

AN EYE TO THE FUTURE



The Department of Ophthalmology
The University of Arizona
Health Sciences Center

Winter 2002

Hispanics at High Risk for Undiagnosed Retinopathy and Glaucoma

A first-ever study of the prevalence and causes of eye disease among Mexican Americans found that Hispanics over the age of 40 are more likely to have undiagnosed diabetic retinopathy and glaucoma than other ethnic groups.

Researchers at **University of Arizona Department of Ophthalmology** surveyed and evaluated vision problems, such as diabetic retinopathy (disease of the retina), cataracts, age-related macular degeneration and glaucoma, among 4,774 Hispanics in Nogales and Tucson, Ariz. Results of the study, done in collaboration with the Dana Center for Preventive Eye Disease at Johns Hopkins University School of Medicine, were published in the July issue of *Diabetes Care*, and in the December issue of the *Archives of Ophthalmology*.

The study showed the incidence of diabetes among this population was 22 percent, almost twice that of non-Hispanics, and 15 percent of those with diabetes were not aware they had the disease. Of the 15 percent who were newly diagnosed with diabetes, 32 percent had diabetic retinopathy, a potentially blinding eye complication of diabetes.

In addition, the incidence of glaucoma — gradual loss of sight due to damage to the optic nerve — ranged from 0.5 percent in those ages 41 to 49 to more than 12 percent in ages 80 and older. Only 36 percent of those affected were aware of their disease, compared with an estimated 50 to 70 percent of other Americans with the disease.

The three-year study, funded by a \$3 million grant from the National Eye Institute, was called **Proyecto VER (Project Vision, Evaluation, Research)**. Participants randomly were selected based on 1990 census information. After filling out a questionnaire, participants underwent a one-time comprehensive eye evaluation. Those who required follow-up care were referred to an ophthalmologist.

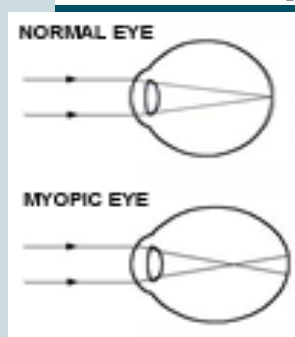
“The finding that 15 percent of diabetic retinopathy cases and 64 percent of glaucoma cases in this community were unknown before our survey indicates just how important it is to identify and control potentially blinding diseases among this population,” says **Robert Snyder, MD, PhD**, professor and head of the UA Department of Ophthalmology and one of the study’s investigators.

“In the United States, the Mexican American population is the second-largest minority group, and if current trends continue, will become the largest minority group in the next 20 years. If the diseases could be caught early and treated appropriately, it could save the sight of hundreds of thousands of people and millions of dollars in health care costs.”



Investigating Eye Growth in Native American Children

The UA Department of Ophthalmology has been awarded \$1.5 million to take part in an ongoing multicenter study looking at the development and prevention of childhood myopia (nearsightedness). **J. Daniel Twelker, OD, PhD**, the Department’s new research assistant professor, will oversee the



Collaborative Longitudinal Evaluation of Ethnicity and Refractive Error (CLEERE) Study sponsored by the National Eye Institute.

Originally called the Orinda Longitudinal Study of Myopia (OLSM), the CLEERE Study began in 1989 to investigate eye growth in schoolchildren. The first study site in Orinda, Calif., had a predominantly Caucasian population. The study evolved to include other ethnic groups — Asian, African American and Hispanic children — across the United States. The UA Department of Ophthalmology has been chosen as a center to study eye development in Native American children from the Tohono O’odham Reservation.

By comparing and contrasting the development of the ocular components and refractive error of children in grades K-8 from the different ethnic groups, researchers hope to provide information that could lead to the prevention of myopia.



From the Director's Desk

First "Gift of Sight" Breakfast a Success!

The University of Arizona Department of Ophthalmology's first annual fundraising breakfast on Nov. 7 was a whopping success! Held in Tucson at the Westin La Paloma, the one-hour event, "Gift of Sight," generated nearly \$100,000 in gifts and pledges over five years to benefit the Department's research and clinical service.

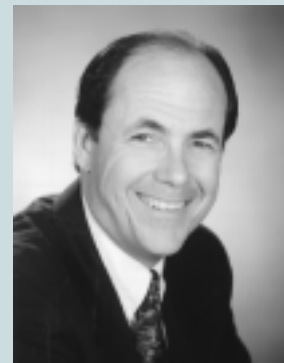
More than 400 guests learned about the important work taking place at the Department and at the Lions Eye Care Center. Presentations made by patients and a video provided an in-depth look at how the Department's research and clinical services affect the vision of young and old in our community.

Funds raised will allow the Department to move into the future and continue to make strides in its work to prevent blindness and visual disability. This includes efforts to recruit and retain world-renowned faculty, conduct cutting-edge research, and solidify the Department's standing as one of the premier eye research institutions in the country.

The success of this special event was due to the support of many friends across the state who served as "table captains" and guests. The Department is especially grateful for the special support of the Tucson Breakfast Lions Club for donating more than \$13,000 to underwrite the cost of breakfast.

I would like to thank all our friends for their support. We look forward to our continued collaboration in achieving our mutual goal of eradicating blindness.

Robert W. Snyder, MD, PhD



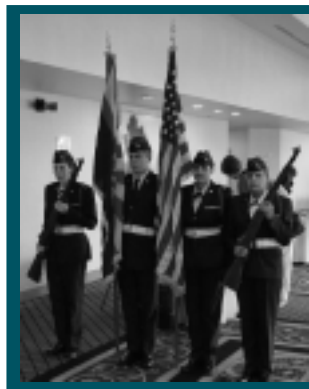
▲ Robert Snyder, MD, PhD



▲ Tucson Breakfast Lions Club President Bill Goldberg and Dr. Snyder



On Nov. 7, the UA Department of Ophthalmology hosted its first "Gift of Sight" breakfast at the Westin La Paloma Resort. More than 400 people learned about the Department's research and patient care programs.



Clockwise from top left:
 1. Tawni Holland
 2. Advisory Board President and Lion Sandy Shiff and Lion Anne Shiff
 3. DMAFB Elite Honor Guard
 4. Drs. Lisa Herrygers and Joseph Miller
 5. Lion Morth Smith
 6. Dr. and Mrs. Henry Koffler
 7. Lions Charles Moffett, Sally Moffett, Anna Blaylock and District 21-B Vice District Governor Les Blaylock

Going Forward Means Giving Back

Dan D'Antimo says years of military service taught him the meaning of responsibility.

"When I came back from the war I knew I was lucky and needed to give something back," he says. "I owed it to all those Marines who did not make it back."

A Born Leader

Dan wanted to be a Marine since he was 8 years old. He enlisted as a private in the U.S. Marine Corps just months before the attack on Pearl Harbor. His leadership abilities in WWII and Korea earned the Buffalo, N.Y., native an officer's commission. During his military years, while attending school at night, Dan received a bachelor's of science degree in economics from the University of Buffalo and a doctor of law degree from George Washington University. He retired from the military with the rank of Lt. Colonel in 1964.

Wall Street Comes to Tucson

Following retirement from the Marines, Dan worked on Wall Street as training director of a major investment firm. After five years of commuting two hours each way to work, he moved his family to Tucson

in 1970 and opened the city's first A.G. Edwards & Sons. The firm has been so successful that it has expanded to three offices in Tucson.

Friend to the Blind

One of the first organizations Dan joined when he came to Tucson 32 years ago was the Tucson Breakfast Lions Club. He became involved with the UA Department of Ophthalmology when he met fellow Lion Howard Shiff. He and Shiff shared a belief that a cure for blindness would come from medical research. Avid fundraisers, he and Shiff enlisted Ted Raszka, Ernie Rizek and other Lions and began a partnership with the Department to work toward the eradication of eye disease.

"Dan has opened doors and helped to acquire a substantial amount of support," says Dr. Robert Snyder, head of the Department. "He helped in the raising of funds for the Lions Eye Care Center, getting the Basic Glaucoma Research Laboratory equipped, and setting up the Department's Advisory Board."

A Life of Giving

Dan's fundraising and administrative expertise also has



▲ Dan D'Antimo

benefited other groups. He founded Sun Sounds Radio Reading Service for the Handicapped and served on the board of Goodwill for 25 years. In 1994 the mayor of Tucson awarded him the Copper Letter Award, which recognized his contributions to the community.

Dan's wife, Wanda, laughs when he says he retired three years ago. "He's busier now than ever," she says. "He continues to devote much of his time to helping others."

"I have a dream that there will be no more blindness," says Dan. "By helping the Department of Ophthalmology and supporting research, I believe the dream will come true."

Department Advisory Board

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Sandy Shiff*

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Louise Braden

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Ernie Soto*

Edward E. White*

*Lions Club representatives

[†]Arizona Ophthalmological Society representative

Current Techniques for Cataract Surgery Science of Eye Disease Seminar Series

Two experts on the theory and application of cataract surgical techniques presented "Novel Surgical Strategies for Cataract Removal" at the University of Arizona Department of Ophthalmology's fifth *Science of Eye Disease* lecture Dec. 12.

William Fishkind, MD, FACS, an internationally recognized expert in cataract surgery, and the editor of the textbook *Complications in Phacoemulsification, Recognition, Avoidance and*

Management, and Ken Kadziauskas, director of new technology at Allergan Pharmaceuticals, Inc., discussed the basic science behind phacoemulsification and the development of future techniques and technologies for the removal of cataracts.

The UA Department of Ophthalmology *Science of Eye Disease Seminar Series* is presented quarterly to members of the community with medical or research interests in eye disease.



▲ Ken Kadziauskas and William Fishkind, MD

Save the date! The next *Science of Eye Disease Seminar*, "Hispanics at Risk — Results of Pioneering Eye Disease Study, Proyecto VER," is scheduled for Wednesday, March 27, 5:30-7:00 p.m., at the Arizona Cancer Center Keiwit Auditorium.

DEPARTMENT NEWS

Dr. Dan Twelker Joins Department



▲ J. Dan Twelker, OD PhD

J. Dan Twelker, OD, PhD, is one of only a handful of optometrists who also have a PhD. As a matter of fact, Dr. Twelker says there are only 20 or 30 of these individuals in the whole country.

Dr. Twelker joined the UA Department of Ophthalmology in January as a research assistant professor. He is

responsible primarily for overseeing the Collaborative Longitudinal Evaluation of Ethnicity and Refractive Error (CLEERE) study. Sponsored by the National Eye Institute, CLEERE is a national multi-center study looking at the development and prevention of childhood myopia (nearsightedness). *See story, page 1.*

Dr. Twelker comes to the Department from the University of California, Berkeley, where he received his doctor of optometry degree in 1992 and his PhD in vision science last December.

Co-author of more than 20 peer-reviewed articles and abstracts, Dr. Twelker

has many research interests, including investigating the cause and prevention of pterygium, a nonmalignant growth on the eye.

In addition to overseeing the CLEERE Study, Dr. Twelker will see patients at the Lions Eye Care Center. His clinical interests are pediatric and general eye care.

Dr. Twelker's combined research and clinical interests led him to the UA Department of Ophthalmology. "The Department offered a unique opportunity to work with top-notch people and be involved in a national NEI-funded study," he says. "I'm excited to be here."

New Development Leadership for Department

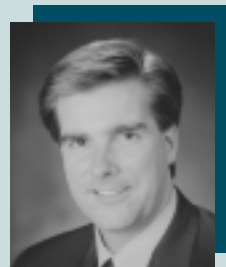
Lawton Snyder has been appointed to direct the development effort for the UA Department of Ophthalmology. Snyder (no relation to Department chair Dr. Robert Snyder) replaces Lori Jacobwith, who has taken on a new opportunity with a consulting company, but has agreed to stay involved as a member of the Department's Advisory Board.

Snyder is responsible for developing and managing fundraising and marketing activities in support of the Department and Lions Eye Center.

Snyder has been working in the Arizona Health Sciences Center

(AHSC) Development Office for the past year, coordinating events for the Sarver Heart Center, the College of Public Health, and other AHSC programs. He has 15 years of health care management, research and education experience. He holds two master's degrees: a MS in exercise physiology and a MBA with a marketing emphasis.

Snyder moved to Tucson in 1996 to establish University Medical Center's Health and Wellness Center. His wife, Susan, is clinical faculty for UA Speech and Hearing Sciences. They have two children, Alexander and Zachary.



Lawton Snyder▲

One of his first priorities is to follow up on the momentum generated from last November's "Gift of Sight" breakfast, Snyder says. "We have events already planned for Tucson on March 27, Green Valley on March 28, and Scottsdale on April 2. I am looking forward to getting to know all the Department of Ophthalmology supporters."

Don't miss these upcoming events!

Wednesday, March 27

Hispanics at Risk — Results of Pioneering Eye Disease Study, Proyecto VER

5:30-7:00 p.m., Arizona Cancer Center Keiwit Auditorium, 1501 N. Campbell Avenue.

Speakers: Jorge Rodriguez, MD, MPH, president and CEO of Surgical Eye Expeditions (SEE) International, and Richard O. Schultz, MD, Peters Professor Emeritus of Ophthalmology, Medical College of Wisconsin. Jack Aaron, MD, an expert on delivering ophthalmology care to underdeveloped regions, will join the speakers for a brief panel discussion following the presentation. Free and open to the public. Refreshments served.

Thursday, March 28

Breakthroughs in Eye Disease Research: Age-Related Macular Degeneration

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

Speakers: Robert Snyder, MD, PhD, and Dan Stamer, PhD. Free and open to the public. Refreshments served.

Tuesday, April 2

Breakthroughs in Eye Disease Research: Age-Related Macular Degeneration

6:00-7:00 p.m., Mustang Library, 10101 N. 90th Street, Scottsdale

Speakers: Pravin Dugel, MD, Phoenix retina specialist, and Robert Snyder, MD, PhD. Free and open to the public. Refreshments served.

For more information on these events, call Lawney Snyder at (520) 626-2827.

PUBLICATIONS AND PRESENTATIONS

ARTICLES

Quigley HA, West SK, **Rodriguez J**, Munoz B, Klein R, **Snyder R**: The prevalence of glaucoma in a population-based study of Hispanic subjects: Proyecto VER. *Arch Ophthalmol* 2001;119:1819-1826.

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

Moke PS, Turpin AH, Beck RW, Holmes JM, Repka MX, Birch EE, Hertle RW, Kraker RT, **Miller JM**, Johnson CA: Computerized method of visual acuity testing: adaptation of the Amblyopia Treatment Study visual acuity testing protocol. *Am J Ophthalmol* 2001;132:903-909.

Noecker RJ: Glaucoma therapy: Target on IOP control. *Ocular Surgery News*, Slack Incorporated. Sept.15, 2001.

Simmons ST, **Noecker RJ**: Disease progression: Combining medications for optimal IOP control. In: Guide to Glaucoma Management (Monograph), *Rev Ophthalmol*, September 2001.

Kramer TR, **Noecker RJ**: Comparison of the acute morphologic changes after selective laser trabeculoplasty and argon laser trabeculoplasty in human eye bank eyes. *Ophthalmology* 2001;108:773-779.

Morgan P, Proniuk S, Blanchard J, **Noecker RJ**: Effect of temperature and light on the stability of latanoprost and its clinical relevance. *J Glaucoma* 2001;10:401-405.

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

Delaney SM, Dobson V, Mohan KM, Harvey EM: The effect of flicker rate on measured visual field extent in very young children. *Optom Vision Sci* 2001;78:846-852.

Cryotherapy for Retinopathy of Prematurity Cooperative Group: Multicenter trial of cryotherapy for retinopathy of prematurity: Ophthalmological outcomes at 10 years. *Arch Ophthalmol* 2001;119:1110-1118. (Writing committee: Palmer EA (chair), Hardy RJ, **Dobson V**, Krom C, Phelps DL, Quinn GE, Summers CG, Siatkowski RM, Tung B)

PRESENTATIONS

Stamer WD: Promise of Glaucoma Research. Tucson Breakfast Lions, August 2001.

Snyder RW: Improving Patient Outcomes in Cataract Surgery via Therapeutics and Sophisticated Optics. Hawaiian Ophthalmological Society, Honolulu, September 20, 2001.

Snyder RW: Vancomycin Kill Curves for Ocular Isolates. Ocular Microbiology and Immunology Group Scientific Session, New Orleans, November 10, 2001.

Dobson V: The Development of the Visual System. Mead Johnson Nutritionals Perinatal and Developmental Medicine Symposium, Marco Island, Florida, November 15-18, 2001.

Dobson V: The Hits and Misses of Visual Development in the Preterm Infant. Mead Johnson Nutritionals Perinatal and Developmental Medicine Symposium, Marco Island, Florida, November 15-18, 2001.

Stamer WD: Aspectos Moleculares y Nuevos Desarrollos en Ciencias Basicas. Coloquio de Glaucoma, Hermosillo, Sonora, Mexico, December 2001.

Snyder RW: (1) Preventing Infection in Refractive Surgery and (2) What's New in Antibiotic and Anti-inflammatory Therapy. Royal Hawaiian Eye Meeting, Waikoloa, HI, January 24, 2002.

Ophthalmology Faculty

Robert W. Snyder, MD, PhD, Chairman

Harry D. Carrozza, MD

Harold E. Cross, MD, PhD

Velma Dobson, PhD

Erin M. Harvey, MA

Joseph M. Miller, MD, MPH

John C. Nichols, MD

Robert J. Noecker, MD

Richard R. Ober, MD

Millicent L. Palmer, MD

Lynn Polonski, MD

Jim Schwiegerling, PhD

Rand W. Siekert, OD

W. Daniel Stamer, PhD

J. Dan Twelker, OD, PhD

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) 626-7219.



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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 or 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.

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 University of Arizona 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.**

To find out more about the many other ways in which you can participate in our mission, contact the UA Ophthalmology Development Director, phone (520) 626-2827.

Enclosed is my fully tax-deductible gift of \$ _____ to UA Foundation, Ophthalmology Department.

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