

AN EYE TO THE FUTURE



The Department of Ophthalmology
The University of Arizona
Health Sciences Center

Spring/Summer 2009

Saving the Sight of the Tiniest Patients



▲ *Velma Dobson, PhD,
and one of her patients*

Thanks to today's medical advances, babies born prematurely and weighing only two pounds have a good chance of surviving. However, complications can occur, such as retinopathy of prematurity, or ROP, a potentially blinding disease that is common among very low-birthweight babies.

In its mildest form, ROP is self-correcting and causes little, if any, damage to the eye, explains Ophthalmology Professor Velma Dobson, PhD. At its severest, the disease results in significant vision loss.

During the last trimester of pregnancy, a baby's eyes are actively developing, particularly the blood vessels that nourish the retina.

Retinopathy of prematurity develops when these retinal blood vessels grow abnormally. The scarring caused by the excess growth of these blood vessels can lead to retinal detachment, resulting in vision loss.

ROP develops in about 14,000-16,000 infants each year who weigh less than 2³/₄ pounds (1250 grams) at birth. In most cases (80 percent), the disease improves and leaves no permanent damage.

However, about 1,100-1,500 infants annually develop ROP that is severe enough to require surgical treatment.

Dr. Dobson, an experimental psychologist who specializes in the assessment of vision in infants and young children, is one of a group of investigators at various universities involved in the Early Treatment for Retinopathy of Prematurity (ETROP), a national, multi-center clinical study funded by the National Eye Institute of the National Institutes of Health. The

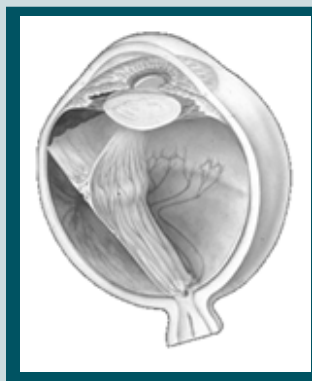
study builds upon previous NEI studies looking at risks and treatments of ROP.

Previous research shows that the timing of treatment is critical to prevent ROP from extensively damaging the eye, says Dr. Dobson. Finding out how early to treat is the goal of the ETROP study.

"Until the late 1980s, there was no proven treatment to keep severe

retinopathy of prematurity from getting worse. Now we know that laser surgery can help in many cases," Dr. Dobson says. "But with all surgeries, there are risks, and these are very fragile babies.

"We want to find out whether treating these babies earlier than what currently is prescribed will lead to better outcomes. More information is needed on how to effectively treat this disease to save these babies from blindness."



▲ *Stage 4 ROP, a partial
retinal detachment*

From the Chairman Changes Bring Challenges and Opportunities

Beginning July 1, the Department will undergo changes in administration. Clinical affairs will now be delegated to Robert Noecker, MD. His primary responsibilities for the Department will be to support the clinical operations as associate head of clinical affairs, and the academic mission as director of the ophthalmology residency program.

As chairman, I now will have the opportunity to focus more on the research and outreach missions of the Department and on the development of a University of Arizona Center of Excellence in Ophthalmology. I will continue to be responsible for the LASIK and refractive surgery research programs.

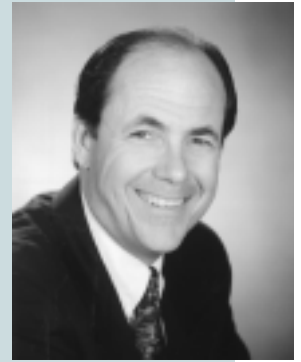
I also want to announce that Jim Schwiegerling, PhD, assistant professor of ophthalmology and optical sciences, received a \$200,000 Career Development Award from Research to Prevent Blindness (RPB). This support is provided over a four-year period.

The RPB Research Career Development Award was established to attract young physicians and basic scientists to eye research. RPB is the world's leading voluntary organization supporting eye research.

This marks the third award to the Department from RPB. Last year, the Department received a Challenge Award and scientist W. Daniel Stamer, PhD, received a Career Development Award to expand his research efforts on glaucoma.

The innovative research in the UA Department of Ophthalmology will continue to expand through development efforts and the support from organizations such as Research to Prevent Blindness. These changes and awards reflect the progress the Department is making toward its goal of becoming a premier eye research institution.

Robert W. Snyder, MD, PhD



▲ *Robert Snyder, MD, PhD*

UA Study Sparks Free Glaucoma Screening Event and Possible Medicare Benefit for Hispanics



▲ (From left to right) Dr. Robert Snyder, Dr. Robert Spurney, Rep. Jim Kolbe and Bud Grant

The UA Department of Ophthalmology recently hosted with U.S. Congressman Jim Kolbe and the Congressional Glaucoma Caucus a free glaucoma screening event at Saint

Cyril of Alexandria Church in Tucson. While open to anyone, the event focused primarily on Hispanics and more than 130 people signed up to be screened for glaucoma.

A recently released Department of Ophthalmology research study called Proyecto VER showed glaucoma as the leading cause of blindness among Hispanics. The results of this study have significant health-care implications for U.S. Hispanics, including the Hispanic population, in Arizona. Based on these findings, the Department is working with

Congressman Kolbe to convince Medicare to extend screening benefits to Hispanics. The Department also received a \$60,000 grant from the Friends of the Congressional Glaucoma Caucus Foundation. This grant will be used by the Arizona Medical Eye Unit to provide diagnostic glaucoma screening opportunities for high-risk groups across Arizona, and to purchase a new vision testing device using Frequency Doubling Technology (FDT) for the St. Elizabeth of Hungary Clinic in Tucson. A recently developed technology, FDT is a very quick and simple method of screening for eye disease before it is apparent in the eye examination.

Never Give Up

An 80-year-old cabinet-maker doesn't want to give up making cabinets; an investor doesn't want to give up reading *The Wall Street Journal*; an artist doesn't want to give up her lifelong hobby hand-painting fine china.

Tom Perski knows firsthand what it is like to give up things because of visual impairment. He began losing his vision to macular degeneration while in college, giving up his hopes for a career as a commercial artist, playing college basketball, and driving a car.

When diagnosed, Tom found very little information available on macular degeneration, particularly the juvenile forms. In 1991, he founded Macular Degeneration International (MDI), a non-profit organization serving people with both age-related and juvenile forms of macular degeneration from around the world. Headquartered in Tucson, MDI now has more than 7,000 members and is the only full-time program in the United States dedicated solely to macular degeneration education and support.

In 1995, Tom and his wife, Diane, also began Southwest Low Vision, Inc., providing low-vision aids,

from magnifying lenses to computers to other technology adapted for the visually impaired. When it comes to low-vision aids, Southwest Low Vision has hundreds to choose from.

"I tell people to list the top 10 things that frustrate them, and usually I can help them with nine out of 10," Tom says. "There are all kinds of tricks and devices to use. I know what works because I use them all the time."

A graduate of Northeastern Illinois University in Chicago, Tom earned a bachelor's degree in psychology and gerontology, and a master's degree in family and community counseling. He has been a featured speaker at more than 75 conferences and holds seminars throughout the country on macular degeneration for patients and their families.

Tom serves on the board of the Arizona Chapter of the Association for Education and Rehabilitation of the Blind and Visually Impaired, and is past president and board member of the Tucson Association for the Blind and Visually Impaired. He also

Board Spotlight



▲ Tom Perski

co-founded the Discovery National Low Vision Conference, held every two years in Chicago, and recently founded a national conference on low vision called Enrichment, held every two years in Las Vegas.

Tom joined the Department's Advisory Board almost a year ago. "I met Dr. Snyder at an Arizona Ophthalmological Society meeting," Tom recalls. "Dr. Snyder and I discussed the fact that one out of five people over the age of 70 has macular degeneration. He told me about the Department's plan to create the Southwest Age-Related Macular Degeneration Research Program and I said I would do anything I can to help. It was a natural blend – they do research and I do support."

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In addition to supporting research, Tom dedicates his life to helping people who suffer vision loss maintain their independence. "In 30 minutes I can help people turn their life around. They can still read and write checks," he says.

"I tell people, you don't have to give up."

DEPARTMENT NEWS

Professor Richard Ober, MD, Receives Melvin Jones Fellowship

Richard R. Ober, MD, professor of clinical ophthalmology, has been named a Lions Clubs International Melvin Jones Fellow. A nine-year member of the Tucson Breakfast Lions Club (TBLC), Dr. Ober received the honor at the club's 45th Annual Awards Banquet on May 22.

The Melvin Jones Fellowship, named after the founder of Lions Clubs International, is the highest recognition given by the Lions.

"This distinguished award was given to Dr. Ober in recognition of his tireless efforts and dedication to our community as a doctor of ophthalmology and

as a nationally and internationally recognized expert in the field of diabetic retinopathy," says Sandy Shiff, TBLC member and

president of the UA Department of Ophthalmology Advisory Board.

Dr. Ober is a retina and vitreous specialist with research interests in diabetic retinopathy, retinal detachment, age-related macular degeneration and ocular trauma. Committed to academic medicine, he also is considered one of the Department's best teachers.

"We are fortunate to have Dr. Ober as a member of our faculty.

He has played an important role as a leading researcher, teacher and clinical practitioner in the fields of diabetic retinopathy and age-related macular degeneration," says Dr. Robert Snyder, Department chairman. "Dr. Ober has worked incredibly hard over the years, and the results are seen in his patients



▲ Dr. Richard Ober and Lion Glenn Overstreet

who have benefited from his outstanding care.

"While technology is critical, people have been the key to the Department's success. We are proud that the Lions have chosen to recognize Dr. Ober and his achievements."

Congratulations Dr. Ober!

Eye Drops vs. Eye Patch in Treating Children's Amblyopia

Department researchers Joseph Miller, MD, MPH, and Velma Dobson, PhD, teamed up with researchers at 46 other eye centers nationally to compare two forms of treatments—eye drops and eye patches—for children with moderate amblyopia, or "lazy eye."

The National Eye Institute (NEI)-funded study, published in the *Archives of*

Ophthalmology in March, showed eye drops to be just as effective as eye patches in correcting moderate cases of the disorder. The study also found children and parents preferred the eye drops, in which the child receives painless atropine drops once a day that blurs the unaffected eye, to patching.

Lazy eye is a condition in which the brain favors one eye over the other. Until now, the standard treatment for amblyopia has been to have the child—preferably starting at age 7 or younger—wear an adhesive patch over the unaffected eye.

This challenges the eye with amblyopia to work harder. The problem with eye patches is that parents often have difficulty getting children to wear them because of discomfort and teasing. However, if left untreated, the condition can lead to permanent vision loss in the affected eye.

Lazy eye is the most common cause of sight impairment in children, with symptoms including crossed eyes, farsightedness and nearsightedness. Lazy eye affects as many as 3 percent of U.S. children and usually develops in infancy and early childhood.

Ophthalmology Faculty

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Robert W. Snyder, MD, PhD

ASSOCIATE HEAD

Robert J. Noecker, MD

Harry D. Carrozza, MD

Harold E. Cross, MD, PhD

Velma Dobson, PhD

Erin M. Harvey, MA

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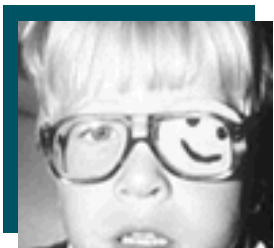
Lynn Polonski, MD

Jim Schwiegerling, PhD

Rand W. Siekert, OD

W. Daniel Stamer, PhD

J. Daniel Twelker, OD, PhD



▲ National Eye Institute

UA Ophthalmology Develops New Optical Lens

UA Department of Ophthalmology Chairman Robert W. Snyder, MD, Professor Joseph M. Miller, MD, and Assistant Professor Jim T. Schwiegerling, PhD, have developed a unique lens that can view and photograph the retina of the eye and can be attached to a standard digital camera.

The unique design of the lens solves an old problem with light refraction in lenses

designed for hand-held cameras used in photographing the eye. The image left on the film was distorted by refracted light. The new fundus lens eliminates this light.

Currently, fundus equipment costs an average of \$50,000. The cost of camera, lens and software developed by the UA would cost only \$3,000.

In addition to its use by ophthalmologists, the affordable lens can be

used by pediatricians in emergency rooms to help detect signs of child abuse, such as shaken baby syndrome.

A business plan, based on the UA Department of Ophthalmology-developed technology and presented by Karl Eller Center Berger Entrepreneurship Program students, won first place in the 2002 Enterprise Creation Competition hosted at Ball State University in March.

Thanks to Our Volunteer Faculty

We would like to thank our volunteer faculty who have contributed their time and effort for the UA Ophthalmology Department for 2001-2002.

Residency Program Volunteers

Norman C. Ahl, MD
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Mark I. Salevitz, MD
Albert J. Scheller, MD
Stephen A. De Souza, MD

Congratulations Residents!

The Department congratulates its graduating residents:

Lisa Herrygers, MD, will stay with the Department as a glaucoma fellow.

Lorne Kapner, MD, will practice general ophthalmology in the San Diego area.

Don't miss these upcoming events!

Thursday, October 10

Breakthroughs in Eye Disease Research: Glaucoma

10:00-11:00 a.m., West Center, 1111 S. Via Arcoiris St., Green Valley

Tuesday, October 15

Breakthroughs in Eye Disease Research: Glaucoma

Time and location to be announced, Scottsdale

Thursday, October 17

Breakthroughs in Eye Disease Research: Age-Related Macular Degeneration

5:00-6:00 p.m., Asian American Hall, Phoenix

Saturday, November 9

Diseases of the Aging Eye

Time and location to be announced, Tucson

These events are free and open to the public. For more information, please call our Development Director Lawney Snyder at (520) 626-2827.

Visit our website for updates:
www.eyes.arizona.edu

Eye on the News!

Eye Drops Can Delay Onset of Glaucoma

A study led by investigators at Washington University School of Medicine in St. Louis has found that drops that lower eye pressure can delay the onset of glaucoma. The eye drops reduced the development of open-angle glaucoma by more than 50 percent. The study appears in the June 2002 issue of the *Archives of Ophthalmology*. For more information on this study, go to the *Archives of Ophthalmology* website at <http://archophth.ama-assn.org/>.

Donations to Research Lead to Ground-breaking Discoveries

The Department's state-of-the-art Glaucoma Research Laboratory was created in 1999 with gifts totaling more than \$200,000 from a few dedicated and generous individuals and several Arizona Lions clubs.

The initial investments enabled Dan Stamer, PhD, to begin his research at the UA into the cause and treatments for glaucoma, a potentially blinding eye disease that affects as many as 3 million Americans.

Dr. Stamer's initial success in the laboratory has made it possible for his team to compete

successfully for grants from the National Institutes of Health's National Eye Institute. The initial "seed money" of \$200,000 has resulted in federal grants of more than \$1.5 million to continue critical glaucoma research.

The next laboratory in Department will be for cutting-edge research for macular degeneration. This disease is the leading cause of irreversible vision loss in the United States, affecting more than 13 million Americans. The Department recently has met its goal of raising \$150,000 for a start-up package to recruit a top-notch scientist who will work on

basic science research that could lead to finding the cause, treatment and cure for this blinding disease.

Future charitable contributions will enable the Department to build the structure for a premiere research program for diseases of the aging eye. **If you are interested in helping in any way, please contact Lawney Snyder, development director, at (520) 626-2827.**

Eliminating vision loss is a partnership: the clinicians who treat the disease, the scientists who investigate the disease and the public who supports the clinicians and scientists searching for a cure for the disease.

ARVO 2002

The following are presentations were made at the Annual Meeting of the Association for Research in Vision and Ophthalmology in Ft. Lauderdale, FL, May 5-10, 2002.

Ryan EP, Haley TS, Heimark RL, **Stamer WD**: Vascular endothelial cadherin expression in human Schlemm's canal cells.

Dobson V, Miller JM, Harvey EM, Mohan KM: Meridional amblyopia in 3- to 5-year-old Native American children with astigmatism >1.50 diopters.

Harvey EM, Dobson V, Miller JM: Below normal best-corrected grating acuity across stimulus orientation in children with high astigmatism.

Miller JM, Harvey EM, Dobson V: A practical method for testing vernier acuity in children.

Mohan KM, Delaney SM, Dobson V, Ellis VL: The influence of peripheral stimulus flicker rate on measured visual field extent in toddlers.

Baldwin MB, Mohan KM, Dobson V, Delaney SM, Ellis VL: The influence of stimulus size on monocular measured visual field extent in 3- and 7-month-old infants.

Hoffman EA, Ryan EP, McKay BS, Stamer WD: Biochemical analysis of native and recombinant myocilin in human trabecular meshwork cells and supernatants.

Stamer WD, Jaffe GJ, McKay BS: Expression of aquaporin-1 in human retinal pigment epithelium.

Fleischhauer JC, Mitchell CH, **Stamer WD**, Peterson-Yatomo K, Civan MM: Human trabecular meshwork cell volume regulation.

Schwiegerling J, Snyder RW: Corneal topographic and wavefront-based design of custom contact lenses for post-LASIK patients.

Snyder RW, Krueger T, Nix DE: Kill curves for vancomycin versus 3rd generation quinolones.

Twelker JD, Bailey IL: An age-matched case-control study of risk factors for primary pterygium.

Anwaruddin R, **Herrygers L, Noecker RJ**: Effect of preservatives on the ocular surface in chronic glaucoma therapy.

VISIONaries

We would like to thank these donors who have given \$1,000 or more to the UA Department of Ophthalmology:

Individuals

James F. Barkley, Jr.	Henry and Phyllis Koffler	Jim Schwiegerling
Robert K. Barkley	Joseph M. Miller	Alice Sheets
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Organizations

Allergan Pharmaceuticals	Lions Sight and Hearing Foundation
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Duke University	Ralph L. Smith Foundation
Green Valley Lions Club	Research to Prevent Blindness
Fanwood Foundation	South Tucson Lions Club
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Lions Foundation of Arizona	

Additional gifts have been made by individuals who wish to remain anonymous. If your name was left off this list, please accept our apologies and call our Director of Development Lawney Snyder at (520) 626-2827.

PUBLICATIONS AND PRESENTATIONS

ARTICLES

Stamer WD, Golightly SF, Hosohata Y, Ryan EP, Porter AC, Varga E, **Noecker RJ**, Felder CC, Yamamura HI: Cannabinoid CB1 receptor expression, activation and detection of endogenous ligand in trabecular meshwork and ciliary process tissues. *Eur J Pharmacol* 2001;431:277-286.

Auestad N, Halter R, Hall RT, Blatter M, Bogle M., Burks W, Erickson JR, Fitzgerald KM, **Dobson V**, Innis SM, Singer LT, Montalto MB, Jacobs JR, Qiu W, Bornstein MH: Growth and development in term infants fed long-chain polyunsaturated fatty acids: A double-masked, randomized, parallel, prospective, multivariate study. *Pediatrics* 2001;108:372-81.

Cryotherapy for Retinopathy of Prematurity Cooperative Group: Effect of retinal ablative therapy for threshold retinopathy of prematurity: Results of Goldmann perimetry at age 10 years. *Arch Ophthalmol* 2001;119:1120-5. (Writing committee: Quinn GE (chair), **Dobson V**, Weleber R, Hardy RJ, Palmer EA, Phelps DL, Summers CG, Tung B)

Cryotherapy for Retinopathy of Prematurity Cooperative Group: Contrast sensitivity at age 10 years in children who had threshold retinopathy of prematurity. *Arch Ophthalmol* 2001;119:1129-33. (Writing committee: **Dobson V** (chair), Quinn GE, Hardy RJ, Palmer EA, Phelps DL, Summers CG, Tung B)

Noecker R: Effects of common ophthalmic preservatives on ocular health. *Adv Ther* 2001;18(5):205-215.

Yool AJ, Brokl OH, Pannabecker TL, Dantzer WH, **Stamer WD**: Tetraethylammonium block of water flux in Aquaporin-1 channels expressed in kidney thin limbs of Henle's loop and a kidney-derived cell line. *BMC Physiol* 2002;2:4.

Rodriguez J, Sanchez R, Munoz B, West SK, Broman A, **Snyder R**, Klein R, Quigley HA: Causes of blindness and visual impairment in a population-based sample of U.S. Hispanics. *Ophthalmology* 2002;109:737-743.

Noecker RJ, et al: Brimonidine 0.2% as a replacement for beta blockers in geriatric patients with glaucoma. *Adv Ther* 2002;19(2):91-97.

Noecker RJ: Effects of preservatives on the ocular surface. *Audio-Digest Ophthalmology*, May 7, 2002.

Noecker RJ, et al: Controversies in glaucoma treatment. *EyeWorld* 2002;7(5):82-84.

Noecker RJ, et al: Alternative treatments for glaucoma. *EyeWorld* 2002;7(5):85-86.

Noecker RJ, et al: State-of-the-art medical therapy for glaucoma: what is available? *Ocular Surgery News* 2002;20(10):40-42.

PRESENTATIONS

WD Stamer, Hosohata Y, Ryan EP, Porter AC, Varga E, Felder CC, Yamamura HI: Cannabinoid CB1 receptor activation and detection of endogenous ligand in eye tissues. Western Pharmacology Society/XXV Congreso Nacional de Farmacologia, Mazatlan, Mexico, January 30, 2002.

Schwiegerling J: Aberrations and wavefront sensing of the eye. 28th Annual Bronstein Contact Lens Seminar, February 1-3, 2002. [Invited]

Schwiegerling J: Wavefront and topography—Do we need both? 3rd International Congress of Wavefront Sensing and Aberration-Free Refractive Correction, Interlaken, Switzerland, February 15-17, 2002. [Invited]

Straub J, **Schwiegerling J**, Gupta A, **Miller J**, Anwaruddin R: Spherical aberrations in human eyes: Comparison of normal, post-LASIK and post-IOL eyes. Poster presentation at the 3rd International Congress of Wavefront Sensing and Aberration-Free Refractive Correction, Interlaken, Switzerland, February 15-17, 2002.

Miller JM, Anwaruddin R, Straub J, **Schwiegerling J**: Spherical aberration in normal, dilated, IOL and LASIK patients. Poster presentation at the 3rd International Congress of Wavefront Sensing and Aberration-Free Refractive Correction, Interlaken, Switzerland, February 15-17, 2002.

Snyder RW: Clinical update in ophthalmology. 24th Annual Tucson Hospitals Medical Education Program's Winter Medical Conference, Durango, CO, February 22, 2002.

Snyder RW: Fellowships and assistance—Educational grants and advanced training for Mexican doctors. North American Conference of Lions Foundations, San Francisco, CA, March 9, 2002.

Joish VN, **Miller JM**, Malone DC: An economic evaluation of visual acuity screening and photoscreening for young children. Poster presentation at the 2002 Annual Meeting of the American Association for Pediatric and Ophthalmology and Strabismus, Seattle, WA, March 20-24, 2002.

Miller JM, **Harvey EM**, **Dobson V**: Use of the enhanced Bruckner Test to screen for refractive error. Poster presentation at the 2002 Annual Meeting of the American

Association for Pediatric and Ophthalmology and Strabismus, Seattle, WA, March 20-24, 2002.

Miller JM: (1) Night vision anomalies in refractive surgery patients, and (2) Statistical analysis of refractive error. Residents, Navy Medical Center, San Diego, CA, March 25, 2002.

Snyder RW: Endophthalmitis in cataract surgery: an in-vitro model. Biomedical Engineering Seminar, Tucson, AZ, March 25, 2002.

Snyder RW, **Stamer WD**: Finding a cure for age-related macular degeneration. Green Valley Community Center, AZ, March 28, 2002.

Miller JM: Optics and Refraction, University of Miami School of Medicine, March 29, 2002.

Snyder RW, **Stamer WD**, Dugal P: Finding a cure for age-related macular degeneration. Scottsdale Library, AZ, April 2, 2002.

Stamer WD, Brokl OH, Pannabecker TL, Dantzer WH, Yool AJ: Selective inhibition by tetraethylammonium of water not ion fluxes in aquaporin-1 channels. Transport 2002, Miami, FL, May 4, 2002.

Schwiegerling J: Physics of custom ablation. 2002 annual meeting of the Association for Research in Vision and Ophthalmology, Ft. Lauderdale, FL, May 5-10, 2002. [Invited]

EXPLANATION OF PUBLICATION AND PRESENTATION INFORMATION

Publications

Author(s): Article title. *Journal* Year Published; Journal Number: Journal Page Number(s).

Presentations

Presenter: Presentation Title. Name of Conference/Organization, Presentation Location, Conference/Presentation Date(s).

AN EYE TO THE FUTURE newsletter is published by the UA Department of Ophthalmology to share news and showcase research activities. Correspondence or inquiries should be addressed to: Newsletter, UA Department of Ophthalmology, 655 N. Alvernon Way, Suite 108, Tucson, AZ 85711; phone (520) 322-3800 ext. 200.



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Our Mission Is to Benefit the People of Arizona, the Southwest and Beyond

Entering the 21st Century:

◆ In the U.S., one child in 20 may suffer abnormal eye development. These children are at risk for serious vision problems that may lead to permanent vision loss.

◆ Glaucoma is the leading cause of preventable blindness in the United States, affecting an estimated 3 million Americans. It is a silent villain that, with little or no warning, robs a person of their ability to see. Once destroyed, vision lost to glaucoma cannot be restored.

◆ Age-related macular degeneration causes visual loss in about 1.2 million people in the U.S. By age 60, nearly 15 percent of Americans develop symptoms of ARMD; by age 80, the percentage rises to nearly 40 percent.

With the latest laser applications, computers and other new technologies, we enter the 21st century with far greater hope for preservation of vision. However, we continue to seek better answers for eye conditions, such as glaucoma and retinal diseases that are still major causes of blindness.

UA Department of Ophthalmology

The UA Department of Ophthalmology is dedicated to preserving healthy eyesight and preventing blindness through innovative research and comprehensive eye care for all patients whose vision is threatened by eye disease or injury.

Become an Annual Member of the VISIONaries

We invite you to support the exciting work of the UA Department of Ophthalmology. Gifts of all sizes have been utilized throughout the Department, in the clinics, and in the research laboratories, helping the Department increase medical knowledge and offer the best possible vision care.

◆ **Donors of \$1,000 or more will have their name listed on the permanent donor recognition wall at the Lions Eye Care Center.**

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