scotoma - 19% (1997) and 15% (2007). PRLs/Foveas with dense scotoma field borders: Superior - 46% (1997) and 48% (2007); Right - 49% (1997) and 49% (2007); Left - 32% (1997) and 40% (2007); Inferior - 29% (1997) and 28% (2007).



With respect to foveal status, in 1997 only 18% of patients had a functioning fovea where as in 2007 50% had a functioning fovea.

**Conclusions:** In 2007 the vast majority of low vision patients present with central visual field disruption, as was the case in 1997. Characteristics in the position of the scotoma relative to the PRL/Fovea remained remarkably consistent. There is a small tendency to fewer patients with profoundly impaired visual acuity and fewer with large scotomas. Currently more patients present for low vision rehab with functioning foveas than 10 years ago. More functioning foveas have implications for rehabilitation services and may also reflect positively on new treatments for exudative maculopathies not available 10 years ago.

**P2: Family Connect™: The Web Site Connecting Parents with Information and Each Other**

**Karen Wolffe, PhD:** *Director Professional Development, American Foundation for the Blind*

**Abstract:** In collaboration with the National Association for Parents of Children with Visual Impairments (NAPVI), the American Foundation for the Blind (AFB) has launched a new web site designed to meet the needs of parents and families of children with visual impairments. FamilyConnect™ is a one-stop online source of information and inspiration for families. The web site provides:

- opportunities for parents to connect with each other on message boards and through blog postings
  - practical tips and ideas for parenting children with visual impairments by age ranges (infants and toddlers, preschoolers, grade schoolers, and teenagers)
  - general information on featured topics (eye conditions, technology, education, and parenting children with multiple disabilities)
  - local resources and activities for parents who have registered to receive customized information.
- In this session, Dr. Karen Wolffe and a NAPVI representative will discuss the breadth of content and features available on FamilyConnect features

as well as describe opportunities for parent and professional involvement. In addition, we will share information about other resources available to families and professionals online through AFB.org such as CareerConnect, AccessWorld (AFB's free online technology journal), publications available through AFB Press, and so forth. As a professional working with families of children of varying ages and ability levels, you'll find that FamilyConnect has information relevant to the families with whom you work. The NAPVI representative, a parent of a child with visual impairment, will share her impressions of the site and discuss how this venue can empower family members.

Come and learn about FamilyConnect and have an opportunity to review content that families will find on hot topics such as finding a balance between parenting children with visual impairments and their siblings, discovering the kinds of high and low tech tools that can facilitate academic instruction, learning how to help children make friends, or





planning collaboratively for the future. The site is designed to give parents and other family members accurate, frank, and informative material that will support them in all aspects of raising their children including growth and development, parenting and family life, education, social and recreational ideas, and strategies for successfully transitioning to independence. This session will have ample time for discussion about not only the features of the site, but also how this site can be shared with families.

### **P3: Is the Optic Disc Cupping or Sinking in Glaucoma?**

#### **Syed Hasnain; MD - General Ophthalmology**

**Abstract:** After the invention of the ophthalmoscope in 1851, simple glaucoma was introduced to describe blind patients in whom the eyeballs were quiet but hard. Their optic discs were described as cupped and since then the term cupping became synonymous with simple glaucoma. Cupping implies that the physiological cup begins enlarging concentrically, say from 0.4 to 0.8 and then to 100%. Based on arcuate field defect, which being a pathognomonic feature, the optic disc may not be cupping, but sinking in its entirety. The circular border tissue around the optic disc keeps the disc sealed firmly in the scleral opening. This border tissue is supplied solely by ciliary circulation which is a low pressure system as compared to that of the central retinal artery. High intraocular pressure exerting external compression or poor systemic conditions such as cardiopulmonary may induce chronic ischemia and atrophy of the border tissue. This would result in loosening of the disc which would then begin to sink in its entirety. Thus, the temporal nerve fibers which include the macular, inferior, and superior arcuate would be stretched and severed at the scleral edge as the disc sinks. The disc would become looser and sink further due to depletion of the nerve fibers. This would result in self-propagated loosening and sinking until all the nerve fibers are severed and the disc is perished.

The presentation presents arguments in favor of sinking and substantiated by pictures from the early to end stage glaucomatous discs. If scientifically

proven that the disc is indeed sinking, then it may lead to different pathogenesis and treatment of glaucoma.

### **P4: Low Vision Rehabilitation Education for Health Providers in the Greater San Antonio Area**

**Melva Perez Andrews, MBA, OTR, CLVT:**  
*University of Texas Health Science Center,  
San Antonio, TX*

**Abstract:** This poster presentation will address how the San Antonio Low Vision Task Force developed and implemented an educational program consisting of a vision rehabilitation specialist from one of the agencies represented in the Task Force and a vision impaired member of the San Antonio Low Vision Club to educate eye care providers about low vision rehabilitation services.

### **P5: Medication Management: A Collaborative Community Partnership Formed to Educate Seniors on Medication Management and Low Vision Rehabilitation**

**Melva Perez Andrews, MBA, OTR, CLVT:**  
*University of Texas Health Science Center,  
San Antonio, TX*

**Abstract:** Seniors are the fastest growing sector in our population. It is estimated that by the year 2030, 20% of the U.S. population will be 65 years of age or older. There are number of issues facing older adults such as learning to live with low vision and managing chronic diseases. Chronic diseases contribute to an increase in the number of medications older adults must manage, which increases the likelihood of experiencing adverse drug reactions. Over medication can significantly contribute to problems with depression, falls and hip fractures. Falls, particularly in older adults, lead to greater number of fractures, greater limitations in mobility and further increases isolation and depression.

Research indicates that older adults typically deal with several chronic conditions as they age. Approximately 80% of older Americans are living





with at least one chronic condition. Also on the rise among seniors and older adults are visual impairments due to age related eye diseases such as macular degeneration, glaucoma, cataracts and diabetic retinopathy. Fortunately, solutions in the form of health promotion and health prevention education exist that can encourage healthy behaviors and help seniors and older adults learn about solutions to the challenges low vision and medication interactions can pose.

This poster describes how a collaborative community partnership between a state agency, the Alamo Area Council of Governments - Bexar Area Agency on Aging; OASIS, a national nonprofit organization serving seniors; a pharmacist; and an occupational therapist/certified low vision therapist employed at the Lions Low Vision Center of Texas and the Department of Occupational Therapy at the University of Texas Health Science Center San Antonio was formed to provide seniors at local community settings, a comprehensive health education program on medication management and low vision rehabilitation.

**P6: *Prevalence and Pattern of Comorbid Cognitive Impairment in Low Vision Rehabilitation***

**Diane Whitaker, OD:** *Duke University Eye Center, Durham, NC*

**Abstract:** The risk of cognitive impairment increases with age and studies have suggested a link between vision loss and cognitive decline, but the scope of the problem in low vision rehabilitation is not known. The objective of this study is to describe the prevalence of cognitive deficits among older adults referred to low vision rehabilitation at one center.

**P7: *Shifting from Compensation to Participation: A Model for Low Vision Occupational Therapy***

**Kim Schoessow, OTD:** *Smith-Kettlewell Eye Research Institute, San Francisco*

**Abstract:** As today's population is living longer, the number of older adults with low vision is rapidly increasing. Currently, 2.6 million older adults in the U.S. have vision loss severe enough to impact performance of daily activities. Occupational therapists and other rehabilitation professionals have been instrumental in training older adults with low vision to complete activities of daily living with the use of environmental modifications and assistive devices. However, research shows that older adults are struggling with instrumental activities such as driving and leisure, underutilizing low vision technology, and experiencing conflict with their social networks.

This poster presents a practice model for low vision rehabilitation, beginning with traditional therapeutic interventions such as environmental modifications and optical devices. Intrinsic client factors—cognition, psychology, physiology, motor, sensation, and spirituality—are discussed in light of their effect on older adults with low vision. Finally, the broader social environment is examined in an effort to expand rehabilitation into the community. The model includes a sample battery of assessments that, when used together, evaluate the fit between clients and their environment. When extrinsic and intrinsic client factors are blended, older adults with low vision will be better equipped to maintain participation in meaningful activities within both the home and community.

**P8: *The Mixed Contrast Test Format - Contrast Testing made Easy, Fast, Convincing***

**August Colenbrander, MD - Ophthalmology, Vision Rehabilitation:** *Smith-Kettlewell Eye Research Institute and California Pacific Medical Center*

**Abstract:**

The problem: Contrast sensitivity is important, yet rarely tested, since it takes extra time.

The solution: The Mixed Contrast format avoids the need for extra charts. Its advantages include: Easy – High and low contrast are side-by-side. No additional

card required; Fast – The difference between high and low contrast is obvious on the chart; Convincing – No need for lengthy explanations.

**Findings:** Testing takes little more time than testing high contrast only. The results are convincing for patients and family. A 1 or 2 line difference is normal. Some AMD patients have shown 10-line differences. Contrast losses correlate with ADL problems. Patients who understand their problem can take appropriate precautions. Different mechanisms are involved at different levels.

- At the optical level, defocus blurs edges but does not reduce the brightness of large areas.
- At the retinal level, topographic differences in retinal sensitivity may complicate the issue; making reading a better test, since it involves a larger retinal area then does letter acuity.
- Neural processing can explain the shape of the CS curve. In the absence of disease, the slope of the CS curve does not change with age. Changes in the slope of the CS curve are independent of visual acuity changes.

Para-foveal islands of CS loss may occur early in AMD. In longitudinal studies CS loss correlates with vision loss 5 years later. Early detection of disease will become more important as early treatments are developed.

### **P9: Incidence of Visual Dysfunction in a Neuro-rehabilitation Setting**

**Rebecca Bothwell, MS, OTR/L:** Research Coordinator, Dept. of Ophthalmology - University of Kansas Medical Center

**Abstract:** The purpose of this study was to examine the incidence of numerous types of visual dysfunction seen in an outpatient neuro-rehabilitation setting.

### **P10: SightMate Use by Individuals with Impaired Central Vision**

**Katherine White, OD:** Managing Director of Low Vision Services - ABVI-Goodwill, Rochester, NY

**Abstract:** Clinical trials are evaluating the use of the new SightMate LV920 by individuals with moderate, severe, or profound visual impairment from eye pathology causing poorly resolved central vision. The study participants have each had a low vision evaluation by a low vision doctor at the Association for The Blind and Visually Impaired (ABVI)-Goodwill Industries of Greater Rochester, Inc. The study protocols involve evaluating the SightMate for near, intermediate, and distance viewing, comparing the results with previously prescribed visual aids. Participants who choose to independently use the device in their home will have follow-up evaluation after 30 days. The expanded NEI VFQ-25 is used to assess participants with and without using the SightMate.

The author will present clinical results from the IRB approved study of individuals with impaired central vision using the SightMate with prescribing guidelines and predicted outcomes.

### **P11: Using the Patient Specific Functional Scale (PSFS) to Measure Client's Perceived Functional Outcome through Low Vision Rehab with the ARMD Population**

**Lynette O'Brien, OTR/L:** Vanderbilt University

**Abstract:**

**Purpose:** To determine if the Patient Specific Functional Scale (PSFS) is a valid outcome measure to determine if there is an improvement in the client's perceived functional level in the age related macular degeneration (ARMD) population.

**Methods:** The PSFS is a generic outcome measure that assesses problem areas that are specific to each individual (Stratford et al., 1995), used mostly with the orthopedic population, and developed by Stratford, P., Gill, C., Westaway, M., & Brinkley, J. McMaster University, Canada. It is to be administered under standardized conditions where the health care provider asks the clients to identify 2-3 activities that they have difficulty with due to their medical problem. They are then asked to rate their perceived level of difficulty with each activity



using an 11 point scale (0=unable to perform through 10= able to perform with no problem). A total score is then calculated and compared over time throughout the clients involvement in therapy. A 2 point increase for the average score and a 3 point increase for the individual activity score signifies that a real change has been made.

**Results:** All clients that received occupational therapy services at VUMC during a 1 year period were tested using the PSFS. Those with other visual diagnoses were excluded. The average score was calculated by the therapist on the initial and then again on the final evaluations. The average number of visits with the occupational therapist (OT) was 3.43. A 2 point or greater increase was seen in at least 90% of the client's.

**Conclusion:** The client's that spent 3 or more sessions with the occupational therapist were the ones that verbalized the greatest perceived level of functional improvement. It is the opinion of this writer that the PSFS is a valid tool to use with the low vision population with a diagnosis of ARMD to measure patients' perceived level of functional progress and occupational therapy outcomes

### **P12: Low Contrast Acuity Tests and Contrast Sensitivity as Adjuncts to Standard Acuity**

**M.E. Schneck, G. Haegerstrom-Portnoy, J. Brabyn, L. Lott: Smith-Kettlewell Eye Research Institute**

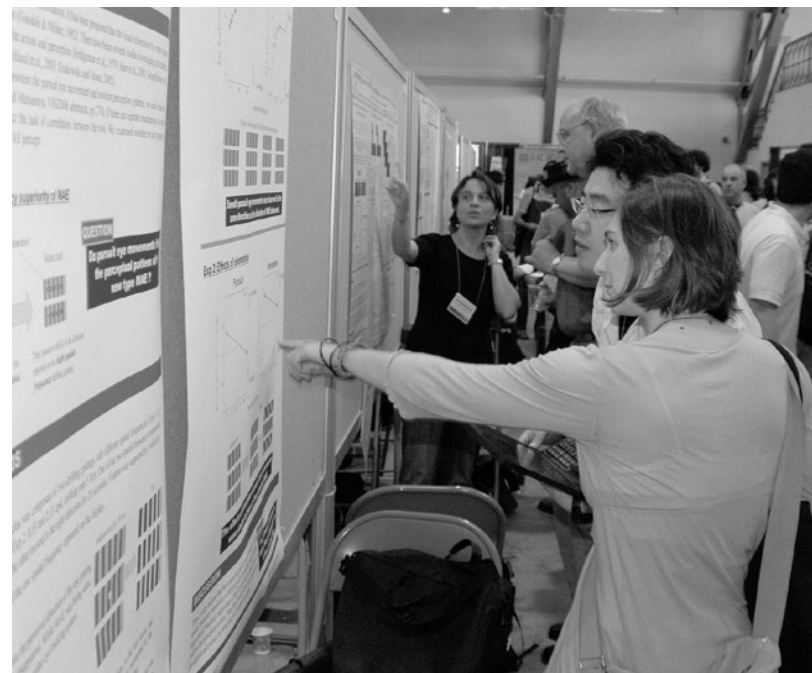
#### **Abstract:**

**Purpose:** To demonstrate the value of contrast sensitivity and variants of low contrast acuity as adjuncts to standard high contrast acuity.

**Methods:** Standard high contrast acuity, low contrast acuity, low contrast acuity in surrounding glare, low contrast acuity at reduced luminance (the SKILL Card), and contrast sensitivity were measured in a random community-based study sample of 900 elders (mean age 75.5 years; SD 9.3 years; range 58 to 102 years). Low contrast measures were evaluated as predictors of visual task performance (reading), health and function, self reported driving cessation, and future declines in standard acuity.

**Results:** 85.2% of this quite aged sample had no visual impairment by standard acuity (20/40 or better). This same group was much more widely dispersed on low contrast measures, with many more individuals showing 'visual impairment' on these measures. The wide range of function on these other measures provides the opportunity to study their association with other factors. For example, among those with good acuity, reading performance fell significantly over the age range tested—from 100 words per minute (wpm) in those <65 years to 68 wpm in those  $\geq 85$  years despite continued good acuity. The low contrast measures were significant predictors of reading performance. Finally, poor low contrast vision at baseline predicted which individuals with good acuity would show a significant loss in standard acuity at follow-up 4.4 years later. For each doubling of low contrast spatial vision threshold at baseline, individuals were more than two times as likely to suffer subsequent significant visual acuity loss.

**Conclusions:** Including low contrast spatial vision measures to evaluation provides a more complete picture of vision under everyday viewing conditions. Many elders with "good vision" are actually visually impaired when measured with these tests. These measures are also strongly related to reading and



are strong predictors of subsequent visual acuity loss. These findings have implications for clinical trials, clinical management, and acceptance of these measures into clinical practice.

**P13: Color Constancy and Reach-to-Grasp Movements Demonstrated by Low Vision Patients and a Subject with a C203R Gene Mutation**

**J. Nolan:** *Envision, University of Kansas Department of Ophthalmology*

**G. Timberlake:** *University of Kansas Department of Ophthalmology*

**Abstract:**

**Purpose:** To determine the type and numbers of the X-linked pigment genes, a molecular genetic analysis was performed on a subject showing unique color constancy ability despite low visual acuity and poor color vision. To explore how the phenomenological color world of a subject who possesses a C203R genetic mutation compares to the color experience of low vision patients exemplifying color alterations and to assess if receptor sensitivity will influence color descriptions, a color naming procedure was used. Reach-to-grasp measurements were also recorded and compared for this subject with controls.

**Methods:** TJ, a 32-year-old male, exemplified 20/160 acuities in both eyes and was diagnosed with congenital cone dysfunction syndrome. TJ failed all Ishihara color plates. Molecular genetic analysis (courtesy of M. Neitz and J. Neitz, Medical College of Wisconsin) was performed on TJ. Additional subjects (n=10) exemplifying altered color vision with best-corrected acuities ranging from 20/100 to 20/600 in both eyes were tested. Color deficiencies were detected with Ishihara Plates. All Subjects and 10 controls were tested using a standard pallet of nominal color regions. To test reach-to-grasp properties for TJ, three-dimensional hand trajectories and grip apertures were tracked using digital video while reaching for and grasping 3 sizes of wooden blocks placed either 20 or 40 cm away.

**Results:** DNA sequencing revealed that TJ does not possess a gene encoding for L photo pigment and revealed the C203R mutation in a subset of the M genes. Color naming data showed that although the regions chosen by TJ and other color-altered subjects for 11 basic color terms were large and slightly shifted, they were in rough agreement with controls. Reach-to-grasp measurements were slightly altered but within a normal range for TJ.

**Conclusions:** Despite TJ exemplifying a C203R mutation of his M pigment genes and other subjects who show poor acuities and altered color vision, they show consistency in naming colors and characteristic shifts and confusions. Results for TJ suggest: a small photoreceptor complement may be sufficient for natural color discrimination and categorization and relatively normal reach-to-grasp abilities. Present results question models of color vision deficiency based on a reduction of available receptor mechanisms and exemplify the importance of color testing in the vision rehabilitation process.

**P14: The Impact of Wet vs Dry AMD**

**Lylas Mogk, MD (Poster to be presented by Colleen O'Donnell):** *Henry Ford Health System Visual Rehabilitation Center, Livonia, MI*

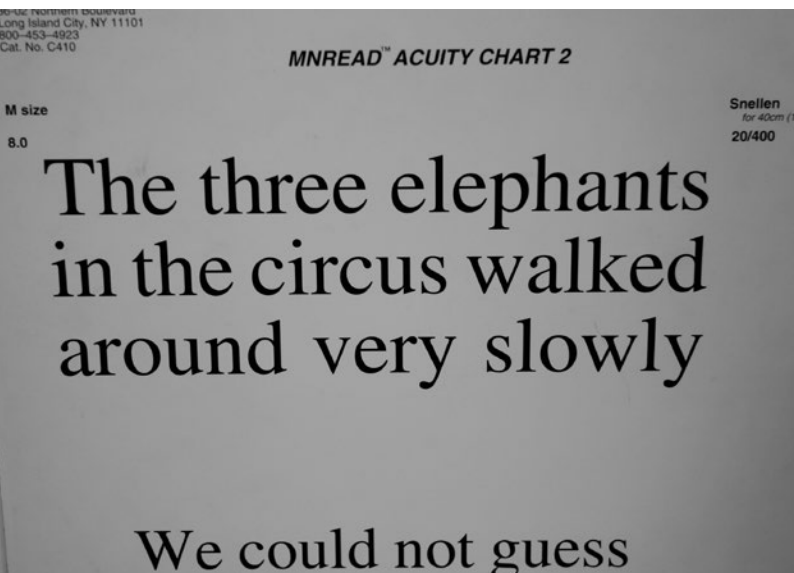
**Abstract:** Wet AMD has been broadly perceived as the real problem of AMD, often based on the 1984 finding that wet AMD was responsible for 90% of the legal blindness. Our observations have been that dry is an equal problem and that legal blindness is not a valid index of function. This study was undertaken to elucidate the relative impact of wet vs dry AMD in vision rehabilitation patients.

**P15: Elder Abuse Visually Impaired and At Risk**

**Colleen O'Donnell, LVT, OT:** *Henry Ford Health System Visual Rehabilitation Center, Livonia, MI*







**Abstract:** Vision loss acquired in later life is often a hidden impairment. Seniors may be reluctant for others to know about their loss for a variety of reasons. Often they are afraid of appearing dependent or being victimized. They are right. Older adults with impaired vision are at high risk for abuse. Like vision loss acquired in later life, elder abuse is also on the rise. Like vision loss, elder abuse is also a hidden problem. As vision rehabilitation professionals, we often become directly involved in

the details of the lives of our older clients over an extended period of time. We are in a unique position to remove the hidden nature of elder abuse. We have a responsibility to our clients to become aware of the signs of elder abuse, to recognize these signs in their environments, and to support those individuals who we suspect may be victims to get help.

This presentation will identify the most common signs of elder abuse and discuss how visually impaired older adults are at an increase risk. Suggestions to minimize the risk of abuse for our clients and how to get help will be given.

### **P16: Eyes 4 Others**

**Bonnie Cochran, COA, CLVT:** *Envision*

**Abstract:** Because education for these youth is uniquely different, high school drop out rates are high in comparison as well as lack of pursuit of higher education. Research indicates numerous consequences linked to illiteracy. Over 70% of communication and learning is visual. There are various modes of communication available to Visually Impaired youth, however these present their own challenges.



# Research Session Abstracts

Research sessions are also listed in the sessions section.

## **RS1: Randomized Controlled Trials in Low Vision Rehabilitation**

**Moderator: Robert Massof, PhD** - Wilmer Eye Institute, Johns Hopkins University School of Medicine - Baltimore, MD

**9:00 - 11:00 a.m., Villa**

### **9:00 Randomized Controlled Trials on Preventing Depression in Low Vision**

**Robin Casten, PhD:** Jefferson Medical College, Dept. of Psychiatry and Human Behavior - Philadelphia, PA

**Abstract:** Past studies have shown that age-related macular degeneration patients with low vision are at high risk of developing clinically significant depression. Our group at the Jefferson Medical College has completed a RCT entitled “Prevention of Depression in AMD”; we currently have a RCT in progress entitled “Improving Function in AMD (IF AMD)”; and we recently launched a new RCT entitled “Low Vision Depression Prevention Trial (VITAL)”. The first two trials evaluate the effectiveness of problem solving therapy (PST) in preventing depression. The VITAL trial is designed to study the effectiveness of standard low vision therapy in preventing depression. This presentation will describe the results of the Prevention of Depression in AMD trial and explain the objectives and designs of the IF AMD and VITAL trials.

### **9:20 VA Low Vision Intervention Trial (LOVIT): One Year Follow-Up**

**Joan Stelmack, OD, MPH:** Hines VA Blind Rehabilitation Center - Hines IL

**Abstract:** We recently published the results of

the first multi-center RCT on the effectiveness of outpatient low vision rehabilitation (Arch Ophthalmol 2008; 126:608-617). At 4 months after baseline measures, LOVIT demonstrated a large improvement in functional ability in the treatment group and a small loss of functional ability in the wait-listed control group. At the end of the 4 month waiting period, 97% of those assigned to the control group received usual low vision care (VA outpatient low vision services or inpatient services at a VA Blind Rehabilitation Center). Eleven percent of the patients assigned to the treatment group received further low vision rehabilitation services after participating in LOVIT. Follow-up outcome measures were made on both groups of subjects at one-year after the baseline measures. The results indicated a small loss in functional ability from 4-months to 1-year for the treatment group, and a large gain in functional ability over the same time interval for the control group. This presentation will review the results of the LOVIT study and the results of the 1-year follow-up.

### **9:40 The Clinical Low Vision Research Network (CLOVRNET)**

**Judith Goldstein, OD:** Wilmer Eye Institute, Johns Hopkins University School of Medicine - Baltimore, MD

**Abstract:** Randomized controlled trials on various aspects of low vision rehabilitation, which will produce results that can be generalized to private practice, require a multi-center approach. Participating center clinicians must be able to integrate study protocols into their practice, recruit subjects from among their patients following HIPAA and OHSR requirements, and devote



time to academic activities such as research group discussions, following the literature, and contributing to the writing of grant applications and scientific papers. The Lions Vision Research and Rehabilitation Center at the Johns Hopkins Wilmer Eye Institute is organizing a Clinical Low Vision Research Network (CLOVRNET) around two multi-center collaborative studies: the Low Vision Rehabilitation Devices and Services Study (LVDRS Study), a study currently in the planning phase with the support of a planning grant (R34) from NEI, and the NEI-supported Low Vision Rehabilitation Outcome Study (LVROS), which currently is in the pilot data collection phase. We currently have 15 low vision rehabilitation centers participating in CLOVRNET. All centers have at least one optometrist or ophthalmologist specializing in low vision working with at least one occupational therapist. This presentation will describe the organization and operation of CLOVRNET and the CLOVRNET Study Coordinating Center, and will describe the LVDRS and LVROS objectives and study design.

#### **10:00 Outcome Measures for Collaborative Low Vision Rehabilitation Studies**

**Robert W. Massof, PhD:** Wilmer Eye Institute, Johns Hopkins University School of Medicine - Baltimore, MD

**Abstract:** Three types of variables are important to consider when designing randomized controlled trials on low vision rehabilitation. The primary outcome variable usually is a measure of the effectiveness of the intervention under study. Effectiveness measures typically are patient-centered, and in the case of low vision, are referenced to the goals of treatment from the patient's perspective. The second type of variable, intervening variables, usually is a measure of efficacy. Intervening variables are those that mediate the primary outcome. Efficacy measures typically are intervention-centered, and in the case of low vision, are referenced to functional abilities such as reading, mobility, etc. Efficacy measures often take the form of performance measures.

Efficacy usually is necessary for effectiveness of intervention, but not necessarily sufficient. The third type of variable, confounding or modifying variables, is a measure of effect modifiers. Effect modifiers usually are patient traits, or other variables not of central interest to the study or variables used to stratify groups within the study, that combine or interact with the intervention to modify the primary outcome. The most common effect modifiers in low vision are visual impairment measures and co-morbidities. This presentation will show how measures of these three variables are made in a collaborative low vision rehabilitation study, and it will show how to interpret their relationships using a structural model.

#### **RS2: Research Topics 1**

**Moderator: J. Vernon Odom, PhD -**  
*Professor of Ophthalmology and Physiology,  
West Virginia University Eye Institute,  
Morgantown, WV*

**9:00 - 10:30 a.m., Carranza**

#### **9:00 Audio Description: An Aid to Literacy**

**Joel Snyder, MA:** Professional Audio Describer

**Abstract:** This session will introduce participants to the fundamentals of Audio Description—a verbal version of the visual. Then, focusing on media and work with small children and reading teachers, we will explore a new application for audio description—the development of literacy. Audio Description is a literary art form, a type of poetry—a haiku. Using words that are succinct, vivid, and imaginative, describers convey the visual image from media that is not fully accessible to a segment of the population and not fully realized by sighted folks who see but who may not observe. This session will introduce participants to the fundamentals of Audio Description in media and then focus on work with small children and reading teachers. I am interested in experimenting with developing more descriptive language to use when working with kids, picture books and media. “Picture books” rely on their pictures to tell a story. But the teacher trained

in audio description techniques would never simply hold up a picture of a ball and read the text: "See the ball." He or she might add: "The ball is red—just like a fire engine. I think that ball is as large as one of you! It's as round as the sun—a bright red circle or sphere." The teacher has introduced new vocabulary, invited comparisons, and used metaphor or simile—with toddlers! By using audio description, these books (or children's videos) are made accessible to kids who have low vision or are blind and simultaneously all kids develop more sophisticated language skills. A picture is worth 1000 words? Maybe. But the audio describer might say that a few well-chosen words can conjure vivid and lasting images.

### **9:20 Enhancing Visual Function with Specialized Lighting**

**Robin Mumford, BSc, FPRI:** *Executive Director, Mumford Institute*

**Abstract:** New forms of lighting offer unique benefits to particular populations such as are common among seniors. There comes a time when the onset of visual loss is no longer correctable by precise optometry. This is the onset of dry macular degeneration which is accompanied by a loss of visual acuity; and more importantly by a loss of visual efficiency. The subject needs more light of a non glare type and it is important to provide a maximum of usable light without introducing glare. This was first achieved by a special type of high pressure sodium indirect lighting and later by a selected fluorescent light with special properties. In addition to dry macular individuals, these same lights help the average senior as well. An average of two lines improvement on the Snellen eye chart are reported. With wet macular degeneration there is frequently scar formation and no amount of light affects the issue as far as visual acuity, and such individuals only way to read is by electronic magnification. Some however are subject to Seasonal Affective Disorder Syndrome and benefit greatly from the use of indirect high pressure sodium environments surrounding their reading machine.. It is an interesting feature that reading

stamina returns early to the users of electronic reading machines and they learn to work a normal day without the excess fatigue prevalent with the visually handicapped. With young readers, a sharp focus on unfamiliar letters and words does not develop immediately. This can be helped by a simple ordered set of words and a low stress light which assists the students with stress free focus. In this way, they can master the phonemic code of the language. This is achieved with a simple test card and booklet with 100 key words enclosing all the phonemes. The test provides a check on the extent to which the student is naturally achieving whole word reading skills. The test also picks out teenagers who read dyslexically. Such individuals suffer an incapacitating loss of visual efficiency in normal lighting but recover immediately when provided with an indirect high pressure sodium source or a low stress fluorescent alternative. There are many interesting case histories illustrating order of magnitude gains in learning skills. The growing availability of special design lights offers recovery of function not possible before.

### **9:40 Do Visually Impaired and Blind Pedestrians Make More Incorrect Street Crossing Decisions Compared to Normally Sighted Pedestrians?**

**Shirin Hassan, PhD (Low Vision and Mobility, BAppSc (Optom) Foreign Trained Optometrist)**

**Abstract:** This presentation describes an experiment that was conducted to determine whether or not visually impaired and blind pedestrians make a greater number of unsafe street crossing decisions compared to normally sighted pedestrians.

### **10:00 Audio Description: The Visual Made Verbal**

**Joel Snyder, MA:** *Professional Audio Describer*

**Abstract:** I propose a session on the fundamentals of Audio Description (AD). As an introduction or as a refresher, this session is designed to be a valuable overview of what I developed as the "four fundamentals" of AD: 1) OBSERVATION In his book, "Seen/Unseen: A Guide to Active Seeing," the photographer, John Schaefer, coins the phrase "visual literacy." Schaefer refers to the need to



'increase your level of awareness and become an active "see-er." 2) EDITING Audio describers must then edit or cull from what they see, selecting what is most critical to an understanding and appreciation of an event 3) LANGUAGE We transfer it all to words? Objective, vivid, imaginatively drawn words, phrases, and metaphors. 4) VOCAL SKILLS Finally, in addition to building a verbal capability, the describer (or whoever will voice the descriptions) develops the vocal instrument through work with speech and oral interpretation fundamentals. At this interactive, multi-media session, participants will experience how describers are trained and, in small groups, develop description for video excerpts. Program Outcomes/Content: At the conclusion of the session, participants will know/experience:

- the history of Audio Description – Active Seeing / Visual Literacy – the art of "editing" what you see
- using language to conjure images – using Audio Description in video/film, on the web, and in live settings

The session will involve approximately 20% lecture, 20% powerpoint-slide-video presentation, and 60% participation.

### **RS3: Research Topics 2**

**Moderator: George Timberlake, PhD - Dept. of Ophthalmology, University of Kansas Medical Center**

**1:00 - 2:30 p.m., Carranza**

#### **1:00 Pilot Data Collection Project to Evaluate the Effectiveness of Visual Rehabilitation Services**

**Judith Goldstein, OD**

**Abstract:** A successful planning phase for a multi-center randomized clinical trial (RCT) can be very effective in determining relevancy, practicality and appropriateness of data collection methods prior to the start of a RCT. This 11-month study comprises pilot data collection of clinical and patient interview information for low vision patients, pre and post-treatment. The data from 120 low vision patients will be collected from 12 sites across the country, hospitals and outpatient practices, serving low vision patients. Usual care is provided to patients.

Low vision patients are administered functional assessment questionnaires, Activity Inventory (AI), Intake (history), TICS, SF 36, GDS, and EuroQoL by telephone interview prior to clinical intervention, 3 months and 12 months after rehabilitation is complete. Relevant clinical data is also collected to determine impact of care. The goal of the RCT (anticipated to start October 2009) is to evaluate the effectiveness of low vision services including Orientation and Mobility Services and the impact of low vision device coverage and use. Successful planning for an RCT is critical in order to ensure coordination of data collection practices, uniformity of protocols, and procedures regarding services provisions. The practices within this data collection project will contribute to much of the development of the Manual of Operations for the RCT.

#### **1:20 Psychosocial Impact of Long Term Optical Device Use**

**Cynthia Bachofer, TVI, LVT**

**Abstract:** This presentation provides an overview of research on long term use of optical devices. The discussion includes factors on use and non-use of devices and intra-individual characteristics, as well as psychosocial issues of user perception. The presenter also reviews five studies that met criteria for documenting user response to devices on both functioning and psychosocial instruments. The presenter discusses application of research to our current understanding and practice of device use within rehabilitation services.

#### **1:40 Long Term Use of Optical Devices**

**Cynthia Bachofer, TVI, LVT**

**Abstract:** The purpose of this study was to investigate the long term use of optical devices by young adults who participated in a school-based low vision program focusing on device use. Participants were adults who received services as students with low vision from Project Providing Access to the Visual Environment (PAVE). Effects of school-based instruction and impact of long term device use are poorly understood. The research questions were:

1. What demographic and personal characteristics



indicate a relationship to use of devices? 2. What differences exist among high, moderate, and low users of optical devices on a functioning continuum and on four dimensions (independence, personal value of devices, social acceptance and confidence) of a psychosocial continuum? (Likert-type questions)? 3. What factors do participants identify as encouraging or discouraging in regular use of devices? (open-ended questions)? Outcome studies with older adults experiencing age-related loss are more common, but application of these findings to persons with congenital visual impairments is limited. Results of the pilot study were based on phone interview responses from ten participants, aged 19-26, self-described as regular users. Levels of visual acuity, ability to see different sizes of print comfortably, and types of devices used were the personal characteristics indicating a relationship to use. Sixty percent of participants received high scores (80% or higher) on the psychosocial section and forty percent of these received high scores on the functioning section. Continued research of this population is a key element to understanding use of devices across the developmental span.

#### **2:00 Telescope Use: Factors of Frustration, Factors of Success**

**Cynthia Bachofer, TVI, LVT**

**Abstract:** Persons with low vision cite independent travel and reading as the two areas of life most affected by their visual disability (Peli, 2000). Telescope systems, handheld or spectacle mounted, are an optical device that can provide access to information in these daily tasks. This presentation reviews research studies from the past 18 years that focus on integrated telescope use for performing everyday tasks. Many patients who are prescribed a telescope voice frustration in the optical and design restrictions of this tool. Four articles met criteria as studies focusing on identifying the complications that occur in the adjustment to telescopes and likely factors for success. One article reviewed work from a team of researchers (Porter, et al., 1992)) on the physiological factors and effects of vestibulo-ocular reflex (VOR) as primary issues in the adjustment

process. Researchers in three studies indicated that expected identifiers such as age, visual acuity or eye condition did not consistently show a relationship to success. Studies using survey instruments (Greene, H.A., et al., 1993; Lowe & Rubinstein, 2000; Stelmack, J., et al., 2003) provided insights to individual perspective of telescope use. These responses can be applied to designing studies that target pertinent issues and application for developing telescope skill. Findings of previous research must be kept in mind to shape next steps. How does this information impact instruction of students and adults across age groups in the use of telescopes? This presentation gives a collective look at research on effective use of telescopes.

#### **RS4: Driving with Impaired Vision**

**Moderator: Eli Peli, OD - Schepens Eye Research Institute, Department of Ophthalmology, Harvard Medical School, Boston, MA**

**4:00 - 5:45 p.m., Villa**

#### **4:00 Clinical and Technical Considerations in Prescribing Bioptic Telescopes for Driving**

**Henry Greene**

**Abstract:** Bioptic telescopes are miniature optical devices mounted toward the top of eyeglasses which allow the wearer to alternate their vision between their normal eyeglass lens and through the telescope by a quick tilt of the head and eyes. They allow the visually impaired to see better at a distance, and have been utilized as an aid for driving by individuals who might otherwise not be licensable due to their reduced visual acuity. These devices, either small Galilean optical designs that provide limited fields of view, and larger and heavier Keplerian designs that provide significantly wider fields of view, magnify objects at a distance, but the benefit to the user is not to see things larger but to see them further away-- by a factor of the magnification power of the device. They are used intermittently, similar to the use of the side and rear view mirrors, while the wearer looks through





their normal eyeglass lens for the majority of the driving activity. Clinical factors including visual acuity, response to magnification, central field loss, contrast sensitivity and ocular dominance can impact the individual response to bioptic telescopes and hence can inform the appropriate choice of device. Technical prescribing options are also directed by the laws regarding bioptic telescope characteristics in those states where they are permitted-, some limit the power of the device, while others disallow binocular prescribing or the obscuring of the fellow eye. Bioptic telescopes should be selected to address the visual needs of the user, fit in such a way as to maximize their functionality, all while complying with the legal aspects of their use.

#### **4:20 Current Perspectives on Bioptic Driving: A Review of State Licensure Regulations**

**James Nolan, PhD:** *Envision and the University of Kansas Dept. of Ophthalmology*

**Abstract:** Most States (47) in the USA currently allow for the usage of bioptic telescopes (at some level) for the purpose of aiding low vision drivers in the licensure and driving process. While some states allow for the telescopes to be used for reaching certain required acuity standards during the licensure process, other states only allow for telescopes to be used during driving situations only, while licensing is determined without the telescope. The small telescopes mounted at the top of the carrier lens of spectacles are used intermittently for tasks such as reading road signs, determining the status of traffic signals, and scanning the road ahead for hazards and signage. This paper will review and up date states' driving regulations regarding laws governing the usage of bioptic telescopes for driving purposes. An analysis of published driving laws and regulations from all 50 states and the District of Columbia indicate a large variability in procedures, regulations, and standards regarding bioptic telescope usage in all states across the USA. Reasons and implications for this variability will be discussed.

#### **4:40 Demonstration Project Introducing Bioptic Driving in the Netherlands**

**Aart C. Kooljman:** *University of Groningen - Groningen, The Netherlands, Royal Visio, National Foundation for the Visually Impaired and Blind - Huizen, The Netherlands*

**Bart J.M. Mells-Dankers:** *University of Groningen - Groningen, The Netherlands, Royal Visio, National Foundation for the Visually Impaired and Blind - Huizen, The Netherlands*

**Wiebo H. Brouwer:** *University of Groningen - Groningen, The Netherlands*

**Jaap M.D. Witvliet:** *Royal Visio, National Foundation for the Visually Impaired and Blind - Huizen, The Netherlands*

**Ruud A. Bredewoud:** *Netherlands Bureau of Driving Skills Certificates - Rijswijk, The Netherlands*

#### **Abstract:**

**Background:** In Europe, driving a passenger car is prohibited if binocular best corrected visual acuity (BCVA) is below 0.5 (20/40). In many US states, people with moderately reduced visual acuity (e.g. 20/50–20/200) can legally drive with the aid of a small, spectacle-mounted (“bioptic”) telescope. After completion of a study (1997-2001) on fitness to drive in subjects with central or peripheral visual field defects, we conducted a demonstration project to assess the viability of implementing bioptic driving in the Netherlands between 2004 and 2006. We describe the framework of the latter project from conception through to realization of our primary objective—the introduction of bioptic driving as a legal option for visually impaired people in the Netherlands.

**Methods:** The project was based on bioptic driving programs in the United States, which were adapted to fit into current driving training and assessment practices in the Netherlands. The project convened a consortium of organizations including the Netherlands Bureau of Driving Skills Certificates, service organizations for the visually impaired, and research departments at universities investigating driving and vision. All organizations were educated about bioptic driving and participating professionals

were trained in their specific aspects of the project. Media publicity led to significant interest and helped recruitment that enabled the screening and selection of potential participants.

**Results:** Out of 378 persons who applied for information following media exposure for the project, 160 candidates volunteered to participate. Based on the available information, 36 subjects (binocular BCVA: 0.16–0.5 [20/125–20/40]) were invited for evaluation (vision, mobility, cognitive function, and driving skills). Of the 36 invited subjects, 16 did not meet the inclusion criteria and 2 decided not to participate. The remaining 18 subjects were fitted and trained in the use of a monocular bioptic telescope (3<sub>x</sub> magnification). They all completed the pre-driving training successfully and received driving lessons from specialized professional driving instructors. Eventually, 9 subjects passed the official on-road test of practical fitness to drive, 7 were excluded after a number of driving lessons, and 2 withdrew on their own.

**Outcomes:** The project convinced the participating professionals, in particular the driving instructors, driving examiners, and the licensing authority, that people with moderately reduced visual acuity can be trained to achieve an adequate level of proficient and safe driving (as assessed by the national driving licensing professionals) when using a bioptic telescope for the road conditions in the Netherlands. Based on the successful project outcomes, a request was made to the minister to allow bioptic driving in the Netherlands. This request has been granted; the legal procedures for implementation are in process.

### **5:00 *Driving with Hemianopia: Simulator and On-Road Studies***

**Alex Bowers**

**Abstract:** People with hemianopia are prohibited from driving in 22 states in the USA with consequent loss of independence and quality of life. In our lab we use the safe, controlled environment of a driving simulator to evaluate the impact of hemianopia on driving skills and behaviors. In a study of 12 drivers with complete homonymous hemianopia

and without hemi-spatial neglect, we found widely varying levels of detection performance (varying from 10% to 90%) for pedestrian figures on the side of the visual field loss, lateralized biases in lane position related to the side of the visual field loss, and head-scanning patterns strongly influenced by the side of the visual field loss. In a recent on-road study in Belgium (with colleague Dr Mark Tant, Belgian Road Safety Institute), we evaluated the potential benefit of peripheral prism visual field expansion glasses as a visual aid for drivers with hemianopia. The drivers had better reactions to unexpected events (e.g., pedestrians and other traffic on the road) when using the peripheral prism glasses than when wearing fake prism glasses. The results of our simulator and on-road studies provide evidence of widely varying levels of compensation and detection abilities amongst drivers with hemianopia, suggesting that fitness to drive should be evaluated on an individual basis.

### **5:20 *Sources of Secondary Task Interference with Driving: Executive Processes or Verbal and Visio-spatial Rehearsal Processes?***

**Nichole Morris**

**Cooper Phillips**

**Kathleen Thibault**

**Alex Chaparro**

**Abstract:** We investigated the effects of secondary working memory tasks that loaded either visuo-spatial working memory or verbal working memory which required either mental rehearsal of the information or central working memory processes involving stimulus manipulation (mentally changing the information). The effects of the secondary tasks on driver look-out behavior and driving performance were assessed. Preliminary studies were conducted to select tasks that resulted in similar levels of accuracy and perceived difficulty across modalities (visuo-spatial, verbal, rehearse, and manipulate). Piloting and the preliminary studies were also used to evaluate different visual tasks and to select a visual task that could not be encoded verbally. Results of the study reveal that driving performance is significantly more impaired while performing a



secondary manipulation task than performing a rehearsal task of equivalent difficulty. The study finds that visuo-spatial and verbal secondary tasks produce the same level of interference with overall driving performance. The results of this study and their implications for our understanding of the interaction between visual impairment and cognitive load while driving will be discussed.

### **RS5: Eccentric Viewing Training**

**Moderator: Don Fletcher, MD** - *Smith-Kettlewell Eye Research Institute, Frank Stein and Paul S. May Center for Low Vision Rehabilitation, California Pacific Medical Center, San Francisco*

**9:00 - 11:00 a.m., Villa**

#### **9:00 Eccentric Viewing Training - An Overview**

**Donald C. Fletcher, MD:** *Smith Kettlewell Eye Research Institute and CPMC Dept. of Ophthalmology*

**Abstract:** In the rehabilitation of patients with low vision, a commonly encountered problem is central scotomas with loss of foveal function. An SLO study (Fletcher and Schuchard, 1997) on 1336 low vision eyes reported that 82% did not have a functioning fovea. A follow-up SLO study reported in 2008 on 501 low vision eyes showed that 50% of eyes did not have a functioning fovea. Though improved, the loss of foveal function is still a major issue in low vision rehabilitation. The location of the preferred retinal locus (PRL) relative to scotomas is an important consideration in reading performance. Scotomas to the right of the PRL result in the largest negative influence but even vertically located scotomas negatively impact reading in English-speaking patients. Beyond the physical characteristics of the PRL/scotoma relationship, the eye movement strategies of the patient appear to be very important. Dynamic visual field testing, where time to respond to a stimulus in the visual field is measured, has shown a better correlation to reading performance than either visual acuity, central field or contrast sensitivity alone. While

an eccentric PRL naturally and reliably develops, the ability to use this non-foveal area varies widely. Training in the use of eccentric PRLs is believed by many rehabilitation professionals to improve performance. Many different techniques are proposed as effective and there is both science and art to eccentric viewing training.

#### **9:15 Eccentric Viewing Training or PRL Training: Is there a Difference?**

**Ronald A. Schuchard, PhD:** *Atlanta VA Rehabilitation R&D CoE, Emory University School of Medicine*

**Abstract:** In an eye with a central scotoma affecting the fovea, eccentric fixation is the act of directing the eye toward the object, causing the image of the target to be placed in one or more eccentric preferred retinal loci (PRLs). A goal of eccentric viewing training (EVT) is to enable the patient to use a specific eccentric area of their retina as if it were a fovea. To the extent that the PRL can play this role, this goal of EVT is then training the PRL. Results of studies on reading performance and visual search performance indicates that patients with central scotomas are able, and indeed likely, to use a PRL. The PRL appears to be developed by a patient simply by experiencing a central scotoma, without formal training. However, it is certainly possible or even likely that EVT could improve the use of the PRL. These improvements, in turn, improve everyday visual tasks like reading and visual search. Preliminary evidence even indicates that patients with central scotomas can be trained to develop a new, more optimal, PRL/TRL for some visual tasks. Further discussion and/or studies are needed to determine whether EVT is just another way of saying PRL training.

#### **9:30 Benefits of OT Training in Low Vision Patients**

**Kim Schoessow, OT**

**Abstract:** A study of 50 low vision patients receiving reading training including eccentric viewing training by a qualified OT showed significantly improved all reading performance measures. No other visual function measure significantly interacted with

reading performance. A comparison of reading ability without vision enhancement equipment before and after approximately 4 hours of in clinic rehabilitation training demonstrated that patients were able to read at more accurate and faster rates after training. The error rate was about 4 times better than the initial error rate; the mean reading rate for all sizes of text and the maximum reading rate for any size text showed improvement in all but a few patients.

#### **9:45 Central Field Evaluation without a Scanning Laser Ophthalmoscope**

**Ron Cole, MD**

**Abstract:** Ron Cole, MD

**Abstract:** Information acquired from central field evaluation of low vision patients is invaluable for successful rehabilitation. The Fletcher Central Field Test using a red laser pen is an effective, simple and inexpensive technique for testing the central field when the more sophisticated scanning laser ophthalmoscope (SLO) is not available. Disadvantages of the Fletcher Test prompted several modifications to the original test that have improved scotoma detection and allow direct observation of the patient's fixation pattern. These modifications will be described. The test has been very reliable and clinically useful. Observation by clinicians demonstrates good correlation with the SLO.

#### **10:00 Eccentric Viewing Training: A Structured Approach**

**Chistine Kent, OTR/L**  
**Marilee Walker, OTR/L**

**Abstract:** This presentation will describe and demonstrate how a modification to a tangent central field test using a red laser pen provides valuable information to the therapist regarding the size, shape and position of the central scotoma or other central abnormalities. The Occupational Therapist relies on the physician's evaluation and central field testing to provide valuable information regarding how a patient uses their vision. This information is used to assist the OT in determining

the appropriate eccentric viewing position. Central field testing and treatment protocol for teaching eccentric viewing using a unique guide card method will be discussed.

#### **10:15 Ring Scotomas: How Do You Find Them and What Do You Do About Them**

**Mary Lou Jackson, MD:** *Massachusetts Eye and Ear Infirmary*

**Abstract:** Patients present for vision rehabilitation with many different patterns of central field loss. One of these is a ring scotoma where patients have very limited remaining central field and surrounding dense scotoma. Both diagnosing these and offering effective rehabilitation can be a challenge. This talk will outline the methods to test for this pattern of central field loss, clinical scenarios and multiple case presentations of how these cases are managed.

#### **10:30 An Occupational Therapy Approach to Eccentric Training**

**Michelle Bianchi, OTR/L:** *National Retina Institute - Baltimore, MD*

**Abstract:** Eccentric viewing training is an important part of an occupational therapist's practice in low vision rehabilitation. The goal is to train patients through various media to internalize adaptation strategies into their "muscle memory" so it becomes an automatic process to use their areas of best vision for the task at hand. This may involve different methods for different tasks such as for viewing different sized texts at different distances. Helping patients explore and become familiar with their "new pattern of vision" will permit them to learn to "outsmart their scotomas" and enable them to get more complete, accurate and dependable information. Examples of specific techniques found to be helpful in clinical practice include face viewing techniques, clock technique, Fletcher tangent screen using a pencil with push pin, Warren's pre-reading exercises, and the Wii. The process of simply building a patient's confidence cannot be underestimated. Beyond specific training techniques, giving the patient hope that they can





make the best of their situation, adapt and be independent is vital.

### **RS6: Research Topics 3**

**Moderator: Marilyn Schneck, PhD** - *Smith-Kettlewell Eye Research Institute*

**9:00 - 10:30 a.m., Carranza**

#### **9:00 *Assessment of Functional Vision***

**August Colenbrander, MD Ophthalmology, Vision Rehabilitation**

**Abstract:** This will be a summary presentation of the report prepared for the International Council of Ophthalmology and the ISLRR, which was presented in Hong Kong (June) and Montreal (July).

Recognizing the importance of evidence-based medical practice, the report identifies the areas and methods of assessment, their strengths and weaknesses and areas where further development is needed.

#### **9:20 *How Engagement in Occupation Affects Older Women's Adaptation to Low Vision***

**Theresa Smith, LVT, OT, PhD (Occupational Therapy)**

##### **Abstract:**

Background and need: Prior research studies on adaptation to low vision have excluded the importance of engagement in occupation to the adaptation process. The purpose of this study was to develop a theory on how visually impaired women achieve adaptation through engagement in occupation. This study examined the following research questions: (a) Does a reprioritization of occupations facilitate adaptation to low vision for older women? (b) How does engagement in occupation affect older women's adaptation to low vision? and (c) What are the events which serve to initiate and sustain momentum in the process of adaptation for older women with low vision?

Methodology: This qualitative study explored the reflections of seven visually impaired older women aged 65 to 91, on their adaptation to low vision. I

used grounded theory methodology to construct a theoretical model of Adaptation to Low Vision by Seven Older Women, from data retrieved in one-hour interviews with participants. Results of the study indicated that a reprioritization of occupations did not occur to facilitate adaptation to low vision. Due to the functional limitations attributed to their visual impairment participants had to cease engagement in some occupations even though they continued to desire participation in these occupations. Engagement in meaningful occupations facilitates internal adaptation by increasing participants' self-esteem and motivating them to continue to find methods of doing and in getting help to participate in valued occupations or their abilities. Threats to performance initiate the process of adaptation and abilities serve to motivate participants to continue getting help and finding methods of doing their meaningful occupations. It is through the integration of losses and abilities that adaptation is achieved.

Conclusions: This study illustrates how integral engagement in occupation is to the process of adaptation. Engagement in meaningful and purposeful occupations supports adaptation to low vision and is an important component of the adaptation process.

#### **9:40 *Combat Deployment Injury and Vision Loss and Dysfunction: Learning from Current Conflicts***

**Gregory Goodrich, PhD (Experimental Psychology)**

**Abstract:** The conflicts in Iraq and Afghanistan have highlighted injuries from blast events; particularly traumatic brain injury (TBI). This presentation will focus on ongoing research of the visual consequences of polytrauma and TBI in military personnel and veterans. The presentation will highlight the research and clinical responses to unprecedented patient needs.

The insurgent response to the US military presence in Iraq and Afghanistan has often been the use of weapons in which the destructive force is a blast. Modern armor and medical evacuation and treatment have reduced mortality, but the rate of eye injury is higher than in prior



conflicts. In addition, traumatic brain injury may be the signature wound of these conflicts. This presentation will highlight the results of our studies of the visual characteristics and vision rehabilitation needs of some 115 polytrauma (life-threatening injury) patients and over 160 mild traumatic brain injured outpatients. The two groups superficially represent the continuum of very serious to mild injury. However significant numbers in both groups have sustained visual loss and/or dysfunction. In this presentation I will describe the populations, the current research, and the clinical response being developed by the Palo Alto VA. The range of visual impact of the injuries sustained in this group ranges from light sensitivity and frequent headaches to binocular dysfunctions to low vision and total blindness. In many cases rehabilitation is necessarily interdisciplinary as these individuals also have high rates of post traumatic stress disorder (PTSD), mild to severe traumatic brain injury, and/or physical injury(ies) including traumatic amputations, burns, and other on-going medical issues. As research has begun to characterize the types of injury sustained by these troops the clinical rehabilitation program has evolved to meet specific needs. There are, as yet, no definitive statements that can be made however some future directions will be proposed.

**10:00 Usher Syndrome in Educational Settings: Indigenous Identification Strategies Developed in India**

**G. Victoria Naomi, TVI, PhD (Special Education - Research on Low Vision Reading)**

**Abstract:** Most of the teachers for hearing and visually impaired in India have yet to know the prevalence and implications of Usher Syndrome. The medical professionals especially of rural areas have little knowledge of this disorder (Vijayan & Naomi, 2006). Keeping the need of this neglected population, present study was designed and executed in South of India. The purpose of the present paper is two-fold: 1) To develop an assessment tool for identifying Usher Syndrome for use of teachers, 2) Identify children with Usher

Syndrome in South of India (Tamil Nadu).

The study is an attempt to develop a screening devise for identifying children with usher syndrome. Seven hundred hearing impaired students studying in residential and integrated schools of four districts of the state Tamil Nadu in India were screened. Eight students between the age of 14- 20 were found to be at risk of having usher syndrome. Six subjects out of 8, after ophthalmic evaluation were clinically identified with Usher Syndrome- one with Type II, four with Type I and two having visual problems with other causes. The author has made an attempt to develop indigenous technique for identifying Usher Syndrome in Rural areas of Tamil Nadu. This includes behavioral observation checklists to assess night blindness, field of vision, glare and contrast sensitivity. The techniques developed in the study attempts to throw light on the family history. The family history revealed that four parents were with consanguineous marriage. In addition functional vision assessment such as visual tracking, scanning, memory and visual motor were also included in the assessment tool. Genetic testing for usher syndrome is yet to be made available in India. The tool has far greater implications for this highly neglected population in terms of early detection and even for prevention through genetic counseling.

The study is in its second phase where training to the teachers and caregivers working in the field of visual and hearing impairment is being imparted to investigate its impact.

**RS7: Implanted Devices to Preserve or Restore Vision**

**Moderator: Matt McMahon, PhD - Second Sight Medical Products, Inc.**

**1:30 - 3:30 p.m., Villa**

**1:30 Retinal and Higher Visual Prosthetics: A Status Update**

**Gislin Dagnelle, PhD: Johns Hopkins University School of Medicine**

**Abstract:** The last decades have seen a steady



progression in technological, laboratory, and clinical studies aimed at re-creating sight in individuals who no longer have functional vision. Retinal, optic nerve, and cortical implants have taken turns in the limelight of popular press and research literature, but expectations are often raised to unrealistic levels, and it is not easy to separate fact from fiction. In this talk, we will consider the underlying principles of visual prosthetics, what progress has been made in recent years, what the next few years may bring, and where these prosthetic devices may be a decade from now. More importantly, we will consider initial evidence for the crucial role vision rehabilitation specialists and others in the field of low vision research are likely to play in the continuing development and clinical introduction of visual prosthetics.

**1:50 Notes from the Front Lines: The Importance of the Relationship with the Implant User in Retinal Prosthesis Research**

**Eugene Filley, PhD: Retina Foundation of the Southwest**

**Abstract:** The experience of the user of a retinal prosthesis constitutes a genuinely new way of seeing for both the patient and the research scientist. In this environment, the utilization of both qualitative and quantitative data is essential. Both the implant user and the researcher quite naturally take on multiple roles and the partnership between the two takes on greater importance. The researcher needs to be aware of and understand the psychology of these roles in order to give the patient the best he or she has to offer.

**2:10 Application of Encapsulated Cell Technology for Ophthalmic Diseases**

**Konrad Kauper, PhD: Neurotech USA**

**Abstract:** Ophthalmic disorders represent a rapidly growing disease area that is associated with the aging population. Their sight is threatened by age related macular degeneration, diabetic retinopathy, glaucoma, or retinitis pigmentosa (RP). Few effective treatments for these disorders are available to date, in part due to lack of effective

mechanisms to deliver therapeutic molecules to the retina. The encapsulated cell technology (ECT) allows the controlled, continuous, and long-term administration of protein drugs in the eye, where therapeutic agents are needed, and not to subject the host to systemic exposure. To date, Neurotech has completed a successful Phase I trial applying ECT to the treatment of RP and is currently conducting Phase II/III trials for RP and age-related macular degeneration (AMD). This presentation will review Neurotech's encapsulated cell technology, the status of ECT clinical trials for the treatment of RP and AMD and summarize new developments of the technology platform for the treatment of retinitis pigmentosa, age-related macular degeneration, anti-angiogenesis and glaucoma.

**2:30 Results from the ASR Retinal Prosthetic Study for Vision Loss from Retinitis Pigmentosa**

**Ron Schuchard, PhD: ASR Device Study Group, Atlanta VA Rehabilitation R&D Center of Excellence, Emory University**

**Abstract:** The purpose of this two-year Phase II FDA study was to evaluate the efficacy of a sub-retinal prosthetic device (ASR® device) for vision loss due to retinitis pigmentosa. Twenty subjects were implanted with the ASR® device after baseline visual acuity and other outcome measures were obtained. Subjects were 32 to 69 years of age and had 20/80 to 20/1000 visual acuity in the implanted eye (implanted eye randomly assigned). Other outcome measures included visual fields, everyday function and quality of life (VA LV VFQ-54) self-report and mobility ability self-report (Turano questionnaire). At the one-year evaluation, the results indicated that there were two confounding factors; dilation during vision testing and cataract progression. At two-year final evaluation, 3/6 of 20 subjects had clinically/variability significant (respectively) improvements in visual acuity while 2/4 had clinically/variability significant declines in visual acuity. In the subset of subjects with no confounding factors, the same subjects had improvements in visual acuity (3/6 of 9 subjects). Responders for secondary outcome measures

will be discussed. The ASR® Device can produce improvement in visual acuity when the confounding factors are controlled. The proposed neurotrophic mechanism appears to improve vision loss by improving the function of existing photoreceptors.

**2:50 *The Second Sight Retinal Prosthesis for the Treatment of Blindness from Photoreceptor Degeneration***

**Matthew J. McMahon, PhD: Second Sight Medical Products, Inc.**

**Abstract:** The Argus II is the second generation of an electronic retinal implant designed for the treatment of progressive blindness due to inherited eye diseases that result in photoreceptor degeneration, such as Retinitis Pigmentosa and Macular Degeneration. The first generation Argus 16 prosthesis was implanted in six RP subjects between 2002 and 2004 and has enabled them to detect when lights are on or off, describe an object's motion, count discrete items, as well as locate and differentiate basic objects in an environment. The Argus II implant consists of an array of 60 independently controllable electrodes that are attached to the retina and used in conjunction with an external video camera and microprocessor system to provide a rudimentary form of sight to implanted subjects. Second Sight has completed enrollment of the first phase of a US FDA approved clinical study of the Argus II Retinal Prosthesis System and is enrolling subjects at European and Mexican sites.

**RS9: *Vision Rehabilitation in the 21st Century***

**Moderator: Ron Schuchard, PhD - ASR Device Study Group Atlanta VA Rehabilitation R&D Center of Excellence, Emory University**

**4:00 - 6:00 p.m., Villa**

**4:00 *Through a Glass Darkly: A Glimpse at Emerging Technologies in Low Vision***

**J. Vernon Odom, PhD**

**Abstract:** The 21st Century has ushered in new technologies for the treatment of blindness and visual impairments. Although in the long term these technologies offer the hope of preventing blindness and low vision, in the near term effects are less clear. In this presentation, I will:

- Highlight several areas of need in low vision and blindness, especially those related to way-finding and to communication.
- Describe several areas of technological innovations which affect the general market and therefore create the possibility of newer, low cost low vision innovations.
- Discuss several specific efforts which have received federal funding in the last year or two.

Many of the innovations and devices I will describe are continuations of 20th century trends in miniaturization of electronics which eases the combination of multiple functions in the same device. However, there are also important changes in materials science and nanotechnology which may improve future assistive devices.

**4:20 *When Will We Be There? Participation and Community Integration Issues for School-based Services***

**Jessica Lampert, OTR, CLVT, COMS: Dallas Independent School District Occupational Therapy Services**

**Abstract:** School based services for visually impaired and blind children are designed to increase participation in school activities including access to general education curricula, social and independent living peer activities with the goal of integration in to the wider community after school ends. Programs incorporate instruction in skills identified in the Expanded Core Curriculum in an attempt to prepare students for productive and happy adulthood. Even given this emphasis, a leader in our field (Dr. Phil Hatlen 2002) was moved to write "Our system is broken and we have no obvious solutions". This presentation will discuss professional issues and other possible barriers to students' independent participation in school and other environments and possible projections and hopes for services in the future.



#### **4:40 Medical and Rehabilitation Therapies are Improving Vision: Will Vision Rehabilitation Services Respond?**

**Ronald Schuchard, PhD: Director - Atlanta VA Rehabilitation R&D CoE, Associate Professor or Neurology - Emory University School of Medicine**

**Abstract:** In people with moderate visual impairments to near blindness, the measures of visual and ocular-motor function that are most commonly associated with activities of everyday function are visual acuity, contrast sensitivity, visual field, and eye movement ability (including PRL or preferred retinal locus movement). Other validated measures are needed for an evaluation of functional vision (e.g., reading, wayfinding, falls, eye-hand ability, and visual search), depending on the vision rehabilitation goals and the visual abilities of the person. With the advent of new medical and rehabilitative treatments (e.g., Lucentis for AMD, gene therapy for LCA, and retinal prosthesis for RP) there is now the need to investigate potential improvements in functional vision beyond the visual impairment measurements. Also there is now the need to develop rehabilitative interventions for people who improve in visual ability instead of the normal further decline of visual ability in diseases that previously had no effective treatment. With the advent of current and potential treatments for retinal diseases, there is a new opportunity for visual rehabilitation professionals to help people with moderate to profound visual impairment increase their independence and improve their quality of life.

#### **5:00 Barriers to Low Vision Services: Rebuilding Evidence-Based Vision Rehabilitation**

**Olga Overbury, PhD**

**Abstract:** Most visually impaired people encounter obstacles on their path to rehabilitation. These may include lack of knowledge about services, inappropriate referral, and pragmatic problems such as lack of transportation. Additionally, visually impaired individuals may themselves occasionally erect these barriers. Some may not want to accept their situation and avoid contact with any entity that might identify them as “changed”.

Others may be overcome with anxiety or develop depressive symptoms as a result of their vision loss. Practitioners will be increasingly challenged to identify the barriers to low vision services and to adjust their delivery of those services accordingly. This presentation will examine the state of the art and science in this area, beginning with “what we know” and evaluating the basis of this knowledge. It will also address the links between the known barriers and the design and implementation of rehabilitation programs that hopefully reduce or eliminate them. Clearly, the solution to problems caused by a lack of referral or transportation is very different than it is to those caused by psychosocial factors. Evaluation of visually impaired persons’ needs has to expand beyond devices and functional goals to encompass the extent of their knowledge about and level of adjustment to visual impairment.

#### **5:20 What’s the Employment Prognosis for People with Vision Challenges?**

**Karen Wolffe, PhD: American Foundation for the Blind**

**Abstract:** In this presentation, labor market forecasts for the general population will be described and the likely outcomes for people who are blind or have low vision will be explored. The most recent U.S. Bureau of Labor Statistics reports that detail what jobs in the United States are predicted to increase in number of openings and those that are expected to decrease over the next decade will be presented. Implications for people with vision loss will be detailed. What role, if any, advances in technology and medical intervention will play toward improving the employment opportunities for people with vision challenges will also be discussed. Finally, Dr. Wolffe will speculate on how the changes in public attitude and environmental access, due in part to legislative action and litigation in the last half century have impacted the employment prognosis for people with vision loss.







# Speakers

Speakers are listed alphabetically followed by the sessions they are presenting and their biography. If a session number is preceded with the letter S, see the Sessions chapter for a description; if preceded with a W, see the Workshops chapter.

## **Tara Alvarez, PhD of Biomedical Engineering**

### ***S6: Opening the Black Box: Neuroplasticity and Oculomotor Learning in Saccadic and Vergence Eye Movements***

Tara Alvarez attained a Bachelors degree in Electrical Engineering from Rutgers University and a Masters and Ph.D. in Biomedical Engineering from Rutgers University and the University of Medicine and Dentistry of New Jersey (UMDNJ) where her doctoral work was to study the neuro-control of vergence eye movements, how we perceive objects in depth. Upon graduation, she held a position as a Member of the Technical Staff at Bell Laboratories studying communication theory and signal processing and attained one patent and went on to become a founding faculty member of the Department of Biomedical Engineering at NJIT.

She is a member of Tau Beta Pi (the engineering honor society), Eta Kappa Nu (the electrical engineering honor society), Sigma Xi (the research honor society), ARVO and IEEE EMBS. In 2005, she won the National Science Foundation CAREER award. Dr. Alvarez has published over 50 papers and secured close to \$1M in external funding as the principal investigator as Director of the Vision and Neural Engineering Laboratory and an Associate Professor within the Biomedical Engineering Department. She is currently developing an expertise in oculomotor learning with funding

from Essilor International, the National Science Foundation and the Department of Defense. Current projects include studies to understand the cortical plasticity changes of vergence oculomotor learning, research on how vision therapy can facilitate vergence dysfunction for those with convergence insufficiency and how oculomotor learning occurs in healthy controls and research on why some presbyopes easily learn to adapt to progressive lenses while others do not. These projects are enabling Dr. Alvarez to develop the skill set to study individuals with Traumatic Brain Injury. She plans on applying blind source separation techniques from digital signal processing to behavioral data from various visual stimuli coupled with functional MRI to investigate how the brain learns and adapts. Her goal is to understand how the brain “rewires” itself to best utilize its cortical “real estate.” Once this basic science is understood, she believes better therapeutic regimens can be developed to facilitate a patient’s ability to regain functionality for a better quality of life.

## **Melva Perez Andrews, CLVT, OT**

### ***S20: Creating a Low Vision Task Force: Pooling Resources to Better Serve the Community***

Melva graduated with her Bachelor of Science in Occupational Therapy from Texas Woman’s

University in Denton, Texas in 1989 and her MBA from Our Lady of the Lake University in San Antonio, Texas in 2001. She has over 16 years clinical experience assessing and treating individuals with neurological impairments. Melva works in collaboration with a low vision optometrist at the Lions Low Vision Center of Texas located on the Greehey Academic and Research Campus of UTHSCSA. Her teaching focus is in the area of low vision and vision rehabilitation.

## **Janet Berthiaume, OTR, CDRS, FNORA**

### **W5: *Neuro-Optometric Rehabilitation: A Closer Look***

### **S3: *Fall Prevention through a Collaborative Multidisciplinary Approach***

Janet Berthiaume received her degree in Occupational Therapy from Eastern Michigan University in 1990. She has worked in Vision and Driver Rehabilitation at William Beaumont Hospital in Royal Oak, Michigan for the past 16 years and has lectured on Vision Rehabilitation and Driving, Low Vision/Telescopic Driving and Elderly Driving.

She received the Advancement of Sciences Award from the Neuro-Optometric Rehabilitation Association, International (NORA) in 1997, the President's Award in 2005 and Fellowship in 2007. In 2006, she was named one of Therapy Times' 25 Most Influential. Berthiaume served on the NORA Advisory Council from 2002-2004 and currently serves on the NORA Executive Board as Secretary/Treasurer as well as the Filippis Foundation Board.

## **Lynne Brown**

### **S29: *Accessibility and IBM***

Lynne Brown is an Accessibility Expert and Business Development Specialist in the IBM Human Ability & Accessibility Center. She is based in the IBM Research Division, but works across all divisions of IBM. Lynne has been leading accessibility efforts in IBM for the private sector including Retail, Travel

and Transportation and Digital media – with an emphasis on eCommerce and accessible web sites. She is currently charged with assisting customers on how to integrate accessibility into the products, services, and solutions that IBM offers its customers. In a prior position within IBM, Lynne was the global solution manager for an offering called eRisk. This innovative and ground-breaking service assisted insurance companies with knowledge and a process of how to review web sites for potential risks and allowed them to insure their client companies against loss due to web site failures such as hacking, security breaches, denial of service attacks and others. This offering gained worldwide recognition and was named Insurance Product of the Year in 1998 by the Property & Casualty insurance industry – including mentions on CNN, The Wall Street Journal and more than 60 periodicals worldwide. Her knowledge and experience gained from that work allowed her to become more deeply involved in the area of computer security and privacy. She managed a worldwide privacy survey and program that was well received among the press and IBM's clients.

Lynne joined IBM in January of 1997 through an IBM acquisition of Professional Data Management – a software vendor in the life insurance industry that was located in Indianapolis, Indiana. Prior to her joining IBM, she was responsible for the worldwide sales and marketing of the insurance application as well as developed expertise in system conversions. Her Computer Science career started earlier at the age of 18 with developing and programming database architecture and structure. Lynne has 2 daughters, participates in equine activities and currently lives in Indianapolis, Indiana.



### **SPEAKING THIS YEAR**

#### **Dawn DeCarlo,**

OD, is presenting **W6: *Evaluation and Management of the Pediatric Patient with Vision Impairment*** from 1 - 4 p.m. Thursday in Sabino.



## **Dawn DeCarlo, OD**

### **W6: *Evaluation and Management of the Pediatric Patient with Vision Impairment***

Dr. DeCarlo attended St. Mary's College of Maryland for her undergraduate studies in biology. She graduated cum laude from their Honors Program. After working as a research technician for two years in the Cell Biology and Anatomy Department of the Johns Hopkins School of Medicine, she decided to pursue a degree in optometry. She entered the dual Doctor of Optometry and Master of Science in Physiological Optics program at UAB in 1988 and graduated with both degrees in 1992. Dr. DeCarlo then completed residency training in Rehabilitative and Hospital Based Optometry at the Hines Central Blind Rehabilitation Center and the Chicago West Side Veterans Administration Medical Center. Dr. DeCarlo served on the faculty of the UAB School of Optometry for 8 years, followed by 4 years on the faculty of Nova Southeastern University College of Optometry. During that time she earned Diplomate status in the Low Vision Section of the American Academy of Optometry, the highest clinical honor available in her field. She returned to UAB in 2005 as a faculty member in the Department of Ophthalmology and serves as Director of the UAB Center for Low Vision Rehabilitation.

Dr. DeCarlo serves on the Executive Council of the American Optometric Association's Low Vision Rehabilitation Section, the Diplomate Executive Committee of the Low Vision Section of the American Academy of Optometry, the journal review board for Optometry, Journal of the AOA and is the Chair of the National Board of Examiners in Optometry Patient Assessment and Management Exam Committee as well as a member of the Part III Exam Council. She is also the immediate past-chair of the Low Vision Research Group.

## **Kia Eldred, OD**

### **W3: *Understanding Vision Loss Caused by Neurological Injuries***

Dr. Kia Eldred received her Optometry degree at the University of Houston College of Optometry where she is currently a Clinical Associate Professor. She is a Diplomate in Low Vision and teaches in the Center for Sight Enhancement as well as the NOVA clinic at the University of Houston working with children with multiple disabilities. Dr. Eldred has been a consultant at the Institute for Rehabilitation and Research in the Texas Medical Center for 18 years.

## **Michael Fischer, OD**

### **S19: *Computer-Based Technology for the Low Vision Patient***

### **S34: *Video and Adaptive Technology for the Low Vision Patient.***

Dr. Michael Fischer has been affiliated with Lighthouse International for the past 25 years, both as a low vision clinician and a faculty member in the Lighthouse's Center for Education. He served as Director of Low Vision Services at the Lighthouse from 1992 to 2006, supervising all New York City clinical services. Although no longer on staff at the Lighthouse, he remains a consultant there, providing pediatric low vision care for children from birth to school age. Dr. Fischer is currently the chief of the optometry service at the VA Med Center at Northport, and is an adjunct clinical professor at SUNY College of Optometry, where he previously served as the chief of the primary care service and assistant chairman of the clinical sciences department.

Dr. Fischer has authored and coauthored many articles and chapters on low vision, lectured in numerous continuing education programs in the U.S. and abroad and helped to develop several Lighthouse core courses, including Pediatric Low Vision Care.

## **Sandra Fox, OD**

### **S20: *Creating a Low Vision Task Force: Pooling Resources to Better Serve the Community***

Sandra Fox obtained her OD degree from the University Of Houston College Of Optometry in 1986. She established a solo private practice in Corpus Christi, TX and provided low vision services within a general optometry practice. She joined the University of Texas Health Science Center at San Antonio Department of Ophthalmology in 1992 to help develop a low vision service. The Lions Low Vision Center was established in 2003 and utilizes a multi-disciplinary approach to low vision rehabilitation that includes ophthalmology, optometry and occupational therapy.

## **Gregory Goodrich, PhD of Vision Research**

### **W1: *Managing Geriatric Low Vision Patients: Myths, Misconceptions, and Low Vision Rehabilitation for Success***

Dr. Goodrich received his PhD in Experimental (Sensory Perceptual) Psychology in 1974 from Washington State University. His career with the U.S. Department of Veterans Affairs began in 1974 and he is currently a supervisory research psychologist (Psychology Service) assigned to the Western Blind Rehabilitation Center. He also services as the program coordinator for the Optometric Research Fellowship Program at the CA in Palo Alto.

Goodrich is active in a number of professional organizations holding memberships in the American Psychological Association and American Association for the Education and Rehabilitation of the Blind and Visually Impaired. He is treasurer of the International Society For Low Vision Research and Rehabilitation. His primary areas of research are low vision reading and mobility and outcome studies. Most recently his research has focused on the treatment of polytrauma veterans with vision loss returning from operations in Iraq and Afghanistan. He is a student of the history of low vision and has contributed several chapters on that topic. He also coedits *Low Vision: The Reference* which is the most comprehensive, keyword indexed bibliography of the low vision literature in existences. He is an

avid science fiction reader, enjoys travel, and has a modest wine collection.

## **Linda Goodwin, OTR/L/GC-C**

### **W7: *Our First View - Seeing and Treating the Emotional Components of Low Vision***

Linda Goodwin is an instructor at the University of Alabama in Birmingham in the Occupational Therapy program. She is also conducting research with the Clinical Research Unit at UAB. Goodwin's experience in occupational therapy traverses beyond 26 years. Her introduction to low vision began while working in the area of home health services more than 12 years ago. It was then that she felt compelled to expand her knowledge and develop expertise throughout the field. She now regularly presents to her colleagues and health professionals at the local, state and national levels. She has contributed to furthering education in low vision through publications. Goodwin feels that her years of occupational therapy experience in geriatric, pediatric and psychiatric care have enforced her ability to deliver complete and quality low vision services. Her current professional development includes study and research in the area of the emotional impact on people with low vision.

Goodwin received her Bachelors of Science in Occupational Therapy from Florida Gulf Coast University in 2001, an associates degree in Occupational Therapy from Edison Community College in 1998, and an associates in Occupational Therapy from Palm Beach Junior College in 1981. She became a Certified Grief Counselor in 2006 and held a Low Vision Fellowship with Retina Consultants of Southwest Florida in 1998. Goodwin had a piece published regarding vision rehabilitation and AMD in *International Ophthalmology Clinics*. 47 (1): 139-148, Winter 2007. Linda Goodwin's family life completes her. She lives in Sylacauga, Alabama with her husband and four children. She enjoys outdoor activities, ranching, music and crafts. She keeps active and joyful supporting her younger children's involvement in scouting and sports.





## Nora Griffin-Shirley, PhD of Human Resource Development

### **S15: *Orientation and Mobility for Adults with Visual Impairment***

Dr. Nora Griffin-Shirley is codirector of the Virginia Murray Sowell Center for Research and Education in Visual Impairment and program coordinator of the Special Education and Orientation and Mobility Program at Texas Tech University in Lubbock.

## Lori Grover, OD, FAAO

### **RS8: *Overcoming the Barriers to Treating Vision Impairment: The Team, Outcomes and Funding***

Lori Grover has specialized in vision impairment and rehabilitation for over 17 years. She is a faculty member in the Department of Ophthalmology, Wilmer Eye Institute at Johns Hopkins University Medical Center in Baltimore and is in private practice in Scottsdale, AZ and the greater Phoenix area. Dr. Grover also serves as Director of the Vision Rehabilitation Service at the Foundation for Blind Children in Phoenix. She is Vice-Chair of the American Optometric Association's Low Vision Rehabilitation Section Executive Council, Co-Chair of the Arizona Optometric Association Legislative Committee and is a Fellow of the American Academy of Optometry. Dr. Grover has held leadership positions in four AOA affiliate state associations. She is an internationally recognized speaker in vision rehabilitation and her research interests include driving with vision impairment and rehabilitation team models for care. Dr. Grover shares her time between Baltimore and Scottsdale, AZ where she lives with her husband, Michael L. Grover, DO, Vice Chair of Family Medicine at the Mayo Clinic-Scottsdale, and their daughter, Kate.

## Syed Hasnain, MD of General Ophthalmology

### **S28: *Is the Optic Disc Cupping or Sinking in Glaucoma?***



### **SPEAKING THIS YEAR**

#### **Syed Hasnain,**

MD, is presenting **S28: *Is the Optic Disc Cupping or Sinking in Glaucoma?*** from 2:30 - 3:30 p.m. Saturday in Encino.

Dr. Syed Hasnain is a naturalized U.S. citizen, born February 10, 1941 in Sahiwal, Pakistan. He received his medical degree from Nishtar Medical College in Multan, Pakistan in 1963. He then moved to the United Kingdom in 1967 where he completed his ophthalmology training and received his diploma in ophthalmology from Royal College of Surgeons in England. Dr. Hasnain immigrated to the United States in 1974 and completed his one-year fellowship in ophthalmology at the University of Connecticut in 1975 and became Board Certified in Ophthalmology in 1977. He has been practicing General Ophthalmology in Porterville, California since 1980.

## Sherry Holder, TVI, O&M, CLVT

### **S27: *Cortical Visual Impairment: What is it, and how do we adapt?***

Mrs. Holder obtained her Bachelors Degree in Vocational Home Economics from Sam Houston State University in 1982, a Masters in Education in 1993 from Stephen F. Austin State University and a Masters Degree in Orientation & Mobility in 2002 from Pennsylvania College of Optometry. Mrs. Holder has worked for the Oklahoma School for the Blind for 11 years, 5 years as a teacher of children with multiple disabilities and 6 years as Outreach Coordinator. From the first time Mrs. Holder saw what intervention in children with CVI could do, she has become more educated, attending workshops and seminars on the topic, so she could educate others and help children learn to use their functional vision.



## Mary Lou Jackson, MD of Ophthalmology

### **S4:** *Charles Bonnet Visual Hallucinations*

### **S32:** *Using the Clinical Triad of Acuity/Contrast Sensitivity/Central Visual Field to Plan Rehabilitation Interventions for Patients with Macular Disease*

Dr. Mary Lou Jackson is an ophthalmologist with 18 years of vision rehabilitation experience. She is currently the Director of the Vision Rehabilitation Service at the Massachusetts Eye and Ear Infirmary in Boston, Massachusetts in the Harvard Department of Ophthalmology. She is also the current Chairperson for the American Academy of Ophthalmology, Vision Rehabilitation Committee.

## Rhonda Landry, OTR, SCLV, CDE

### **S12:** *Starting an OT Low Vision Program: New Challenges, Fresh Ideas*

### **S26:** *Intervention for the Patient with Diabetes who is Visually Impaired*

Rhonda Landry has 17 years of experience as an occupational therapist and 8 years of experience treating low vision patients. Rhonda specializes in treating older adults and people with diabetes who have low vision. She recently received a specialty certification in low vision from AOTA and was certified as a diabetic educator last year. Her background also includes development of low vision programs for home health agencies, training staff, educating the community and creating a comprehensive training manual for treating people with diabetes who are visually impaired. As owner and instructor for Vision Quest, she is dedicated to providing continuing education to clinicians for competency with treating the under-served population of low vision.

## Sharon MacKinnon, CLVT, OT

### **S33:** *Developing Low Vision OT Programs in a Rural Setting: 4 Models to Consider in an Environment with Limited Resources*

Sharon MacKinnon received a Bachelor of Science Degree in Occupational Therapy from the University of New England in 1993, and a Master of Science Degree in Health Policy and Management from the Muskie School of Public Service at the University of Southern Maine in 2002. Sherry has been an occupational therapist for more than 14 years and has broad experience in geriatric rehabilitation, management, and program development in low vision. Sherry has completed extensive training in the area of low vision rehabilitation, and has earned the specialty designation of Certified Low Vision Therapist (CLVT) from the Academy for Certification of Vision Rehabilitation and Education Professionals (ACVREP). Ms. MacKinnon established Pine State Low Vision Services, LLC, in 2007 as the first occupational therapy private practice in the state of Maine devoted solely to low vision rehabilitation. In addition, she also developed and currently provides Mid Coast Hospital's low vision occupational therapy program. Prior to this, she developed a low vision clinic at a private non-profit agency and later served as the agency's Vice President of Program Services.

## Robert W. Massof, PhD of Physiological Optics

### **RS8:** *Overcoming the Barriers to Treating vision Impairment: The Team, Outcomes and Funding*

Dr. Robert W. Massof is founder and Director of the Lions Vision Research and Rehabilitation Center, a division of the Johns Hopkins Wilmer Eye Institute. He also serves as Professor of Ophthalmology and Professor of Neuroscience at the Johns Hopkins University School of Medicine, and has joint appointments in Computer Science at the Johns Hopkins University Whiting School of Engineering and at the Johns Hopkins University Applied Physics



Laboratory. He received his Ph.D. in Physiological Optics from Indiana University in 1975. Dr. Massof's research interests include clinical and basic vision psychophysics, physiological optics, sensory engineering, and psychometrics. His work has been supported by grants from the National Eye Institute, the National Institute on Aging, the National Science Foundation, the National Aeronautics and Space Administration, the VA Rehabilitation Research and Development Service, the Multiple District 22 Lions Vision Research Foundation, and several different corporations and private foundations. Dr. Massof is a Fellow of the Optical Society of America and has served on the Society's Board of Directors. He is also a Fellow of the American Academy of Optometry and a member of several other professional societies. He has authored more than 160 published scientific papers and book chapters, edited a book on low vision policy and service delivery issues, and holds five patents and three software copyrights on instruments that he developed. He and his long-time collaborator Dr. Joan Stelmack at the Hines VA Blind Rehabilitation Center recently completed the first multicenter randomized controlled clinical trial on low vision rehabilitation, the VA Low Vision Intervention Trial (LOVIT).

## **Janet Menke, OTR/L**

### **S12: *Starting an OT Low Vision Program: New Challenges, Fresh Ideas***

Janet Menke is the Director of Occupational Therapy Low Vision Rehabilitation Services for Viewfinder, a group private practice that includes three low vision optometrists. Previously, she worked for the largest hospital system in Arizona. She has worked exclusively in low vision rehabilitation since 2004, which began while in adult rehabilitation units and acute care. She developed training in services, materials and resources to help the nursing and rehabilitation team address low vision issues.

## **Tonya Mennem, OT**

### **W3: *Understanding Vision Loss Caused by Neurological Injuries***

Tonya Mennem has been an occupational therapist for 15 years and has specialized in neurological injuries and vision loss. Currently she practices as a low vision therapist at the Michael E. DeBakey Veterans Affairs Medical Center in Houston, Texas. In addition, she serves as the low vision consultant for Project Victory, a program that offers services for military service members who have served in OEF or OIF and who have screened positively for or have been diagnosed with mild traumatic brain injury or post concussive symptoms while in combat or stateside. Previously her professional experiences included the development of a low vision program at the Memorial Hermann TIRR Challenge Program, a community re-entry program for patients following acquired brain injuries. She has lectured locally and nationally regarding vision loss as a result of neurological injuries and serves as a guest lecturer for the low vision elective at Texas Women's University.

## **Renee Miller, TVI, O&M, CLVT**

### **S27: *Cortical Visual Impairment: What is it, and how do we adapt?***

Mrs. Miller obtained her Bachelors Degree in Elementary Education in 1983 and a Masters in Education (Special Education) in 1990 from Northeastern State University. She received a second Masters Degree in 2002 from Pennsylvania College of Optometry in Orientation & Mobility. Mrs. Miller has been with the Oklahoma School for the Blind for 20 years. She taught in the pre-school multiple handicapped class, kindergarten and upper elementary, and is now teaching O&M and Braille classes. Mrs. Miller has also been a State Instructor for the VIISA Model.

## Lynne Noon, OD

### **W8: Custom and Pre-Made Optical Low Vision Device Workshop**

### **S12: Starting an OT Low Vision Program: New Challenges, Fresh Ideas**

Dr. Lynne Noon earned a Bachelor of Science degree at Providence College in Rhode Island and a Doctor of Optometry degree at the New England College of Optometry in Boston, Massachusetts. In 2006, Dr. Noon became President of LowVision.com, a company whose mission is to improve the quality of life for those who are visually impaired through awareness, resources and solutions. Prior to this role, Dr. Noon founded the ViewFinder Low Vision Resource Centers located in Arizona where she practiced optometric low vision rehabilitation on a full-time basis.

Dr. Noon is a Fellow of the American Academy of Optometry, a Diplomate in Low Vision Rehabilitation of the American Academy of Optometry and holds memberships in the American Optometric Association, American Optometric State Association Low Vision Committees Task Force, the American Optometric Association Low Vision Section and Association for Education and Rehabilitation of the Blind and Visually Impaired. She has been the chair of the Arizona Optometric Low Vision Section from 1993 to the 2007, a past board member of Arizona's Vision Rehabilitation & Technology Expo and sat for two terms on the Arizona Governor's Council for the Blind and Visually Impaired.

## Colleen O'Donnell, CLVT, OT

### **S22: You Can Teach an Old Dog New Tricks - Successful Visual Rehabilitation for the Older Adult Learner**

### **S25: Nervous about Neuro-Visual Rehabilitation? Planning and Providing Intervention for Visual Field Loss**

Colleen O'Donnell works for the Henry Ford Health System Visual Rehabilitation and Research

Center. As an occupational therapist, Colleen had worked with older adults in the home, community, mental health and long term care settings prior to specializing in visual rehabilitation 10 years ago. Colleen has been published in the Journal of Visual Impairment and Blindness and most recently contributed to the American Foundation for the Blind's Senior Site web site.

## William Park, OD, FAAO

### **S17: The Diabetic Patient Dilemma: Poor Patient Education and Referral for Vision Rehabilitation**

### **S21: Contact Lenses as an Adjunct of Vision Rehabilitation**

Dr. Park has practiced 22 years of academic hospital-based, interdisciplinary neurological and low vision rehabilitation with staffs consisting of COA & COT, O&M, CLVT, OT, nursing and social work and has been a board certified low vision specialist since 1985. He was chairman of the Low Vision Committee, Michigan Optometric Association (1991-1995) in addition to serving as Director of Low Vision Service at Beaumont Eye Institute, William Beaumont Hospital, Lions Research & Rehabilitation Center, Wilmer Eye Institute-Johns Hopkins University and Appalachian Center for Vision Rehabilitation, West Virginia University Eye Institute. Dr. Park is a past Clinical Assistant Professor of Michigan College of Optometry, Associate Professor of Illinois College of Optometry and has been research co-investigator in five NIH/NEI grants. Dr. Park has authored or co-authored over 25 peer-review papers and authored one book chapter. His work is primarily on rehabilitation of the neurologically and visually impaired.



## Monica Perlmutter, OT

### **S12: Starting an OT Low Vision Program: New Challenges, Fresh Ideas**

Monica Perlmutter received her Bachelor's degree in OT from the University of Missouri-Columbia and her Masters in Education from Washington University. Currently, she is enrolled in the UAB Graduate Certificate in Low Vision Rehabilitation Program. Clinically, she has worked with adult neurology patients in the areas of acute care, long term rehab and out-patient care. In addition, she has prior experience in home health and general medicine. She has been on the faculty of the Washington University Program in OT for 15 years and is the lead OT for the program's academic clinical practice, Community and In-Home Low Vision Services. Her academic responsibilities include coordinating the problem-based learning curriculum, OT practice courses and the neuroscience application lab. Perlmutter's research interests and publications focus on the measurement of occupational performance of older adults with vision loss.

Coordinator of the Program for Teachers of Students with Visual Impairments. Dr. Pogrund received her B.S. in Elementary/Special Education with an emphasis in education of students with visual impairments from The University of Texas at Austin, her M.A. Degree in Special Education in orientation and mobility from California State University, Los Angeles, and her Ph.D. in Education (special education and educational administration) from The University of Southern California.

Dr. Pogrund has been an Associate Professor and Director of the Orientation and Mobility Training Program in the Special Education Department at California State University, Los Angeles as well as Project Director for several federal personnel training and research grants and an administrator and staff development provider in the special education programs for Los Angeles County Office of Education. She has been a teacher and orientation and mobility specialist of children with visual impairments of all ages. She has a long list of publications and presentations, including co-authoring several books in the field of visual impairment. Dr. Pogrund's professional interests are in early childhood visual impairment, orientation and mobility, social skills for children who are blind and visually impaired, literacy, certification and quality educational program development for students with visual impairments.



### **SPEAKING THIS YEAR**

#### **Rona Pogrund,**

PhD, is presenting **S8: Orientation and Mobility for Young Children with Visual Impairments: Developing Motor Skills** from 1-3 p.m. in Madero.

## **Rona Pogrund, PhD of Special Education-Visual Impairment**

### **S8: Orientation & Mobility for Young Children with Visual Impairments: Developing Motor Skills**

Dr. Rona Pogrund is an Associate Professor in the Special Education Program in the Virginia Murray Sowell Center for Research and Education in Visual Impairment in the College of Education at Texas Tech University. She is based at the Texas School for the Blind and Visually Impaired in Austin and is

## **Alfred Rosenbloom, OD, MA, DOS**


### **W1: Managing Geriatric Low Vision Patients: Myths, Misconceptions, and Low Vision Rehabilitation for Success**

Dr. Alfred A. Rosenbloom, chair emeritus of the Chicago Lighthouse's Low Vision Clinic, will deliver the low vision rehabilitation keynote address at the Envision Conference, Friday, Sept. 5. A diplomate in low vision of the American Academy of Optometry, Dr. Rosenbloom was director of the Chicago Lighthouse's Low Vision Clinic from its founding in 1956 to 2000. Today, he continues to see patients. Dr. Rosenbloom is also an adjunct professor in the



Department of Ophthalmology and Visual Sciences at the University of Illinois Medical Center, and a member of the medical staff in the Department of Ophthalmology at the Rush North Shore Medical Center.

Dr. Rosenbloom was recently honored with the Lifetime Service Award from the Illinois College of Optometry (ICO) where he served as past dean and president. He also received the VOSH/International Humanitarian Award (Volunteer Optometric Services to Humanity/International) for providing services to thousand of patients internationally and for training doctors in the U.S. and overseas.



**SPEAKING THIS YEAR**

**Deena Sandall,**  
OD, is presenting **S16: Pediatric Low Vision Rehabilitation** from 8-9 a.m. Saturday in Encino.

## Deena Sandall, OD

### **S16: Pediatric Low Vision Rehabilitation**

Dr. Deena Sandall is a native of Wichita, KS. She received her Doctorate of Optometry in 2005 from the University of Missouri-St. Louis. Dr. Sandall spent her first two years out of school at Envision Rehabilitation Center specializing full-time in adult and pediatric low vision rehabilitation. She currently practices in Nashville, TN.

## Charles Schwartz, MS

### **W2: Magnification, Lighting & Sun Filters: "Boot Camp" Basics for Low Vision Professionals**

### **S7: Increasing the Effectiveness of Low Vision OT: Using "Fun and Games"**

Charles Schwartz is a highly-rated public speaker, with over twenty years' experience in business training, consulting, and customer service

management. The past five years have been focused on serving the low vision and hearing-impaired communities, and he has become well-versed in the strategies, approaches, and devices available for the "independent over 55's." His teaching materials include three webcasts, presented to the International Macular Degeneration Support Group, [www.mdsupport.org](http://www.mdsupport.org).

## Joan Stelmack, OD

### **RS8: Overcoming the Barriers to Treating Vision Impairment: The Team, Outcomes and Funding**

Joan Stelmack received her OD from Illinois College of Optometry and her MPH from Johns Hopkins Bloomberg School of Public Health. At the Hines VA, Dr. Stelmack serves as Co-Director of the Optometry Residency in Ocular Disease/Low Vision Rehabilitation, Preceptor of a Low Vision Rehabilitation Rotation for ICO students, Supervisor of the Low Vision Rehabilitation Outpatient Clinic and Director of the Low Vision Research Program. She has faculty appointments at Illinois College of Optometry and the Department of Ophthalmology and Visual Sciences at the University of Illinois at Chicago and is the principal investigator in the VA funded Low Vision Intervention Trial. Dr. Stelmack is a past chair of the AOA Low Vision Rehabilitation Section. Dr. Stelmack directed development and validation of the 48-item and the 20-item Low Vision Visual Functioning Questionnaires used by patients with low vision to self-report the difficulty they have performing daily activities before and after vision rehabilitation. Her research focuses on outcomes of vision rehabilitation.

## Bonnie Truax

### **S18: Hope, Help and Independence for People with Vision Loss**

Bonnie Truax is a graduate of the University of Minnesota College of Education. She taught both elementary and secondary schools, and later



became a school media specialist in library science. After moving to San Antonio, Bonnie was selected as Director of Educational Programs for the University of Texas Institute of Texan Cultures where she served for 10 years. Shortly before she retired in 1992, Bonnie was diagnosed with macular degeneration and was subsequently declared legally blind in 1995. Unable to find support, Bonnie founded a San Antonio-based support group in 1997. Although the first meeting was attended by fewer than 40 people, the current membership is approaching 1,000. In 2002, Bonnie started a 24/7 radio reading service now known as Owl Radio. It provides live readings of the San Antonio Express-News and other publications over a sub-channel of Texas Public Radio. Over 1,300 specially tuned radios have been distributed free to qualified citizens.

Bonnie has received numerous awards over the years including a Texas Senate Proclamation in 2007 which recognized her contributions to the visually impaired and blind citizens of Texas. She continues to serve as the President of the Board of the Low Vision Resource Center and represents the LVRC throughout the community.

## **Julie Unatin, TVI, O&M Specialist**

### ***S13: Preparing Students with Spectacle-Mounted Telescoped for Participation in Driver's Education: The Role of the Orientation and Mobility Specialist***

Julie Unatin has an undergraduate degree from Eastern Michigan University and a teaching certificate in vision impairment. She went on to receive her Masters in orientation and mobility from Western Michigan University. After working one year at a non-profit agency for the visually impaired, Julie introduced herself to Dr. William Park who was the director of the Low Vision Center at William Beaumont Hospital. Julie convinced Dr. Park to hire her as part of his team in rehabilitation for the visually impaired. Julie credits her knowledge of low vision and telescopes to her mentor, Dr. Park. Together, they published two articles on driving with

bioptics. In 1992, Julie began a family and made the decision to take a job with Oakland Intermediate Schools so she could have more time with her children.

Currently she is a VITC and O&M specialist and works with children ages 3 to 26 throughout the county. Julie is a member of AER and has served on many boards in the area of visual impairment including Michigan Association of AER, Michigan RP Foundation, and Seedlings. Julie is currently a member of the State of Michigan Regional Braille Instruction Team and a consultant for the State of Michigan for driving with bioptics and adaptive driving.

## **Vincent Vicci, OD**

### ***S2: Visual-Vestibular Integration Dysfunction***

Vincent R. Vicci Jr, OD was a 1981 doctoral graduate of the Pennsylvania College of Optometry. He has worked extensively in the area of visual problems associated with learning disabilities, traumatic brain injury, stroke and neurologically challenged individuals.

He is a staff consultant and co-founder of the Kessler Institute for Rehabilitation, staff consultant for the Extended Recovery Unit/Cognitive Rehabilitation Program of the Robert Wood Johnson Jr. Rehabilitation Institute at the John F. Kennedy Hospital in Edison, New Jersey, and former staff consultant at the Vestibular and Balance Clinic at the Holy Name Hospital in Teaneck, New Jersey. He has provided consultations for various rehabilitation programs, insurance companies and independent hospitals in New Jersey, New York and Pennsylvania.

Dr. Vicci has been accepted as an expert in the field of Neuro-Optometric Rehabilitation in all northern New Jersey county courts as well as out of state appointments. He has received the Excellence in Education Award, Advancement of Neuro-Optometric Rehabilitation Award, and the New Jersey Optometric

Association Scientific Award. In addition, he was a founding member of the Neuro-Optometric Rehabilitation Association and has served as the secretary and the president and is currently on the advisory board. He was honored as a distinguished practitioner and was inducted into the National Academy of Practitioners in August 2006.

## Elke Wagner

### **S23: *Social Competence – A Necessity for Job Placement!***

Dr. Elke Wagner is the Vice Superintendent of vocational Schools at the Nikolauspflge in Stuttgart, Germany, a Foundation for people who are visually impaired and blind, and is an associate professor at the University of Education, Department of Special Education, Graduate TVI program in Heidelberg Germany. In 2003, Dr. Wagner published a book on social competence and visual impairment and has since published several articles and presented lectures regarding the topic.

## Diane Whitaker, OD

### **W4: *Addressing the Psychosocial Impact of Vision Loss***

### **S14: *Evaluating Fitness to Drive***

Dr. Diane Whitaker has provided comprehensive and low vision eye care for ten years. After leaving private practice in 2001, she took her first clinical faculty position in the Department of Ophthalmology at UNC Hospitals. In 2006, she joined the faculty at the Duke University Eye Center where she is a clinical professor and Director for Vision Rehabilitation Services. She works closely with the Duke Driving Rehabilitation Program and provides eye examinations for the North Carolina DMV.

## Mark E. Wilkinson, OD, FAAO

### **S1: *Overview of Vision Rehabilitation Treatment Modalities***

### **S10: *Evaluation and Management of Children with Visual Impairments***

Dr. Wilkinson completed his Doctor of Optometry degree in 1980 from Illinois College of Optometry. He is currently a Clinical Professor of Ophthalmology and Director of the Vision Rehabilitation Service in the Department of Ophthalmology and Visual Sciences at the University of Iowa's Carver College of Medicine. Dr. Wilkinson is a fellow of the American Academy of Optometry and chair-elect of the Executive Committee of the Low Vision Rehabilitation Section of the American Optometric Association.

## Laura Windsor, OD

### **S5: *Maximizing and Managing Vision: The 12 Visual Problems of Low Vision Patients***

### **S24: *Bioptic Driving Fitting and Training: The Keys to Success***

Dr. Laura Windsor is a low vision specialist with the Low Vision Centers of Indiana. She received her Bachelor of Science in Optometry and Doctorate of Optometry from Indiana University. She joined her father in practice in 2001. She was awarded the National Essilor Award for her case studies on her work with low vision patients and is a Fellow in the American Academy Optometry. She has written numerous publications on low vision which have been published in Rehabilitation Pro Magazine, Vision Enhancement Magazine, Advance Magazine for Directors in Rehabilitation and recently has had chapters published in the Eyecare Source Book on Albinism, Nystagmus and Stroke and Head Injury Rehabilitation. She also has co-produced a 1 hour movie called "Macular Degeneration: The Path to Understanding and Overcoming" which details and documents the visual problems of macular degeneration as well as low vision care and preventive measures to help prevent the progression of the disease.



**Richard Windsor, OD****S11:** *Innovative Approaches in Low Vision***S31:** *Driving and the Hemianopsia Patient*

Dr. Windsor is a doctor of optometry and a low vision specialist. Dr. Windsor has a thirty-six year history in the field of low vision and works extensively in the rehabilitation of vision problems from stroke and brain injury. His low vision patients have been featured nationally on Breakthroughs in Science television segments and the CBS Evening News' Eye on America. He is the founder of the Low Vision Center of Indianapolis and the Low Vision Center of Fort Wayne. Dr. Windsor was the 1999 American Optometric Association's "National Optometrist of the Year." In 2003, he was appointed a Distinguished Practitioner of the National Academies of Practice. He currently is co-chair of the National Academy of Practice in Optometry. He is a past president of the Indiana Low Vision Rehabilitation Society and the Indiana Optometric Association and a past trustee of the Neuro-Optometric Rehabilitation Association, NORA. At Indiana University, he received the Fox Award as the Outstanding Senior Clinician and the Indiana Optometric Association has honored him five times with the Optometrist of the Year, Young Optometrist of the Year, the Distinguished Service Award and two Meritorious Service Awards.

**JoAnne Wright, CLVT, OT, PhD of Occupational Science****S12:** *Starting an OT Low Vision Program: New Challenges, Fresh Ideas*

Dr. JoAnne Wright has been an occupational therapist for over 20 years and is also a gerontologist. Through her experiences working with older adults she developed an interest in the impact of low vision on older adults as they attempted to maintain their independence. She is the Chair of the Division of Occupational Therapy at the University of Utah where she teaches the low vision content and technology components of the curriculum and is developing an elective course for occupational therapists in low vision. She is also the lead therapist of the division's faculty practice which includes low vision treatment. Her clinical experience and research involves adaptation and rehabilitation with an emphasis on older adults. Her life philosophy is one of helping others find quality of life through personal and environmental changes that often include the use and development of technology.







# Exhibitors

The following companies are exhibiting at Envision 08. Companies are listed alphabetically. All exhibits are in Navarro and Navarro Pre-Function. See the Exhibit Hall floor plan on page 134 for booth locations. Exhibit Hours: Friday, 3:00 - 7:30 p.m., and Saturday, 7:00 am - 1:30 p.m.

## **American Foundation for the Blind**

**[afb.org](http://afb.org)**

### **Booth 1**

The American Foundation for the Blind (AFB) is a national nonprofit that expands possibilities for people with vision loss. AFB's priorities include broadening access to technology; elevating the quality of information and tools for the professionals who serve people with vision loss; and promoting independent and healthy living for people with vision loss by providing them and their families with relevant and timely resources. AFB is also proud to house the Helen Keller Archives and honor the over forty years that Helen Keller worked tirelessly with AFB.

## **American Macular Degeneration Foundation**

**[www.macular.org](http://www.macular.org)**

### **Booth 9**

The American Macular Degeneration Foundation works for the prevention, treatment and cure of macular degeneration by raising public awareness about this disease which causes central vision loss. The AMFD's mission is to provide education to the public, support and advocacy to those afflicted with macular degeneration and their families, and to support scientific research. Services include printed material, telephone support, a newsletter, online

information and an award winning DVD, *Hope & Cope - Living with Macular Degeneration*. Toll free: 888-MACULAR (622-8527).

## **American Printing House for the Blind**

**[www.aph.org](http://www.aph.org)**

### **Booth 4**

The American Printing House for the Blind is the world's largest company devoted solely to making products for people who are visually impaired, and is the official supplier of educational materials for blind students in the U.S. Visit our website at [www.aph.org](http://www.aph.org) or call one of our friendly Customer Service representatives at 800-223-1839 for more information.

## **Crystal Practice Management**

**[www.crystalpm.com](http://www.crystalpm.com)**

### **Booth 13**

Practice Management Software with Customizable Low Vision Medical Records, Scheduling, Billing, Inventory, Recalls, eClaims, and much more. Crystal PM provides a full range of easy-to-use features and integrations that help improve office efficiency and the overall quality of patient care. Visit our booth or online at [www.crystalpm.com](http://www.crystalpm.com)



**Designs for Vision, Inc.**[www.designsforvision.com](http://www.designsforvision.com)**Booth 7**

Designs for Vision, Inc. is a manufacturer of Low Vision devices for the partially sighted. In 2007 we introduced our 1.7X Full Diameter bioptic telescope offering all the benefits of a wide-angle telescope in the bioptic position. We offer ClearImagell® and Prismatic spectacles for near viewing, Bioptic, Full Diameter and the Politzer Telescope Series for distance viewing and Spiral Telescopes for multi-tasking. Rebate program available for all diagnostic fitting kits.

**Envision**[www.envisionus.com](http://www.envisionus.com)**Booth 2**

Envision, your conference host, is a private, not-for-profit agency uniquely combining employment opportunities with low vision rehabilitation services and public education.

Founded in 1933 in Wichita, Kansas, the mission of Envision is to enhance the personal independence of individuals with low vision or blindness through employment and low vision rehabilitation.

We serve our mission in three areas:

**Employment** – Envision is the largest employer of individuals who are blind or low vision in a six-state region. We offer positions in manufacturing, retail sales, administration, low vision rehabilitation, and commercial printing.

**Low Vision Rehabilitation** - The Envision Low Vision Rehabilitation Center is a low vision rehabilitation clinic with one goal – helping our patients realize their best possible functional vision. We achieve this by combining a comprehensive low vision rehabilitation program with adaptive aids, training and resources.

**Public Education** – Through mass media and outreach and educational events, Envision works to prevent vision loss and raise awareness of services that can enhance independence.

**Eschenbach Optik of America**[www.eschenbach.com](http://www.eschenbach.com)**Booth 5**

Eschenbach manufactures and distributes a complete line of magnifiers, telescopes, filters, and video magnifiers for those who are visually impaired due to macular degeneration and other eye conditions. Our Complete Low Vision Program includes in-office staff training, a comprehensive diagnostic system of low vision aids, and marketing and practice management support materials designed to ensure that the Low Vision Care that you provide is profitable to your practice.

**Guide Dogs of Texas**[www.guidedogsoftexas.org](http://www.guidedogsoftexas.org)**Booth 11**

Guide Dogs of Texas (GDTx) leads people away from isolation and dependence caused by blindness. GDTx is a respected and accredited member of the International Guide Dog Federation where it is recognized for its personalized, one-on-one training that creates a foundation for the high probability of successful graduation and for life-long care. Located in San Antonio, GDTx is the only guide dog school in Texas, serves visually impaired Texans, and is one of only 12 accredited schools in the United States giving mobility and independence to people who are visually impaired.

**Magnisight, Inc.**

[www.magnisight.com](http://www.magnisight.com)

**Booth 10**

MagniSight, Inc. of Colorado Springs, Colorado, manufactures a full lines of quality Closed Circuit Television (CCTV) products for the visually impaired. We strive to provide products with the best price and performance in the marketplace. MagniSight knows from personal and company experience that the degree of vision loss varies from person to person. For this reason, flexibility and comfort are designed into every system. President Brian M. Smith has been visually impaired since childhood. As a leading manufacturer of quality CCTV systems, MagniSight prides itself in providing quality products, customer oriented service, awareness of the individual, needs of the visually impaired, and value for your dollar.

**Mumford Institute**

[mumford.robin@gmail.com](mailto:mumford.robin@gmail.com)

**Booth 8**

Mumford Institute was formed 10 years ago to develop specific lighting solutions for patients with visual stress and dyslexia. More recent developments include lighting solutions for patients with dry macular degeneration and a system to promote phonemic awareness for children with certain learning disabilities who are learning to read.

**Nidek, Inc.**

[www.nidek.com](http://www.nidek.com)

**Booth 3**

NIDEK has been doing worldwide business in the medical, optical and coating fields based on leading-edge optoelectronic technology. It develops, manufactures and sells products in the above fields, provide after-sales service and export the products to about 100 countries. It will continue to support people all over the world for their healthy lives as

a leading company in the ophthalmic and optical instrument industries. For further information, please visit our web site.

**NoIR**

[www.noir-medical.com](http://www.noir-medical.com)

**Booth 6**

NoIR Medical Technologies is dedicated to offering ultraviolet and infrared protection in sunglasses. Since 1972 the company has specialized in eye protection for low vision applications. Ranging from premie goggles to special lenses for macular degeneration, specific color transmissions are required to improve the eyesight of the visually impaired patient. With growth in interocular lens technology, post-op cataract patients have benefited from our popular glare-reducing neutral grey fitovers.

The company put in its own manufacturing facility in 1990 to produce a wider range of products. With over fifty colors and many styles and sizes, our goal is to offer the widest possible range of filters for all eye concerns.

**ShopLowVision.com**

[www.shoplowvision.com](http://www.shoplowvision.com)

**Booth 12**

To help establish a better practice model for visually impaired solutions, ShopLowVision.com a sister company of LowVision.com was formed. This eCommerce website has the most comprehensive line – nearly 7,000 low vision solutions with daily living products, video magnifiers, optical products, and professional tools. It is the first-ever low vision e-commerce store with business to business, business to consumer, and business to professional interface all-in-one. Most of all it is the first e-commerce site aligned with best practice model for low vision rehabilitation (AOA, AAO, AOTA, AER).





# Continuing Education

Envision Rehabilitation Center is an American Occupational Therapy Association (AOTA) Approved Provider. (The assignment of AOTA CEUs does not imply endorsement of specific course content, products, or clinical procedures by AOTA.)

Continuing Education accrediting agencies:

- Council on Optometric Practitioner Education (COPE), Association of Regulatory Boards of Optometry (ARBO) Partial COPE Approval.
- Accreditation Council for Continuing Medical Education (ACCME)
- American Nurses Credentialing Center Commission on Accreditation (ANCC)
- Academy for Certification of Vision Rehabilitation and Education Professionals (ACVREP)
- The Commission on Rehabilitation Counselor Certification (CRCC).

**PHYSICIANS:** This activity has been planned and implemented in accordance with the Essential Areas and policies of the Accreditation Council for Continuing Medical Education through the joint sponsorship of the KU Medical Center Office of Continuing Medical Education and Envision. The KU Medical Center Office of Continuing Medical Education is accredited by the ACCME to provide continuing medical education for physicians.

The KU Medical Center Office of Continuing Medical Education designates this educational activity for a maximum of 18 AMA PRA Category 1 Credit(s).™ Physicians should only claim credit commensurate with the extent of their participation in the activity.

**NURSES:** This educational activity is approved for 18 contact hours.

University of Kansas School of Nursing is accredited as a provider of continuing education by the American Nurses Credentialing Center's Commission on Accreditation.

## Envision Conference Continuing Education Committee:

**William Park, OD, FAAO**

*Wichita, KS*

**Paul D. Weishaar, MD**

*Wichita, KS*

**Mary Gambino, RN, PhD**

*Director of Continuing Nursing Education, KUMC*

**Karen Kendrick, OTR/L**

*Envision Rehabilitation Center*

**Bonnie Cochran, CPOA, CLVT**

*Envision Rehabilitation Center*

**James Nolan, PhD**

*Director of Research*

*Envision Rehabilitation Center*

**Michael Epp**

*Director of Outreach & Continuing Education,  
Envision Rehabilitation Center*

**Brenda Chezek**

*Senior Program Manager, Continuing Education,  
Kansas University Medical Center, Director of  
Continuing Nursing Education, KUMC*



APPROVED PROVIDER of  
CONTINUING EDUCATION  
by The American Occupational  
Therapy Association, Inc.





**Objectives:** Attendance at the plenary and concurrent sessions should enable participants to:

- Describe the most current clinical practices in vision rehabilitation
- Recommend appropriate patients who can benefit from vision rehabilitation
- Recognize the multi-disciplinary nature of professionals involved in patients' continuum of care

- Assess a patient's potential for maximizing functional vision through vision rehabilitation
- Select appropriate resources and adaptive strategies for patients with permanent vision loss

**All participants are required to scan their badge number in each session attended each day. Continuing education credit will be prorated according to documented attendance.**

THURSDAY WORKSHOPS						
NUMBER	ACCME	ACVREP	ANCC	AOTA	COPE	CRCC
W1	3	3	3	3	3	3
W2	3	3	3	3		3
W3		3		3		3
W4		3		3	3	3
W5	3	3	3	3	3	3
W6	3	3	3	3	3	3
W7		3		3		3
W8		3		3	3	3
FRIDAY SESSIONS						
NUMBER	ACCME	ACVREP	ANCC	AOTA	COPE	CRCC
S1	1	1	1	1	1	1
S2	1	1	1	1	1	1
S3		1		1		1
S4		1		1	1	1
S5	2	2	2	2	2	2
S6	2	2	2	2	2	2
S7		2		2		2
S8		2		2		2
S10	1	1	1	1	1	1
S11	2	2	2	2	2	2
S12		2		2		2
S13		1		1		1
S14	1	1	1	1	1	1
S15		1		1		1



<b>SATURDAY SESSIONS</b>						
<b>NUMBER</b>	<b>ACCME</b>	<b>ACVREP</b>	<b>ANCC</b>	<b>AOTA</b>	<b>COPE</b>	<b>CRCC</b>
S16	1	1	1	1	1	1
S17	1	1	1	1	1	1
S18		1		1		1
S19		1		1	1	1
S20	1	1	1	1	1	1
S21	1	1	1	1	1	1
S22		1		1		1
S23		1		1		1
S24	1	1	1	1	1	1
S25	1	1		1		1
S26		2		2		2
S27		2		2		2
RS8		2		2	2	2
S28	1	1	1	1	1	1
S29		1		1		1
S31	1	1	1	1	1	1
S32	1	1	1	1	1	1
S33		1		1		1
S34		1		1	1	1



# Attendee Resources



## Registration Desk

The Envision 08 Registration Desk, located in the Navarro Foyer, is open during these hours:

Wednesday	5:00 - 7:00 p.m.
Thursday	7:00 a.m. - 6:00 p.m.
Friday	7:00 a.m. - 6:00 p.m.
Saturday	7:00 a.m. - 6:00 p.m.

## Internet Access

Wireless internet is free of charge in many public areas including the restaurant, main lobby and lounge.

The business center offers internet for a charge of \$5.95 for 15 minutes. Internet is also available in all guest rooms for a fee.

## ATM

An ATM is located in the main lobby.

## Baggage Check

For those staying at the Westin Riverwalk, bags can be checked with the Bellhop in the main lobby.

## Business Center

The Westin business office is open 24 hours a day.

## Lost and Found

Lost and found is located at the Meeting Registration desk in the Navarro Foyer.



## Message Center

Messages for attendees can be left and retrieved at the Envision 08 Registration Desk.

## How to Contact Us

If you need to reach Envision or meeting personnel while at the meeting, call extension 6212 from inside the hotel, or 210-444-6212 from outside the hotel.

## Complimentary Food and Beverage

Complimentary continental breakfast is served Friday and Saturday from 7:00 – 8:00 a.m. in Navarro.

On Saturday, a buffet luncheon is provided after the keynote address from 12:00 - 1:30 p.m. in Navarro. Lunch ticket required.

Complementary coffee tea will be served at morning breaks and complementary coffee and soda will be served at afternoon breaks.

## Dining Options at The Westin Riverwalk

### El Cafeto

Open daily 6:30 a.m. - 10:30 p.m.

### Caliza Grille

Open daily: Breakfast: 6:30 - 11 a.m.; Lunch: 11 a.m. - 2 p.m.; Dinner: 6 - 10 p.m.

## Presenters

All presenters must check in with the Registration Desk staff upon arrival at the hotel. Your Presenter's packet will contain information about your specific presentation including time and location, setup instructions, and audio-visual.

Poster presenters must put their poster up during the following hours:

Friday 2:00 - 3:00 p.m.

Authors must be present during the following Author Presents times:

Friday 3:00 - 4:00 p.m.

Saturday 1:00 - 1:30 p.m.

Posters will remain up during exhibit hours.

Poster take-down time is Saturday, from 1:30 - 2:30 p.m.

A Speaker-Ready Room is available in the Zapata Room. Hours for the Speaker-Ready room are:

Thursday 8:00 a.m. - 6:00 p.m.

Friday 8:00 am – 6:00 p.m.

Saturday 7:00 am – 6:00 p.m.

## Guest Registration

Guest registration is for a family member or guest of an attendee over the age of 17. Guest Registration includes entrance to the exhibit hall and social events, except for the Saturday buffet luncheon. Registered guests may purchase tickets separately for Saturday's buffet luncheon for \$45. Guest registration does not include attendance to sessions. The guest must be registered at the same time as the attendee. Individuals under the age of 17 will not be permitted to attend the conference without adult supervision.

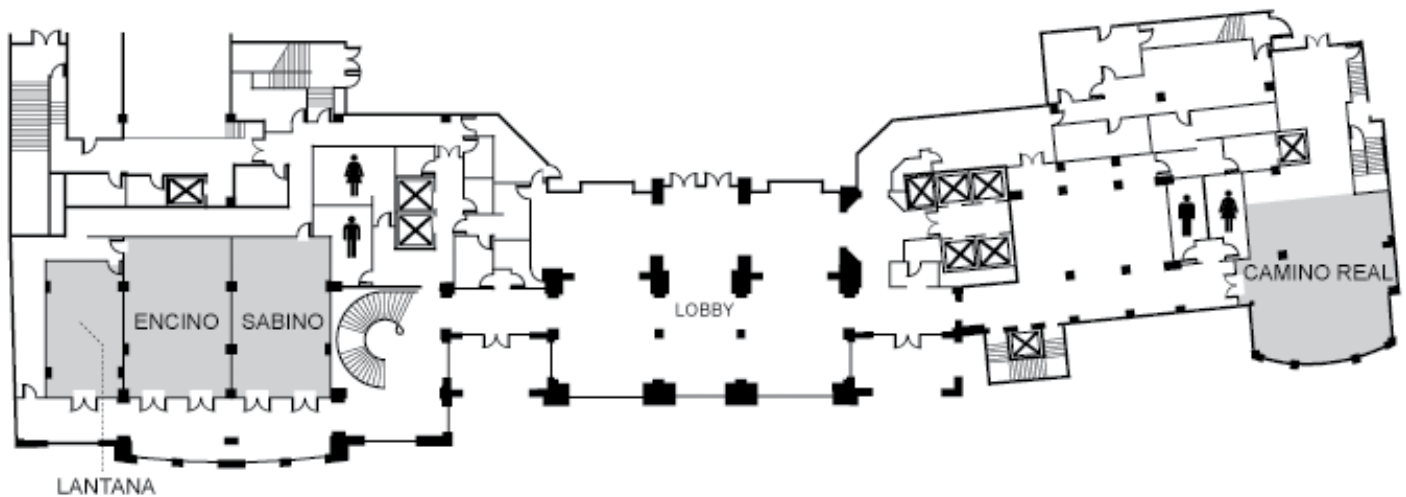




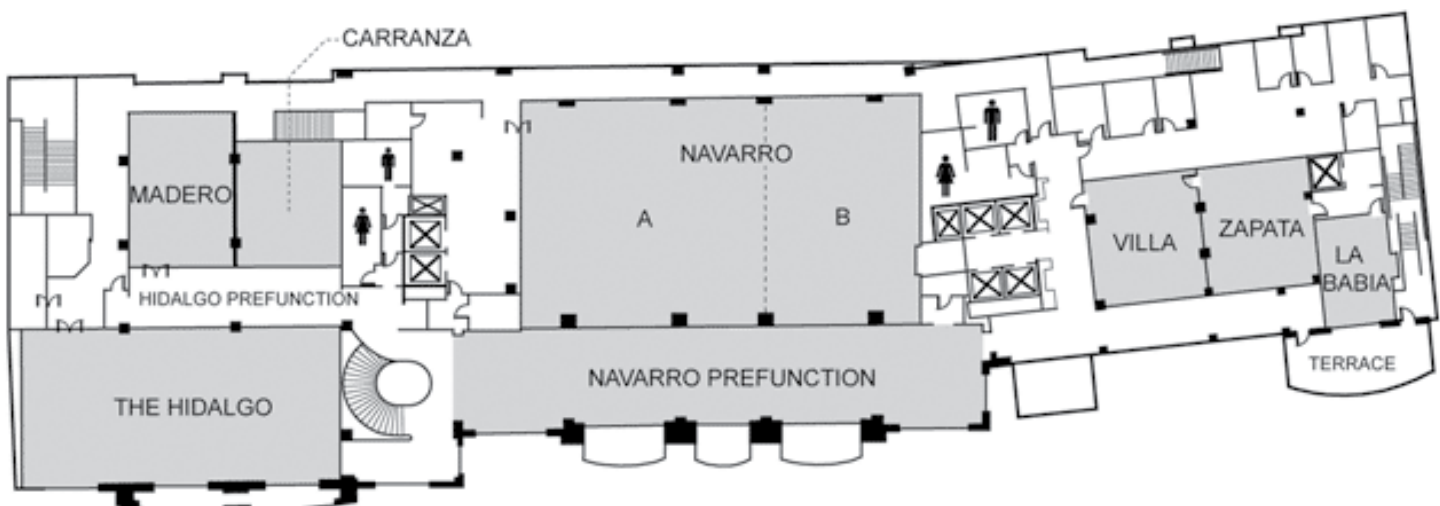
# Hotel Floor Plans



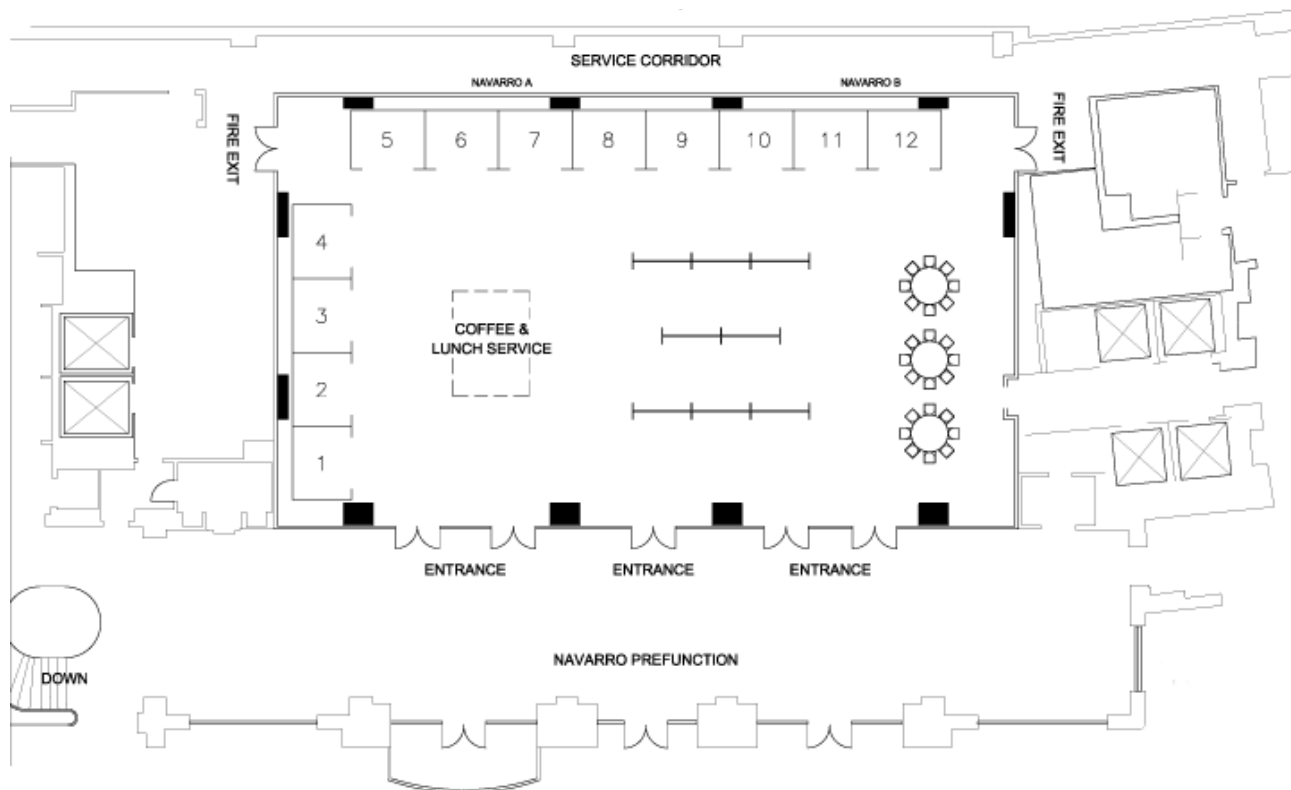
## Westin Riverwalk Hotel - Level II (Lobby Level)



## Westin Riverwalk Hotel - Level III (Ballroom Level)



## Exhibit Hall - Navarro



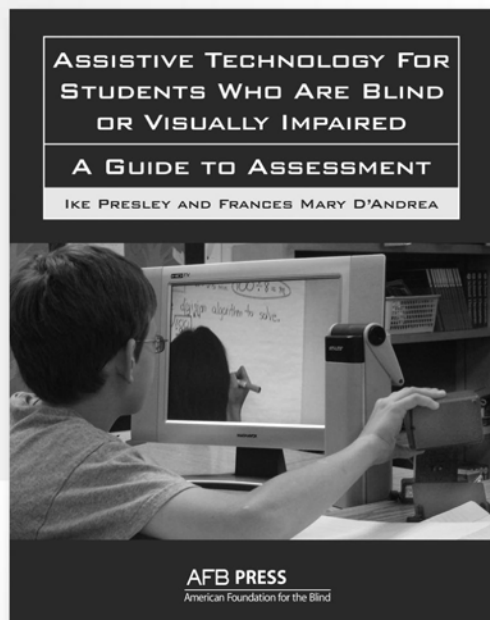
### Exhibitors

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| 1 American Foundation for the Blind     | 8 Mumford Institute                        |
| 2 Envision                              | 9 American Macular Degeneration Foundation |
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# Assistive Technology for Students Who Are Blind or Visually Impaired

## A GUIDE TO ASSESSMENT

By Ike Presley and Frances Mary D'Andrea



**A**ssistive technology is essential in today's world to enable people who are blind or visually impaired to participate fully in school, work, and life. But how can you keep track of all the devices and software and each one's function? And what assistive technology tools are right for your students? If you've asked yourself these questions or others like them, this comprehensive handbook is the resource you need. You'll find a wealth of technical information translated into clear, user-friendly terms in *Assistive Technology for Students Who Are Blind or Visually Impaired: A Guide to Assessment*, including:

- An overview of the full range of assistive technology that students can use to manage information in print or electronic formats—whether they use vision, touch or hearing to access information
- How to select appropriate tools and strategies
- A structured process for conducting a technology assessment
- A detailed assessment form that can be used to determine students' technology needs and solutions to address them
- Advice on writing up program recommendations based on assessment results

You'll also find:

- Tips and insights on working with technology effectively
- A summary of laws and regulations relating to assistive technology
- A resource section of assistive technology producers
- Readings about technology instruction
- Reproducible, blank assessment forms

Essential for teachers of students with visual impairments, members of the IEP team, administrators, technology professionals, and anyone who needs to keep up with the ever-changing world of technology.

**Projected publication date: Fall 2008**

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American Foundation for the Blind



Employment for people who are blind  
Low vision rehabilitation services  
Public education



Choices & resources for people  
who are blind or low vision

[www.envisionus.com](http://www.envisionus.com)



The Lions Low Vision Center of Texas, the Department of Occupational Therapy School of Allied Health Sciences and the Department of Ophthalmology School of Medicine welcome you to San Antonio!

The Lion's Low Vision Center of Texas is an interdisciplinary center for low vision rehabilitation. Individuals whose vision cannot be corrected by traditional means, such as eye glasses or surgery, may benefit from services and devices to make the most of the vision they have.

The Center is a community partnership among The University of Texas Health Science Center School of Medicine/Department of Ophthalmology, The School of Allied Health Sciences/ Department of Occupational Therapy, and the Lions Clubs International.

[www.uthscsa.edu/ot2/](http://www.uthscsa.edu/ot2/)

[www.texaslionslowvision.com](http://www.texaslionslowvision.com)

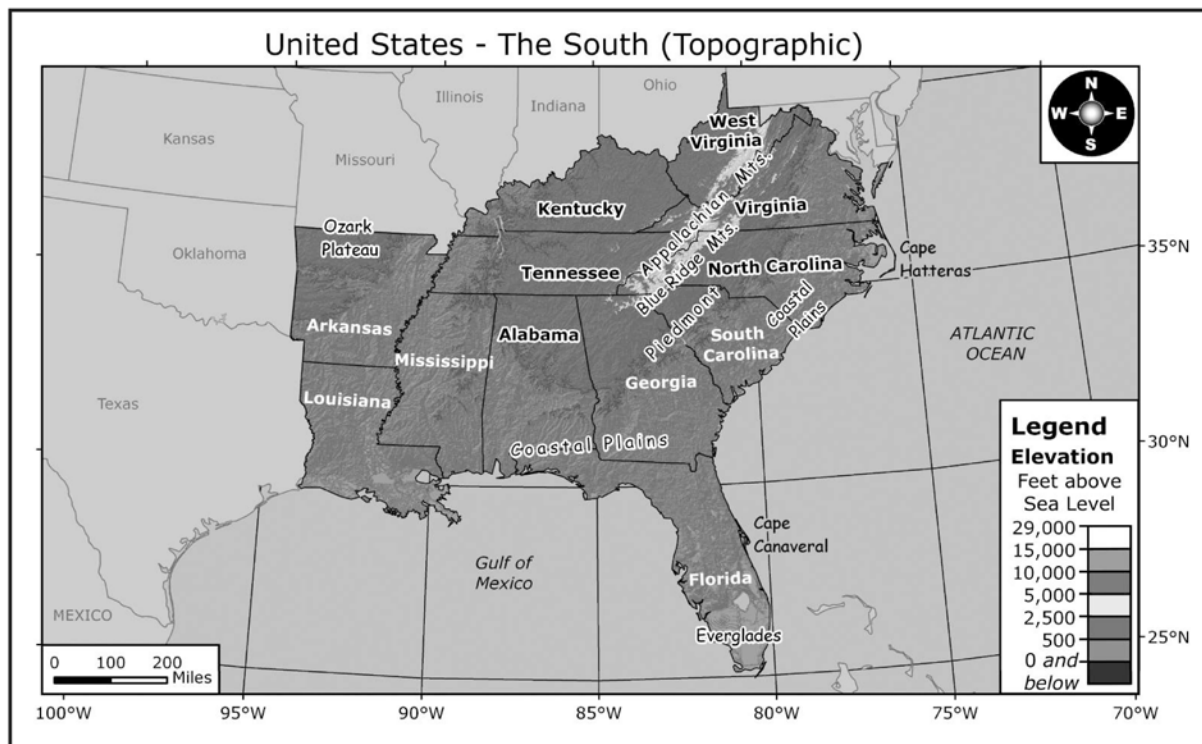


# Address: Earth

## A Revolutionary Large Format Color Atlas!

**Section One includes maps, charts, and text of North America, Southeast Asia, Northeast Asia, plus the Indian Subcontinent.**

This atlas from APH meets 70 specific readability guidelines developed for users with low vision.



**NOTE:** Other sections will be available in the future.

The atlas includes:

- Maps and charts in bright, high-contrast colors
- Transparent overlays
- Broad lines and large legends
- Text in large print
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