



## Unique database helps give *The Gift of Sight*

We're all aware of the amazing stories of someone whose life has been saved by a heart, kidney or liver transplant. It wasn't that long ago that organ and tissue transplants were mere science fiction. But today, this rare "gift of life" is successfully being extended to more and more fortunate people. What you may not be aware of, however, is that for several decades, thousands of Americans have had their vision restored through "the gift of sight." Through the generosity of corneal tissue donations, over 45,000 corneal transplants are now being performed each year in the United States. Corneal transplants have become the most common, and also the most successful, form of solid tissue transplants performed.

Part of this success is due to tracking past corneal transplant patients and asking the questions, "What did we do right?" and "What can we do better next time?" By monitoring factors such as the surgical techniques used, the medications administered, and the type of post-operative care given, the Cornea Research Foundation of America has been able to discover some important ways to improve corneal transplant success.

*The Foundation maintains the largest cornea transplant database in the Western Hemisphere. This database contains up to 15 years follow-up on over 4000 grafts. We recently analyzed this data to document long-term graft survival rates and to identify risk factors for graft failure. These findings are now being submitted for peer review and publication. Here's part of what we found...*

Our patients had an outstanding 80% graft survival rate 10-years after their transplant. This is the highest long-term survival rate reported in any of the studies conducted around the world, and is only equaled by the 10-year survival rate reported by the Mayo

Clinic in Rochester, Minnesota. We also found that the survival rate is twice as high for first-time grafts as it is for re-grafts (Figure 1). This shows how important it is to identify risk factors in order to anticipate and prevent failure of first time grafts.

Our analysis indicates that the risk of graft failure is highest in the first year after transplant, and drops to a low but steady rate over longer time periods. We now know that for the first six months after receiving a transplant, the major risk is ocular surface disease, such as infection or ulcer. There is also a continuing risk over the long term that patients might reject their graft. Fortunately, medications are available to treat either ocular surface disease or rejection. Therefore patients are scheduled for frequent follow-up, and they are encouraged to come in immediately for a checkup if they notice any problems developing with their graft.

We also found that another major cause of graft failure is endothelial cell failure. The endothelial cells line the inner surface of the cornea and continuously pump fluid to keep the cornea clear. There are a finite number of these cells and they do not get replaced. If the endothelial cells become diseased or damaged or if there are too few of the cells to keep up with the job, the cornea becomes cloudy. Our analysis identified several risk factors for endothelial failure, including small graft size, as well as pre-existing conditions such as diabetes.

One of the most significant findings from analyzing our database was that glaucoma increased the risk of all three major types of graft failure, including endothelial failure, rejection, and ocular surface disease. Glaucoma is a leading cause of blindness in the United States. Glaucoma affects nearly 1 out of 20 Americans and it targets any age group, even newborns. Scientific literature had

previously recognized that elevated intraocular eye pressures associated with glaucoma could cause endothelial cell damage. However, we were surprised to find that glaucoma also increased the risk of rejection and ocular surface disease. This is likely due to the preservatives in the glaucoma eye drops. This finding is important because it may help doctors to more effectively manage their glaucoma patients and the glaucoma medications they prescribe.

To paraphrase a Chinese proverb, "To see the future you need to understand the past." The Foundation's corneal transplant database allows us to objectively analyze over 15 years of transplant data. The database helps us learn more and more each day about how to more effectively treat and manage patients who have lost their vision. Our findings are important for you because someday, someone you love may require a corneal transplant. Help give the gift of sight. We encourage each of you to discuss your feelings on corneal tissue donation with your loved ones.

### **"ask THE doctor"**

**Q:** My grandchildren spend hours on end in front of their computer. Years ago we thought that sitting too close to the TV would ruin your eyes. Now kids are sitting just inches from the computer. Is a computer screen different from a TV screen, and should I be concerned?

**A:** Sitting too close to either screen can stimulate the development of nearsightedness in some people as it is a near work activity. While computers may provide more imagination and thought process than TV, children should spend some time each day in activities which allow their vision to be more relaxed, focused on distant objects, such as playing outside.

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## New Director of Research

Upon completing her doctorate in Medical and Molecular Genetics, Marianne O. Price, Ph.D. has joined the staff of CRFA as the Director of Research and Education. Since she began in June, she has been busy analyzing data from many of our in-house studies. She submitted a paper on long term survival rates of corneal transplants, documenting up to 15 years of follow-up on transplanted eyes and showing what post-operative problems are of greatest concern for each type of presenting diagnosis. She has also submitted a second paper showing what pre-operative or surgical risk factors influence long term corneal graft survival. She recently co-authored a manuscript showing that excellent refractive surgery outcomes can be obtained within the context of a carefully structured refractive training program. This data was also presented at a national eye meeting. In the future she is interested in initiating studies that will improve our understanding of keratoconus and hopefully lead to preventive treatment. All of us are excited with the level of expertise Marianne will bring to CRFA.

## Message From The President of CRFA

Dear Friends,

As you will see from this issue of the *Visionary*, we have many exciting initiatives underway at the Foundation. Our progress speaks highly of our Board, our staff and the many donors who help sponsor our research. The Foundation has truly become a world class research and educational organization dedicated to the preservation and restoration of vision.

Over the past 15 years, most of our efforts have been focused upon improving the quality of life of older adults. Today we are about to embark on a study that could have a very positive impact on nearly every child in the United States. Our *Prevention of Nearsightedness in Children* study will help reverse a trend that is affecting more children today than perhaps any other eye disease.

The Foundation is also fortunate to have a new Director of Research with a Ph.D. in molecular genetics. We are now in a position to examine the underlying biochemical and genetic causes of many eye diseases.

Help us continue to improve the quality of life of the visually impaired and preserve the eyesight of our future generations. We cannot do this without your help. Please consider the Foundation when making charitable contributions this year. Your support will not only help us continue our vision but it may quite possibly affect you, a friend or someone you love.

Sincerely,  
Francis W. Price, Jr., M.D.



## A Word From Our Board...

As we begin the final quarter of the year, perhaps you find yourself contemplating your charitable gifting options. All organizations are delighted, of course, to receive a check from a donor. However, another alternative exists that allows you to fully support your organization of choice while maximizing your tax benefits. Specifically, we mean the gifting of appreciated property.

Suppose that you owned shares of a company's common stock, which has a low cost basis, leaving you exposed to significant capital gains tax consequences should you sell the shares. If you first sell the shares and then gift the after-tax proceeds, your net gift will be reduced by approximately 24% the long-term federal capital gains tax rate plus Indiana state taxes. Furthermore, your federal charitable tax deduction will be equal to the amount of the after-tax donation, not the sales proceeds.

On the other hand, you might choose to donate the shares directly to the organization of your choice. This strategy has some significant benefits: your gift and charitable deduction would be larger than they would be with the first option, and you would have avoided the tax liability. CRFA has established an account at Goelzer Investment Management to accommodate your gifts of this type to the Foundation.

There are some important factors to consider when making a gift of appreciated property. One is that the exact value of your gift will not be determined until the day it is received into CRFA's account at Goelzer. At that point, the value of the gift is the mean of the high and low prices for those shares on that day. Another matter to consider is the limitations on tax deductibility. Gifts of appreciated property may be deducted on your federal income tax return if the amount of all your gifts is less than 30% of your adjusted gross income. Cash gifts must be less than 50% of your AGI in order to be fully deductible. However, similar to capital losses, gifts above the annual limits may be carried forward to subsequent tax years.

If you have questions about how to make a gift of appreciated marketable securities to CRFA, please contact Susan Simon at the Foundation or Walter Gross of Goelzer Investment Management at 264-2680. Any questions regarding the personal tax implications of gifting should be directed to your tax professional.



Walter Gross

# The Importance of Eye Research and How It Changed One Man's Life

## *A Personal Perspective*

Sid Eskenazi understands the importance of research and the positive effect it can have on a person's eyesight. As a young child, he remembers his mother taking him to the old Wm. H. Block Department Store to have his eyes examined on the mezzanine floor and being fitted with glasses by a local optometrist. "Suddenly," he said, "I could see the whole first floor of the store! It was a wondrous thing...everything was so clear and bright and colorful." Unfortunately, through the years, Sid's eyesight kept getting worse and his glasses thicker and thicker. His glasses were the first thing he reached for each morning and the last thing he took off at night before he went to sleep. However, he didn't realize how lost he would be without his glasses until he was drafted

into the army and was sent home the same day because of poor eyesight.

For years Sid tried all the different types of contacts, but his eyes couldn't tolerate them. It was during an airing on 60 Minutes that he was introduced to the Russian development of RK (Radial Keratotomy). Hoping that one day this would be available in the US, he was soon introduced to Dr. Francis Price, Jr. who had studied this procedure. After learning he could be helped, he said, "I wanted it done and I wanted it done right now, fast! To me it was a marvel! Almost as good as when I got my first pair of glasses! Except I wasn't wearing those ugly things."

As a result of his successful surgery, Sid has since been a strong advocate of medical

treatment to make life easier. His wife, Lois, pointed out that "he will approach people! Even strangers! and stop them! and tell them they don't have to live this way! that surgery is available to make their lives better."

Sid and Lois have a reputation in the city of being devoted to "giving back to the community." When asked what advice or criteria they would give others for supporting philanthropic organizations, during these trying economic times, their answer was simple. Support the organizations that have supported you, or helped you in a time of need, or that fit well with a legacy you want to see accomplished in the future.

## Please Help Us in Our Quest To Eliminate A Leading Cause of Eye Disease

Many of you know from personal experience what problems nearsightedness can cause. Did you know that it might be possible to actually prevent it from developing in many children? How would you or a friend's life have been impacted if the need for glasses, to see at a distance, could have been prevented? What about your children or grandchildren?

Evidence is building that nearsightedness is indeed stimulated by reading and possibly other near work. In fact, nearsightedness has become an epidemic in Asia since those countries have instituted mandatory education. In three generations some areas have seen the rate of nearsightedness increase from less than 20% of the population to over 90% of their young adults. In our country, where good data on nearsightedness is actually harder to obtain, the rates not only seem to be rapidly increasing.

CRFA wants to perform a pilot study to help prevent the onset of nearsightedness in children. If the results of this study are promising, we will then seek government funding for a larger, more definitive study. Unfortunately, the Cornea Research Foundation of America does not currently have full funding for this project. We estimate the cost to be approximately \$500,000 over two years to

CARRY OUT THIS MISSION. **We need YOUR help!**  
Tax-deductible contributions towards this valuable research project will not only help the Foundation preserve the sight of our future generations but also to eliminate a precursor to many visual impairments afflicting older adults, as well. At a time when people appear to be focusing more on self-preservation rather than bold problem solving, please help us in our quest. Why the immediacy? Consider this: **A child born today will be the same child we will be targeting to educate with the results of our study.** What if a simple pair of reading glasses is all it will take to eliminate this worldwide problem?

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Visit our web site [www.cornea.org](http://www.cornea.org) to learn more about the studies being conducted at CRFA

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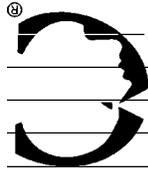
### CRFA Announces New Eye Surgery *Implant aids those with a missing or damaged iris*

On September 18, 2002 CRFA announced a new and innovative surgical technique to replace a damaged or missing iris with a new artificial one. Dr. Francis Price, Jr., MD recently performed the first implantation as part of a FDA sponsored U.S. clinical trial, and he has been named the North American Monitor for the study. This is the first such study in the US to treat patients with placement of an artificial iris to correct defects of the iris due to trauma, disease or congenital malformation.

The artificial iris, manufactured by Ophtec, USA comes in blue, green and brown. This new iris blocks excess light from entering the eye so that patients are not incapacitated by glare and light sensitivity, much the same way a normal, healthy iris does in the average person.

Who does CRFA believe will most likely benefit from this procedure? People who are missing an iris or have an iris defect, or whose iris has endured some type of trauma will benefit tremendously. To date most patients have been over the age of 21. However, as Dr. Price recently pointed out, "I have done the procedure on a 14 year old boy who lost his iris in an accident, and it has been very beneficial for him, both from a functional and from a cosmetic standpoint."

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### ***A Big Thank You For Your Support***

The 5<sup>th</sup> Annual Cornea Golf Classic was a huge success due, in large part, to the kindness and generosity of our sponsors. We would also like to thank the members of the Golf Committee who gave so generously of their time. Members include Pat Chastain, Kevin Dubbink, Walter Gross, Joe Kack, Joe Kelly, Buzz Howell, Bill Partipilo, Francis W. Price, Sr., MD, Harry Scheid and Jocelyn Smith, OD. Since this is the only fundraising event for the year, the CRFA depends on the golf outing proceeds to continue their valuable research. **Therefore, we need to make next year's event even bigger and better. Please mark your calendar for the 6<sup>th</sup> Annual Cornea Golf Classic on June 04, 2003.**