# VISIONARYC

Volume 5, Number 1

Cornea Research Foundation of America

Summer 1995

Restoring Vision Through Research

## PRICE-WHITSON CENTER ONE OF SIX IN U.S. USING EXCIMER LASER\* IN INVESTIGATIONAL STUDY

The Price-Whitson Center for Refractive Surgery, in conjunction with the Cornea Research Foundation, has been named as one of six ophthalmic surgery practices in the U.S. to participate in a clinical trial comparing the effectiveness of excimer laser\* photorefractive keratectomy (PRK) versus a newer procedure,

ser-assisted in situ keratomileusis (LASIK or also known as "Flap and Zap") for the correction of nearsightedness (myopia). Before the excimer laser\* can be approved by the FDA for use in refractive surgery by non-investigators, the excimer laser\* must undergo a three-phase clinical investigational study.

This exciting new surgery could potentially improve vision for millions of Americans who suffer from various conditions that cause significant but correctable vision impairment. The procedure is performed in a specially designed surgical suite in our Indianapolis office and takes only a few minutes. According to Dr. Price, "a potential advantage of the LASIK procedure may be a faster and more comfortable recovery, quicker vision improvement and less chance for scar tis-

sue development." He also says the LASIK procedure may become the preferred form of excimer laser\* treatment for the correction of nearsightedness.

Dr. Whitson stated that in other countries the LASIK procedure is becoming the predominant laser surgery for the correction of nearsightedness. Additional investigations will be conducted to determine if the excimer laser\* can also be used to correct farsightedness (hyperopia).

\*Investigational device, limited by Federal law to investigational use.

\*\*

## CLINICAL RESEARCH STUDIES UNDERTAKEN BY CRFA

The Cornea Research Foundation of America continues to participate in a number of clinical research studies. Some of these studies involve excimer laser\* surgery which has been conducted solely on an investigational basis in the United States since 1989. The Price-Whitson Center for Refractive Surgery, in conjunction with the Foundation, is the only health care facility in Indiana participating in these investigational studies of excimer laser\* surgery. Various refractive surgery techniques used with the excimer laser\* are being studied, including: treatments for correction of nearsightedness, superficial corneal opacities and residual nearsightedness from previous refractive procedures.

The Foundation also participates in studies evaluating and comparing effectiveness of different eye medications:

- 1) An evaluation of pain relief following topical Acular<sup>™</sup> eye drops.
- 2) An evaluation of corneal tissue levels following topical Ocuflox eye drops.
- 3) A study comparing the effects of topical Acular <sup>™</sup> and topical Voltaren <sup>™</sup> for pain following bilateral radial keratotomy for correction of myopia.
- 4) Evaluation of Galardin<sup>TM</sup> for treatment of corneal ulcers.

### **PATIENTS SHARE STORIES AND VISIT NEW SURGERY SUITE**

"I'm so excited about my cornea transplant, I could go on and on," said Mary Ellen Roberts, a patient of Dr. Price, at the open house. Ms. Roberts, who suffered from Fuchs' dystrophy, underwent corneal transplant surgery and shared her experiences with the guests at the Foundation's annual open house this summer. Fuchs' dystrophy is a progressive cornea disorder that can lead to loss of vision and extreme pain. Once the disease takes hold and vision deteriorates, the only treatment for Fuchs' is a corneal transplant, said Dr. Price.

Ms. Roberts said that as of the very first morning after surgery she could read the big letters on the eye chart. "I was so excited," she said. Then two weeks later, on her 76th birthday, she could read the fine print of the newspaper, and four weeks later she could drive her car. She is thankful for her "new eye, her miracle worker, Dr. Price, and being surrounded by prayers."

Dorothy Schuyler, a woman with a long history of ocular problems in her right eye, related her cataract and glaucoma problems that had besieged her for years with no relief. Finally Dr. Whitson on examination found that her intraocular lens was misplaced and was creating problems. The lens was removed and replaced with another IOL. However, she then developed glaucoma which didn't respond to medications. Dr. Whitson performed surgery and placed a Molteno implant in her eye to lower her intraocular pressure.

The surgery was a success. Her vision is good. Her pressure is down. Mrs. Schuyler exclaimed "and I am headache free for the first time in years." In fact, she felt so good she told us that she decided, with the loving support of her husband, to go back to college to finish her education. A

year or so later at age 72 Mrs. Schuyler was awarded a BS from Ball State University!! She expressed deep gratitude to Dr. Whitson and the staff who have treated her so well over the years.

### HIGHLIGHTS OF CRF OPEN HOUSE

The Corneal Research Foundation hosted its annual open house on Sunday, June 11, 1995. Lions Club board members, annual contributors, Foundation co-directors: Francis W. Price, Jr., M.D. and William E. Whitson, M.D., staff members and patients attended the event.

- Only 27% of graft failures in our data base were caused by immunologic graft reactions (graft rejection) which is much lower than previously reported.
- Reducing the national graft failure rate from 10% to 5% could eliminate approximately 2,200 re-grafts annually at a cost savings of \$11-22 million each year.
- A reduction of only 30-35 re-grafts each year will generate savings equivalent to the Foundation's entire annual budget.
- In addition to the 1806 eyes entered in the 1990 data base, we have since entered data in the 1995 data base on an additional 1313 eyes and plan to add 902 more eyes by Feb. 1996 totaling 2215 eyes (or transplants).
- 12 manuscripts were accepted for publication in ophthalmic and optometric journals and two additional manuscripts are awaiting approval.
- 13 studies were conducted in conjunction with investigative trials on the excimer laser\* and drug therapy following refractive surgery.
- Sponsored a course on refractive surgery for residents at Indiana Univ. Hospital.

For many guests, it was the first opportunity to tour the newly completed Central Indiana Surgery Center at 9002 North Meridian Street. This ambulatory surgery center offers a convenient and more cost effective means of delivering the needed care to patients requiring complicated surgeries in either the anterior or posterior segments of the eye.



Dr. Price tours the new surgery center with the Indiana Lions Eye Bank members and other guests attending the Cornea Reasearch Foundation's annual open house.

## YOUR DONATIONS AND GRANTS HELP MAKE OUR RESEARCH POSSIBLE

The Cornea Research Foundation of America is a leading center for research on corneal disease, laser surgery, ocular pharmaceuticals, intraocular lens surgery and corneal transplantation. The Foundation's corneal transplant data bank, which houses information on approximately 3,000 eyes and is possibly the largest data bank of its kind in the country, provides the data for many of our research studies. In fact, we attribute our 90-95% success rate to the newer and more efficient surgical techniques we have developed as a result of these studies. This information is an invaluable resource to medical professionals around the world.

#### **A GIFT OF SIGHT**

The advanced research and investigational studies conducted by Foundation directors, Dr. Francis W. Price, Jr. and Dr. William E. Whitson, are made possible solely through grants and donations from individuals like yourself and others dedicated to restoring vision. Your tax-deductible gift, large or small, helps us continue our important research, and you, in a very real sense, give one of the greatest gifts of all — the gift of sight.

You may choose to support the Foundation through a specific bequest. Some people choose to honor friends and loved ones

with an honorarium on the occasion of an anniversary, wedding or death. However you choose to help, your gift is most welcome and appreciated by the millions who suffer from eye diseases and injuries. We would be unable to accomplish our work without your help.

If you are a cornea transplant patient of ours and haven't visited our office within the last 3 years, we may be in touch with you to update our records. Because research shows that continued postoperative follow-up care is extremely important to the long-term success rate of corneal transplants, we want to ensure all patients receive this necessary care from our physicians or their local ophthalmologist or optometrist.

# FORT WAYNE OFFICE PROVIDES MORE CONVENIENT SERVICE FOR PATIENTS JUTSIDE INDIANAPOLIS (219) 489-3006

Corneal Consultants of Indiana opened an office last summer at 9025 Coldwater Road North in Fort Wayne's Wallen Hills Office Park near I-69. This new facility was opened to provide more convenient service for our patients from northeastern Indiana, western Ohio and southern Michigan.

Radial keratotomy, automated lamellar keratoplasty and other procedures are performed in the surgical suite on location. More complicated procedures such as corneal transplants and intraocular lens exchanges are performed in Indianapolis, but follow-up examinations and care are provided in the Fort Wayne office.

## PREVIOUS GRAFT FAILURE SINGLE MOST IMPORTANT RISK FACTOR OF CORNEAL GRAFT FAILURE

The Foundation's primary mission continues to be the collection of data on individuals following corneal transplant surgery. As it now seems we are the only center in the country that maintains a large ongoing data base on corneal transplant outcomes, our research has taken on an even greater importance, both locally and nationally. We have identified important risk factors predictive of failure, the single most important risk factor being a history of previous graft failure. With this knowledge we are focusing our research efforts on the prevention of initial graft failures.

### **FOUNDATION STAFF**

A high competent staff assists Dr. Price and Dr. Whitson with numerous ongoing research studies. As a result of their efforts, new hope is extended to patients suffering from eye disease or eye injury which threatens to rob their vision.

Francis W. Price, Jr., M.D.,
Co-director
William E. Whitson, M.D.,
Co-director
Sharon Johns, LPN
Research Coordinator
Jane Weinberger
Research Associate
Sally Maggard
Research Associate/Editor
Kyna Hamond
Research Assistant
Rita Hamrick
Executive Secretary

### LIONS EYE BANK AWARDS ADDITIONAL \$93,000 TO CRFA

It was announced at our annual open house that the Indiana Lions Eye Bank had voted to award \$93,000 to the Foundation — a total of \$186,000 for 1994-95 to fund the updating of our data bank. Having performed approximately 1% of all corneal transplants in the United States over the last few years, the Foundation is in a unique position to conduct data analysis on a large number of eyes having had transplants. The Indiana Lions Eye Bank, knowing the importance of this type of analysis, has been instrumental in providing us with the funds necessary to continue our important research.

### MANUSCRIPTS PUBLISHED IN 1993 - 1994

If you would like reprints or information regarding any of the following articles, please contact Sharon Johns at the Cornea Research Foundation of America at (317) 844-5610.

- Arc-T Study Group. Astigmatism Reduction Clinical Trial: A Multicenter Prospective Evaluation of the Predictability of Arcuate Keratotomy.
- 2) Intraocular Lens Exchange for Anterior Chamber Intraocular Lens-Induced Corneal Endothelial Damage.
- 3) Expression of Cell Adhesion Molecules in Corneal Graft Failure.
- Five-Year Corneal Graft Survival. A Large Single Center Patient Cohort.
- 5) Long-Term Results of Molteno Implants.
- 6) Corneal Tissue Levels of Topically Applied Ciprofloxacin.
- 7) Management of Coincident Corneal Disease and Cataract.
- 8) Intraocular Complications Associated with the Dubroff Anterior Chamber Lens.
- 9) Suprachoroidal Hemorrhage in Penetrating Keratoplasty.
- 10) Molteno Implants in Patients with Previous Cyclocryotherapy.
- 11) Epidermal Growth Factor and Insulin Use in Corneal Preservation.

Bulk Rate U.S. Postage PAID Indianapolis, IN Permit No. 9275



a publication of

#### CORNEA RESEARCH FOUNDATION OF AMERICA®

9002 N. Meridian St. Suite 207 Indianapolis, IN 46260-5350 (317) 844-5610 Sally K. Maggard, Editor Return Requested