

# VISIONARY

*A publication of the Cornea Research Foundation of America*



October 2000

## Young Man Receives Life Transforming Surgery Compliments of CRFA Donors



*Dr. Francis Price Jr. in the recovery room after the life transforming surgery.*

Christian Dominic is an extremely lucky young man from Papua New Guinea. Christian completely lost the use of his left eye in an accident when he was a young boy and more recently lost most of the sight in his right eye after an infection severely scarred his cornea. When he

arrived in the United States he was seeing only shadows with the right eye.

But how did he get here you ask? He arrived through the good will and extreme generosity of many wonderful people.

Randy Poynter, Surgical Administrator at Price Vision Group and Cornea Research Foundation of America (CRFA) employee, received an email requesting help for this 19 year old aborigine from a remote village on the Karawari River. On behalf of CRFA he immediately replied back: "Of course we will help!" Dr. Francis W. Price Jr. and Dr. Scott Wagenberg offered to do the evaluation,

surgery and follow up work pro bono.

Many people, beginning with his adoptive mother, Nancy Sullivan, helped and contributed to this project. A local financial consultant, Patrick Tynan and friends volunteered to pay for Sullivan and Dominic's expenses while in Indianapolis. Other people contributed with monetary donations and physical help. Randy Poynter, secured a donor cornea free of charge from the Central Florida Eye Bank in Tampa.

January 27, 2000 was the all anticipated and in many ways feared, day for Christian. This was the day of surgery.

Coming from the remote South Pacific island and landing in the operating room ready to under go a high-tech operation that could change his life forever, was exciting, but scary.

The major problem presenting at the time of surgery was that Christian's cornea was much thinner than usual which made it much more difficult to suture. Fortunately, Dr. Price having done over 3,000 surgeries such as this before, was able to modify the procedure to work with the tissue that was available.

Rejection, of course, was always a possibility. With that in mind, plus knowing that medical care and jungle life in the village on the Karawari River in New Guinea were the biggest threats to the success of the cornea transplant, Dr. Price non-the-less gave him a 75% chance of recovering full sight.

In an update, February 4, 2000, Nancy Sullivan, Christian's adoptive mother, benefactor and New York University-trained anthropologist, said the surgery was a success! Christian was already wearing a pair of clear glasses just to protect his new eye.

In a recent correspondence, September 5, 2000, Nancy said

Christian was doing fine. He was taking his eye drops daily and still wearing clear glasses for protection (and vanity). In her letter Nancy said, "It was really remarkable what a transformation shy, quiet Christian went through once he got back home. He is now worried about his

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***"There is no way we will ever be able to thank those donors directly, so I just wish to acknowledge our gratitude in general to the Foundation."***

***Nancy Sullivan***

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### *Index*

*Message From The President of CRFA . . . . . 2*

*Funding Needed for New and Exciting Research Studies . . . . 2*

*Surgeon Spotlight. . . . . 3*

*Continued on page 4*

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## *Message From The President of the Board*

*The mission of the Corneal Research Foundation of America is to improve vision and help people have a better quality of life. Most of the time this involves clinical research to develop new treatments or to help perfect ones currently in use. However, in some cases, the Foundation's mission involves a direct hands on approach as in the case of Christian Dominic. Helping patients like Christian provides a dramatic and immediate improvement in someone's quality of life. The Foundation gives its heartfelt thanks to those donors that made the gift of sight possible for Christian Dominic. We encourage others to help us continue on our mission.*

*Sincerely,*

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

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## **Funding Needed for New and Exciting Studies**

The Cornea Research Foundation is about to embark on a new round of studies that are very different from previous efforts.

Funding is currently being sought to study the *Gender Specific Influences on Wound Healing*. Simply speaking, men and women heal differently. For a number of years there has been evidence that women respond differently to refractive surgery than men. Women tend to get less affect with both the current laser surgeries and the past incisional surgeries like radial keratotomy. Moreover, some women who become pregnant at or near the time of laser refractive surgery have lost all or nearly all effect of surgery. Despite these differences in healing between men and women, no one has ever identified or tried to identify, a cause for this. Understanding what causes this difference could help unlock the etiology of some problems with wound healing in general as well as improving results of surgery on women not just laser eye surgery.

The second study we plan to begin is studying *Nearsightedness in Children*. Many people become nearsighted as children, in elementary school. This nearsightedness travels with them through high school, college and adulthood. Yes, it is a great inconvenience. Dr. Francis Price Jr., is convinced that this unfortunate circumstance could, in many cases, be prevented. This study will no doubt include many, many children and will track them for many years. Exactly how many children for how many years is the first thing to be determined. Before we request money to do the actual study, we are seeking money for a feasibility study. That is, we need approximately \$25,000 to hire an epidemiologist to do the initial ground work to determine; what percent of the population we should study, how many years we should track the children to ensure accurate results and how much will the full project cost.

Your contributions will help fund these worthy projects.

## Surgeon Spotlight

Dr. Kendall Dobbins began his affiliation with the Cornea Research Foundation of



Dr. Kendall Dobbins

America (CRFA) in 1998 during his Fellowship in cornea and refractive surgery with the Corneal Consultants of Indiana. He has been an investigator in a number of research projects at CRFA and has published articles

for international peer-reviewed journals, such as *Vision Research*, *Journal of Neuro-Ophthalmology*, and *Cornea*.

The largest and most interesting research project Dr. Dobbins has been involved in with CRFA is looking at trends in the indications for corneal transplants in the mid-western United States. The Cornea Research Foundation of America has one of the largest corneal transplant databases in the world. Through this database, Dr. Dobbins has investigated the leading indications for corneal transplants over the last fifteen years in the mid-western United States and has compared this with similar data at other locations throughout the world. Of 4217 corneal transplants performed at Corneal Consultants of Indiana, the top three indications, or reasons for needing this surgery, were pseudophakic bullous keratopathy, Fuchs dystrophy, and keratoconus. Pseudophakic bullous keratopathy occurs when a person's cornea decompensates secondary to irritation from a lens implant that was inserted in the eye at the time of cataract surgery. Most of the time this occurs secondary to undesirable positioning of implant within the eye. Fuchs dystrophy is a hereditary condition where the cornea gets swollen and cloudy secondary to the inability of the endothelial cells (cells on the inner surface of the cornea) to pump fluid out of the cornea. Keratoconus is a condition where the cornea gets progressively thinner with time, often causing bulging and scarring of the central part of the cornea.

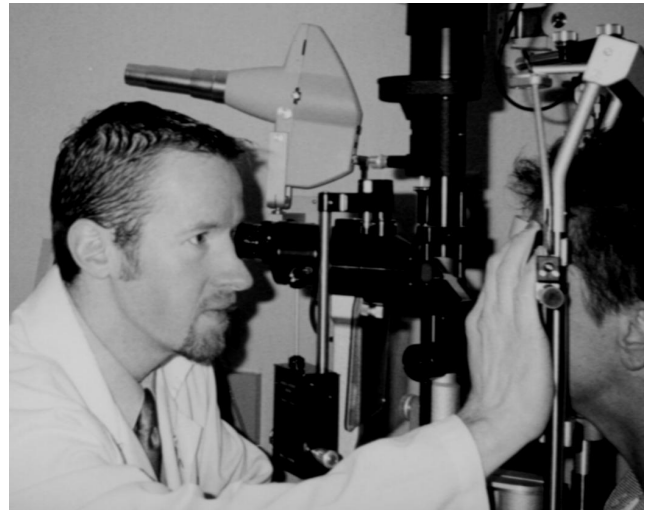
The leading indication for corneal transplants in this study, pseudophakic bullous keratopathy, is in agreement with most North American studies and some European studies. Some European studies have keratoconus as the leading indication. What is significantly different about the study that Dr. Dobbins performed is that the second leading indication was Fuchs dystrophy. Most other studies of this sort around the world had Fuchs dystrophy as their fourth or fifth leading indication. Such a significant difference is an indication that there may be a larger group of people in the mid-western United States with the genetic predisposition for Fuchs dystrophy compared to other locations in the world.

This investigational study by Dr. Dobbins was important for a number of reasons. Firstly, it is helpful to local ophthalmologists because it shows that Fuchs dystrophy is most likely a hereditary disease that is more prevalent in the mid-western United States. Thus, local ophthalmologists should be more attentive in looking for early signs of the disease on routine eye examinations. Secondly, this study showed that 73% of cases of pseudophakic bullous keratopathy were a result of a lens implant that was located in front of the iris. This reiterates to eye surgeons the importance of trying to position lens implants behind the iris at the time of cataract surgery, so as to reduce the risk of potential damage to the cornea. This study will be published in *Cornea*, a peer-reviewed international journal, in the Fall of 2000.

Among the many other studies Dr. Dobbins is participating in at CRFA, is one that evaluates the potential reduction in nearsightedness after corneal transplants in patients with keratoconus. This is accomplished by transplanting corneal tissue slightly smaller in diameter than has usually been done in the past.

Dr. Dobbins is a native of Wilmington,

Delaware. He graduated with honors from Moravian College in Pennsylvania with a Bachelor of Science in Biology and Chemistry and earned his medical degree at McGill University in Montreal, Canada in 1994. Upon completion of an internship at Albert Einstein Medical Center in Philadelphia, Pennsylvania he did his ophthalmology residency at Penn State Geisinger where he was Chief Resident in his final year of residency and where he received the Geisinger Certificate of Recognition in Acknowledgment of Outstanding Service. Field Studies that Dr. Dobbins has been involved with are field work with the U.S. Indian Health Service in New Mexico, a field study at the Alfred I DuPont Institute, an internationally renowned children's hospital, and



Dr. Kendall Dobbins, examining his patient's corneal transplant post-operatively.

work with the Vision Research Department at McGill University. He is a member of Omicron Delta Kappa, a national leadership honor society, and Beta Beta Beta, a national biological honor society. He is also a member of nine ophthalmology and medical professional societies.

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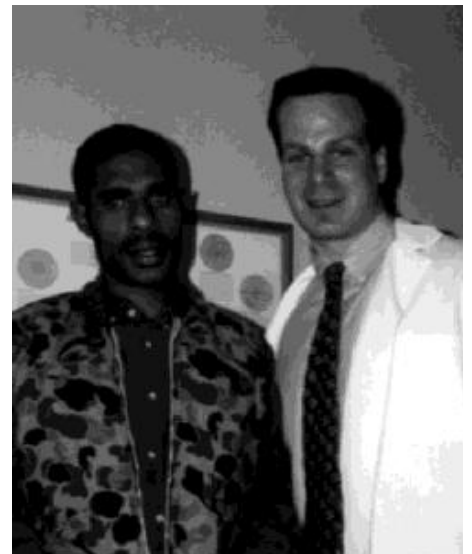
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*Transformation. . . continued from page 1*

clothes, his looks, all the things he hadn't been able to think about for ten years or more. He is definitely on the road to being a normal teenager!ö According to Nancy, öDr. Price and the Foundation really did give him his life back ö certainly his self-image, his confidence, his independence.ö

Nancy continued to write: öPacking up to leave, I turned to Rick Broerse of the surgery center and asked him what we owed. It had always been assumed that we would cover surgery center costs and the doctors would donate their fees. Rick looked at me like I was nuts: öNothing,ö he said. öYou're covered.ö I melted. Apparently the Cornea Foundation had received monies to defray the center costs for us. There is no way we will ever be able to thank those donors directly, so I just wish to acknowledge our gratitude in general to the Foundation.ö

*(As a note: As funds allow, the Cornea Research Foundation of America routinely helps individuals in need of financial assistance for corneal transplants. In many cases these funds are a result of donations by grateful patients who themselves know what it is like to receive a second chance at sight. The Cornea Research Foundation of America is a non-profit 501(c)3 committed to the preservation and restoration of vision by providing a comprehensive data base to support the analyses and publications of the latest innovations in medical and surgical techniques. Donations may be made payable to CRFA, 9002 North Meridian, Suite 212, Indianapolis, IN 46260)*



*Dr. Scott Wagenberg and Christian Dominic of Papua New Guinea*



*The Cornea Research Foundation of America is a non profit 501(c)3 dedicated to restoring vision through research.*