The solution to this global health problem does not lie with American ophthalmologists traveling to a poor area and doing surgery. It lies with efforts to educate indigenous physicians and help area health officials so that they may be better equipped and trained to render the necessary care. It lies with better general public health and with better socioeconomic conditions. This does not excuse us, as physicians, from our moral and professional imperative.

Trachoma, which scars the cornea and is preventable and treatable with antibiotics, affects 146 million people. It has irreversibly blinded 6 million of those afflicted. Trachoma is truly global in scope—from central America to the Eastern Mediterranean to southern Africa. It is spread by a microorganism from eye to hand to eye or by eye-seeking flies. Combating trachoma is straightforward—antibiotics, environmental hygiene, and facial cleanliness.

Simple vitamin A deficiency visually disables over 5 million—particularly children. It leads to 350,000 new cases of childhood blindness annually. WHO estimates that 250 million pre-school age children are vitamin A deficient. A dose of vitamin A supplement costs 5 cents.

Without a major change in our willingness and ability to cope with this catastrophe, another 100,000,000 people will go blind by the year 2020.

Consider the societal costs of visual disability. Children will not become educated, will be a burden to their family and community, and statistically will die earlier of other diseases and injury. Developing nations, with strained economies and few dollars to devote to social programs, have an increased burden from lost productivity, rehabilitation, and welfare programs. The WHO estimates the direct economic cost of this burden at $25 billion.
MICHELLE CALLEGAN: AN INNOVATIVE APPROACH TO INFECTION

Step into the research lab of Dr. Michelle Callegan and you’ll quickly discover why the Dean A. McGee Eye Institute has a reputation as one of the leading eye research facilities in the nation. Funded by a grant from the National Institutes of Health, Dr. Callegan is also the recipient of a Career Development Award from the Institute to Prevent Blindness, Inc., the nation’s largest vision research philanthropy. Callegan has been an integral part of DMEI’s research group responsible for initiating a major shift in the way researchers are looking at some of the more severe, vision-threatening eye infections, namely endophthalmitis and keratitis. As such, she is a key member of the Institute’s Molecular Pathogenesis of Eye Infections Research Center, under the direction of Dr. Michael Gilmore.

The term “pathogenesis research” refers to investigating the actual cause or source of tissue damage, not just to killing the organism itself. According to Dr. Gilmore, “It’s not the simple presence of bacteria that cause disease; it is from tissue damage induced by factors associated with bacteria. Bacteria are all around us and colonize our bodies. Most don’t produce disease in humans.”

Endophthalmitis is a severe ocular infection that occurs when bacteria are introduced into the eye, either through injury, post-operative infection, or through the bloodstream. The most explosive form of the disease is caused by the bacteria Bacillus cerus, which grows within the eye and produces toxins—proteins that are poisonous to sensitive cells in the inner lining of the eye. Bacillus endophthalmitis is fortunately relatively rare, but the results are often devastating, with most patients losing useful vision and some losing the eye itself.

“Our research looks at different pathogenesis factors produced by the bacteria in the eye. The aim is to pinpoint the important destructive factors and target them with new therapeutic agents,” Callegan explained. “In the case of Bacillus, these factors likely include a number of toxins, the ability of the bacteria to move around within the eye, and molecules on the bacteria’s surface that incite an aggressive and damaging immune response within the eye. Unfortunately, there are probably several factors involved, not just one. This makes development of targeted therapeutic agents more difficult.”

Because of the nature of the bacteria involved, loss of vision—even blindness—can occur within a few days. “It’s a very fast, very nasty infection,” she said. Other types of bacteria (such as Staphylococcus aureus and Enterococcus faecalis) also can cause slower-developing and generally less severe forms of endophthalmitis. Traditional treatment regimens involving injection of antibiotics directly into the eye can kill these bacteria, but may have little effect upon the toxins they produce. “With antibiotics and chemotherapy you may only get half the job done,” Callegan explained. “But with endophthalmitis, that may not be enough to save vision. Here we are trying to find ways to kill the bacteria and to stop damage before it occurs. Proper therapy for this condition involves both.”

Historically, most prior clinical and research focus nationwide has been conducted under the assumption that the primary cause of severe inflammation and tissue damage was the toxins produced by the bacteria. In the case of Bacillus endophthalmitis, Callegan has taken a different approach, speculating that the toxins themselves may not be the primary problem. Instead, she says, it may be the movement of the bacteria themselves throughout the eye that triggers the severe inflammation and subsequent damage. “Most bacteria cannot move throughout the eye, but Bacillus can, and does so quite rapidly. This may be why this form of endophthalmitis is the most devastating and hardest to treat,” she said. “We’ve discovered that if you can limit the spread of Bacillus within the eye, you can limit the damage. Toxins may only be of secondary importance in this disease.”

Callegan came to Oklahoma in 1996 as a post-doctoral student, after receiving her PhD from Louisiana State University Medical Center, and quickly blossomed as an independent researcher. She currently is an assistant professor in the University of Oklahoma Department of Ophthalmology, and will add teaching to her list of duties this fall, when she begins lecturing to OU medical students. “We’re hoping to shift the thinking of the medical community on this issue,” she said. “Hopefully, doctors will be able to expand their treatment protocols based on this new information. Being able to show something new and different with our research and to turn around some of the existing dogma about the way these organisms behave in the eye has been very exciting. It’s one of the reasons I decided to join the faculty at Dean McGee. As a medical researcher, you get the best of both worlds here—a stimulating research environment where cutting-edge technology and expertise is readily available, and a great clinical department where you can see the effects of your work and how it benefits the patients.”

Callegan and other members of her center hosted the first-ever national Molecular Pathogenesis of Infections and Inflammatory Eye Research Conference in October. “The meeting featured lectures and research presentations by world-renowned experts in our field,” she said. “This was the first meeting of its kind to be sponsored by the Dean A. McGee Eye Institute, and we are all very excited about it.”

For now, physicians and researchers are benefiting from Callegan’s persistence in the laboratory. Soon, endophthalmitis patients worldwide may also be grateful for her dedication.

DMEI’S VISION RESEARCHERS IN NIH TOP 20

How do you measure the quality of research? One of the most significant measures is the success of scientists in competing for grant approval and funding from the National Institutes of Health (NIH). Generally, these are the most competitive and soughtafter research grants in the country, regardless of the field of scientific endeavor.

Two years ago NIH awarded DMEI scientists a Center Grant—a type of award granted only when NIH recognizes a critical mass of quality science in a single institution. DMEI’s award was the first that any Oklahoma scientist had ever received at any institution and in any field.

Now DMEI and OU Department of Ophthalmology scientists rank in the top 20 national vision research programs according to NIH statistics. They are the only group of scientists at the University of Oklahoma that hold that distinction.

For more information, call or write to:
Richard R. Linn, Jr.
Vice President for Development
Dean McGee Eye Institute Foundation
7000 E. Young Blvd.
Oklahoma City, OK 73104
(405) 271-7801

The Dean McGee Eye Institute

LEGACY OF SIGHT
KEEPING OUR FOCUS

We have all had difficulty keeping our focus recently. Distant events keep intruding into our daily lives. Yet we know (and our national leaders keep telling us) that we must focus our activities and our efforts on our principal tasks and challenges.

Here at the Dean McGee Eye Institute we have not lost that focus. As you will note from the box on this page, our scientists rank higher in National Institutes of Health grants compared to their national peers than any other group of medical scientists in the state of Oklahoma—as in any field. No statistic could speak more strongly to the quality of their work and to the national recognition they bring to our state.

The many who suffer from the debilitating effects of macular degeneration, eye infections, and diabetic retinopathy know firsthand the importance of this research. The Institute spends $4.6 million annually on its vision research programs. While scientific grants provide the bulk of this funding, it does not and never will fund the total costs. This important work would not be possible without the generosity of our many friends and patients.

This year, as last year and the year before, your generosity is needed and deeply appreciated.

“We are careful stewards of the support we have received from them. In fact, this growth has been accomplished with less financial support from OU than is given to any of the other departments in the NIH rankings. None of this would have been possible without the Dean McGee Eye Institute Foundation’s funding and support.”

Legacy of Sight
Keeping our Focus

Dr. Callegan's persistence has been invaluable in the fight against vision loss.

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Distant events keep intruding into our daily lives. How do you measure the quality of research? One of the most significant measures is the success of scientists in competing for grant approval and funding from the National Institutes of Health (NIH). Generally, these are the most competitive and sought-after research grants in the country, regardless of the field of scientific endeavor.

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NIH Award Rankings by Department at OU (1 = top national ranking in that field)

OU (all departments) 80
Anatomy 67
Biochemistry 59
Internal Medicine 87
Obstetrics and Gynecology 67
Ophthalmology 20
Microbiology 21
Pathology 70
Pediatrics 76
Physiology 89
Psychiatry 58
Surgery 68

“There is a truly significant accomplishment for our scientists,” said Dr. Parke. “It is particularly noteworthy that in 1994 DMEI and the Department of Ophthalmology did not have a single NIH basic research grant. The affiliation with OU is critical in supporting this program development. We have been careful stewards of the support we have received from them. In fact, this growth has been accomplished with less financial support from OU than is given to any of the other departments in the NIH rankings. None of this would have been possible without the Dean McGee Eye Institute Foundation’s funding and support.”
Dr. James Chodosh was well on his way to a career in filmmaking when the family love of medicine caught up with him. Despite earning a college degree in the celluloid arts, when his older brother headed off to medical school, Chodosh also felt the call.

“My father is a physician, and so are several cousins. There are a lot of doctors in my family, and when my older brother went to med school it hit me that that was what I wanted to do as well,” Chodosh said. While a medical student at Baylor College of Medicine in Houston, Chodosh was inspired by his contact with Dr. Jared Emery, a professor and innovator in ophthalmic surgery at Baylor, and discovered his own love of the eye. “I was completely taken with it,” he recalls. “And I thought that by specializing in ophthalmology, no matter what happened, I would enjoy my work.”

Later, while a resident at Baylor’s Cullen Eye Institute, Chodosh also worked with the university’s ophthalmology department chairman, Dr. Dan B. Jones, who was a cornea specialist “and a strong personality. He inspired me to study corneal infectious diseases as my life’s work.” Now a corneal specialist himself, Chodosh joined the DMEI staff in July of 1995.

Chodosh’s intense enjoyment of that work is evident in his description of the various aspects of his job. Here he is a man wearing many hats—treating patients of all ages, running the institute’s cornea fellowship program, teaching residents in clinic and on call for ocular trauma, and conducting cutting-edge research into cornea infections. He also holds an appointment as an associate professor of ophthalmology with the University of Oklahoma College of Medicine.

“Because of the nature of my specialty I do a lot of chronic care,” he said. “It gives me the chance to really get to know my patients, and I like that.” Having lived all over the country, Chodosh says he particularly enjoys Oklahoma. “The patients here very much appreciate what you do for them, and they notice when you go the extra yard,” he said.

Chodosh performs corneal transplants and ocular surface reconstructions, and routinely treats patients with dry eye syndrome, severe inflammatory conditions, corneal infections, complications from the herpes simplex virus, ocular surface and iris tumors, and diseases such as Stevens-Johnson Syndrome. When not treating patients, he is a widely published author and a busy researcher.

“The Dean McGee Eye Institute is now established as one of the top eye research facilities in the United States,” he noted. “It has been exciting to be here and be part of the growth. We have one of only two labs in the country with NIH support to study adenovirus ocular infection. On the clinical side, we were the first in Oklahoma to use amniotic membrane harvested from the placenta as a tissue graft for severe ocular surface disorders. Our success rate with this procedure has been very good.”

Chodosh is also working on a research project that should one day provide good news to every school child in America—vaccinations that can be delivered by eye drop, rather than shots.

Perhaps his favorite part of the job, however, is the teaching. “I spend a lot of time with the residents,” he said. “Teaching is really my mission. It’s a lot of fun to work with someone from the day they arrive at Dean McGee and see their progress as a physician and as a human being. For his efforts, he was twice awarded the Edward & Thelma Gaylord Faculty Honor Award for excellence in resident teaching at DMEI. With the cornea fellows, he added, “It’s kind of like finishing school, and we get to help with the finishing.”

“Jim is a rare bird in academic medicine these days—the ‘triple threat’ professor who is an accomplished clinician, a dedicated teacher, and a legitimate innovative, productive investigator,” notes Dr. Parke. “But what is even rarer is that he approaches this with an enthusiasm and intensity which communicates itself to his students and makes him a powerful mentor.”

Prior to his Dean McGee appointment, Chodosh was an assistant professor of ophthalmology at the University of Tennessee College of Medicine in Memphis, serving as the department’s chief of cornea and external diseases. He earned his M.D. degree from Baylor, and completed his residency in ophthalmology at Baylor’s Cullen Eye Institute. His fellowship in cornea and external diseases was completed at the Bascom Palmer Eye Institute, part of the University of Miami School of Medicine. Chodosh went on to become a postdoctoral research associate in both virology/molecular biology and infectious diseases at St. Jude Children’s Research Hospital in Memphis. When not on the job, Chodosh’s time is dedicated to his wife, Ahi, an art therapy student at the University of Central Oklahoma, and their twin children, Olin, 12, and Uralila, 9. “Both my children are very active—my son plays competitive ice hockey and my daughter plays competitive softball,” he said. “So many of my spare hours are spent attending their games and events.”

Meanwhile, Chodosh expects to be a familiar face at DMEI for years to come. “I’ve been given a special opportunity here to follow my dream to take care of patients with complicated problems, many of whom have nowhere else to go in the area for specialized treatment, plus teach the art and science of medicine to people who are open to being taught, and finally to pursue research freely with no limits except where my intellect can take it,” he said. “I consider myself to be in a very unique situation, and I very much appreciate the opportunity to work here at DMEI.”
DMEI Faculty Profile:

JAMES CHODOSH, M.D.

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Our Graduating Resident Class of 2001:

Amarpreet S. Brar, M.D. has joined two other ophthalmologists in private practice in New Jersey.

Charlie P. Bogie, M.D., Ph.D., has opened a solo private practice in northwest Oklahoma City.

A. Ahmed Nasrullah, M.D., is a fellow in cornea/external diseases and refractive surgery at DMEI and hopes to then join an academic faculty on the East Coast.

Meet our new residents and clinical fellows:

Sterling Cannon, M.D., graduated magna cum laude from Loyola University with a B.S. in Chemistry. He attended Loyola University in Louisiana on a Presidential Academic Scholarship and was elected to the Alpha Sigma Nu National Jesuit Honor Society. His academic success at The University of Miami School of Medicine culminated in his election to the Alpha Omega Alpha Medical Honor Society.

Donald Stone, M.D., received his B.S. degree from Texas Tech University with a major in cell and molecular biology. He was an active member of the honors pre-med society, serving as vice-president as well as teaching MCAT classes for the Princeton Review. Dr. Stone received his M.D. degree from UT Southwestern and was elected to the Alpha Omega Alpha Medical Honor Society.

Robert F. Sanker, M.D., graduated from Wayne State University School of Medicine and completed residency in ophthalmology at the University of Washington. He has been in private practice with a large group in North Dakota and intends to return there following fellowship in neuro-ophthalmology with Drs. Brad Farris and Mike Siatkowski.

Jonathan E. Silbert, M.D., is an oculoplastics fellow with Drs. Scott Sigler, Scott Sullivan, Lloyd Hildebrandt, and Robert Small. He received his M.D. degree from Washington University School of Medicine and subsequently completed his residency at the same institution.

Brian A. Welcome, M.D., will complete a glaucoma fellowship with Drs. Greg Skuta and Adam Reynolds. His medical school training was received at SUNY Health Science Center in Syracuse, and he completed his residency at Brown University.
President's Perspective, continued from page 1

The Foundation of the American Academy of Ophthalmology is using its resources to establish an international voluntary regime to coordinate the volunteer efforts of its members and opportunities abroad. Through its Education Distribution Project, hundreds of boxes of ophthalmic education materials are shipped at no charge to ophthalmology training programs in developing nations.

The World Health Organization, the American Academy of Ophthalmology and over twenty organizations worldwide participate in “Vision 2020—the Right to Sight.” This program was formed with the goal of eliminating avoidable blindness by the year 2020. Without a major effort to combat treatable eye disease around the globe, WHO estimates that there will be 360 million people blind by 2020. This is a battle which we cannot afford to lose.

Considering that we have the talents and the tools to eliminate much of this blindness, it becomes a moral imperative. Yet, at the same time, it is naive and arrogant to expect that Western ophthalmologists alone can accomplish this task. It requires the active partnership of many governmental agencies and organizations in the “host countries” and dramatic efforts to improve sanitation, transportation, basic public health, nutrition, and housing.

We also must remember that we have not solved our own public health problems at home. Fortunately, the existence of the Dean McGee Eye Institute Foundation provides us with a mechanism to help our fellow, less fortunate Oklahomans with serious eye disease. Through our Patient Financial Assistance Program, ophthalmologists at the Institute provide over $1 million in uncompensated care annually. Our partners at the Midtown Surgery Center likewise provide free or heavily discounted surgical facilities and anesthesia services to qualified patients.

A number of DMEI ophthalmologists participate in international ophthalmology training programs. Dr. Scott Sigler, for example, was in Ecuador on September 11. Several have volunteered for programs in rural China and in Africa.

Most recently the faculty have accepted the challenge to develop an international ophthalmology experience for our residents in training. Not only do we feel that this is consistent with our mission and the “right thing to do,” but it is a vital part of a physician’s education. The goal is not to have the resident simply provide direct care, but to teach others, and to learn about the public health issues in the area where they serve. Certainly, they will help people in need in other countries. Hopefully, they will also put in better perspective the opportunities they have at home, recognize ways that their talents can be used to help, and become advocates for the cause of international blindness prevention.

NEW LOW VISION CLINIC ESTABLISHED

Imagine that you have recently retired from your job of 40 years. You are in good general health and physically active. Suddenly you begin to lose vision. Your ophthalmologist diagnoses macular degeneration (the most common cause of vision loss in Americans over age 55). Within one year, despite aggressive treatment such as laser therapy, you can barely see the big “E” on the eye chart. Now you can’t read the newspaper or magazine; you can’t drive; you have difficulty with TV; you can’t make out people’s faces until they’re right in front of you. You feel isolated; you’ve lost the ability to be fully independent; you become depressed. Medically, there is little your ophthalmologist can offer.

People with permanently damaged vision sometimes lose the ability to function in ways they value most. This may include reading the newspaper and mail, shopping, cooking, seeing the TV, writing, or walking unaided. But that doesn’t necessarily have to be the case. A large number of these patients can be helped, to varying degrees, through assistive devices and rehabilitation available at the adult Low Vision Clinic at the Dean A. McGee Eye Institute.

The clinic operates under the leadership of Dr. Rebecca Morgan. “We are here to take care of patients who have had everything possible done medically to correct their vision but are left with permanently decreased vision,” she explained. “So what we deal with are not the causes of vision problems, but the result. Fortunately, there are several avenues we can pursue to make people happier and more independent.

Morgan’s clinic takes a “whole person” approach to care. Much time is spent with each patient, assessing his or her overall lifestyle and emotional status, followed by exploration of vision enhancement options. For many patients, simply regaining the ability to read is critical to alleviating depression and restoring their quality of life. Many are seniors with reduced vision due to glaucoma, age-related macular degeneration, or complications of diabetes.

“You can’t pigeonhole low vision patients,” Morgan noted. “There is a lot of subjectivity. We don’t just prescribe glasses or a magnifier and send them on their way—it usually requires a number of devices for any particular patient, based on their lifestyle, individual macular level, and overall support.”

In addition to rehabilitation programs and devices such as magnifiers, patients struggling with their vision loss often are referred to counseling or support groups, and/or work with occupational therapists to learn new ways of performing daily tasks.

The number one surprise for our patients is that they can learn to read again, using a combination of devices and some special training,” she said. “Many elderly people assume they have to tough it out when their vision worsens. They often are referred to their family members, and they give up. What we see frequently is that it is a family member who makes the initial appointment with us and encourages the patient to pursue their options.”

The collaboration of ophthalmologists, low vision specialists, and occupational therapists (professionals who help medical patients relearn daily living tasks such as getting dressed and preparing a meal) has been a boon for low vision patients, Morgan said. “This is becoming a good standard of care,” she noted. “We have occupational therapists available who provide our patients with invaluable training and advice. For instance, patients who are trying to regain their ability to care for themselves in their home may be provided with assistance in improved lighting options or vision substitution devices such as talking clocks.”

Care of low-vision patients is a time-consuming process that many clinics do not offer. Morgan also cautioned against a route many people take—using visual aids directly from catalogues or discount stores.

“Many patients need a variety of devices and rehabilitative training to read again and improve their quality of life,” she said. Patients are usually loaned different devices to take home and learn to use, thus determining if they fit the patients’ needs before purchasing. Available low vision aids range from the inexpensive and simple to sophisticated microprocessor-driven magnification devices. Some insurance policies cover low vision service, but coverage varies widely. More information can be obtained by calling the clinic at 800-787-9012, or 405-271-1793.

While the Low Vision Clinic can’t promise miracles for its patients, it can make a huge difference. “We see a lot of extremes,” Morgan said. “People frequently come in with expectations that are much too high or much too low. For instance, we generally can’t improve someone’s vision to the point that they can drive a car. However, we can get many people to the point where they can read, pay their bills, and regain some visual ability. Even when nothing can be done medically, often we can still help.”

Leonard and Sullivan Join DMEI Staff

Two ophthalmologists joined the Dean McGee Eye Institute faculty in 2001.

Robert E. Leonard II, M.D.

joined the Institute in early 2001 with subspecialty expertise in the diagnosis and management of diseases of the vitreous and retina. As such, he deals most frequently with diseases including diabetic retinopathy, retinal detachment, macular degeneration, severe eye trauma, and inflammatory and vascular diseases of the eye. Dr. Leonard was raised in Ada, Oklahoma and attended OU medical school where he graduated at the top of his class, winning numerous academic honors including the Upjohn Achievement Award, Mark R. Everett Scholarship Award, membership in the Alpha Omega Alpha Medical Honor Society and two separate research awards.

Dr. Leonard completed his residency and fellowship at Miami, Florida’s Bascom Palmer Eye Institute and has published numerous scientific papers. The Dean McGee Eye Institute recruited Dr. Leonard back to Oklahoma after a nine year absence, not only so that Oklahomans may benefit from his state-of-the-art surgical skills, but for his dedication to clinical research. Dr. Leonard has conducted clinical research in macular holes, macular degeneration, and endophthalmitis.

Scott A. Sullivan, M.D.

graduated with Distinction in Electrical Engineering from the University of Oklahoma, receiving many academic awards including the Letzesser Silver Medal for Outstanding Senior. As a medical student at OU, he was elected to Alpha Omega Alpha Medical Honor Society and graduated with Special Distinction. Among other honors, he was named the G. Rainey Williams Scholar “awarded to the student who most nearly approaches the ideal physician-patient relationship”.

Following residency training at the McGee Eye Institute, Dr. Sullivan completed a two year oculoplastic fellowship at the Oregon Health Sciences University. He has contributed to the medical literature in subjects as diverse as endoscopic midface lifts, orbital tumor management, and skin resurfacing. He will limit his practice to cosmetic and reconstructive oculoplastic surgery and orbital oncology.
**Leonard and Sullivan Join DMEI Staff**

Two ophthalmologists joined the Dean McGee Eye Institute faculty in 2001.

Robert E. Leonard II, M.D. joined the Institute in early 2001 with subspecialty expertise in the diagnosis and management of diseases of the vitreous and retina. As such, he deals most frequently with diseases including diabetic retinopathy, retinal detachment, macular degeneration, severe eye trauma, and inflammatory and vascular diseases of the eye. Dr. Leonard was raised in Ada, Oklahoma and attended OU medical school where he graduated at the top of his class, winning numerous academic honors including the Upjohn Achievement Award, Mark R. Everett Scholarship Award, membership in the Alpha Omega Alpha Medical Honor Society and two separate research awards.

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**New Low Vision Clinic Established**

Imagine that you have recently retired from your job of 40 years. You are in good general health and physically active. Suddenly you begin to lose vision. Your ophthalmologist diagnoses macular degeneration (the most common cause of vision loss in Americans over age 55). Within one year, despite aggressive treatments, much of your vision is gone, so that you can barely see the big “E” on the eye chart. Now you can’t read the newspaper or magazine; you can’t drive; you have difficulty with TV; you can’t make out people’s faces until they’re right in front of you. You feel isolated; you’ve lost the ability to be fully independent; you become depressed. Medically, there is little your ophthalmologist can offer.

People with permanently damaged vision sometimes lose the ability to function in ways they value most. This may include reading the newspaper and mail, shopping, cooking, seeing the TV, writing, or walking unaided. But that doesn’t necessarily have to be the case. A large number of these patients can be helped, to varying degrees, through assistive devices and rehabilitation available at the adult Low Vision Clinic at the Dean A. McGee Eye Institute.

The clinic operates under the leadership of Dr. Rebecca Morgan. “We are here to take care of patients who have had everything possible done medically to correct their vision but are left with permanently decreased vision,” she explained. “So what we deal with are not the causes of vision problems, but the result. Fortunately, there are several avenues we can pursue to make people happier and more independent.”

Morgan’s clinic takes a “whole person” approach to care. Much time is spent with each patient, assessing his or her overall lifestyle and emotional status, followed by exploration of vision enhancement options. For many patients, simply regaining the ability to read is critical to alleviating depression and restoring their quality of life. Many are seniors with reduced vision due to glaucoma, age-related macular degeneration, or complications of diabetes.

“You can’t replace whole low vision patients,” Morgan noted. “There is a lot of subjectivity. We don’t just prescribe glasses or a magnifier and send them on their way—it usually requires a number of devices for any particular patient, based on their lifestyle, individual macular level of activity.” In addition to rehabilitation programs and devices such as magnifiers, patients struggling with their vision loss often are referred to counseling or support groups, and/or work with occupational therapists to learn new ways of performing daily tasks.

The number one surprise for our patients is that they can learn to read again, using a combination of devices and some special training,” she said. “Many elderly people assume they have to tough it out when their vision worsens. They often are afraid to tell their family members, and they give up. What we see frequently is that it is a family member who makes the initial appointment with us and encourages the patient to pursue their options.”

The collaboration of ophthalmologists, low vision specialists, and occupational therapists (professionals who help medical patients relearn daily living tasks such as getting dressed and preparing a meal) has been a boon for low vision patients, Morgan said. “This is becoming a good standard of care,” she noted. “We have occupational therapists available who provide our patients with invaluable training and advice. For instance, patients who are trying to regain their ability to care for themselves in their home may be provided with assistance in improved lighting or vision substitution devices such as talking clocks.”

Care of low-vision patients is a time-consuming process that many clinics do not offer. Morgan also cautioned against a route many people take—buying visual aids directly from catalogues or discount stores.

“Many patients need a variety of devices and rehabilitative training to read again and improve their quality of life,” she said. Patients are usually loaned different devices to take home and learn to use, thus determining if they fit the patient’s needs before purchasing. Available low vision aids range from the inexpensive and simple to sophisticated microprocessor-driven magnification devices. Some insurance policies cover low vision service, but coverage varies widely. More information can be obtained by calling the clinic (800-787-9012, or 405-271-1793).

While the Low Vision Clinic can’t promise miracles for its patients, it can make a huge difference. “We see a lot of extremes,” Morgan said. “People frequently come in with expectations that are much too high or much too low. For instance, we generally can’t improve someone’s vision to the point that they can drive a car. However, we can get many people to a point where they can read, pay their bills, and regain some visual ability. Even when nothing can be done medically, often we can still help.”
September 11 and its aftermath have reminded all of us of the networks and issues that connect all nations and all peoples. They reinforce the notion of community responsibility. We, as a nation, responded to the tragedies of New York City, Washington D.C., and Pittsburgh as a national community of citizens.

At the same time, we are focusing our attention beyond our national borders. Many Americans have become sensitized to the need for a better understanding of the problems that face our human communities—particularly in less developed nations.

In this spirit, I’d like to put blindness and eye care into a global perspective for you.

First of all, some statistics regarding global eye problems:

- 135 million people have severe visual impairment
- 45 million are blind
- 135 million people have severe visual impairment
- 100,000,000 people will go blind by the year 2020.

The solution to this global health problem does not lie with American ophthalmologists traveling to a poor area and doing surgery. It lies with efforts to educate indigenous physicians and help area health officials so that they may be better equipped and trained to render the necessary care. It lies with better general public health and with better socioeconomic conditions.

This does not excuse us, as physicians, from our moral and professional imperative.

Trachoma, which scars the cornea and is preventable and treatable with antibiotics, affects 146 million people. It has irreversibly blinded 6 million of those afflicted. Trachoma is truly global in scope—from central America to the Eastern Mediterranean to southern Africa. It is spread by a microorganism from hand to eye to eye or by eye-seeking flies. Combating trachoma is straightforward–antibiotics, environmental hygiene, and facial cleanliness.

Simple vitamin A deficiency visually disabling over 5 million—particularly children. It leads to 350,000 new cases of childhood blindness annually. WHO estimates that 250 million pre-school age children are vitamin A deficient. A dose of vitamin A supplement costs 5 cents.

Without a major change in our willingness and ability to cope with this catastrophe, another 100,000,000 people will go blind by the year 2020.

Consider the societal costs of visual disability. Children will not become educated, will be a burden to their family and community, and statistically will die earlier of other diseases and injury. Developing nations, with strained economies and few dollars to devote to social programs, have an increased burden from lost productivity, rehabilitation, and welfare programs. The WHO estimates the direct economic cost of this burden at $25 billion.