NEWSLETTER - WINTER / SPRING 2005

Teaching and Traveling to the End of the Earth
By Dr. I. Howard Fine

Dr Find and his wife, Vicky at the base of the Pia Glacier in Tierra Del Fuego.

The American Academy of Ophthalmology meeting, the largest eye meeting in the world attended by tens of thousands of people, was held this year in New Orleans. At that meeting, Drs. Fine, Hoffman and Packer presented nearly 50 different lectures accompanied by videos and laboratory instruction on some of the newest techniques in cataract and refractive surgery, many of which were developed by us in our surgery center here in Eugene, Oregon. Two weeks later the Chilean Ophthalmological Society and the Pasteur Institute in Santiago co-sponsored a national meeting for Chilean ophthalmologists and I was invited as a guest speaker for that meeting along with a refractive surgeon from Italy and a retinal surgeon from the University of Southern California. By coincidence, there was a ten day tour of Patagonia, sponsored by the MIT alumni association, scheduled between the two meetings.

Patagonia is a spectacular land in southern Chile and Argentina encompassing the gorgeous Andes Mountains. My wife and I flew from New Orleans to Punta Arenas in southern Chile. We were met by alums from not only MIT but also Dartmouth University, the University of California at Berkeley, and the University of California at Los Angeles. We boarded a ship and sailed through the Strait of Magellan surrounded by absolutely dazzling mountain ranges. There were spectacular sceneries punctuated by intermittent magnificent glaciers. We sailed southeast and then turned around in the Atlantic Ocean and sailed southwest through the

Beagle Channel which is the body of water traversed by Charles Darwin and his ship, the Beagle. The scenery throughout the trip was absolutely breathtaking. We finally landed in Ushuaia, which is the largest city in southern Chile, the portion of Chile that is known as Tierra del Fuego. This area was named “The Land of Fire” because the indigenous populations in that frigid area did not use clothing but kept fires burning throughout the day in all of the areas in which they lived including on their tree-trunk dug-out canoes.

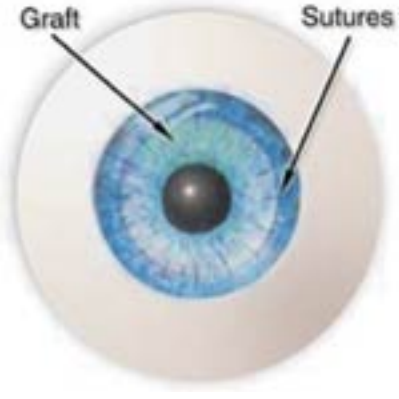
From Ushuaia, we traveled slightly south and toured Puerto Williams, which is called “The End of the World.” It is the southern-most town in the southern hemisphere, and it is small, consisting mainly of a Chilean naval base and associated support personnel. From this point, we flew north to Calafate, Argentina and spent a day touring the Perito Moreno Glacier, which is enormous and absolutely magnificent. We were able to sail up to the edge of the glacier and observe calving, the breaking away of sections of the glacier to form ice bergs. From there, we traveled to the Torres del Paine, a national park in southern Chile which encompasses giant granite peaks, which are unusual geological structures. We spent three days there and again saw fabulous scenery as well as wonderful and unusual animals including a lucky sighting of a bobcat, which are rarely seen. In fact our guide hadn’t seen one in 18 years. At the end of our ten day tour, we flew back to Santiago and I lectured at the Anterior Segment meeting of the Chilean Ophthalmological Society.

Chile is a unique country within South America. It is inordinately long and narrow and stretches almost the full length of the continent. The northern portion of Chile is a very desolate desert-like terrain with physical characteristics not unlike the surface of the moon, and in the south is beautiful Patagonia stretching all the way down to Cape Horn. The Chileans have somehow avoided many of the problems that plague other Latin American countries. Although General Augusto Pinochet had a horrible record of human rights violations, he did create a social and governmental structure within Chile that set the stage for the economic well-being and enormous stability that country enjoys today. Chileans themselves are of mixed opinion regarding whether or not Pinochet was advantageous or detrimental to Chile. However, there is not the wide-spread, pervasive poverty that is seen in other Latin American countries and the Chilean political system is, at this time, a nearly corrupt-free democracy. Santiago, the capital, and Concepcion, a nearby city with a large university, are architecturally beautiful and enjoy bustling economies with very low crime rates. The Chileans, like other Latin Americans, are very warm, friendly and welcoming and my wife and I had a marvelous time there. I was honored at the conclusion of the ophthalmology meeting by being named, after two previous trips to Chile, an honorary member of the Chilean Ophthalmological Society. We hope to return to Chile and would recommend a trip to Chile for anyone.

New Corneal Transplant Techniques Evolve
By Richard S. Hoffman, MD

Richard S. Hoffman, M.D.

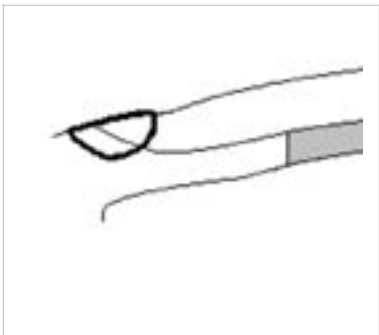
The vast majority of corneal transplants performed in the U.S. are what are termed penetrating keratoplasties (PKs). A PK involves a full-thickness removal of the central cornea, leaving a small rim of the patient's cornea onto which the donor cornea is attached with stitches. When the diseased portion of the cornea is only in the superficial or outer layers of the cornea, a partial-thickness or lamellar transplant can sometimes be performed. Lamellar transplants have the advantage of not being susceptible to rejection and leave the cornea with better structural integrity. They have the disadvantage of being more technically challenging to perform and can result in overall poorer vision than full-thickness transplants because of potential scarring in the corneal interface (zone between the patient's cornea and the donor cornea).



Full Thickness
Penetrating Keratoplasty

Certain corneal diseases such as Fuchs' dystrophy result from abnormalities of the most inner surface of the cornea – termed the corneal endothelium. When the corneal endothelium becomes severely affected by these conditions, the upper layers of the cornea will swell causing a loss of clarity of the normally clear cornea with subsequent blurred vision. Until recently, corneas with diseased endo-thelium required full thickness PKs in order to transplant healthy corneal endothelium onto the eye.

Ideally, if only the diseased back surface of the cornea could be transplanted, there would be great advantages to such a procedure. Such a procedure would eliminate the need for stitches in the cornea. It would leave the cornea with greater structural integrity. Additionally, it would eliminate the large amounts of astigmatism and nearsightedness that are induced with traditional full-thickness procedures. Such a technique is currently undergoing evolution and refinement and is termed a posterior lamellar keratoplasty (PLK).



Schematic Representation of a Posterior Lamellar Kerotoplasty

In the PLK procedure, the back surface of the patient's diseased cornea is removed through a small incision. A donor cornea is then dissected so that the back or posterior surface can be fashioned, folded, and inserted through a small 5 mm incision. The donor transplant is then positioned and sticks in place without the need for stitches other than 1 or 2 sutures to close the incision. The PLK procedure has the advantage of much faster visual recovery compared to traditional transplants without the potential suture and wound complications. Induced astigmatism and other refractive errors are minimal. The disadvantage of the PLK technique is that the ultimate visual acuities may not be as good as traditional transplants but with the lower amounts of induced astigmatism the trade off may be worthwhile. The other disadvantage is that the PLK technique is much more technically challenging to perform. Both PLK and traditional corneal transplants can suffer from rejection but the advantages of the PLK procedure may make it the preferred technique for transplanting corneal endothelium in the future – especially if improvements in the technique continue to evolve.

ASCRS Foundation Achieves a Major Goal
By I. Howard Fine, MD

The ASCRS Foundation's Robert. M. Sinskey Pediatric Eyecare in Addis Ababa, Ethiopia

During my term as president of the American Society of Cataract and Refractive Surgery (ASCRS), I urged the activation of the ASCRS Foundation with three major goals. The first goal is patient education and awareness. This endeavor allows the gathering and dissemination of information necessary for patients to make well-informed choices regarding eye care, as well as to educate health care policy makers, congressional committees, and governmental agencies about the benefits of eye surgery, especially cataract and refractive surgery. The second major goal is to support research independent of industry sponsorship in order to facilitate the gathering of important information for eye surgeons and their patients.

The third humanitarian goal of the ASCRS Foundation is addressing pediatric cataract blindness in developing nations, and this goal has recently come to fruition with the completion of the construction of a pediatric surgery clinic in Addis Ababa, Ethiopia. The clinic was constructed and is entirely funded by the ASCRS Foundation in conjunction with volunteers from the ASCRS membership and other surgical societies internationally, and by the contributions of equipment, supplies and maintenance by many companies in the ophthalmic industry. You can imagine the impact this clinic will have in a country with 60 ophthalmologists and a population of 70 million people. We anticipate an enormous response to the clinic opening in January 2005.

With the track record we hope to establish in Ethiopia, we will endeavor to approach other foundations, such as the Rockefeller Foundation, the Ford Foundation, Gates Foundation, and Carnegie Foundation to expand into multiple sites within developing nations. I am chairman of the ASCRS Foundation

governing board and the committee members are all esteemed members of the ophthalmic community or industry, serving on a voluntary basis. In addition, our pediatric cataract clinical committee consists of multiple, high-skill, philanthropic ophthalmologists who practice in or near developing nations, or who practice in the US and do multiple excursions into developing nations to treat pediatric cataract patients. The wonderful thing about this foundation is that almost all of the donated dollars go to achieve the goals of the Foundation with very little in the way of overhead expense. Very frequently, grateful patients have asked if there is a charitable organization to which they can make a donation, and we always recommend the ASCRS Foundation for any of our patients who wish to make a charitable contribution for any reason. This is certainly a worthwhile organization with laudatory goals.

Sharing New Vision
By Barbra Rice

Barbra Rice

Electing to have LASIK surgery is one of the best decisions I've ever made! After having a consultation with Tony Reynolds and Dr. Richard Hoffman, I felt comfortable enough to go ahead with the surgery. Dr. Hoffman completed the entire procedure in less than 15 minutes. Amazing!

Now my vision is better than 20/20. Not a day goes by that I'm not grateful for my new "bionic" eyes. It's especially nice to go outside without getting raindrops on my glasses! Dr. Hoffman and his staff gave me a wonderful experience and even better results. I would recommend them to anyone!

By Jaime Jaramilo

Jaime Jaramilo

Jaime R. Jaramilo was in a car accident in 1975 which caused his eyesight to gradually get worse over time. When we first saw him in 1998 his best corrected vision was 20/50 which made him feel he could no longer drive safely. Jaime chose to have the ARRAY lens implanted during cataract surgery. Immediately after surgery he could see things clearer than he could ever remember and his vision just kept getting better over the next several weeks. As Jaime stated, “I never dreamed I could see so clear and the colors are so bright again. I can see to drive again and I’m no longer dependent on others to get me to appointments or social activities. I prayed that Dr. Fine could help make my vision better and he did. I am so grateful for Dr. Fine and his wonderful staff for all they’ve done.”

By Jean Folwell

Jean Folwell

My vision has been terrible since I was a small child. I wore hard contacts from the age of 11 until I turned 50 when I learned that I was no longer a candidate for contacts due to my severe astigmatism. Unfortunately laser surgery was not an option for the same reason. I travel a great deal on business and reading street signs or airport arrival and departure boards was becoming difficult even with my

glasses. My sight was so bad that I couldn't even recognize my business partner's front door and spent several minutes ringing the wrong doorbell!

In July of 2004, I read an article in the Wall Street Journal on the Crystalens just after it received FDA approval and I immediately emailed Dr. Packer's office. Tony Reynolds responded the same day and over the course of six months, we changed the way I see the world. I can't tell you what a difference the surgery has made to my business and my personal life. The minute the first surgery was completed, I found I could read the clock on the far wall!

The care I received at Dr. Packer's office was first rate. The staff is professional, but good natured and they go out of their way to help you. I can't thank Joan and the technicians enough for getting me in over the holidays when my travel schedule was light — they are the best.

My husband was a golf professional and always wanted me to be able to see where my ball landed. He died in October 2004 and so he will never know that this year, that's exactly what I'll be able to do. Thanks Dr. Packer ... you changed my life!